



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

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## Weekly Report - Snowpack / Drought Monitor Update

Date: 12 April 2012

### SNOTEL SNOWPACK AND PRECIPITATION SUMMARY

**Snow:** [Snow Water-Equivalent](#): River basins over the Pacific Northwest are maintaining their high SWE values this week while the opposite is true for the southern basins. As basins in the Northern Tier States reach their climatological SWE peaks, their percentages will increase statistically if their melt out date is delayed even without additional snow accumulation. Please keep this in mind in the coming weeks if and when these percentiles continue to increase (Fig. 1). [3-Day Snow Depth Change](#) ending this morning shows some increases over the Sierra with slight to moderate decreases elsewhere (Fig. 1a).

**Temperature:** [SNOTEL](#) and ACIS 7-day temperature anomaly showed values well above normal over the eastern slope of the Colorado-New Mexico Rockies and Utah Wasatch. Cooler temperatures influenced the West Coast, Northern Rockies, and the Sierra (Fig. 2). ACIS [7-day average temperature anomalies](#) show the greatest positive temperature departures over Western High Plains and southern half of the Rockies ( $>+8^{\circ}\text{F}$ ) and the greatest negative departures over parts of northern California ( $<-6^{\circ}\text{F}$ ). This pattern reflects continued ridging over the Central US and troughing over the West Coast (Fig. 2a).

**Precipitation:** [ACIS](#) 7-day average precipitation amounts for the period ending yesterday shows the wettest areas over the West Coast and Northern Rockies (Fig. 3). However, in terms of percent of normal, California, parts of New Mexico, and western Montana were very wet (Fig. 3a). Very dry conditions dominated over Arizona and the western High Plains. Since the start of the [2012 Water-Year](#) that began on 1 October 2011, the seasonal moisture has favored northern Wyoming, parts of Montana, and the southern Washington Cascades. Drier the normal conditions reign over most of the southern half of the West (Fig. 3b). Since the start of [April](#), the influence of La Niña is waning over the Pacific Northwest. However, an early spring snow storm hit northwestern Nevada and the Sierra in California this week. The high values over southeast Colorado and northeast New Mexico have diminished significantly since the first week in April (Fig. 3c).

**Weather Summary:** A series of cold fronts traversed across the lower 48 States, keeping temperatures below-normal in the West. These fronts also triggered scattered showers and thunderstorms, mainly in the Pacific Northwest.

**The West:** Light to moderate precipitation (0.5 to 2 inches) was confined from northern California and the northern Sierra Nevada northward into the Pacific Northwest and northern Rockies. Little or no precipitation fell on central and southern California, the Great Basin, and the Southwest. Temperatures averaged below normal in western areas, slightly above normal in far eastern sections. As the wet season normally diminishes as spring progresses, most areas were left at status-quo. Some changes, however, were made in northwestern California and the southern San Joaquin Valley, southern Utah, southeastern Arizona, northern New Mexico, and south-central Colorado. In northwestern California, another 1 to 1.5 inches of rain effectively erased any lingering deficits since October 1, and D0 was eased slightly eastward. In the southern San Joaquin Valley near Bakersfield, D2 was expanded into the area as Water year-

## Weekly Snowpack and Drought Monitor Update Report

to-date precipitation stood at 60 percent, similar to Fresno in the northern San Joaquin Valley. In southern Utah and southeastern Arizona, another dry week added additional shortages to these two areas, effectively expanding the D0 and D2 areas, respectively. In northern New Mexico, an early week storm brought 0.5 to 1.5 inches of precipitation, improving conditions from D2 to D1 in Santa Fe, northwestern San Miguel, and western Mora Counties, and from D1 to D0 in central and western Sandoval County. In eastern Colorado, decent rains (0.5 to 1 inch) alleviated the D0(S), while 0.5 inches further diminished the D2 and D3 in extreme southeastern Colorado (Baca County). In contrast, drier weather somewhat increased drought (D1 and D2) in south-central sections of the state. 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 4c).

### 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

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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>.

### **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.

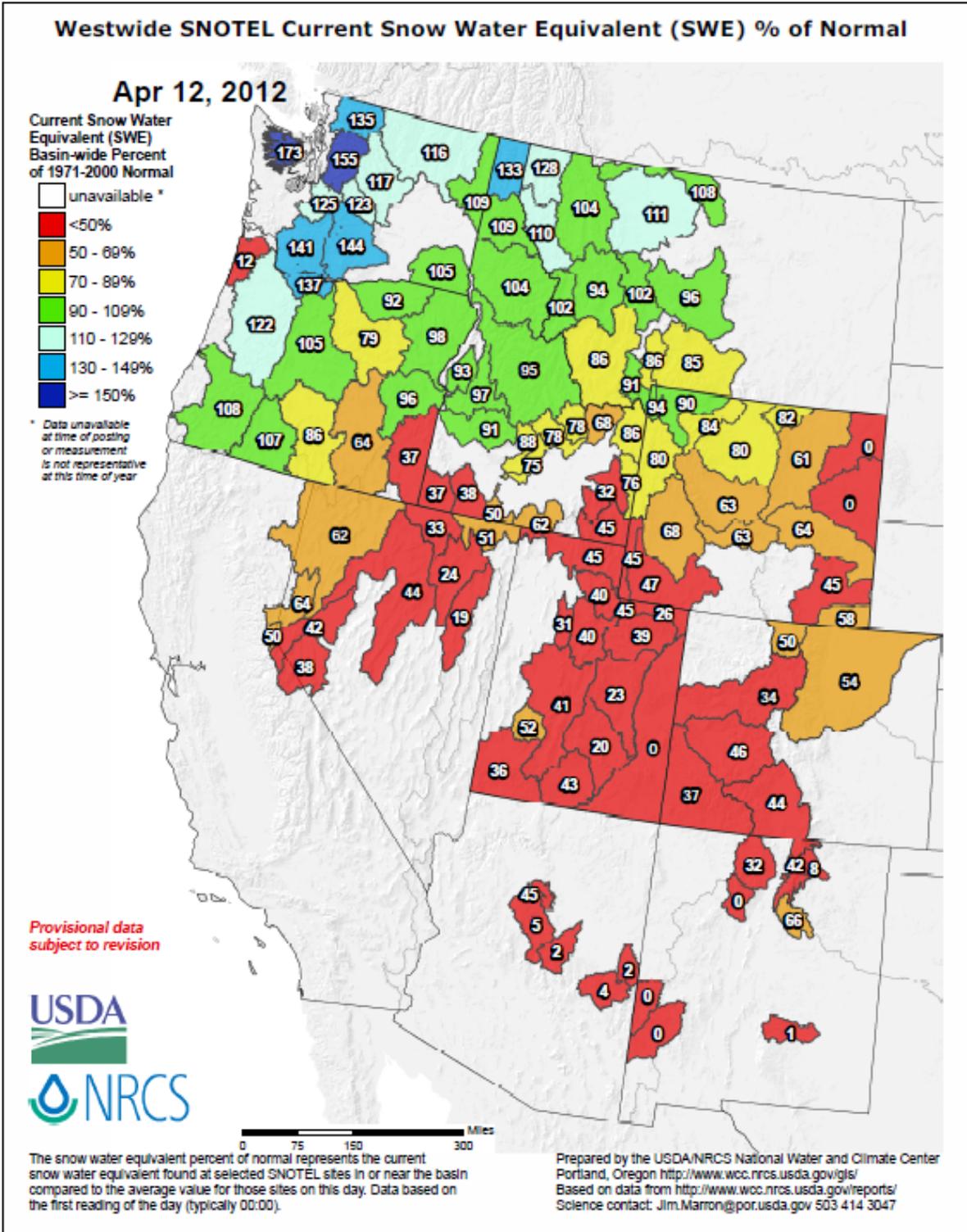
This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

/s/

Micheal L. Golden

Acting Deputy Chief, Soil Survey and Resource Assessment

# Weekly Snowpack and Drought Monitor Update Report



**Fig. 1: Snow Water-Equivalent** : River basins over the Pacific Northwest are maintaining their high SWE values this week while the opposite is true for the southern basins. As basins in the Northern Tier States reach their climatological SWE peaks, their percentages will increase statistically if their melt out date is delayed even without additional snow accumulation. Please keep this in mind in the coming weeks if and when these percentiles continue to increase.

# Weekly Snowpack and Drought Monitor Update Report

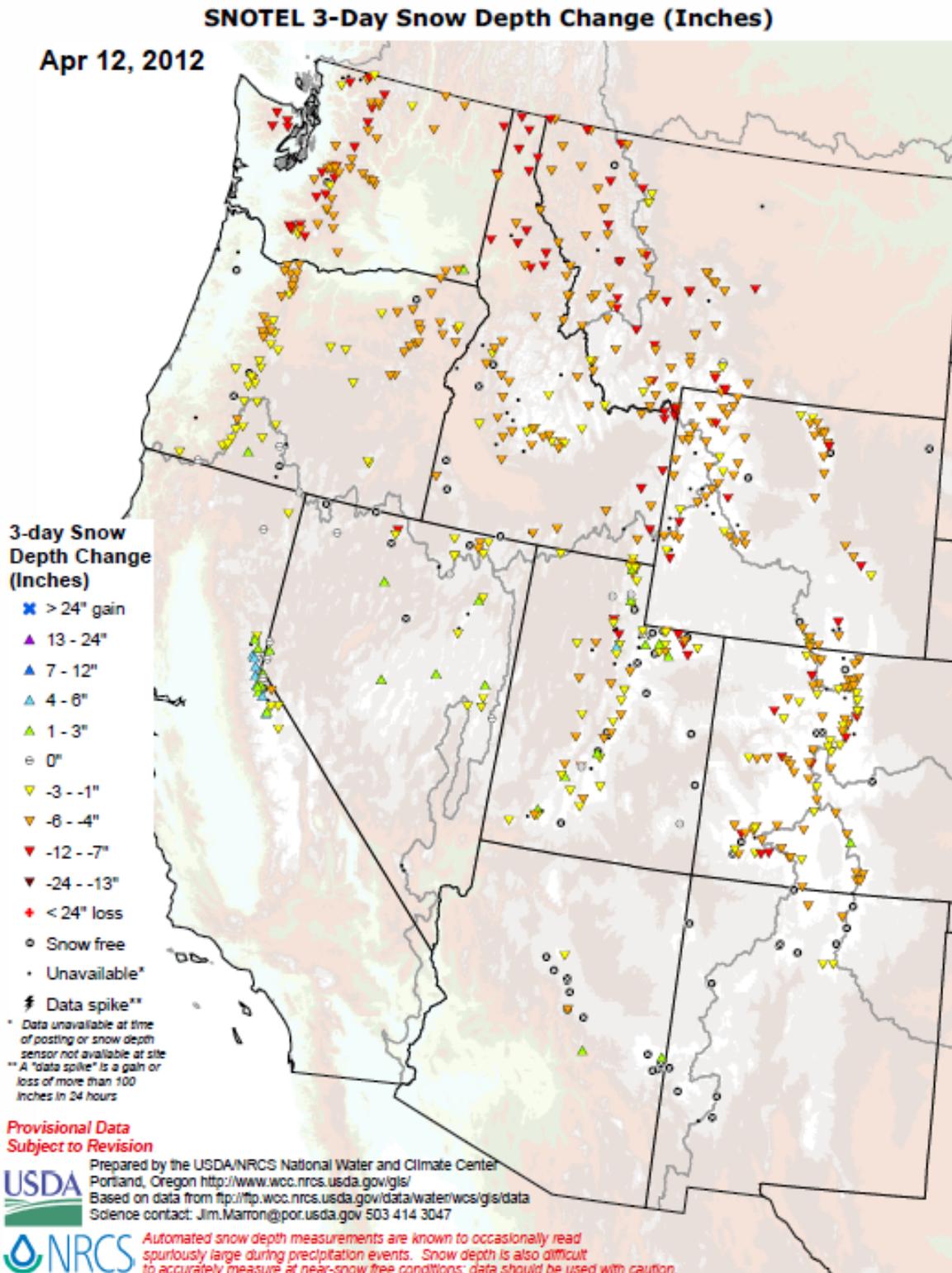


Fig. 1a: 3-Day Snow Depth Change ending this morning shows some increases over the Sierra with slight to moderate decreases elsewhere.

# Weekly Snowpack and Drought Monitor Update Report

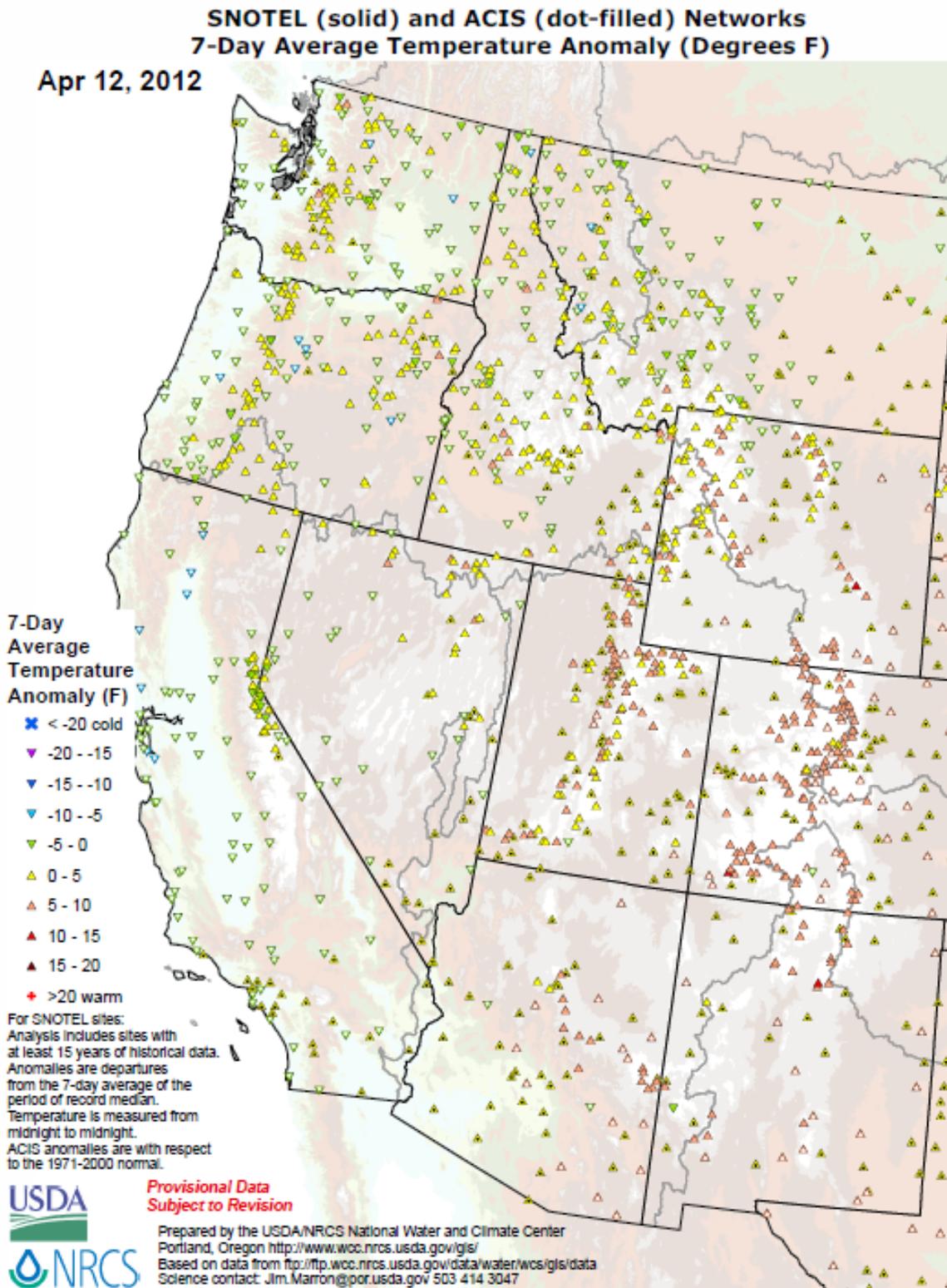
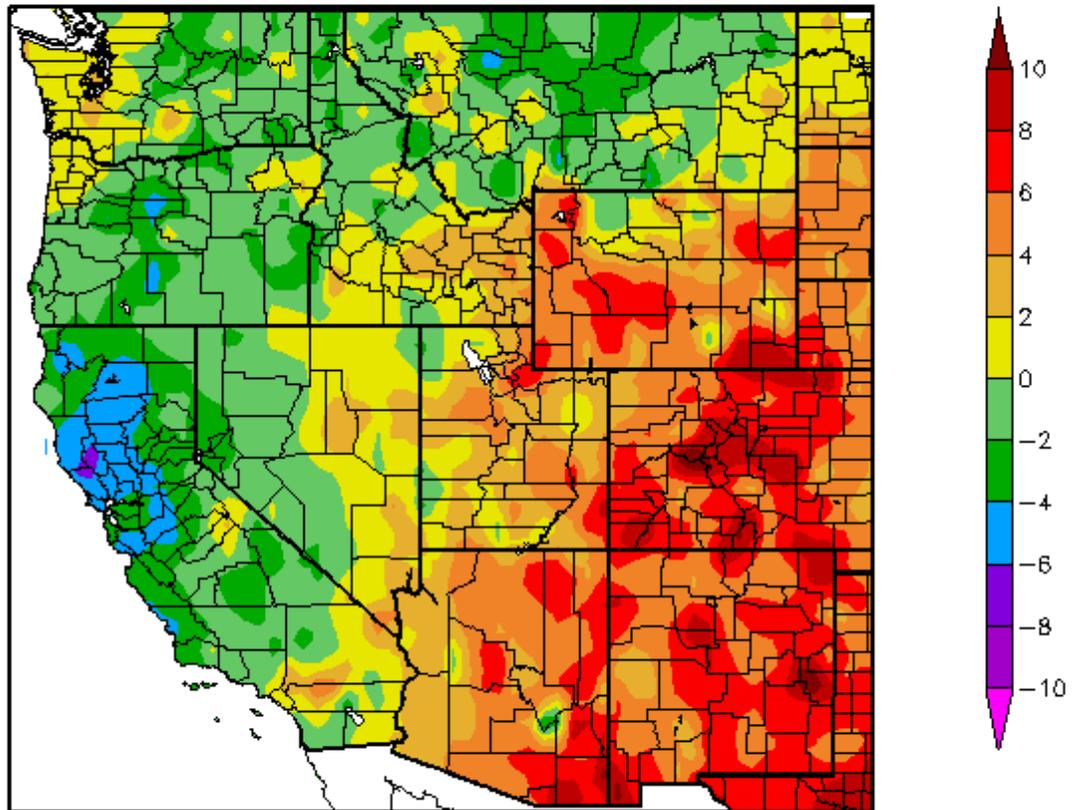


Fig. 2: **SNOTEL** and ACIS 7-day temperature anomaly showed values well above normal over the eastern slope of the Colorado-New Mexico Rockies and Utah Wasatch. Cooler temperatures influenced the West Coast, Northern Rockies, and the Sierra.

Departure from Normal Temperature (F)  
4/5/2012 - 4/11/2012



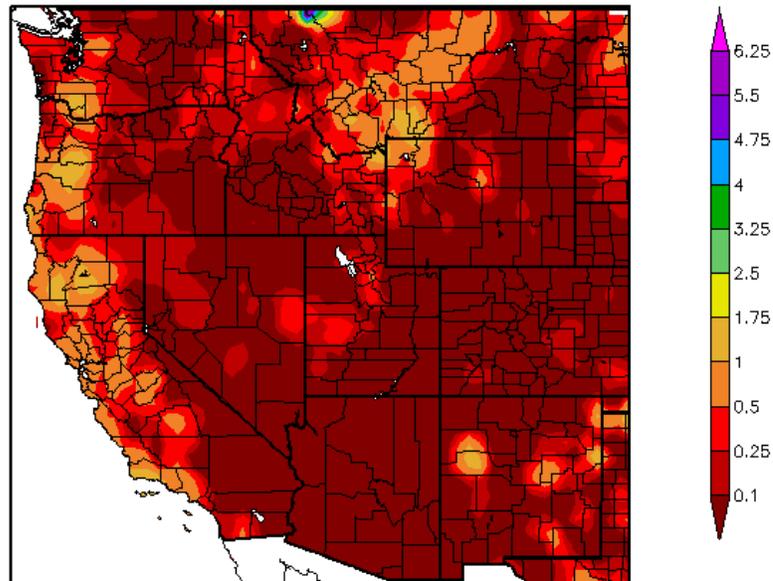
Generated 4/12/2012 at HPRCC using provisional data.

Regional Climate Centers

**Fig. 2a:** ACIS [7-day average temperature anomalies](#) show the greatest positive temperature departures over Western High Plains and southern half of the Rockies ( $>+8^{\circ}\text{F}$ ) and the greatest negative departures over parts of northern California ( $<-6^{\circ}\text{F}$ ). This pattern reflects continued ridging over the Central US and troughing over the West Coast.

## Weekly Snowpack and Drought Monitor Update Report

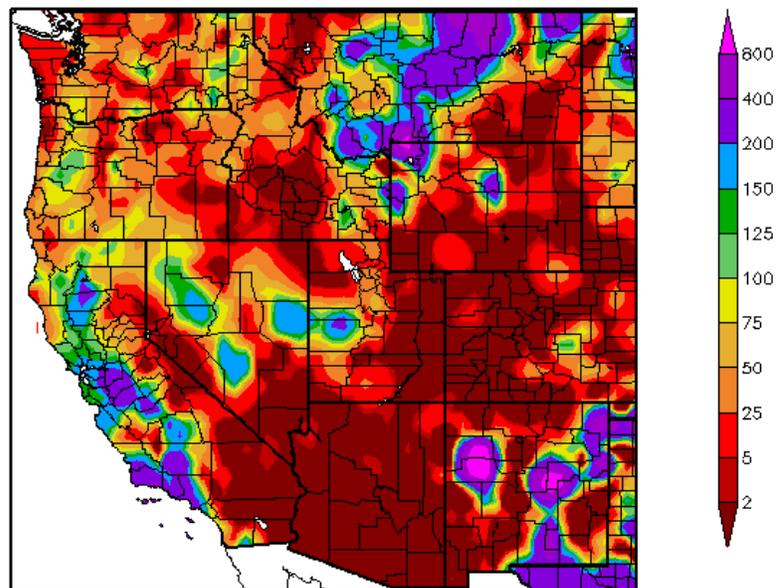
Precipitation (in)  
4/5/2012 - 4/11/2012



Generated 4/12/2012 at HPRCC using provisional data.

Regional Climate Centers

Percent of Normal Precipitation (%)  
4/5/2012 - 4/11/2012



Generated 4/12/2012 at HPRCC using provisional data.

Regional Climate Centers

**Fig. 3 and 3a:** [ACIS](#) 7-day average precipitation amounts for the period ending yesterday shows the wettest areas over the West Coast and Northern Rockies (top). However, in terms of percent of normal, California, parts of New Mexico, and western Montana were very wet (bottom). Very dry conditions dominated over Arizona and the western High Plains.

# Weekly Snowpack and Drought Monitor Update Report

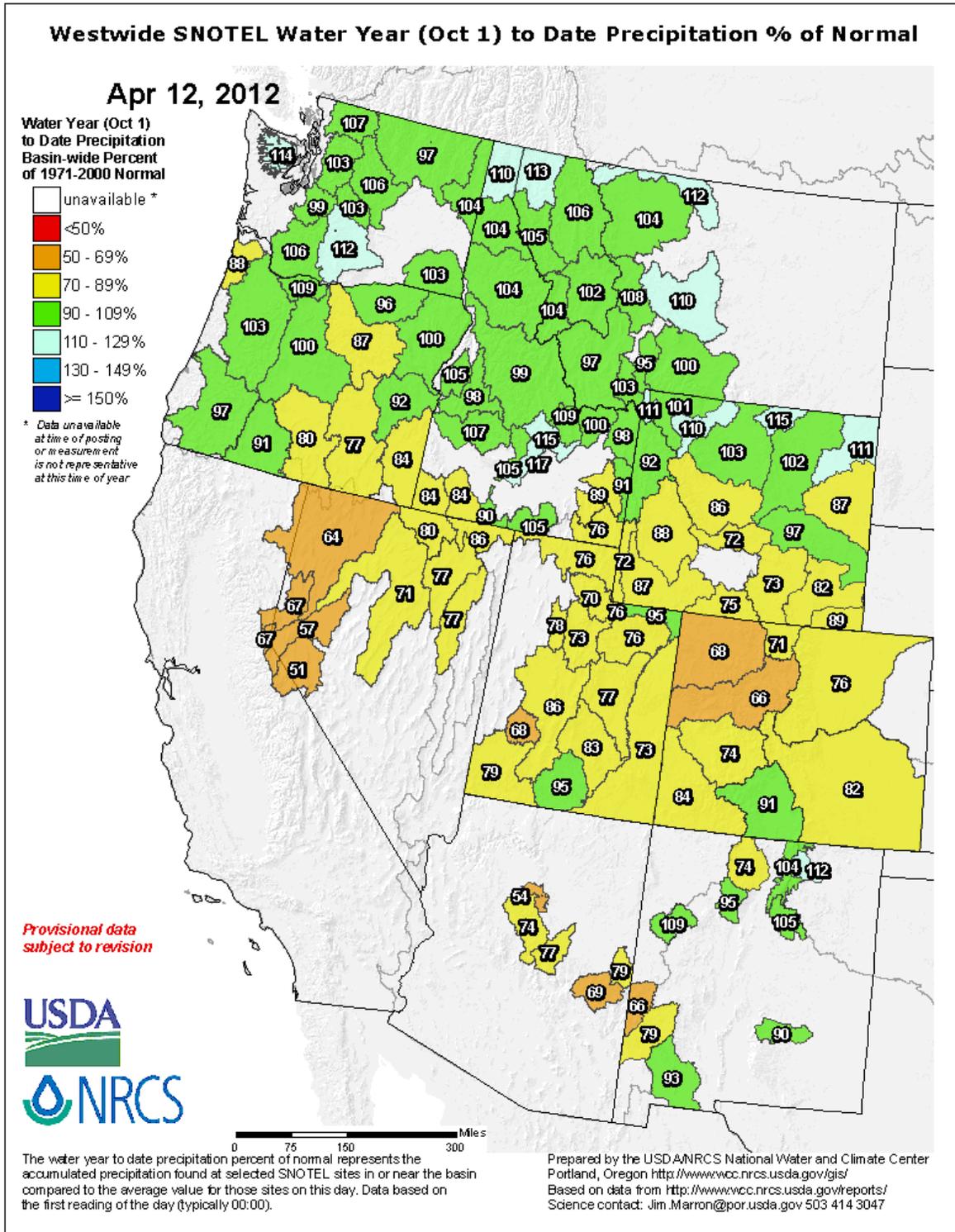
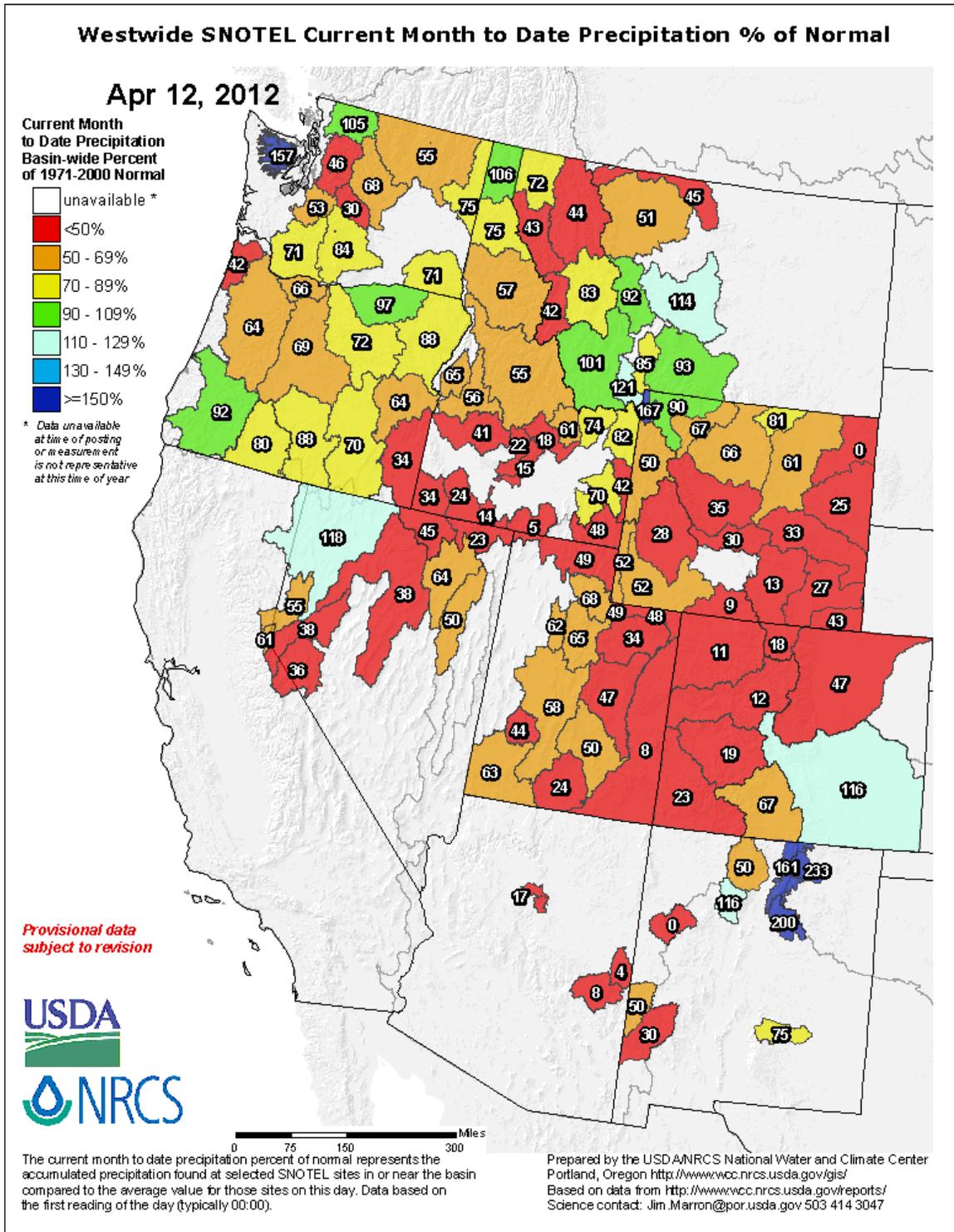


Fig 3b: Since the start of the [2012 Water-Year](#) that began on 1 October 2011, the seasonal moisture has favored northern Wyoming, parts of Montana, and the southern Washington Cascades. Drier the normal conditions reign over most of the southern half of the West.

## Weekly Snowpack and Drought Monitor Update Report



**Fig 3c:** Since the start of **April**, the influence of La Niña is waning over the Pacific Northwest. However, an early spring snow storm hit northwestern Nevada and the Sierra in California (not shown) this week. The high values over southeast Colorado and northeast New Mexico have diminished significantly since the first week in April.

# U.S. Drought Monitor

April 10, 2012  
Valid 7 a.m. EDT

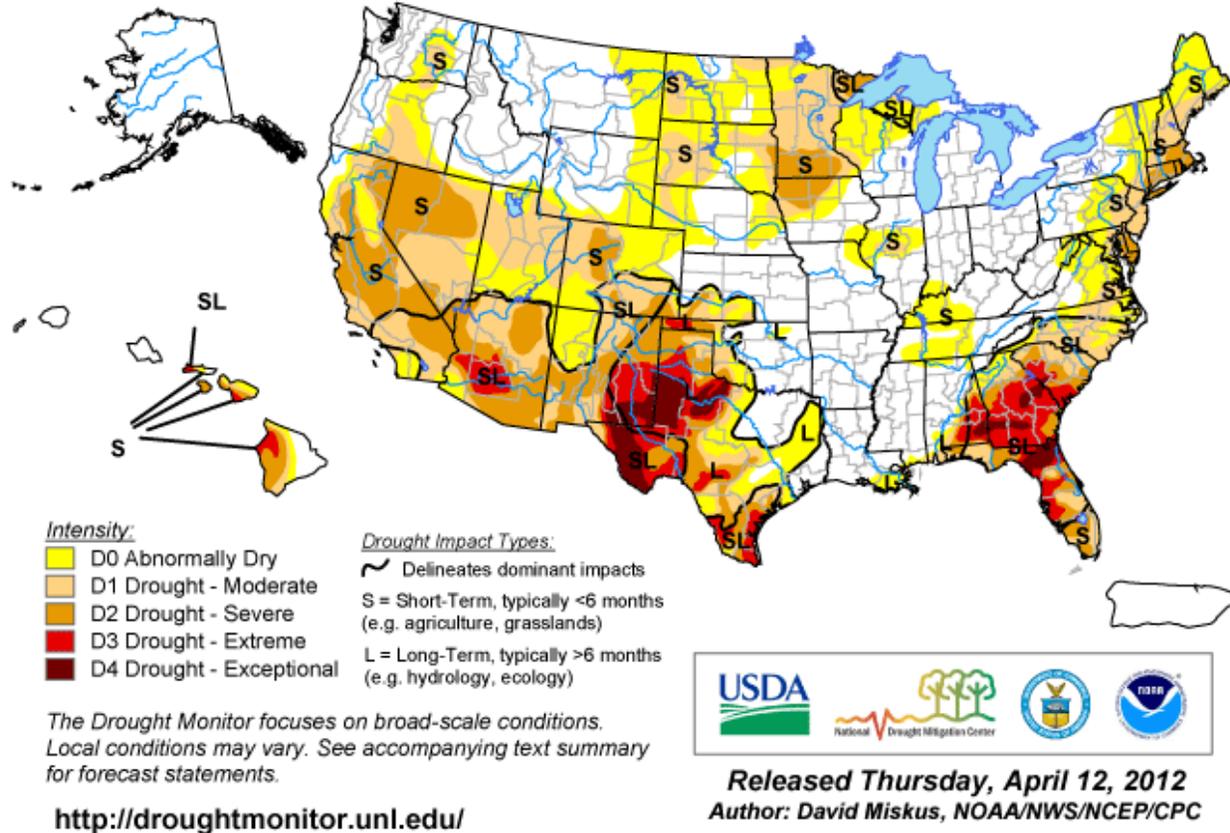


Fig. 4: Current [Drought Monitor](#) weekly summary. The exceptional D4 levels of drought are found over southeastern New Mexico, much of western Texas, the Panhandle of Oklahoma, and to a lesser extent over Georgia and southeast Alabama. For more drought news, see [Drought Impact Reporter](#). Click for the latest issue of [DroughtScope](#).

## Agriculture

March 26, [Texas](#). A sentiment expressed in this article continues to be echoed in many other articles about the drought in Texas. Many ranchers sold their cattle last year and are not quickly rebuilding their herds. As the average age of ranchers rises, who will carry on ranching in Texas?

## Water Supply & Quality

April 5, [Central Gulf Coast of Florida](#). Drought has taken its toll on Bronson Blue Springs, which was no longer flowing, according to an engineer with the Suwannee River Water Management District. The depth of the swimming hole fell by 10 inches in the past week.

April 6, [Southern New Mexico, West Texas](#). Irrigation districts in southern New Mexico, El Paso County in Texas and Mexico will receive just 20 percent of their usual allotment, due to the reduced flow of the Rio Grande River.

April 5, [Texas](#). Texas officials were seeking help from President Obama in fighting the decision by the International Boundary and Water Commission to allow Mexico to have Rio Grande River water.

April 5, [California](#). The Sierra Nevada snowpack was 55 percent of average for April 1 when the most recent survey was made.

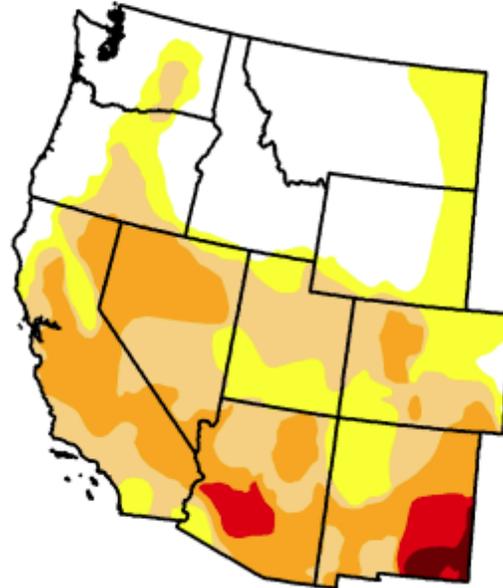
# U.S. Drought Monitor

## West

April 10, 2012  
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	31.33	68.67	48.44	24.87	3.77	0.93
Last Week (04/03/2012 map)	31.44	68.56	48.66	24.84	3.78	0.93
3 Months Ago (01/10/2012 map)	41.89	58.11	29.50	12.26	2.67	0.77
Start of Calendar Year (12/27/2011 map)	48.49	51.51	20.05	12.22	2.67	0.78
Start of Water Year (09/27/2011 map)	66.72	33.28	19.04	14.99	9.30	3.81
One Year Ago (04/05/2011 map)	76.09	23.91	19.18	13.39	4.16	0.00



*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, April 12, 2012  
David Miskus, NOAA/NWS/NCEP/CPC

<http://droughtmonitor.unl.edu>

Fig. 4a: Drought Monitor for the [Western States](#) with statistics over various time periods. Note no changes this week. Click for the latest issue of the [La Niña Tracker](#).

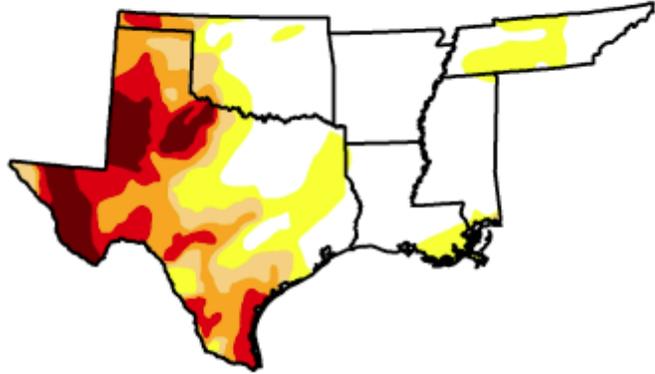
# U.S. Drought Monitor

## South

April 10, 2012  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	48.52	51.48	35.14	27.33	16.18	6.78
Last Week (04/03/2012 map)	48.69	51.31	35.56	28.26	18.08	7.10
3 Months Ago (01/10/2012 map)	27.24	72.76	66.99	53.30	37.37	13.27
Start of Calendar Year (12/27/2011 map)	26.47	73.53	69.01	54.81	39.11	17.15
Start of Water Year (09/27/2011 map)	18.34	81.66	76.26	70.61	63.67	53.77
One Year Ago (04/05/2011 map)	10.66	89.34	80.83	63.51	38.29	2.43



**Intensity:**

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

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<http://droughtmonitor.unl.edu>

Fig. 4b: Drought Monitor for the [South-Central States](#) with statistics over various time periods. Note only minor changes this week but some improvements in D3 and D4.

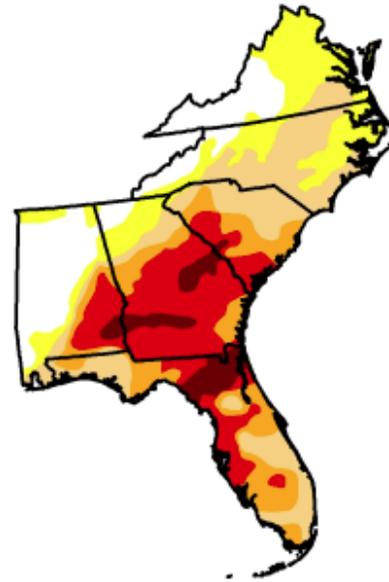
# U.S. Drought Monitor

## Southeast

April 10, 2012  
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	17.84	82.16	63.41	39.97	25.35	5.29
Last Week (04/03/2012 map)	22.46	77.54	58.79	36.74	20.92	3.32
3 Months Ago (01/10/2012 map)	29.06	70.94	49.45	29.88	19.21	0.00
Start of Calendar Year (12/27/2011 map)	40.38	59.62	43.05	28.62	18.71	0.00
Start of Water Year (09/27/2011 map)	42.24	57.76	41.82	31.77	23.48	0.00
One Year Ago (04/05/2011 map)	28.48	71.52	49.77	14.63	4.44	0.00



**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.

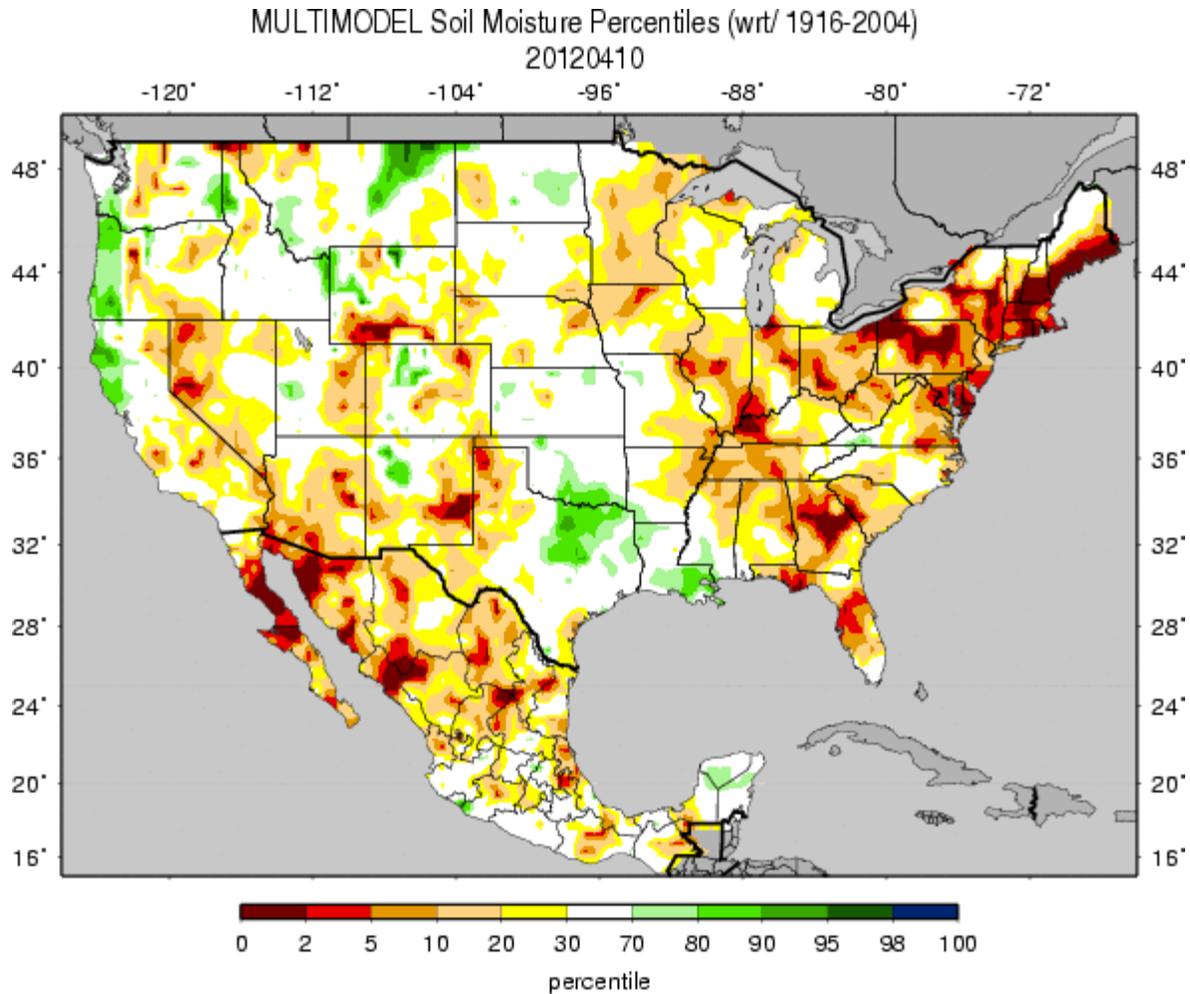
<http://droughtmonitor.unl.edu>



Released Thursday, April 12, 2012  
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Fig. 4c: Drought Monitor for the [Southeastern States](#) with statistics over various time periods. Note some deterioration in all categories this week despite the waning of the La Niña.

## Weekly Snowpack and Drought Monitor Update Report



**Figs. 5: Soil Moisture ranking in [percentile](#) as of 10 April shows conditions severe over an enlarging area of the Northeastern US. Also note the very dry conditions over parts of the Southeast. Note: Soil moisture this time of year is often unreliable due to frozen ground over the Northern Tier States. For example, conditions over the Washington Cascades and Panhandle of Idaho no doubt will reflect more moisture in the weeks due to abundant snow cover and subsequent runoff.**

# Weekly Snowpack and Drought Monitor Update Report

## Soil Climate Analysis Network (SCAN)

Station (2028) MONTH=2012-03-13 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision  
Thu Apr 12 08:09:18 PDT 2012

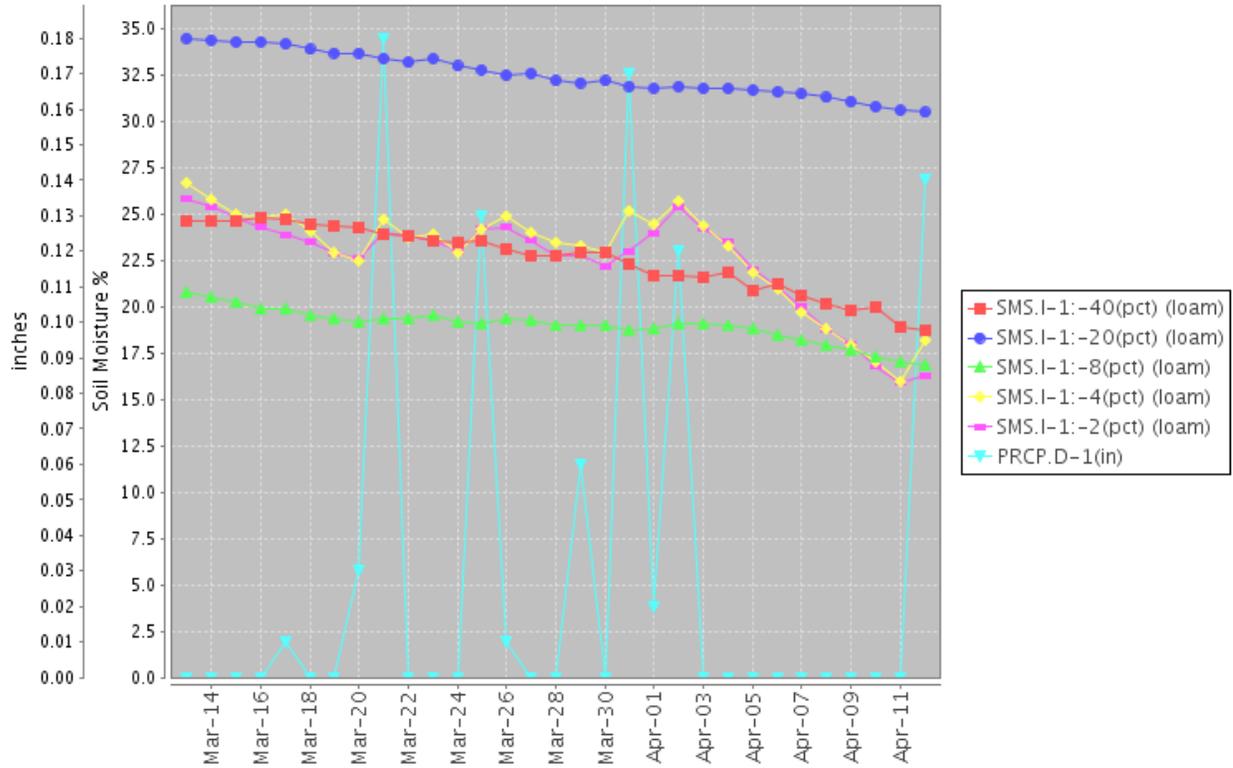
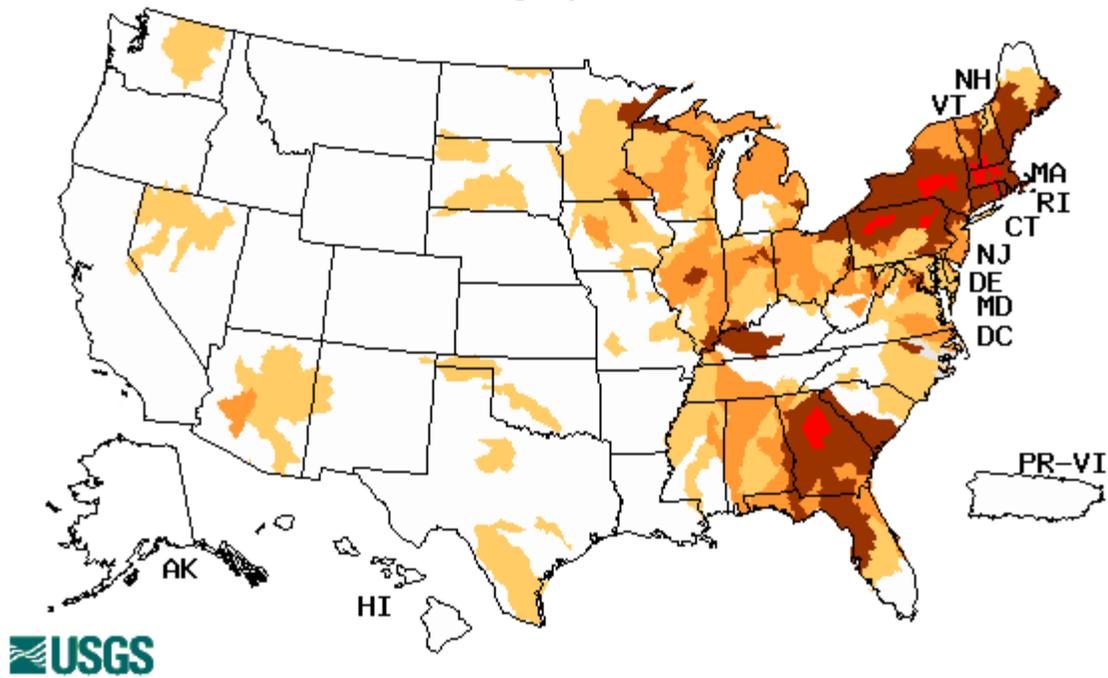


Fig. 6: This NRCS resource shows a site over [eastern Pennsylvania](#) with soil moisture not responding to recent precipitation.

# Weekly Snowpack and Drought Monitor Update Report

Wednesday, April 11, 2012



Explanation - Percentile classes				
Low	≤5	6-9	10-24	Insufficient data for a hydrologic region
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

Fig. 7: Map of below normal 7-day average [streamflow](#) compared to historical streamflow for the day of year. Conditions over parts of the Northeast and Southeast are experiencing **extreme** conditions this week.

## Weekly Snowpack and Drought Monitor Update Report

### National Drought Summary -- April 10, 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/>.*

**Weather Summary:** A series of cold fronts traversed across the lower 48 States, keeping temperatures below-normal in the West, and dropping readings to more seasonable levels in the Northeast and south-central Plains. The rest of the contiguous U.S. recorded above-normal temperatures, but not at the March record levels. The greatest departures (+6 to +10 deg F) were found in the northern Plains and the middle Mississippi and Tennessee Valleys. The fronts triggered scattered showers and thunderstorms, mainly in the Pacific Northwest, southern and central Plains, lower Missouri and Mississippi Valleys, and in the southern Appalachians and Carolinas. It was mostly dry in the Southwest, northern Plains and upper Midwest, Northeast, and Florida.

**The Northeast and Mid-Atlantic:** Although temperatures remained at more seasonable levels after record-breaking warmth during mid-March, precipitation continued to bypass the region and was accompanied by gusty winds and low humidity. A few locations in extreme northern Vermont, New Hampshire, and western Maine received 0.5 to 1.5 inches of precipitation yesterday, but nearly all other sites recorded little or no weekly precipitation. During the past 60-days, 25 to 50 percent of normal precipitation has fallen from northern Virginia northward into coastal Maine, with deficits between 4 and 8 inches. Similar percentages and deficiencies also existed at 90-days in the same areas. Since the start of the year, deficits have included: 7.63 inches at Islip, NY; 7.39 inches at Providence, RI; 7.18 inches at Boston, MA; 5.71 inches at Salisbury, MD; and 4.90 inches at Hartford, CT. The early green-up of trees and vegetation was slowed by the colder air, but yet many plants have begun to grow, taking moisture out of the soils. According to the USGS, stream flow levels were at near- or record lows for April 10 at 1-, 7-, 14-, and 28-day averages in much of New England and the mid-Atlantic. Additionally, there have been several outbreaks of brushfires and some large wild fires, even as far north as upstate New York. Most reservoirs, however, were near or at capacity due to the early-season snow melt and thaw, and to wetter conditions in the past (9-12 months ago). Accordingly, a 1-category degradation was made, mainly along the coast, with D2(S) introduced to most of Long Island, Connecticut, Rhode Island, and Massachusetts, and farther south to the Delmarva Peninsula. D1(S) now stretched from northeastern Maryland northward into eastern Maine, and in southeastern Virginia. D0(S) slightly expanded westward in the Northeast, but the driest short-term conditions were mainly located along coastal areas.

**Southeast:** Early week rains (2 to 4 inches) fell on the southern Appalachians, with lesser amounts (1 to 2 inches) recorded in eastern sections of the Carolinas and Georgia. The rains were enough to eliminate D0 in extreme western North Carolina, but not enough for improvement in the rest of the Carolinas. Conditions, however, deteriorated somewhat in portions of the Carolinas and Georgia where rainfall was light (less than 0.5 inches), and that included north-central North Carolina into southeastern Virginia (D1 added); D2 and D3 slightly

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increased in southern South Carolina; and D3 and D4 expanded in central and southern Georgia. In the latter two states, the drought encompassed both short- and long-term shortages, with 12-month deficits exceeding 25 inches in parts of Georgia and adjacent Florida. At Augusta, GA, the driest rolling 365-day period ending on April 4 beat the former record by 5 inches, while this 365-day period was the 4th driest such period ever (since 1872). Meanwhile, short-term dryness expanded into northwestern Georgia, northern Alabama, and western Tennessee and Kentucky as 60-day deficiencies reached 4 to 8 inches. Some D0 relief occurred across central Tennessee where 2 inches of rain fell. In Florida, the continued lack of rain produced additional deterioration across the state. The first 100 days at Jacksonville, FL, have been the driest since 1921, and only 30 percent of normal. Much of the downgrading was based upon precipitation departures and rankings during the last 180-days where many stations reported the driest such 6-month period on record, especially in north-central Florida. Southern sections of Florida have fared somewhat better, but the lack of decent short-term rains has also caused some deterioration. Lake Okeechobee was below 12 feet this morning (11.97 feet, or 2.1 feet below normal), and now falling at 0.2 to 0.3 feet per week. Numerous wild fires have occurred throughout the state as the fire index is now over 700 in south-central Florida. Farther west, another 2 to 4 inches of rain deluged southeastern Louisiana and southern Mississippi, further eroding away the D0(L). Although short-term conditions are quite wet, long-term deficits still remained (more than 16 inches at 12-months), thus maintaining the D0(L) area.

**Midwest:** Little or no precipitation fell over the drought areas of the upper Midwest and adjacent northern Plains. Although temperature anomalies decreased from previous weeks, readings still averaged 6 to 12 deg F above normal. 1 to 2 inches of rain did fall on northwestern and southeastern Missouri and southwestern Illinois, but missed the newly expanded D0 and D1 areas. With the recent unseasonable warmth and subnormal precipitation, topsoil moisture has rapidly decreased, even without any crops consuming water yet. According to the USDA, percent topsoil and subsoil moisture rated very short or short was: Illinois (46/47), Minnesota (60/68), and Iowa (78/85). Canton Lake in Fulton County, IL, was 5 feet below full pool. Based upon short-term and 6-month departures, D2 was slightly increased in northwestern Iowa and southeastern Minnesota, D1 in west-central Wisconsin, and D0 across central Wisconsin and the UP of Michigan. In contrast, the D1 in northwestern Minnesota was scaled back after AHPS 6-month precipitation indicated surpluses

**The Plains:** A scattering of moderate (0.5 to 1.5 inches) to heavy (1.5 to 4 inches) rains fell on parts of Texas, Oklahoma, Kansas, eastern Colorado, and southern Nebraska, but from central Nebraska into the Dakotas, little or no rain was measured. Since October 2011, a persistent pattern of above-normal precipitation has brought slow but welcome relief to parts of the southern and central Plains. This week was no different as 1 to 3 inches of rain fell on northeastern Texas, enough to remove the small D1 area there and cut back on some D0. In southwestern Texas (Stockton and Edwards Plateaus), 1 to locally 4 inches of rain diminished D3 to D2. And a reassessment of SPI products and agricultural reports indicated improved conditions in the Coastal Bend area where a 1-category improvement was made. In northeastern Oklahoma, the D0(L) area was realigned to better represent hydrologic conditions. This included Lake Skiatook in eastern Osage County which continued to struggle as the lake level declined even with an inch of rain in its watershed. In northern Kansas, southern Nebraska, and eastern Colorado, 1 to 2 inches of rain eliminated the short-term dryness (D0), while a reassessment of conditions was made in southwestern Kansas. Based upon several precipitation and soil moisture products out to 6-months, no large-scale deficiencies were found, and instead surpluses existed. But at 12-months and beyond, the deficits were there. Accordingly, the D0-D3 was adjusted for improvement at 6-months and less (1-category), but not entirely removed due to the longer-term drought signal. Most of the shortages had

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accumulated during the hot and dry summer months of 2011 when normals are much larger than the fall and winter months. In the northern Plains, however, another dry and mild week further depleted soil moisture as accumulated short-term deficiencies slowly increased. Based upon the 60-, 90-, and 120-day anomalies, D0 expanded in central South Dakota while D1 spread into north-central and southwestern South Dakota and western Nebraska.

**The West:** Light to moderate precipitation (0.5 to 2 inches) was confined from northern California and the northern Sierra Nevada northward into the Pacific Northwest and northern Rockies. Little or no precipitation fell on central and southern California, the Great Basin, and the Southwest. Temperatures averaged below normal in western areas, slightly above normal in far eastern sections. As the wet season normally diminishes as spring progresses, most areas were left at status-quo. Some changes, however, were made in northwestern California and the southern San Joaquin Valley, southern Utah, southeastern Arizona, northern New Mexico, and south-central Colorado. In northwestern California, another 1 to 1.5 inches of rain effectively erased any lingering deficits since October 1, and D0 was eased slightly eastward. In the southern San Joaquin Valley near Bakersfield, D2 was expanded into the area as Water year-to-date precipitation stood at 60 percent, similar to Fresno in the northern San Joaquin Valley. In southern Utah and southeastern Arizona, another dry week added additional shortages to these two areas, effectively expanding the D0 and D2 areas, respectively. In northern New Mexico, an early week storm brought 0.5 to 1.5 inches of precipitation, improving conditions from D2 to D1 in Santa Fe, northwestern San Miguel, and western Mora Counties, and from D1 to D0 in central and western Sandoval County. In eastern Colorado, decent rains (0.5 to 1 inch) alleviated the D0(S), while 0.5 inches further diminished the D2 and D3 in extreme southeastern Colorado (Baca County). In contrast, drier weather somewhat increased drought (D1 and D2) in south-central sections of the state.

**Hawaii, Alaska and Puerto Rico:** In Hawaii, some windward locations on Maui and the Big Island received 2 to 4 inches of rain, but much less fell on leeward sides. Fortunately, most of the islands (except the Big Island) received surplus March rainfall, easing any further deterioration there. On the Big Island, however, many northern and leeward locations have reported less than 25 percent of normal rainfall since January 1. Kona coffee growers indicated that leaves are starting to shrivel on their trees and berries are starting to fall. The main hope for the Kona coffee belt is that it is the only area in the state with a summer rainfall maximum. As a result, the D3 was slightly expanded in northwestern Kona, and D0 was pushed a tad eastward. The unusual shape of the D3 (instead of a broad brush D3 across the west) was due to slightly better upper elevation pasture conditions according to FSA. On Maui, D2 was expanded eastward from Haleakala to Kaupo, with ranchers noting deteriorating conditions there. Maui received some early March rainfall which started the grasses growing, but a lack of rain thereafter has turned the grasses brown. Similar conditions were noted at Kula, except that early March temperatures were too cool for the grasses to grow much (ineffective rainfall).

There were no drought conditions noted in Puerto Rico and Alaska.

**Looking Ahead:** Over the next five days (April 11-15), unsettled weather will move along the West Coast, track into the northern and central Rockies, and eventually into the Nation's midsection. The northern coast of California and the Sierra Nevada may receive decent precipitation, while a swath of moderate to heavy precipitation is expected to fall from northeastern Texas northward into Iowa. Temperatures are forecasted to be subnormal in the southwestern quarter of the U.S. and above-normal in the northern Plains, and from the Great Lakes region and New England southwestward into the lower Mississippi Valley.

## Weekly Snowpack and Drought Monitor Update Report

The CPC 6-10 day forecast (April 16-20) has favorable odds of above-normal precipitation in the Pacific Northwest and in the eastern third of the Nation (except for New England). Chances for subnormal precipitation are likely from the Southwest northeastward into the upper Midwest. Wet conditions are likely for southeastern Alaska, with subnormal precipitation expected in western parts of the State. Temperatures are forecasted to be above-normal in the West, Southeast, and interior Alaska, and below-normal in the southern third and northern Great Plains and upper Midwest.

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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 April 11, 2012*