



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

Weekly Report - Snowpack / Drought Monitor Update

Date: 8 November 2012

SNOTEL SNOWPACK AND PRECIPITATION SUMMARY

Temperature: [SNOTEL](#) and ACIS 7-day temperature anomaly ending 8 November shows warmer conditions over the West and especially over the Northern Rockies (Fig. 1). ACIS [7-day](#) average temperature anomalies show the greatest positive temperature departure over south-central Montana ($>+12^{\circ}\text{F}$). The greatest negative departures occurred over south-central Oregon and north-central California ($<-3^{\circ}\text{F}$) (Fig. 1a).

Precipitation: [ACIS](#) 7-day average precipitation amounts for the period ending yesterday shows heavy precipitation over the Northern Cascades and Coastal Range of Washington (Fig. 2). In terms of percent of normal, heavier amounts were scattered over northern California, Washington, and Montana (Fig. 2a). For the [2013 Water-Year](#) that began on 1 October 2012, statistics continue to suggest a La Niña-like precipitation pattern that is favoring the Northern Tier States. However, we are still very early into the snow accumulation season and these values can still change rapidly (Fig. 2b).

Snow: [Snow Water-Equivalent](#) values have been low over the wet Pacific Northwest (compared to Fig. 2b) as a result of generally warm temperatures earlier into the snow accumulation season (Fig. 3).

Weather Summary: This U.S. Drought Monitor week has been dominated primarily by the passing of the Hurricane Sandy and her remnants. This powerful, far-reaching storm passed along the East Coast before making landfall near Atlantic City, New Jersey on Monday and combining with a mid-latitude Low pressure system as it continued its trek through the Mid-Atlantic and into the Northeast. In its wake, the storm dumped up to over eight inches of rain in Virginia, Maryland, and Delaware. The highest total, 9.57 inches as of Tuesday morning, fell at the Oceana NAS/Soucek airport in Virginia. States up the coastline from North Carolina to New York, Connecticut, and Rhode Island experienced significant flooding while wind and wave events were felt as far west as Wisconsin and Illinois. In the Appalachian Mountains unofficial totals of over two feet of snow fell in western Maryland and nearly that amount in parts of West Virginia by Tuesday morning. More than 8.2 million people experienced power outages from the combination of rain, wind, snow, and flooding. Transportation has been disrupted with more than 10,000 flights cancelled and many roads and bridges impassable. Thirty-nine deaths in the U.S. have been attributed to the storm as of Tuesday including at least one from the HMS Bounty, a replica of the 18th-century tall ship that was caught in the storm off the coast of North Carolina.

The West: Decent precipitation (more than 2 inches) fell on non-drought areas of Washington, Oregon, and northern Idaho, while 3 consecutive weeks of light to moderate precipitation have fallen across Montana. Surpluses of 1 to 3 inches have accumulated during the past 30 days, easing drought across the northern two-thirds of the latter state. In addition, a slight improvement of dryness and drought were made along the edges of the D0 and D1 western borders in northern California, central Oregon, and central Idaho where recent storms have

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dropped enough precipitation to create small 30-day surpluses. Although the 2012-13 Western Water Year is still early, basin average precipitation percent of normals were above normal from the northern Sierra Nevada northeastward into central Montana. Unfortunately, the Great Basin and Southwest were well below normal, but their typical wet season generally starts later in the winter. Elsewhere, slight degradations were made in New Mexico based upon several indices and products. D2 was expanded into southeastern and north-central portions, while D3 increased in northeastern sections. The remainder of the West was left status quo, except for changing the Impact Type to L (from SL) as the short-term dryness has recently abated. Author: David Miskus, Climate Prediction Center/NCEP/NWS/NOAA.

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/cgibin/bor.pl>. 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>.

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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 Survey and Resource Assessment

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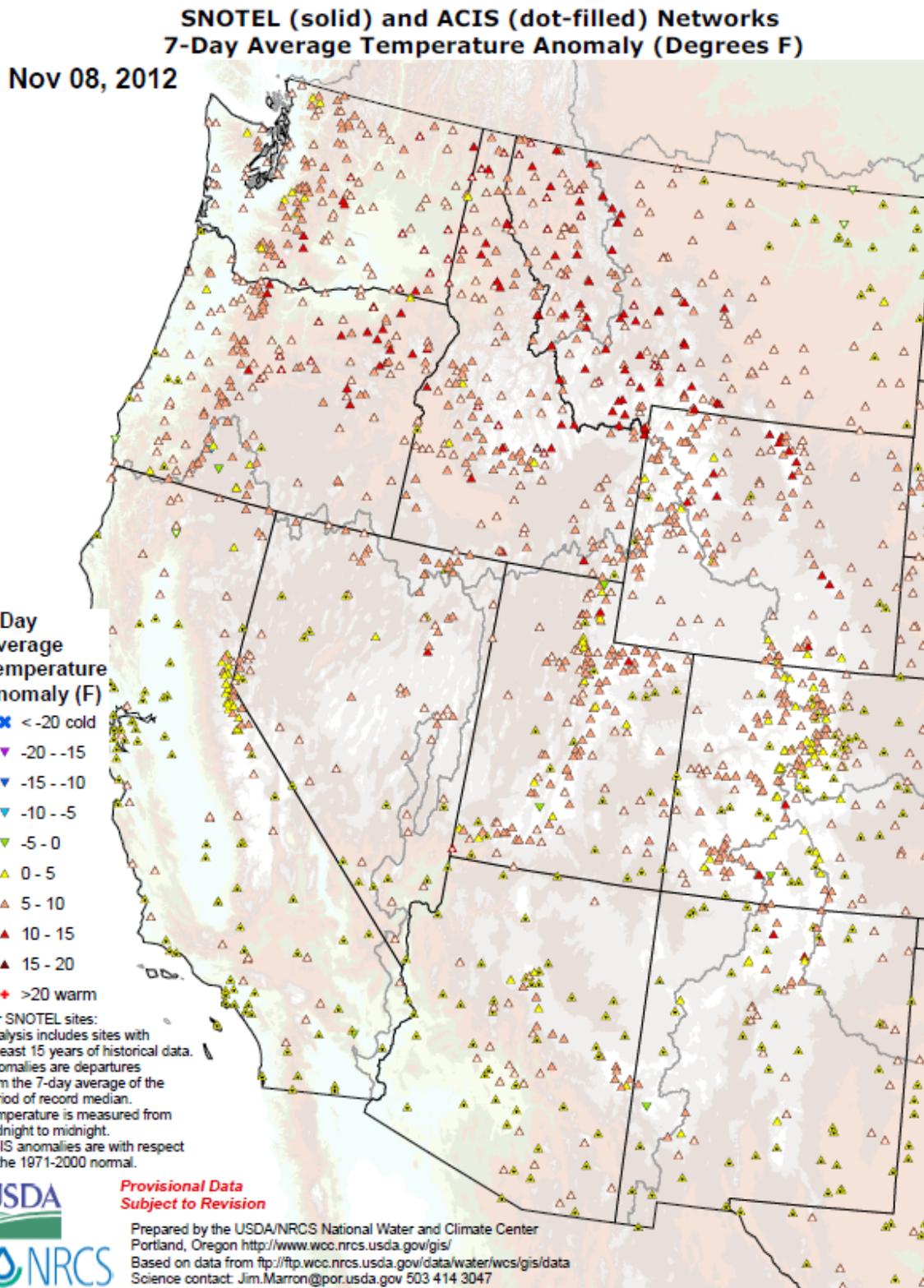
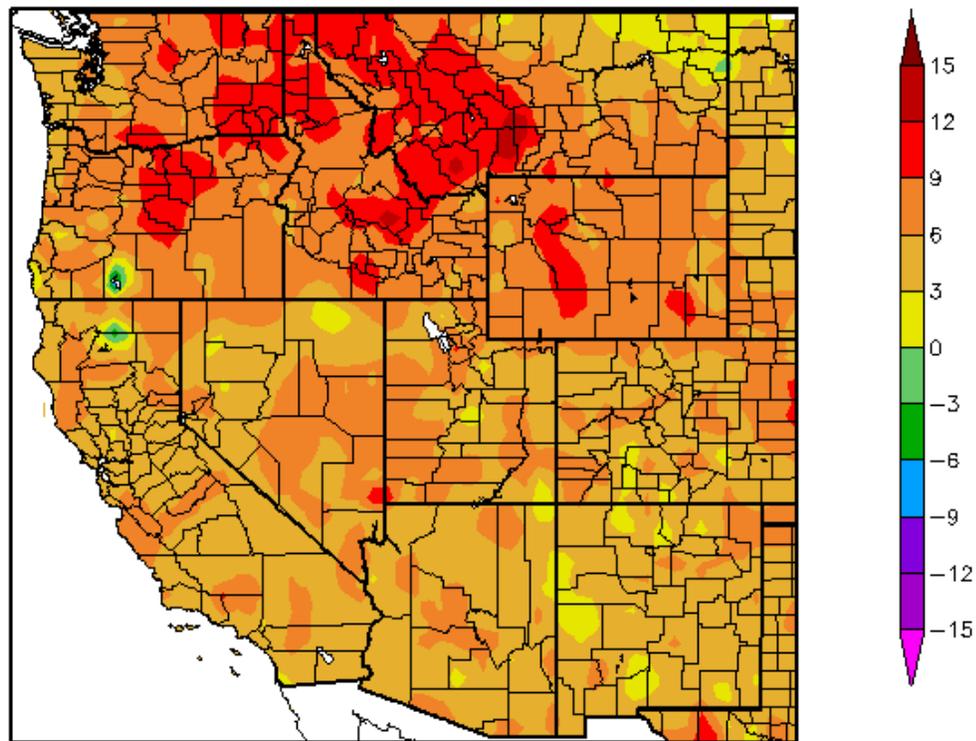


Fig. 1: SNOTEL and ACIS 7-day temperature anomaly ending 8 November shows warmer conditions over the West and especially over the Northern Rockies.

Departure from Normal Temperature (F)
11/1/2012 – 11/7/2012



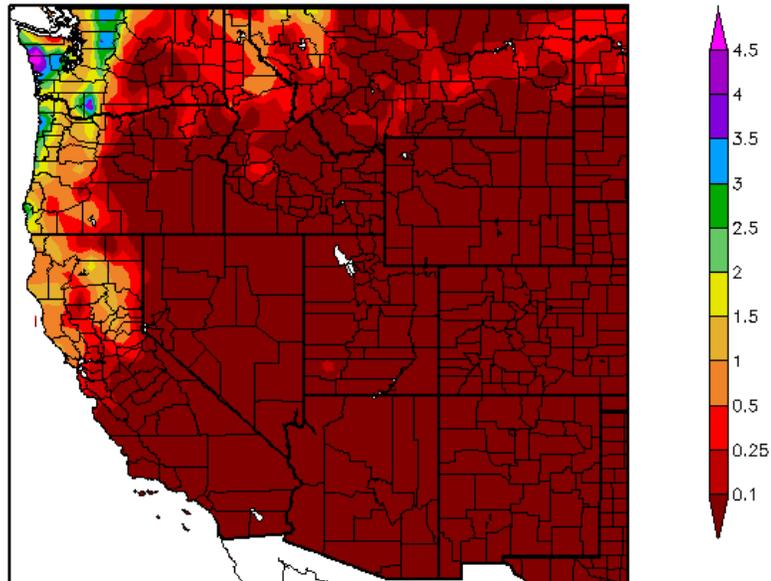
Generated 11/8/2012 at HPRCC using provisional data.

Regional Climate Centers

Fig. 1a: ACIS 7-day average temperature anomalies show the greatest positive temperature departure over south-central Montana ($>+12^{\circ}\text{F}$). The greatest negative departures occurred over south-central Oregon and north-central California ($<-3^{\circ}\text{F}$).

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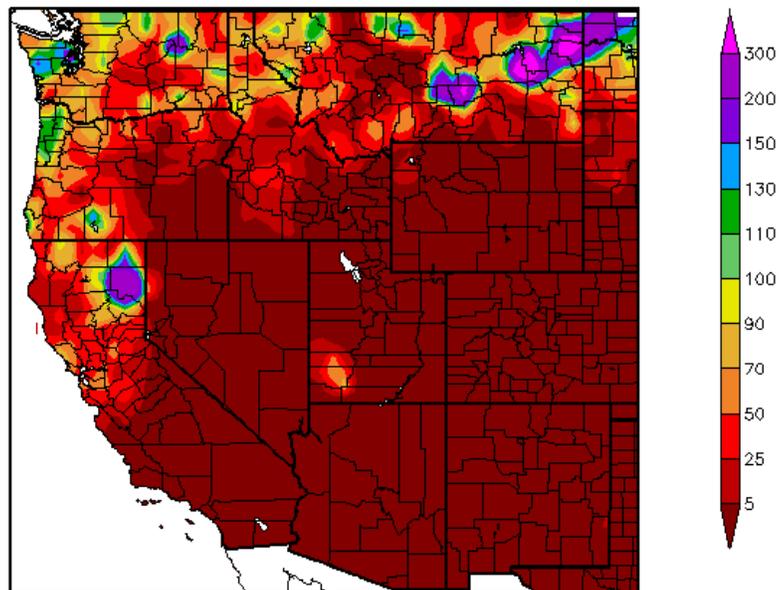
Precipitation (in)
11/1/2012 - 11/7/2012



Generated 11/8/2012 at HPRCC using provisional data.

Regional Climate Centers

Percent of Normal Precipitation (%)
11/1/2012 - 11/7/2012



Generated 11/8/2012 at HPRCC using provisional data.

Regional Climate Centers

Fig. 2 and 2a: [ACIS](#) 7-day average precipitation amounts for the period ending yesterday shows heavy precipitation (mostly rain) over the Northern Cascades and Coastal Range of Washington (top). In terms of percent of normal, heavier amounts were scattered over northern California, Washington, and Montana (bottom).

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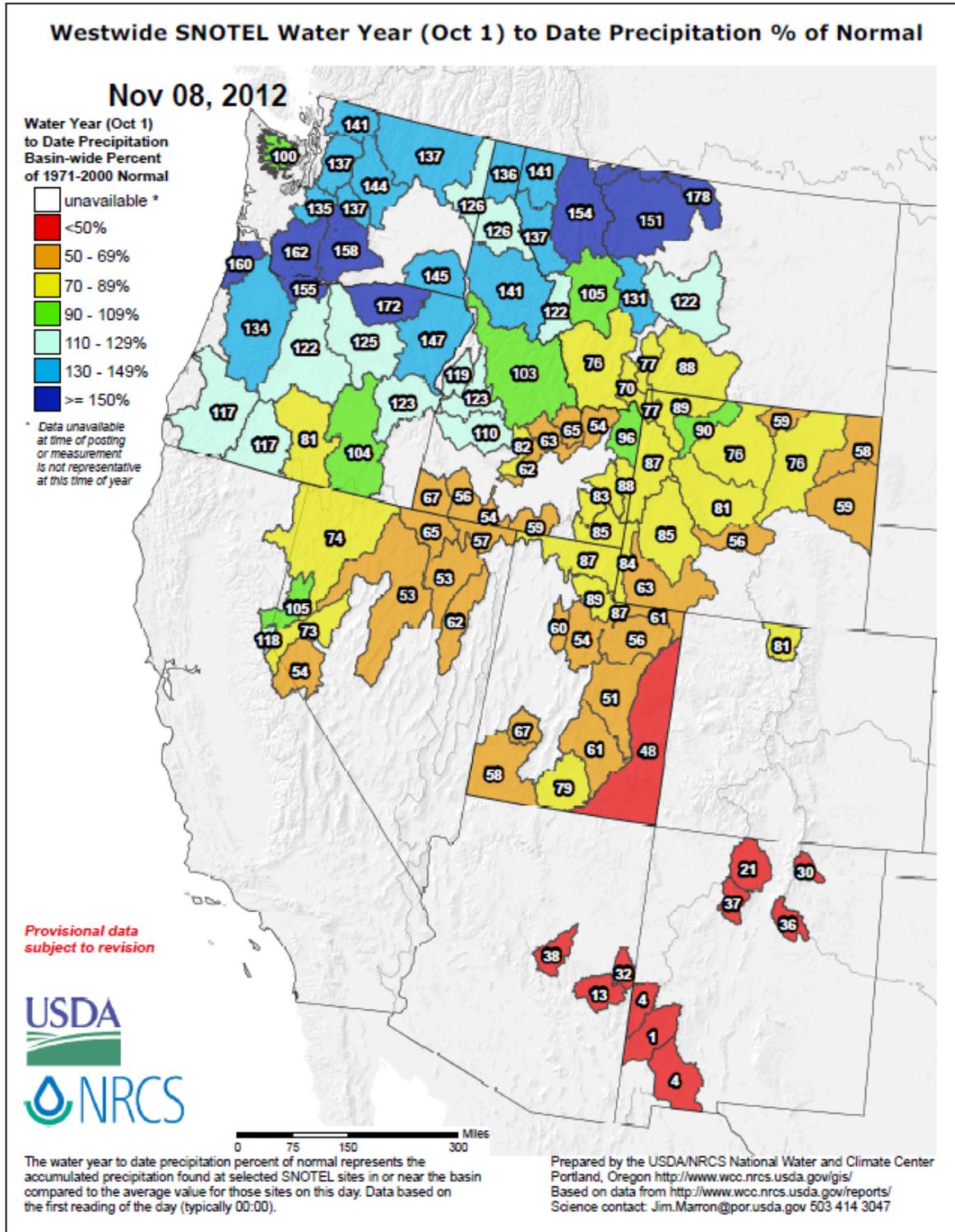


Fig. 2b: For the [2013 Water-Year](#) that began on 1 October 2012, statistics continue to suggest a La Niña-like precipitation pattern that is favoring the Northern Tier States. However, we are still very early into the snow accumulation season and these values can still change rapidly.

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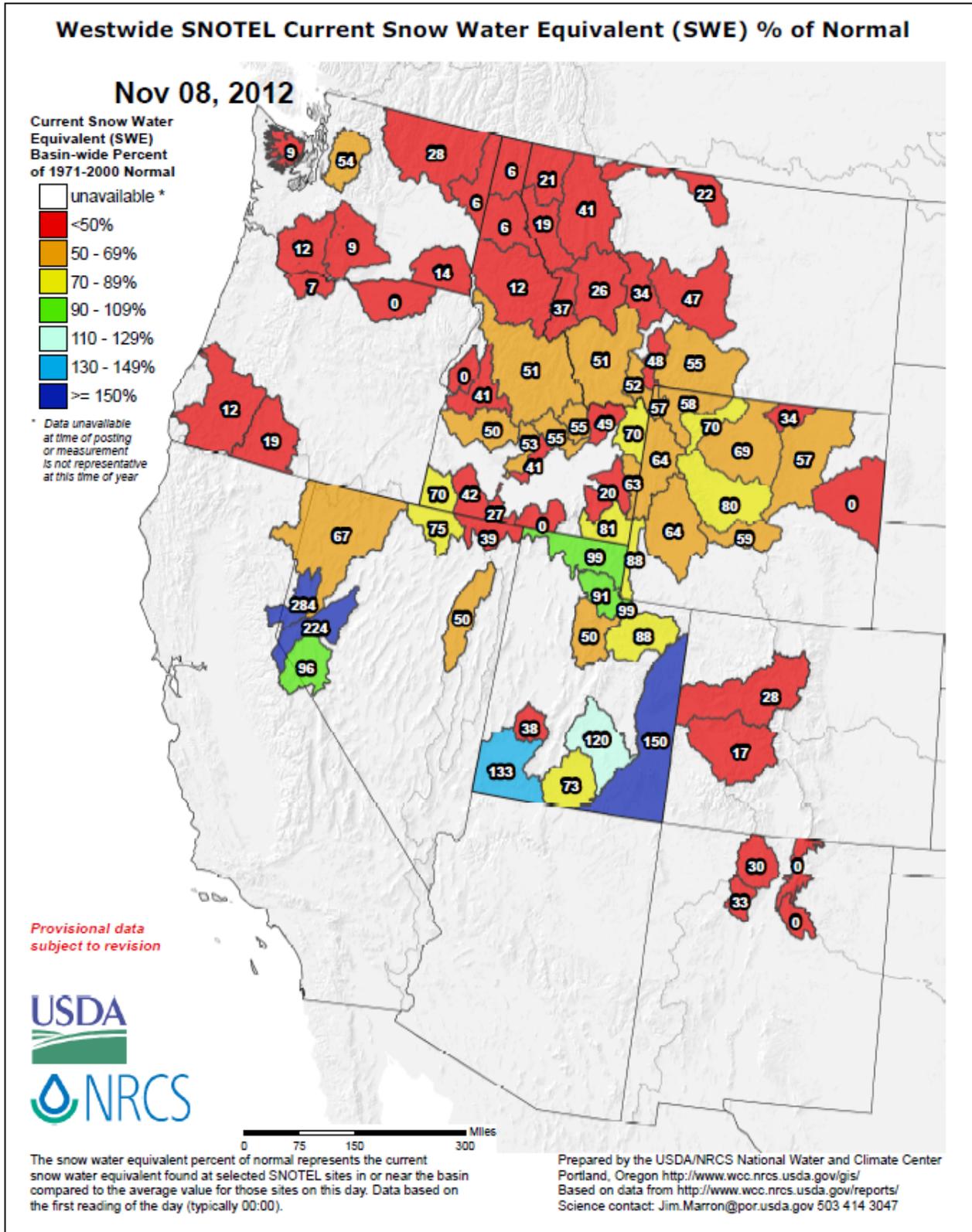


Fig. 3: **Snow Water-Equivalent**: Generally warm temperatures earlier into the snow accumulation season have resulted in low values over the wet Pacific Northwest (compared to Fig. 2b above) since the start of the Water Year.

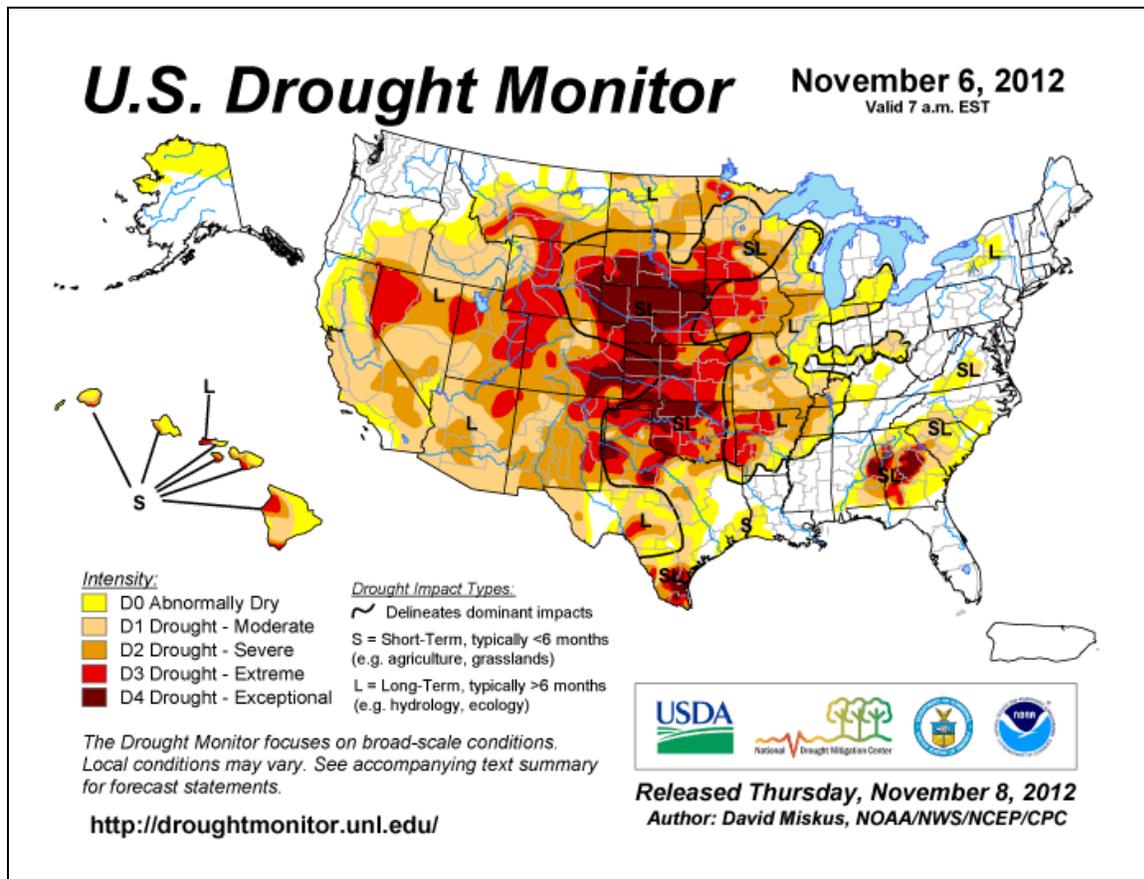


Fig. 4: Current [Drought Monitor](#) weekly summary. The exceptional D4 levels of drought are found over Georgia (and now Alabama) and scattered across the western corn belt of the Central Plains into Colorado and Wyoming. An expansion of D4 over northern Texas is noteworthy while D4 over the southern region of the state persists. For more drought news, see [Drought Impact Reporter](#). Click for the latest statistics for [California Reservoirs](#). The late October [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).

Agriculture

[Drought not over, Arkansas ranchers cautioned](#) - Oct 27, **Arkansas**. Despite welcome rain and greening vegetation, ranchers were urged to be cautious about rebuilding their herds.

[Drought spurs farm lending to highest level in five years](#) - Oct 31, **U.S.** The number of farm operating loans increased during the second quarter and remained above normal in the third quarter as farmers faced high feed prices and input costs.

[Eastern Oregon ranchers work to hang on to cattle herds in wake of summer wildfires](#) - Oct 30, **Oregon**. Even before the wildfires, drought reduced hay production, leaving eastern Oregon ranchers scrambling to find suitable land for grazing.

[Farmers expect low cotton yields](#) - Oct 31, **Western edge of Texas Panhandle**. Drought devastated dryland cotton in Farmer and Bailey counties, according to a Texas Agri-Life specialist. Overall, cotton production in those counties looks to be down 10 to 20 percent, but the actual shortfall will become apparent when the harvest is further along.

[U.S. Winter-Wheat Condition Worst in 27 Years as Drought Lingers](#) - Oct 31, **U.S.**

[Wheat May Rise as Dry U.S. Weather Curbs Winter-Grain Prospects](#) - Oct 29, **Kansas, Oklahoma**.

U.S. Drought Monitor

West

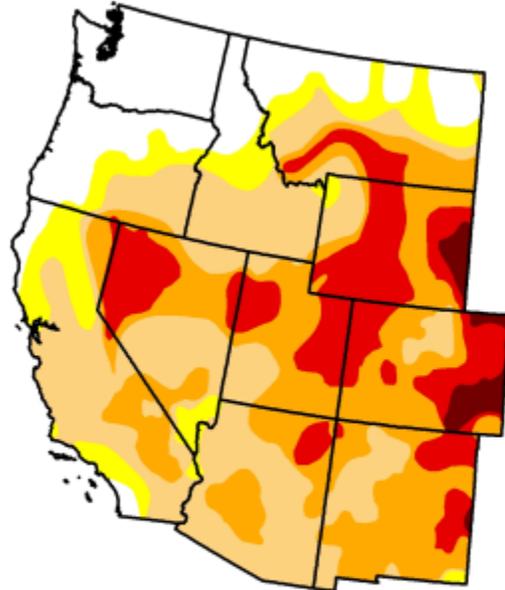
November 6, 2012
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	16.89	83.11	73.49	43.52	17.38	1.90
Last Week (10/30/2012 map)	14.06	85.94	76.17	44.59	17.54	1.93
3 Months Ago (08/07/2012 map)	18.40	81.60	68.62	49.94	16.67	0.50
Start of Calendar Year (12/27/2011 map)	48.49	51.51	20.05	12.22	2.67	0.78
Start of Water Year (09/25/2012 map)	15.12	84.88	77.15	43.65	16.85	1.77
One Year Ago (11/01/2011 map)	74.16	25.84	18.67	15.19	9.60	2.87

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, November 8, 2012
David Miskus, Climate Prediction Center/NCEP/NWS/NOAA

Fig. 4a: Drought Monitor for the [Western States](#) with statistics over various time periods. Some improvements are noted in the lower D-categories this week.

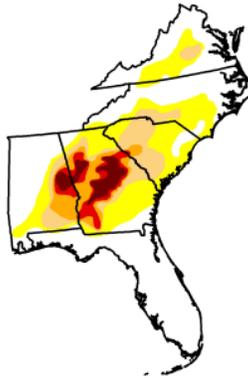
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U.S. Drought Monitor Southeast

November 6, 2012
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	53.19	46.81	22.90	12.30	6.85	3.52
Last Week (10/30/2012 map)	60.40	39.60	16.77	10.50	5.99	2.05
3 Months Ago (08/07/2012 map)	49.29	50.71	29.00	17.49	11.18	5.25
Start of Calendar Year (12/27/2011 map)	40.38	59.62	43.05	28.62	18.71	0.00
Start of Water Year (09/25/2012 map)	66.49	33.51	17.18	11.50	8.53	3.52
One Year Ago (11/01/2011 map)	41.84	58.16	44.93	32.80	21.45	0.00

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



According to the National Agriculture Statistics Service's Georgia Field Office, there were 6.7 days suitable for fieldwork for the week ending Sunday, November 4, 2012. Statewide topsoil moisture was rated at 27% very short, 49% short, 24% adequate, 0% surplus. Subsoil moisture 24% very short, 48% short, 28% adequate, 0% surplus. Precipitation estimates for the state ranged from no rain up to 0.2 inches. Average high temperatures ranged from the high 50's to the mid 70's. Average low temperatures ranged from the low 30's to the mid 60's.

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

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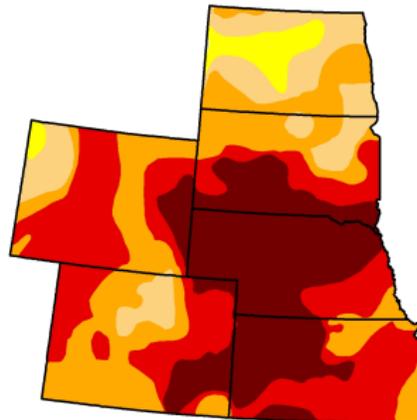
Fig. 4b: Note [Georgia's](#) drought statistics over various time periods. D4 conditions have now expanded into eastern [Alabama](#). See the Weekly GridSSAT Output Products: <http://gridssat.nsstc.uah.edu/> for more details.

U.S. Drought Monitor High Plains

November 6, 2012
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.03	99.97	96.46	83.94	57.54	27.24
Last Week (10/30/2012 map)	0.00	100.00	98.20	83.87	57.02	27.44
3 Months Ago (08/07/2012 map)	2.36	97.64	87.16	77.20	49.30	7.92
Start of Calendar Year (12/27/2011 map)	61.66	38.34	18.12	7.22	2.07	0.04
Start of Water Year (09/25/2012 map)	0.00	100.00	98.91	83.80	61.28	24.35
One Year Ago (11/01/2011 map)	66.19	33.81	22.69	13.47	6.58	2.57

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



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

<http://droughtmonitor.unl.edu>



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David Miskus, Climate Prediction Center/NCEP/NWS/NOAA

Fig. 4c: Drought Monitor for the [High Plains](#) with statistics over various time periods. No real changes noted this week. D4 has remained near ~27%. See the latest [Kansas Drought Report](#).

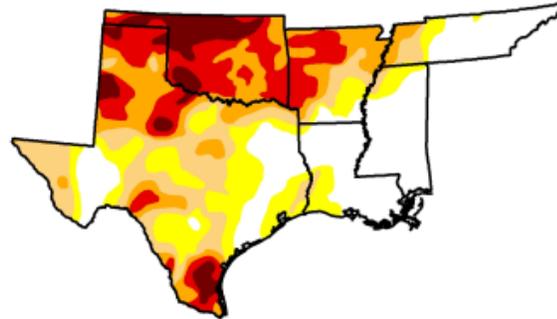
U.S. Drought Monitor

South

November 6, 2012
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	29.13	70.87	54.00	37.59	21.68	6.61
Last Week (10/30/2012 map)	30.27	69.73	53.05	37.39	20.81	5.53
3 Months Ago (08/07/2012 map)	21.49	78.51	67.54	46.51	27.75	8.05
Start of Calendar Year (12/27/2011 map)	26.47	73.53	69.01	54.81	39.11	17.15
Start of Water Year (09/25/2012 map)	24.13	75.87	66.61	51.50	29.86	9.11
One Year Ago (11/01/2011 map)	11.84	88.16	79.95	69.80	62.33	41.90



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.

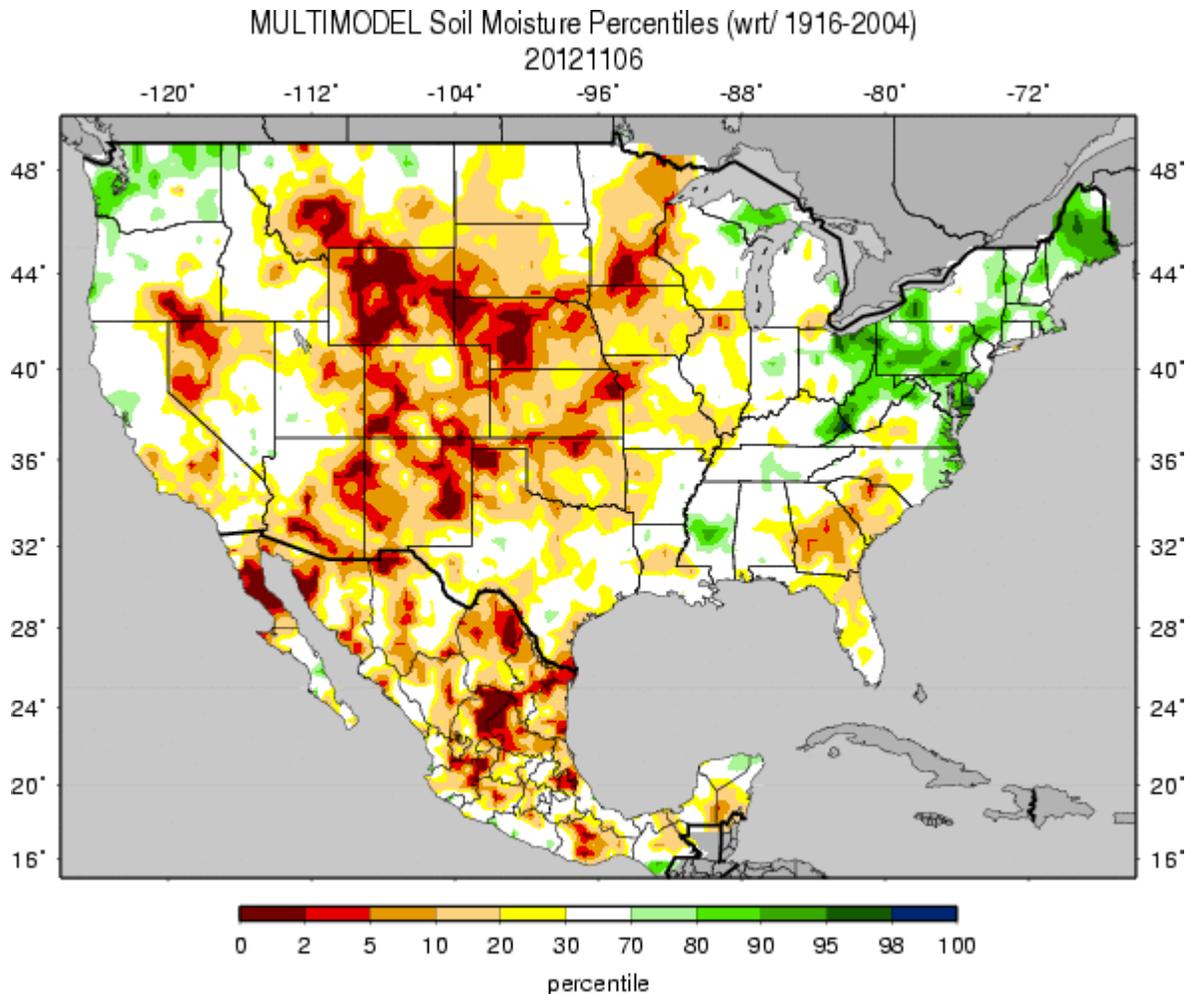
<http://droughtmonitor.unl.edu>



Released Thursday, November 8, 2012
David Miskus, Climate Prediction Center/NCEP/NWS/NOAA

Fig. 4d: Drought Monitor for the [South-Central Region](#) with statistics over various time periods. Note slight deterioration this week. D4 increased to >6.5%. Check out the [Texas Drought Website](#).

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Figs. 5: Soil Moisture ranking in [percentile](#) as of 6 November shows dryness scattered across the Northern, the Central High Plains (including southern Minnesota), northwest Great Basin, and northern-most part of Texas.

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](#).

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

Station (2006) MONTH=2012-10-09 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision
Thu Nov 08 07:45:29 PST 2012

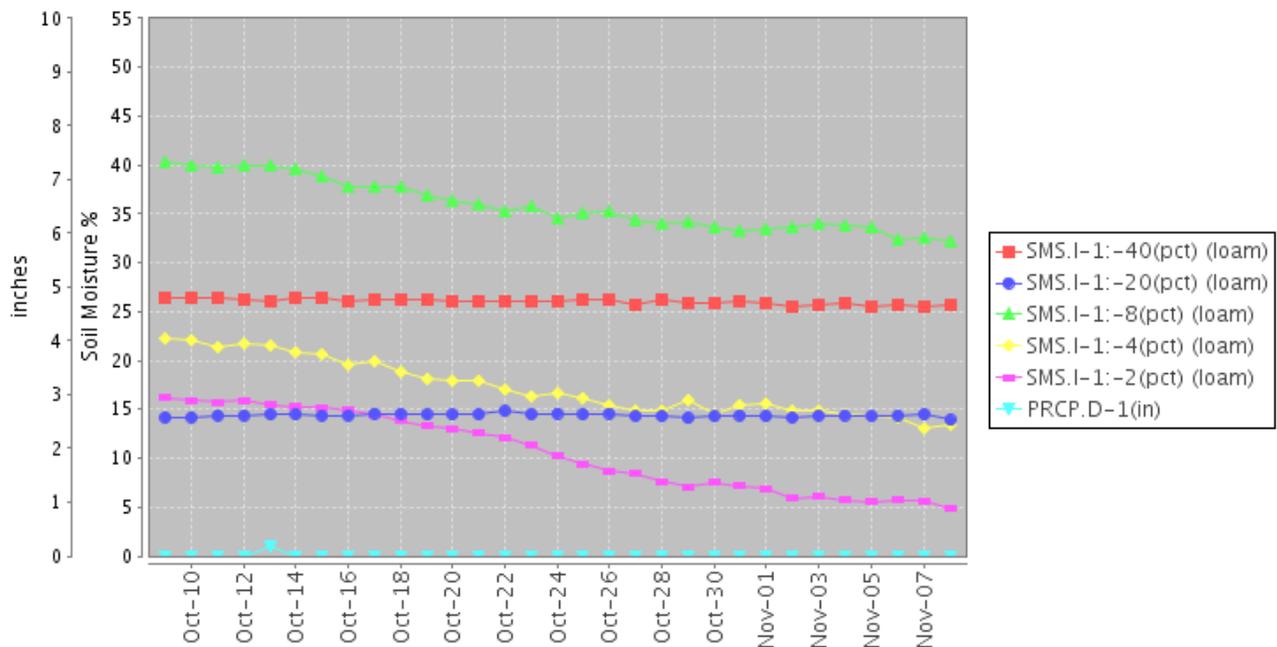


Fig. 6: This NRCS resource shows a site over [northern Texas](#) with soil moisture near the surface responding to lack of precipitation during the past 30 days.

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).

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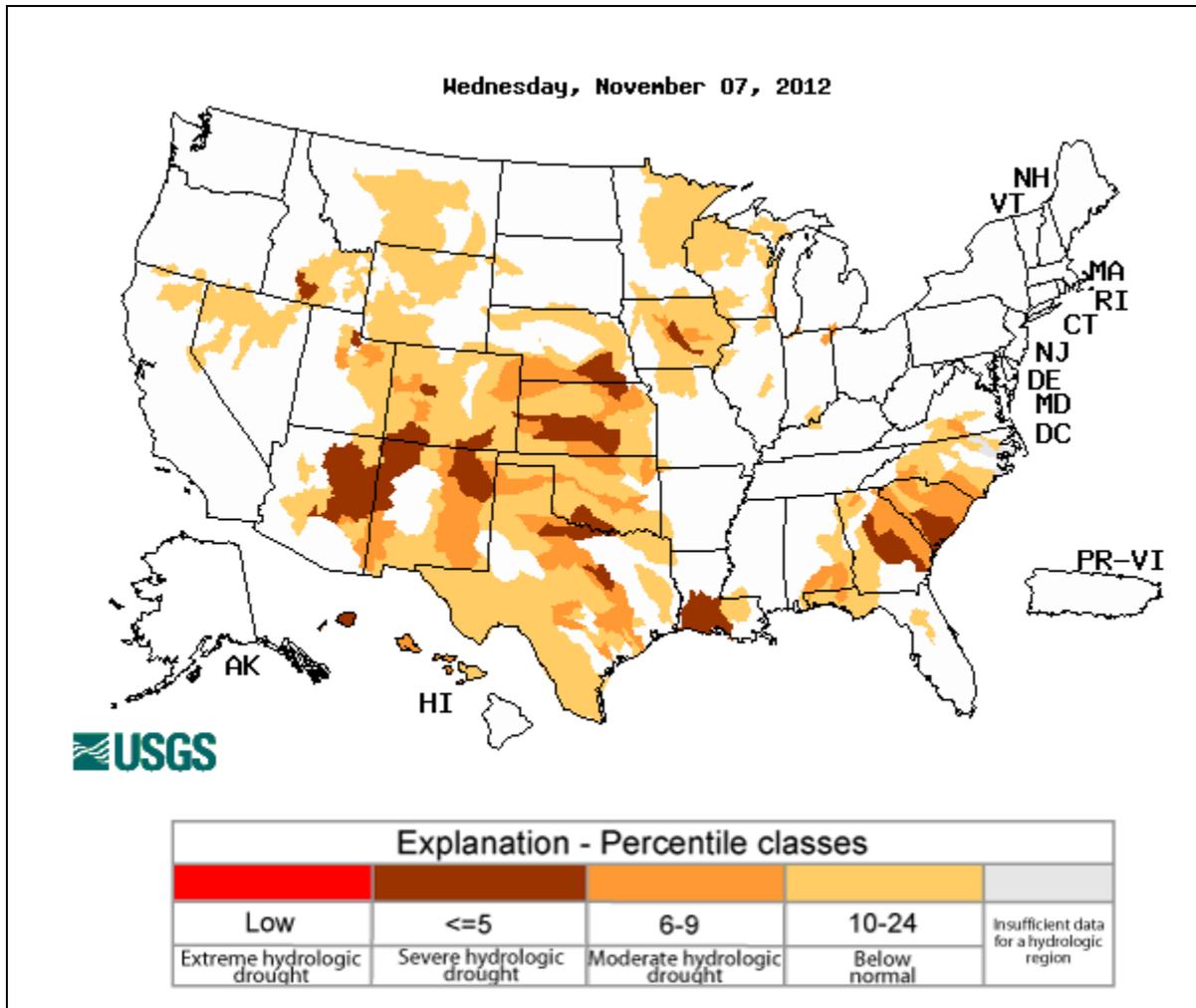


Fig. 7: Map of below normal 7-day average [streamflow](#) compared to historical streamflow for the day of year. **Severe** conditions exist over parts of Central and Southern Plains, Southwest, Louisiana, and Southeast. See the USGS [National Water Information System Mapper](#).

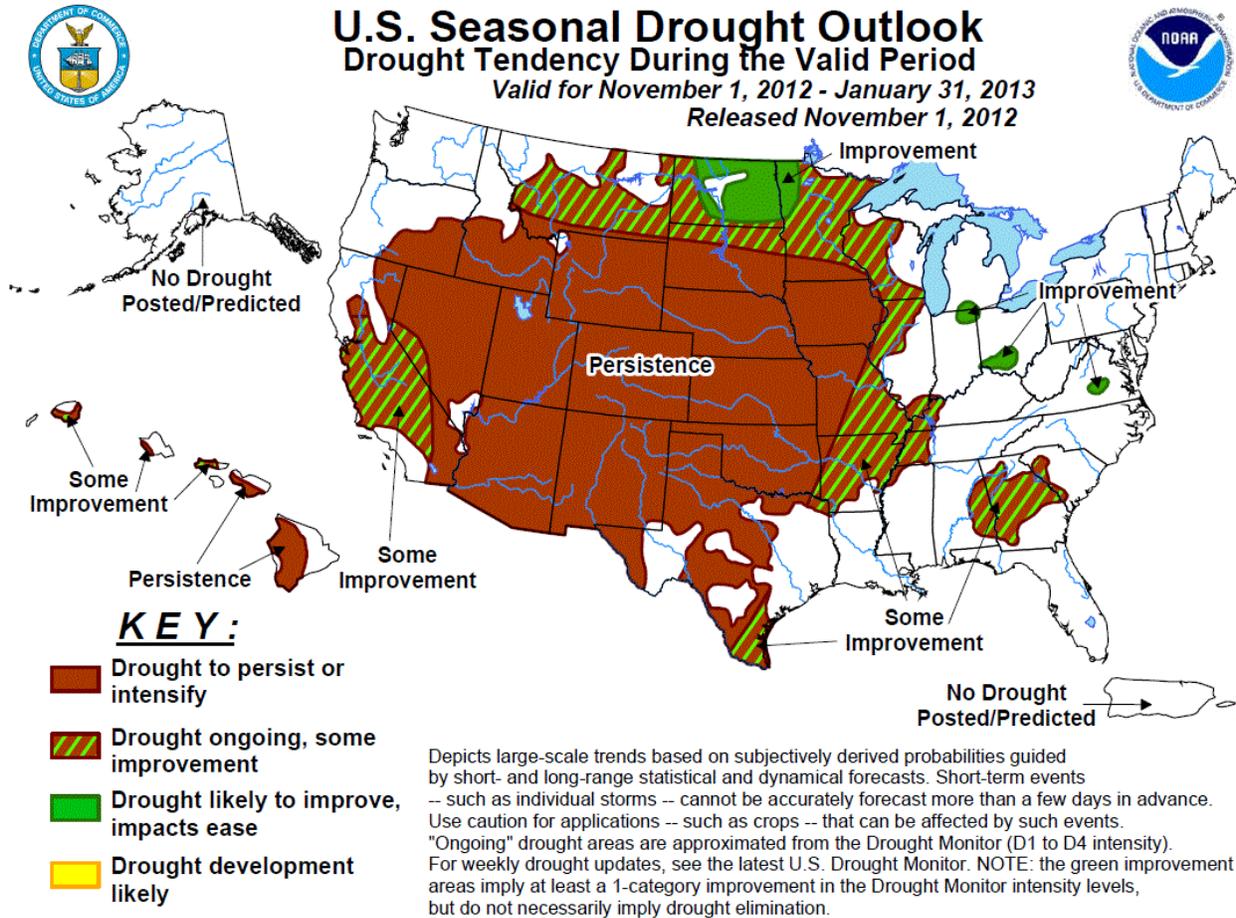


Fig. 8: [U.S. seasonal Drought Outlook](#) released 1 November 2012.

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National Drought Summary -- November 6, 2012

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/>.

After last week's devastation caused by Hurricane/Superstorm Sandy, calmer conditions slowly returned as the storm weakened over the eastern Great Lakes region and tracked northward. In its place, an upper-level trough of low pressure settled over the Northeast, producing unsettled weather (light precipitation and subnormal temperatures) to much of the Great Lakes region, New England, and mid-Atlantic. Unfortunately, a new Nor'easter threatened areas hit by Sandy as the period ended. In the West, a series of Pacific systems dropped moderate to heavy precipitation (1 to 3 inches, locally up to 8 inches) on northern California, coastal Oregon, western Washington, and the northern Rockies. Meanwhile, a persistent ridge of high pressure located over the central Rockies kept the Southwest, Great Basin, and southern halves of the Rockies and Plains unseasonably mild and dry. The weakened Pacific storm systems were diverted northeastward into south-central Canada by the ridge, then southeastward by the eastern trough into the northern Plains, lower Missouri Valley, the Delta, and across the Southeast. This brought light precipitation (0.1 to 0.5 inches, locally an inch) to the aforementioned regions. In Hawaii, mostly dry weather prevailed while stormy weather soaked the southeast Alaskan Panhandle.

The Northeast and Mid-Atlantic: As Superstorm Sandy gradually weakened over the eastern Great Lakes region and slowly tracked northward into southeast Canada, windy, cold, and showery weather enveloped the region. Light to moderate precipitation amounts (0.3 to 1 inch) fell on the eastern Great Lakes region, New England, and the mid-Atlantic, with locally over 2 inches in northeastern Ohio and most of Maine. With another 1 to 1.5 inches of rain, long-term deficits were reduced enough in central New York (Tompkins, Otsego, and Schoharie counties) that D0 was erased. However, lighter totals fell east of eastern Lake Ontario during Sandy, and with growing short-term deficits, D0 was expanded into Jefferson County.

Farther south, little or no rain (less than 0.3 inches) fell on southern Virginia and adjacent central North Carolina, adding to short-term (30- and 60-days) departures. USGS stream flows have dropped below the 25th percentile at 1-, 7-, 14-, and 28-days at several sites. Accordingly, D0 was expanded southward, and this area will be closely monitored for future deterioration.

The Southeast: Although light rains (0.3 to 0.8 inches) fell on most of Alabama and Georgia this week, short-term dryness (past 30 and 60 days) have accumulated deficits of 2 to 4 and 3 to 6 inches, respectively, from southeastern Alabama northeastward into central North Carolina. In fact, the central and eastern Carolinas saw little or no rain this 7-day period. This short-term dryness comes in the face of a severe 2-year drought where the deficits were never truly alleviated. As a result, D0 was expanded into southwestern Alabama and across northeastern Georgia and western South Carolina. Surplus amounts at 90-days across north-

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central North Carolina and the Piedmont prevented D0 development from connecting with D0 in south-central Virginia, but continued dryness will probably require a broad D0 expansion there soon. D1 expansion occurred in southeastern Alabama, central South Carolina, and south-central North Carolina, while D2 increased into southeastern Alabama and western South Carolina. The D3 and D4 areas were redrawn to reflect the largest AHPS deficits at 180-days and year-to-date. The two areas of worst long-term drought (at 1 and 2 years) stretched from southwestern Georgia northeast into west-central South Carolina, and from east-central Alabama northeast into northwestern Georgia. For example, Augusta, GA, only received 0.17 inches of rain the past 30 days, and was nearly 30 inches below normal over the past 24 months (driest on record since 1942). Numerous USGS stream levels are below the tenth percentile, and several are at near- to record lows for early November.

The Southern Plains and Delta: According to the 1981-2010 normals, October is the third wettest month for the Texas, but instead last month was one third of normal and the ninth driest October statewide since 1895. This week offered little change to the dry theme as much of Texas and Oklahoma recorded above normal temperatures and little or no rain. The lone exception was in southeastern Texas (1 to 3 inches). In Oklahoma, the OCS Mesonet noted that it has been 52 days since parts of the state have seen at least 0.25 inches of rain in one day. The combination of warm and dry weather was taking a toll on grasses and small grains. Winter wheat was running out of moisture and was rated 30 percent poor to very poor as of Nov. 4, up from 12 percent a week ago. Topsoil moisture conditions continued to decline, with 88 percent rated short to very short, while subsoil moisture similarly rated dropped to 94 percent. With the recent unfavorable weather conditions, deteriorations were made to Oklahoma (D3 and D4) and most of Texas (D1-D4). With so much of Oklahoma already in D3 and D4, it is getting difficult to degrade the state further. An exception was in extreme southeastern Colorado (Baca County) and the immediate area where further assessment of indices and actual conditions warranted an improvement from D3 to D2. In contrast, the rains in southeast Texas were enough to remove D0 in Polk and San Jacinto counties; however, but drier conditions to the east expanded D0 into southwestern Louisiana while D1 was added in extreme southeastern Texas and southwestern Louisiana due to short-term (60-day) shortages of 6 to 9 inches.

In the Delta, rains were more scattered, with the greatest totals in extreme southern Louisiana (1 to 2 inches), most of Mississippi (0.5 to 1.5 inches), and southern Arkansas (0.3 to 1 inch). From 60-days out to a year, most of Arkansas has reported near or above normal precipitation, and after a reassessment of all indices and products, improvements of a category were made across most of the state (except the northwest) which corresponded to AHPS, ACIS, and CPC anomalies at medium- to long-term time scales.

Central and Northern Plains and Midwest: Weekly weather conditions contrasted as one traveled from the central Plains (warm and dry) to the northern Plains and upper Midwest (cool and showery). Similar to Oklahoma, Kansas also recorded little or no precipitation with temperatures averaging 2 to 8 degF above normal. As this was the third straight week with minimal precipitation, a 1-category downgrade was made for east-central Kansas as eastern sections of the state normally record greater cold season moisture than western areas so shortfalls accumulate at a greater rate. No changes were made in western Kansas and most of Nebraska as much of it is already in D3-D4, leaving little room for downgrade. Topsoil and subsoil moisture continued to drop, and surface water supplies remained short. With light precipitation and subnormal temperatures, no changes were made in South Dakota,

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Minnesota, Wisconsin, Iowa, and Missouri. The U.S. Army Corps of Engineers in St. Paul, MN, said that they are preparing to store future precipitation within the Mississippi River Headwaters reservoirs during the next few weeks in an effort to ease drought conditions and support navigation south of St. Louis, MO, later this year. In northern North Dakota and westward into Montana, another week of light precipitation (0.3 to 0.8 inches) aided soil moisture conditions, resulting in a 1-category improvement. But drier conditions in southwestern North Dakota slightly expanded D2 there. Farther east, light to moderate precipitation (0.5 to an inch) and a reassessment of medium- to long-term conditions resulted in some 1-category improvements in lower Michigan and parts of the lower Ohio River Valley. In central Kentucky, a dry 30 days (2 to 4 inch deficits) have brought out lingering soil moisture deficiencies created earlier this summer, and D0 was expanded there.

The West: Decent precipitation (more than 2 inches) fell on non-drought areas of Washington, Oregon, and northern Idaho, while 3 consecutive weeks of light to moderate precipitation have fallen across Montana. Surpluses of 1 to 3 inches have accumulated during the past 30 days, easing drought across the northern two-thirds of the latter state. In addition, a slight improvement of dryness and drought were made along the edges of the D0 and D1 western borders in northern California, central Oregon, and central Idaho where recent storms have dropped enough precipitation to create small 30-day surpluses. Although the 2012-13 Western Water Year is still early, basin average precipitation percent of normals were above normal from the northern Sierra Nevada northeastward into central Montana. Unfortunately, the Great Basin and Southwest were well below normal, but their typical wet season generally starts later in the winter. Elsewhere, slight degradations were made in New Mexico based upon several indices and products. D2 was expanded into southeastern and north-central portions, while D3 increased in northeastern sections. The remainder of the West was left status quo, except for changing the Impact Type to L (from SL) as the short-term dryness has recently abated.

Hawaii, Alaska, and Puerto Rico: In Hawaii, October was very dry as 19 sites broke records for driest October ever (11 on Oahu, 5 on Kauai, 2 on Big Island, 1 on Molokai). The dry weather pattern continued into the first few days of November as little or no rain fell across the state during the first 4 days. Finally, 24-hour totals ending 8am HST on Nov. 6 saw light showers (0.25 to 0.5 inches) on the windward sides of Oahu and Maui, and 1 to 2 inches on the windward side of the Big Island. Accordingly, the areas of Hawaii previously with no abnormal dryness were put into D0. Interestingly, the FSA folks stated that the windward farmers enjoy the dry weather as long as it does not last too long as it allows them to do field operations and planting. Western Oahu was degraded to D2 as cattle ranchers have destocked pastures due to poor conditions. In central (Upcountry) Maui, the Olinda water treatment facility had to reduce its water production due to low supply levels, resulting in an expansion of D1 and D2 northward into the Pukalani and Haiku areas. In contrast, a 1-category improvement was made to Maui's D3 southeastern side where Kepuni measured over 4 inches of rain during October, or 268 percent of normal.

No change was made in northern Alaska as the ground has frozen for the season. Conditions will be assessed during the late spring thaw. There is no dryness or drought in Puerto Rico.

Looking Ahead: During the next 5 days (November 8-12), a Nor'easter will impact the Northeast with strong winds, coastal rains, and inland snows before departing this Saturday. Meanwhile, unsettled weather will envelop the West as subnormal temperatures and showers

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replace this week's abnormal warmth. The largest precipitation amounts are expected in the northern Rockies and Plains. Late in the period, a cold front is expected to produce moderate to heavy rain from eastern Texas northward to the upper Great Lakes region. Greatest totals (1.5-2.5 inches) are expected from western Arkansas northward into southern Wisconsin. Temperatures will average above normal in the eastern half of the Nation, and below normal in the West.

For the 6-10 day outlook (November 13–17), the odds favor above normal precipitation in the Northwest, eastern third of the Nation, and northern and western Alaska while subnormal precipitation is expected in the central Rockies and Plains and southeastern Alaska. Unseasonable warmth is predicted for the northeastern quarter of the U.S. and extreme northern Alaska while odds are tilted toward subnormal readings in the West and southern Alaska.

Author: [David Miskus, Climate Prediction Center/NCEP/NWS/NOAA](#)

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

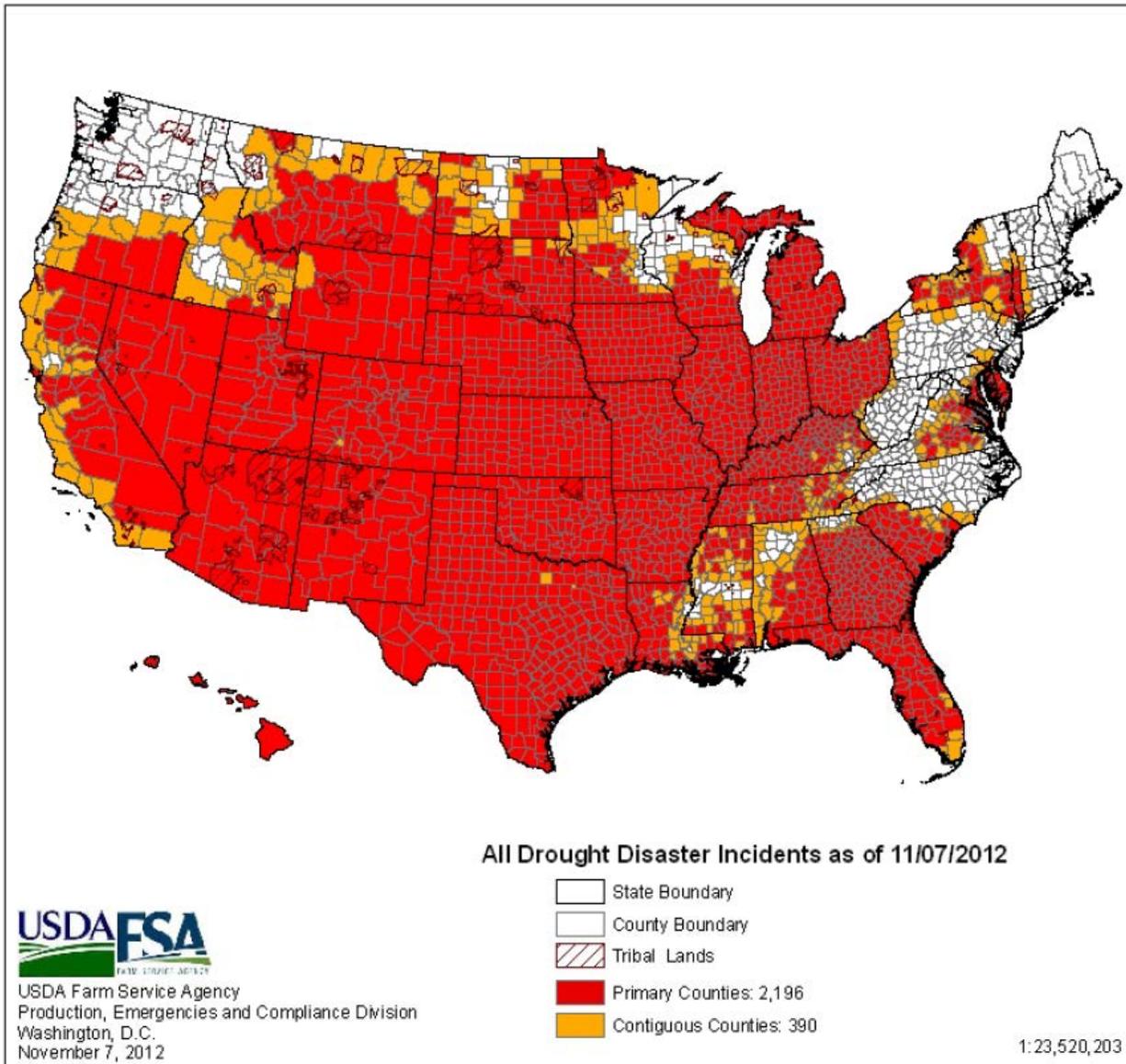
Drought or Dryness Types

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

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

Updated November 7, 2012

2012 Secretarial Drought Designations - All Drought



Ref: http://www.usda.gov/wps/portal/usda/usdahome?navid=DISASTER_ASSISTANCE

Special Feature

Help for You

Producers and Farmers

Additional Emergency Funding to Assist Livestock and Crop Producers: To assist producers facing extreme drought conditions, USDA will utilize nearly \$16 million in financial and technical assistance to immediately help crop and livestock producers in 19 states cope with the adverse impacts of the historic drought. In addition, USDA will initiate a transfer of \$14 million in unobligated program funds into the Emergency Conservation Program.

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These funds can be used to assist in moving water to livestock in need, providing emergency forage for livestock, and rehabilitating lands severely impacted by the drought. Together these efforts should provide nearly \$30 million to producers struggling with drought conditions.

[Emergency Disaster Designation and Declaration Process Overview](#)

[Contact your local Farm Services Agency for more information](#)

Conservation Reserve Program (CRP) - Emergency Haying and Grazing

For 2012, a county is authorized for [emergency haying and grazing](#) outside the Primary Nesting Season if the county is designated as level "D0-Abnormally Dry", as of July 19, 2012 or later, according to the U.S. Drought Monitor.

The U.S. Drought Monitor and other information on drought conditions are available online at www.drought.gov.

Under this special determination, emergency **haying** is authorized to August 31, 2012. Emergency **grazing** is authorized until November 30, 2012.

Learn more about [FSA Disaster Program](#) (PDF) triggers, key requirements, payments and funding levels for each disaster programs.

Range Management Assistance

The [Bureau of Land Management](#) (BLM) can assist [grazing permit holders](#) by making adjustments in the use period, allow temporary water hauling, allow permittees to move livestock to allotments that are not being used, or to refund grazing fees. Drought-affected grazing permit holders should [contact their local BLM field office](#) for assistance.

Non-Farm Businesses and Non-Profits

Drought recovery loans are available through the U.S. Small Business Administration. Eligible businesses include:

These funds can be used to assist in moving water to livestock in need, providing emergency forage for livestock, and rehabilitating lands severely impacted by the drought. Together these efforts should provide nearly \$30 million to producers struggling with drought conditions.

- Small, non-farm businesses
- Small, agricultural cooperatives
- Small businesses engaged in aquaculture
- Most private, non-profit organizations of any size

Eligible businesses can apply for Economic Injury Disaster Loans (EIDLs) of up to \$2 million to help meet financial obligations and operating expenses which could have been met had the disaster not occurred. These are working capital loans and can be used to cover operating expenses - like utilities, rent, and monthly overhead that would have been paid if the disaster had not occurred. The interest rate is 4 percent for businesses, 3 percent for nonprofits, with terms up to 30 years. See [detailed eligibility requirements](#). You may also [apply online](#).

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General Consumers

Drought Common Operating Picture for Navigation

United States Army Corps of Engineers (USACE) continues to monitor the drought and impacts to navigation on the Nation's waterways. Through close coordination with the US Coast Guard, Industry, state, and local officials actions such as dredging, adjusting flow release from established reservoirs, dispatching survey vessels to mark channels, and placing restrictions on the draft and number of barges in tow the water ways remain navigable. USACE actions are taken within existing authorities and approved operating plans. The [USACE Drought Common Operating Picture](#)  is for informational use only. Monitor your local district information for additional information.

State, Local and Tribal Governments

Hydrologic Monitoring (streamgaging, water-quality sampling, or groundwater monitoring)

The [U.S. Geological Survey](#) (USGS) works closely with state and local partner agencies to identify and address drought-related water-information needs. The USGS hydrologic monitoring networks in the drought-affected states include approximately 2,400 streamgages, 800 water-temperature, 400 conductivity, and 200 dissolved-oxygen monitoring stations and 800 real-time ground-water wells. The data provided by these monitoring devices are used by communities and state resource managers to plan water withdrawals and diversions, assess needs for water-use restrictions, and anticipate or respond to drought-related environmental stresses events such as fishkills, saltwater intrusions or water-quality degradation due to high water temperatures, low dissolved oxygen (DO), or algae blooms.

Representatives of interested agencies should contact the [director of the USGS water science center office](#) in their state.