

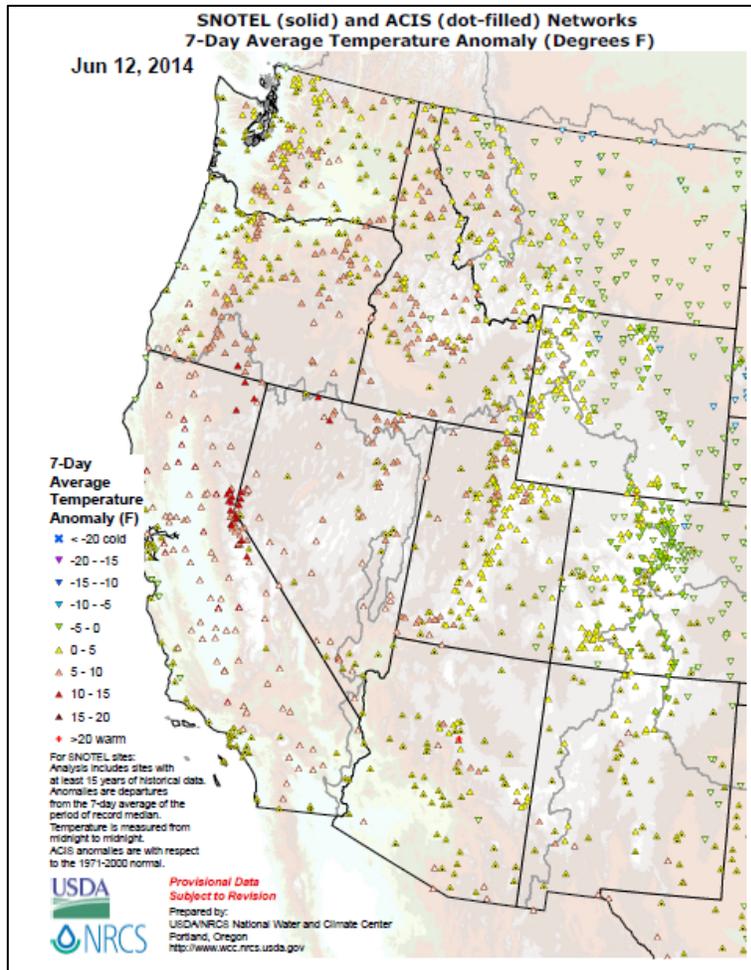


Natural Resources Conservation Service
 P.O. Box 2890
 Washington, D.C. 20013

Weekly Snowpack / Drought Monitor Update June 12, 2014

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Temperature



[SNOTEL](#) and [ACIS 7-day temperature anomaly](#) shows temperatures above normal west of the Rockies, especially near Lake Tahoe. Cool to near normal temperatures prevailed from the Rockies east over Montana, Wyoming, and Colorado.

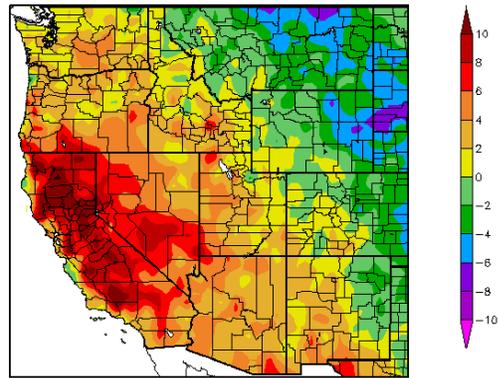
Click on most maps in this report to enlarge and see latest available update.

Weekly Snowpack and Drought Monitor Update Report

[ACIS](#) 7-day average temperature anomalies, ending June 11, show the greatest negative temperature departures scattered over the Great Plains ($<-6^{\circ}\text{F}$). The greatest positive temperature departures occurred in California ($>+10^{\circ}\text{F}$).

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

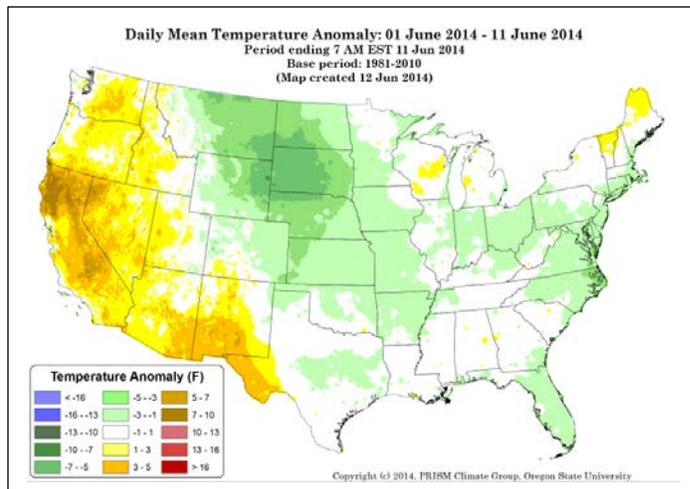
Departure from Normal Temperature (F)
6/5/2014 - 6/11/2014



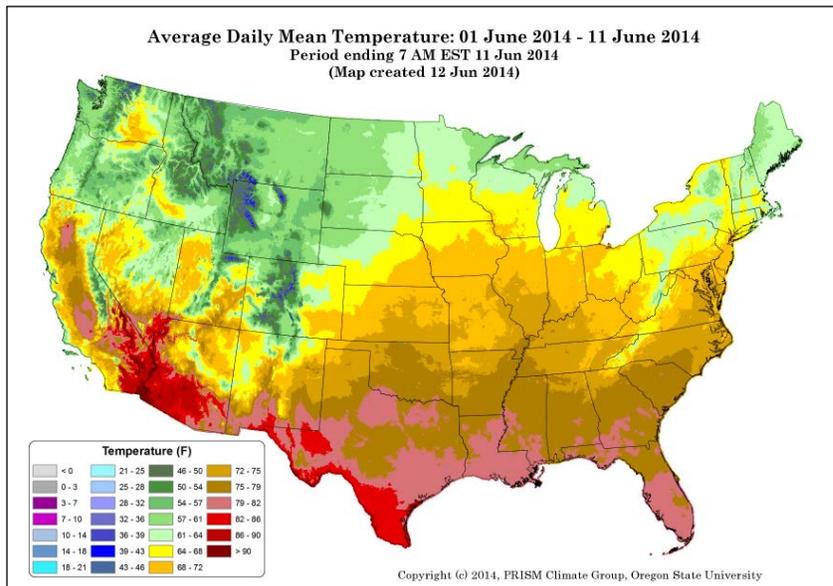
Generated 6/12/2014 at HPRCC using provisional data.

Regional Climate Centers

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



← During June 2014, the temperature anomaly [map](#) shows a cold pattern over the northern Great Plains, centered over western South Dakota ($<-7^{\circ}\text{F}$). Above normal temperatures dominated northwestern California ($>+10^{\circ}\text{F}$) and the southern parts of New Mexico, Arizona, and southwest Texas ($>+5^{\circ}\text{F}$).

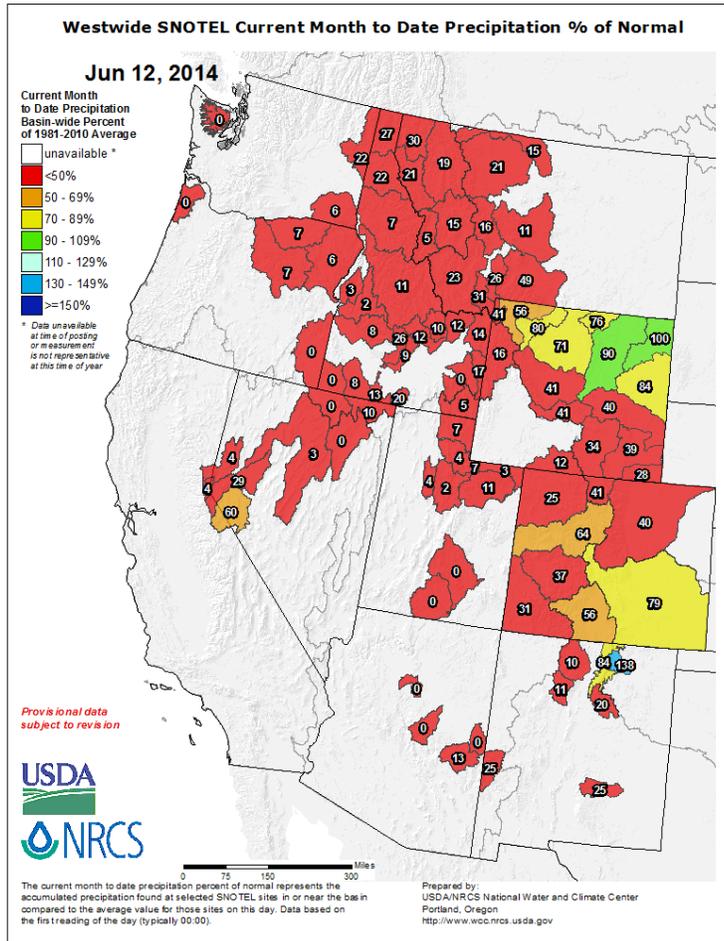


Monitoring this type of [climate map](#) is a useful way to gauge when snowmelt is occurring. June marks the end of most snowmelt across the West, as temperatures have remained above freezing for many weeks in most locations.

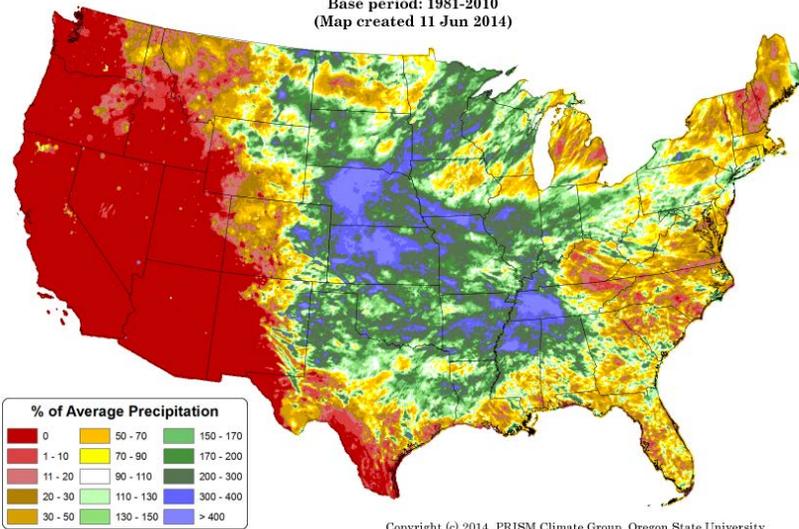
Weekly Snowpack and Drought Monitor Update Report

Precipitation

The June 1 through 12 SNOTEL precipitation percent of normal map shows predominately deficit conditions over much of the West for the first few days of the month. The only areas with near normal conditions are in northern and northeastern Wyoming.



Total Precipitation Anomaly: 01 June 2014 - 10 June 2014
 Period ending 7 AM EST 10 Jun 2014
 Base period: 1981-2010
 (Map created 11 Jun 2014)



← During the first 10 days in June 2014, the precipitation anomaly pattern reveals surplus moisture scattered across the central part of the nation. Most of the West, and southern Texas have seen little or no precipitation. Parts of New England, Michigan, the central and southern Atlantic coast, and west to central Tennessee have also recorded drier than normal conditions.

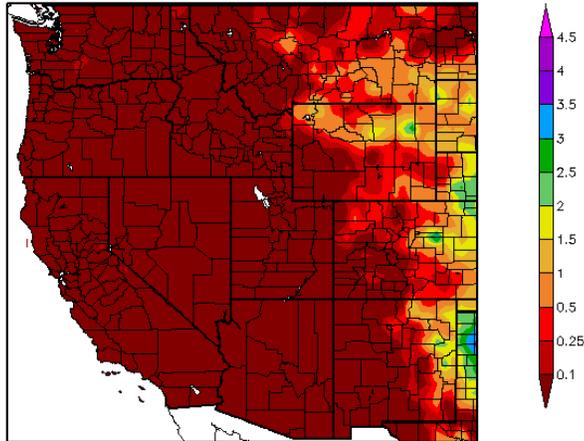
This preliminary daily PRISM precipitation anomaly map contains all available network data, including SNOTEL data, and is updated periodically as additional data become available and are quality controlled.

Weekly Snowpack and Drought Monitor Update Report

The [ACIS 7-day](#) total precipitation map shows mainly dry conditions. Scattered thunderstorms are beginning to pop up in areas along the eastern edge of the western states.

Little, if any, precipitation occurred over vast areas of the West.

Precipitation (in)
6/5/2014 - 6/11/2014



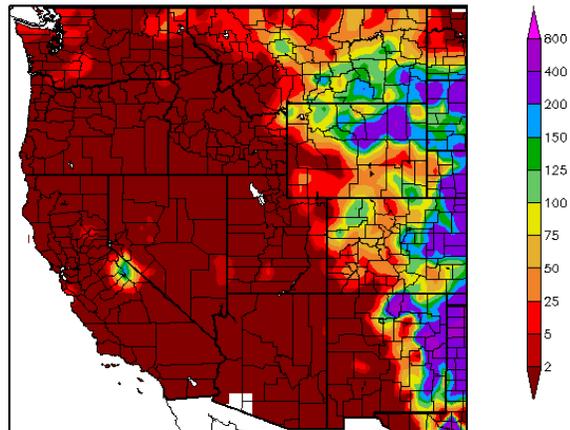
Generated 6/12/2014 at HPRCC using provisional data.

Regional Climate Centers

As would be expected based on the map above, this [map](#) reflects the heaviest scattered precipitation falling across the central and southern Great Plains.

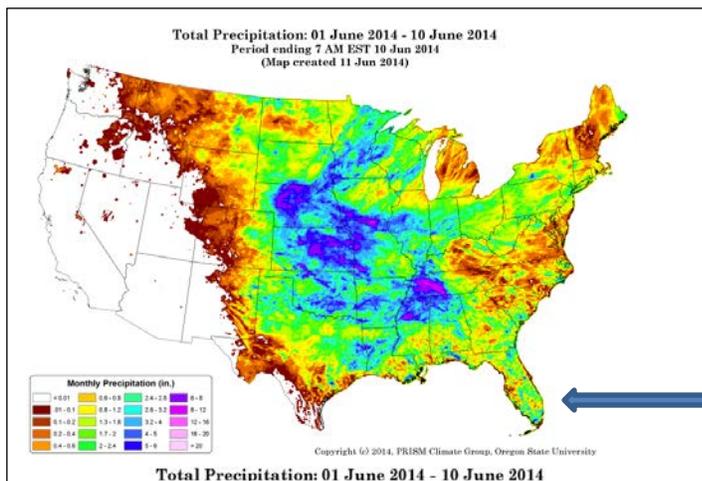
Percent of normal precipitation may be exaggerated in areas where the average for this period is near zero. →

Percent of Normal Precipitation (%)
6/5/2014 - 6/11/2014



Generated 6/12/2014 at HPRCC using provisional data.

Regional Climate Centers



So far in June 2014 the [total precipitation](#) map indicates no precipitation has fallen over most of the West. The Midwest, including Nebraska, Kansas, parts of Missouri, western Tennessee, and northern Mississippi have had the highest totals.

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

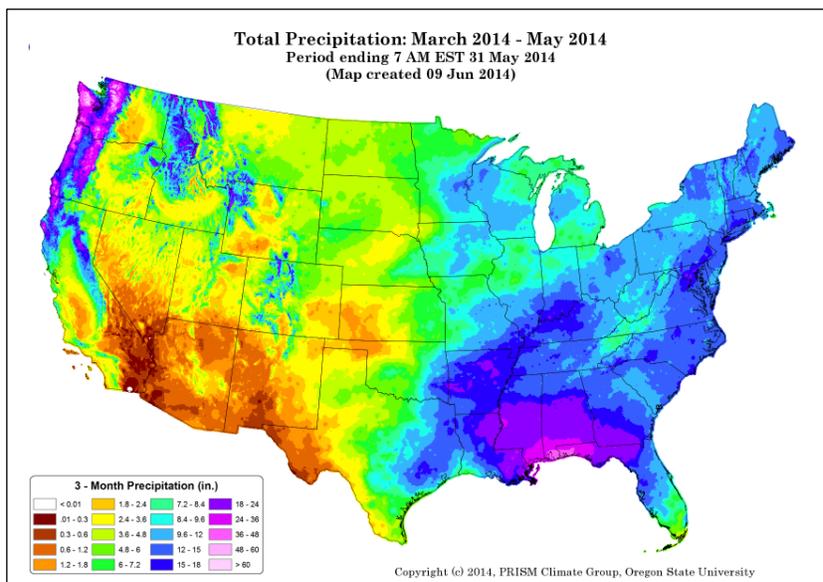
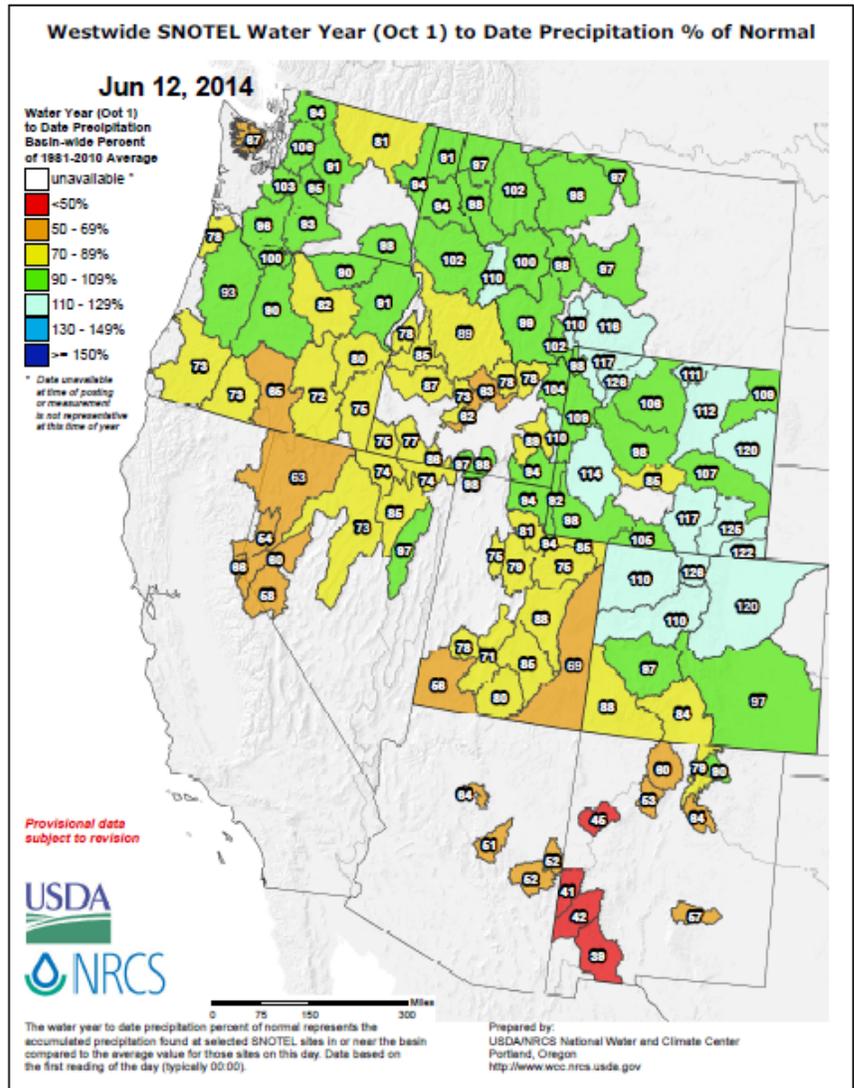
Weekly Snowpack and Drought Monitor Update Report

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

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

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

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



The three-month period (March - May) shows that the eastern half of the nation received precipitation in the range from 5 to greater than 24 inches.

On the other hand, parts of the West received totals less than 3 inches. The exceptions in the West are over the northern Rockies and Cascades, where totals exceeded 24 inches.

Weekly Snowpack and Drought Monitor Update Report

Weather and Drought Summary

National Drought Summary – June 11, 2014

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

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

“For the contiguous 48 states, the U.S. Drought Monitor showed 36.15 percent of the area in moderate drought or worse, compared with 37.32 percent a week earlier.

For all 50 U.S. states and Puerto Rico, the U.S. Drought Monitor showed 30.20 percent of the area in moderate drought or worse, compared with 31.18 percent a week earlier.”

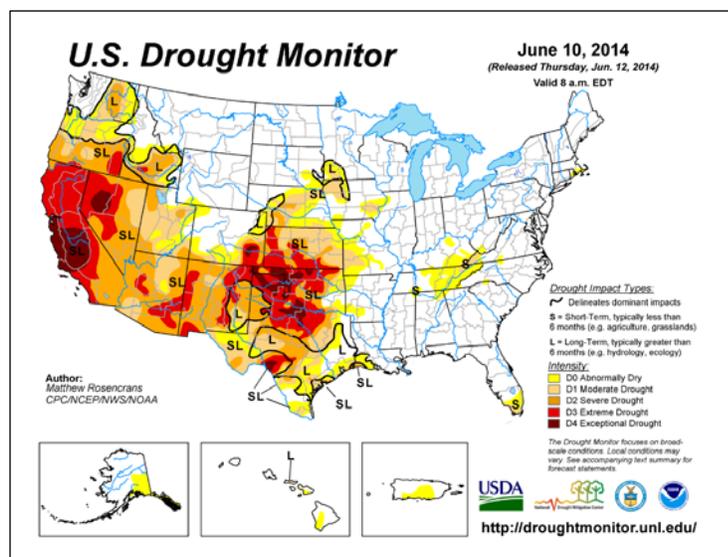
[Current Drought Monitor](#) weekly summary. The exceptional D4 levels of drought are scattered across CA, NV, CO, TX, OK, and NM.

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

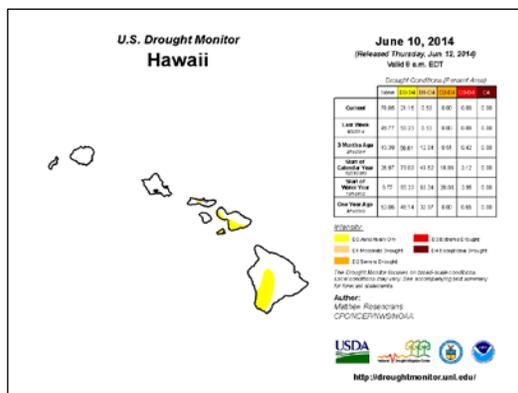
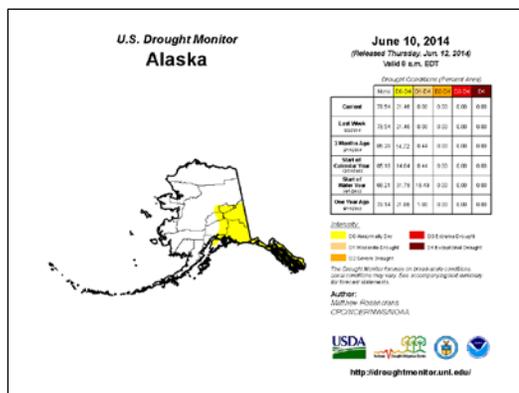
For more drought news, see [Drought Impact Reporter](#). **New:** [ENSO Blog](#).

Drought Management Resources (✓):

- ✓ [Watch AgDay TV](#)
- ✓ [Drought Impacts Webinar Series](#)
- ✓ [Quarterly Climate Summary and Outlooks for the Great Lakes, Midwest and Missouri Basin States](#)
- ✓ [The Spring 2014 edition of DroughtScope](#)
- ✓ [U.S. drought conditions stable in April; improvements unlikely in western states and much of plains](#)



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



“The [49th](#) and [50th](#) States show relatively benign drought conditions. No changes noted for Alaska and Hawaii this week.

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

Weekly Snowpack and Drought Monitor Update Report

Risk Management Web Resources

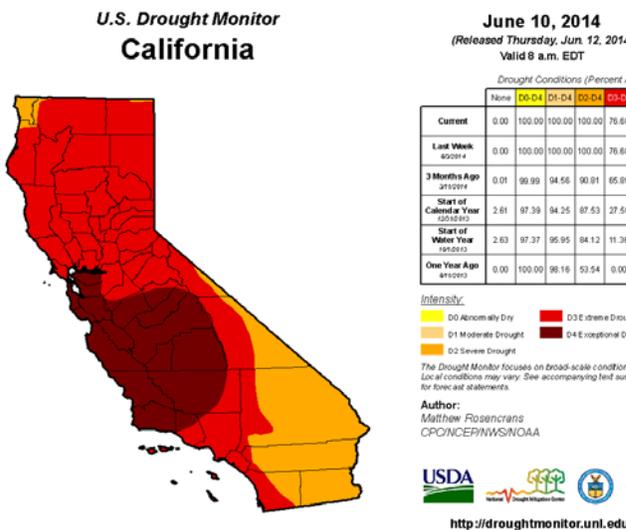
Drought Monitor for the [Western States](#)
 Drought Impact Reporter for [New Mexico](#)
[California Data Exchange Center](#) & [Flood Management Intermountain West Climate Dashboard](#)
[Great Basin Dashboard](#)
[California Sierra Nevada-related snow pack](#)

U.S. [Impacts](#) during the past week:

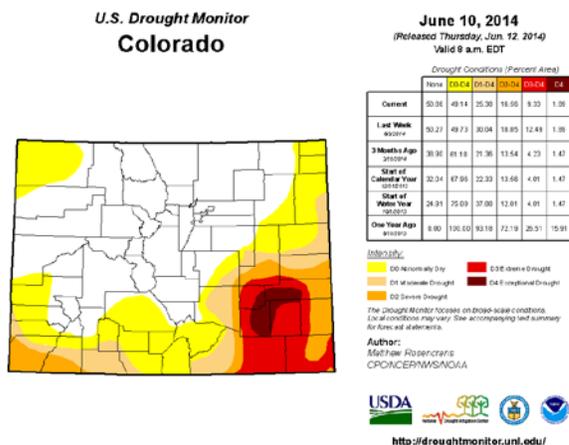
[Gov. John Kitzhaber declares drought emergency in three more Oregon counties – June 2](#)
[Stakeholders tout Klamath basin deal – June 4](#)

[Click to enlarge maps](#)

State with D-4 Exceptional Drought

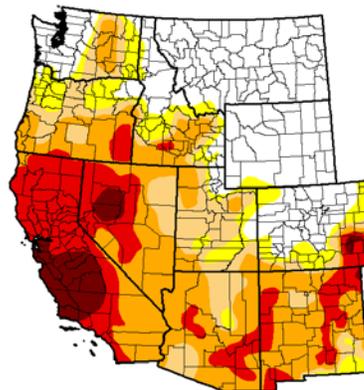


State with D-4 Exceptional Drought



No changes have occurred this past week.

U.S. Drought Monitor West



June 10, 2014
 (Released Thursday, Jun. 12, 2014)
 Valid 8 a.m. EDT

	Drought Conditions (Percent Area)				
	None	D0-D1	D1-D2	D2-D3	D3-D4
Current	30.93	69.07	60.11	47.10	20.35
Last Week 5/26/14	31.84	68.16	60.32	47.21	20.20
3 Months Ago 3/10/14	27.09	72.91	58.65	40.20	15.27
Start of Calendar Year 1/1/14	22.20	77.80	51.44	31.11	7.75
Start of Water Year 10/1/13	25.25	74.75	58.96	34.18	5.57
One Year Ago 6/10/13	15.01	84.99	75.25	47.03	14.65

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

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.
 Author: Matthew Rosenkrans CPC/NCEP/NOAA
<http://droughtmonitor.unl.edu>

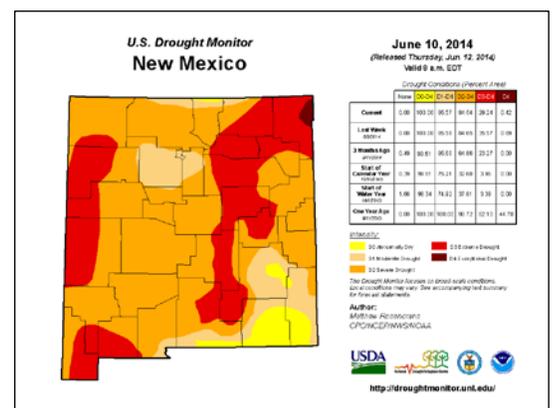
No significant changes occurred this past week.

CA Drought Information Resources

Drought News from California

- [Drought driving organic dairy exodus – May 31](#)
- [El Niño likely to be too weak to have big impact on drought – June 5](#)
- [Californians say drought is problem but don't want taxes to fund projects – June 6](#)
- [Drought brings California gold prospectors back to life – May 31](#)
- [Clever water trade saves citrus trees in Terra Bella area – June 5](#)
- [Drought prompts Roseville water surcharge – June 3](#)
- [Study finds medical pot farms draining streams dry – June 1](#)

State with D-4 Exceptional Drought



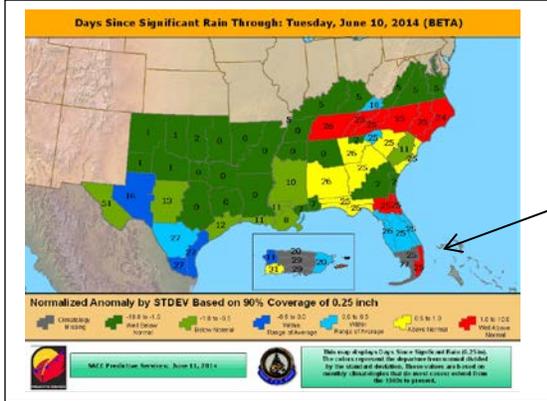
There was a significant reduction in D3-D4 of 6.33% this past week.

Weekly Snowpack and Drought Monitor Update Report

State with D-4 Exceptional Drought

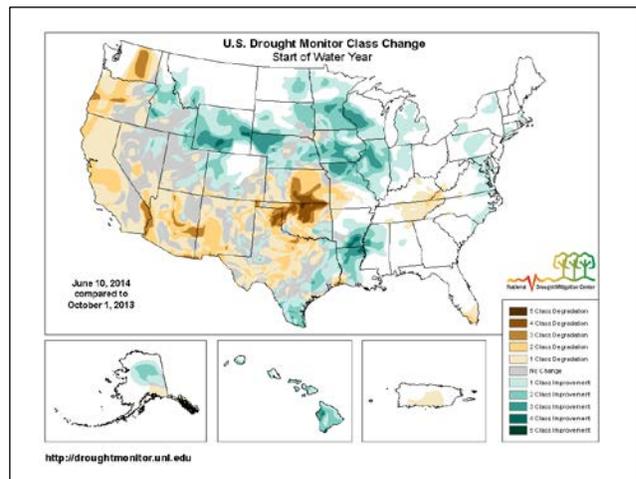
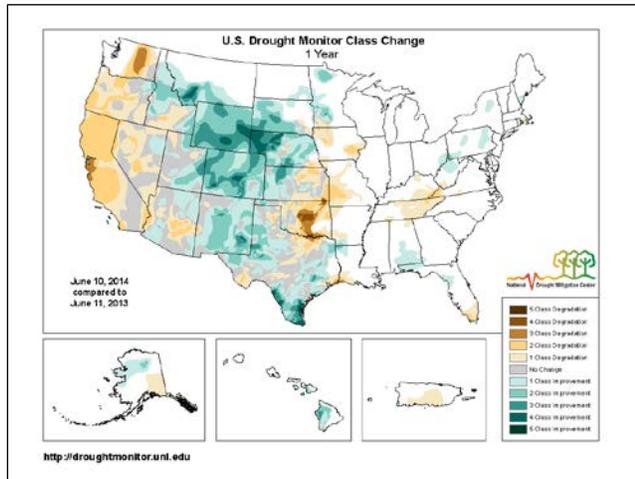
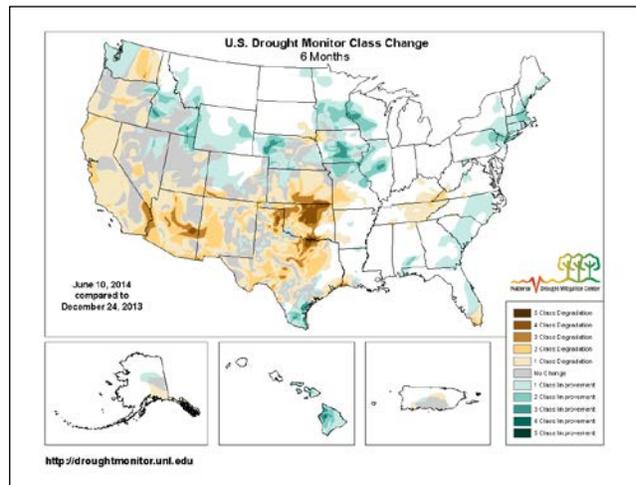
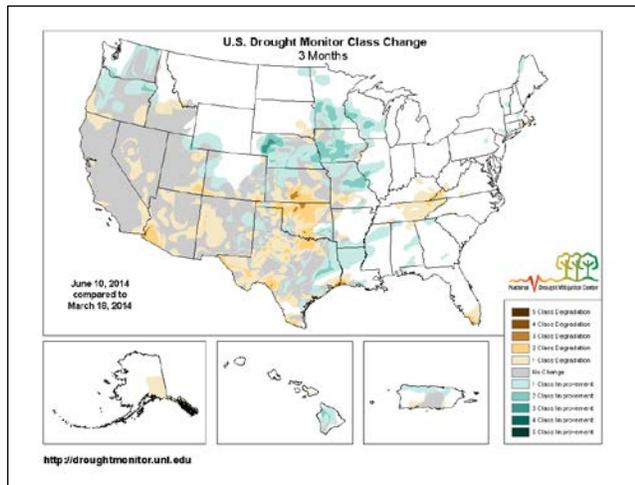
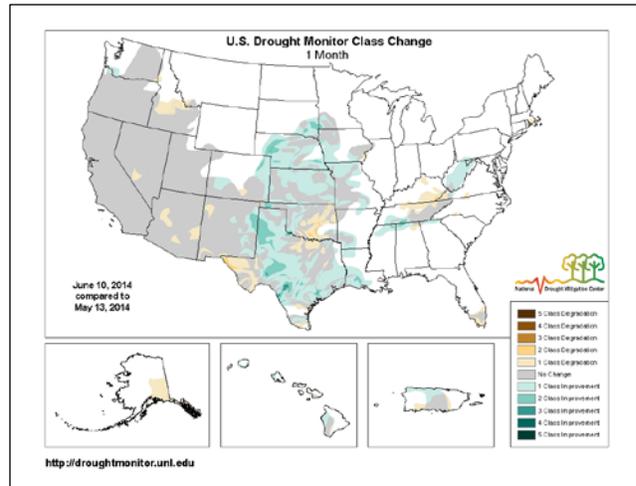
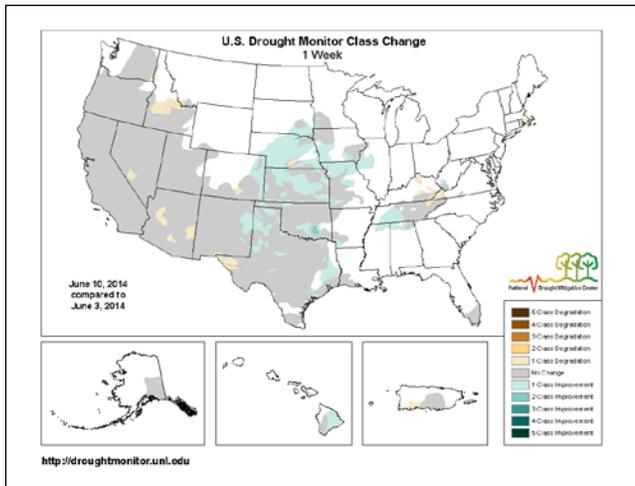
Texas Drought [Website](#).
[Texas Reservoirs](#).
[Texas Drought Monitor Coordination Conference Call](#): on Monday's 2:00 PM - 3:00 PM CST

[Drought: Wichita Falls warns about pool water use](#) - June 5



Weekly Snowpack and Drought Monitor Update Report

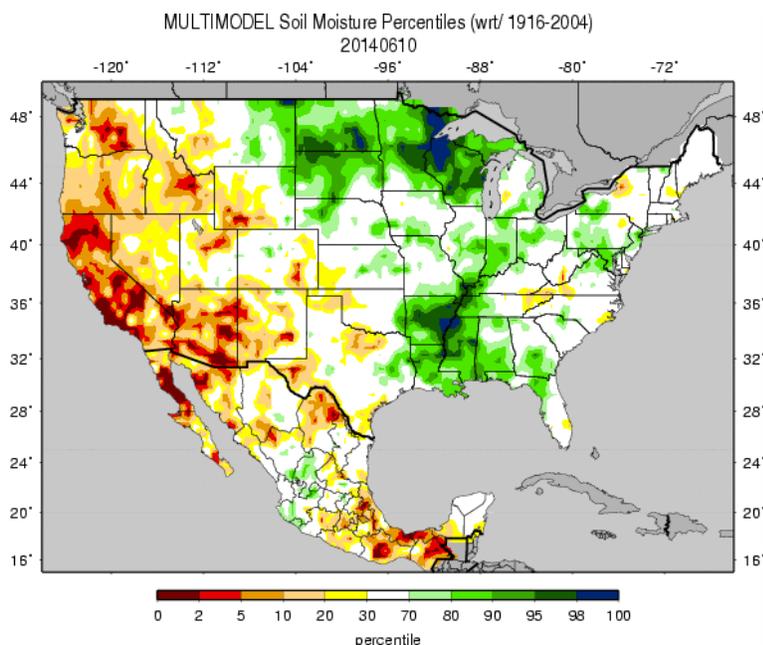
Changes in Drought Monitor Categories (over various time periods)



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

Weekly Snowpack and Drought Monitor Update Report

Soil Moisture

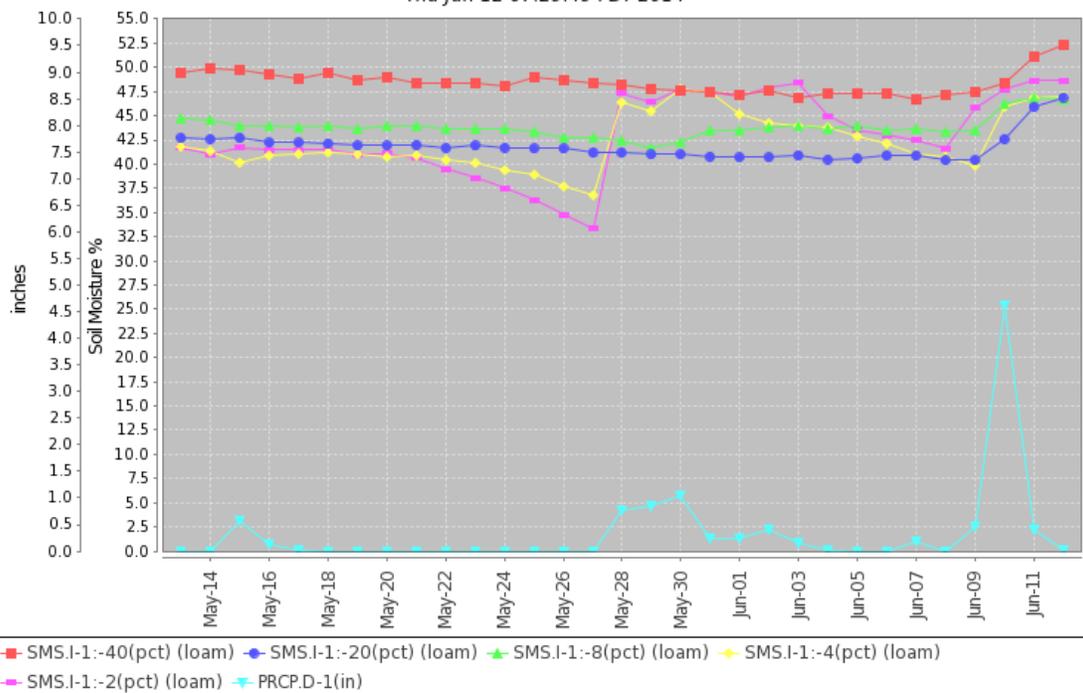


Soil moisture ranking in [percentile](#) as of June 10 shows dryness over California, most of Arizona, and parts of Washington, Oregon, and Idaho. Scattered dryness is also reported in other areas west of the Rockies. Moist soils dominated the southeastern Gulf Coast states, along the southern Mississippi River, and from eastern Montana to the Great Lakes, where the wettest locations were along western Lake Superior.

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

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

Station (2035) MONTH=2014-05-13 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision
Thu Jun 12 07:29:49 PDT 2014

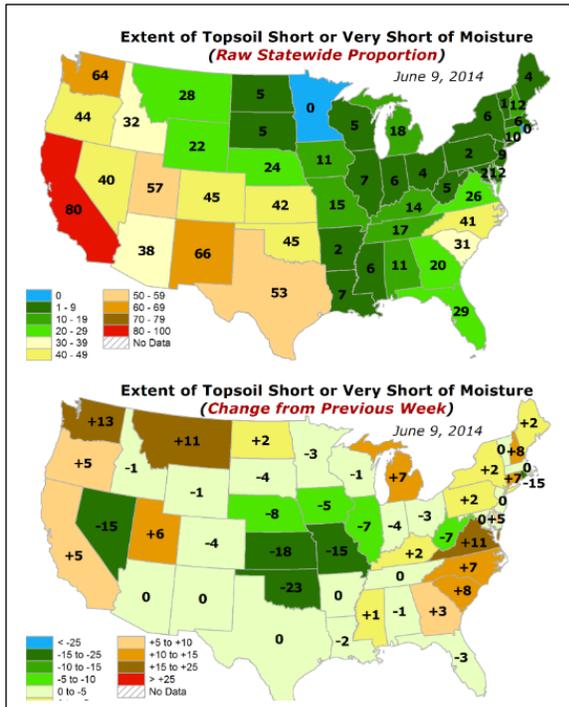


This NRCS resource shows soil moisture data at the [Vance SCAN station](#) located in northwest Mississippi. Note the increases in soil moisture trend as a result of recent heavy rainfall (precipitation trace in light blue). The deeper soil sensors at 20 and 40 inches depth also show an increase in soil moisture from the heavy rain.

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

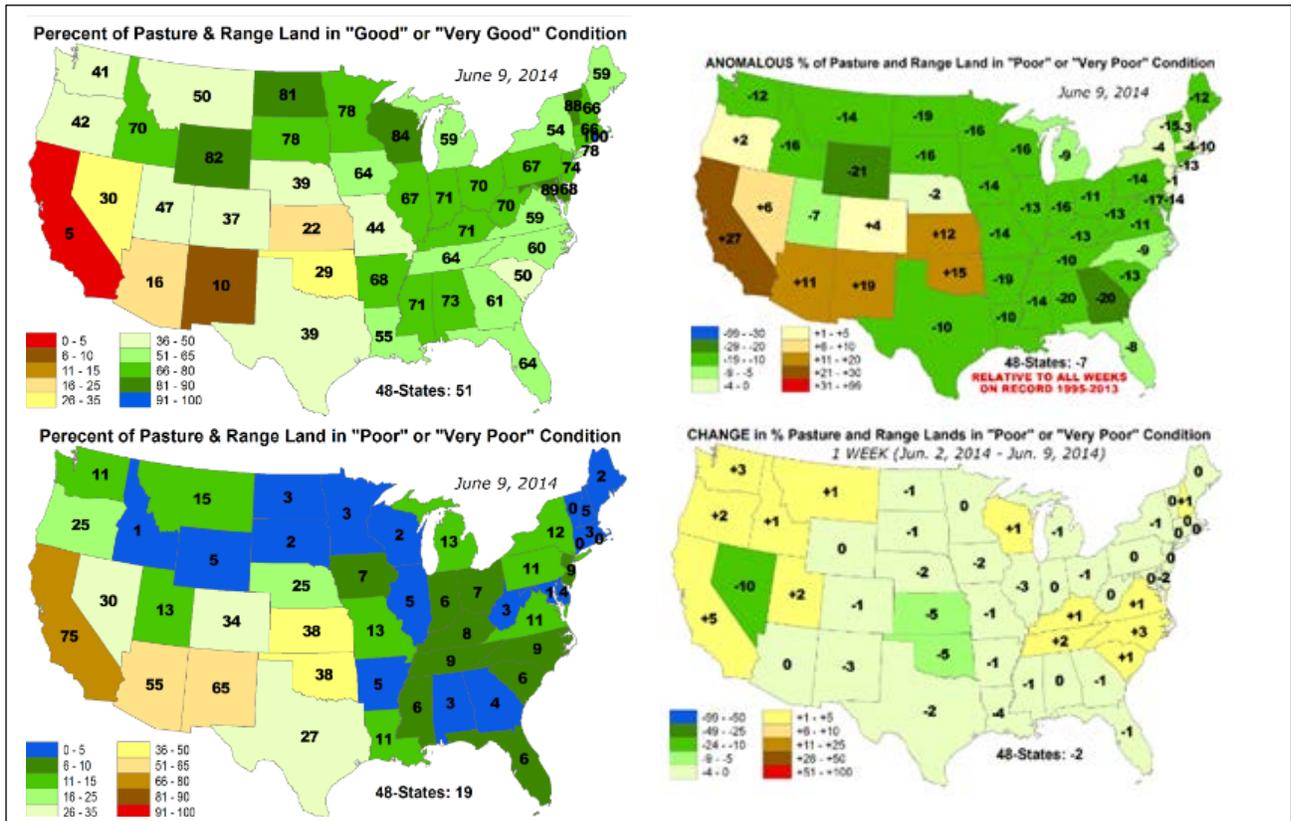
Weekly Snowpack and Drought Monitor Update Report

Topsoil and Pasture & Rangeland Conditions



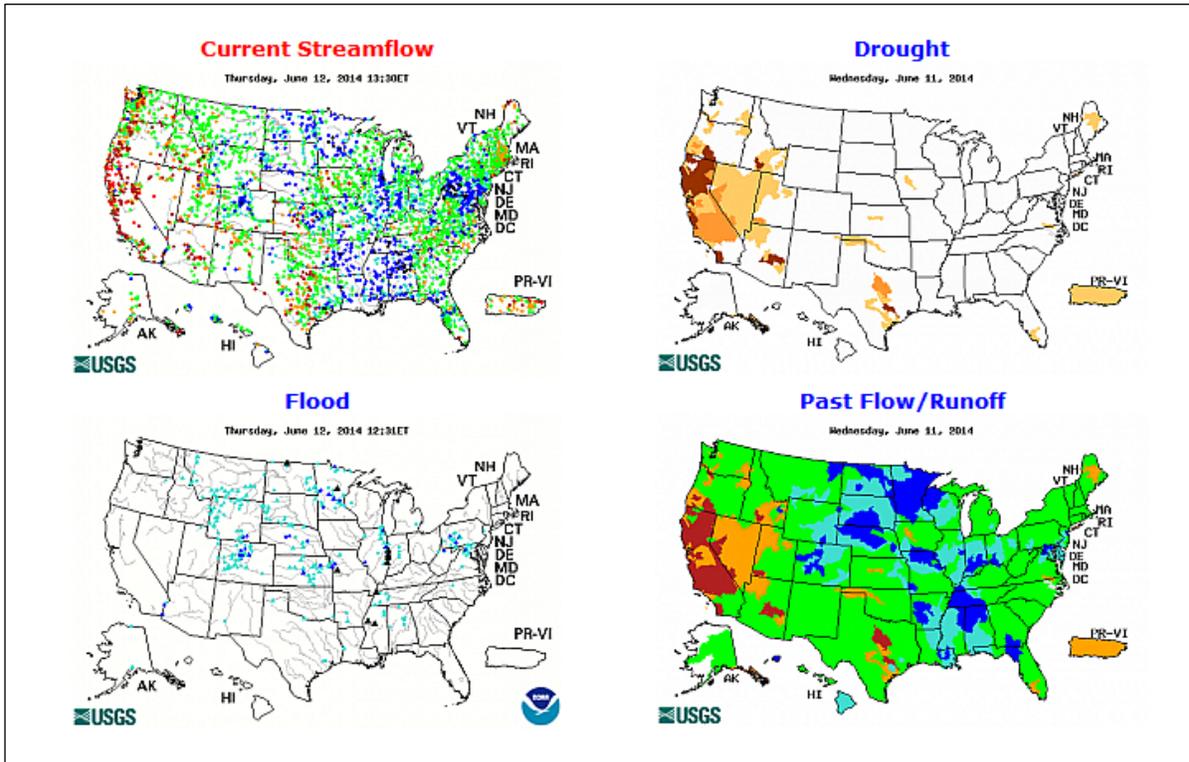
← Topsoils are exceptionally poor (top) over New Mexico, California, and Washington with values representing more than 60 percent worse conditions than the median for this time of year (bottom panel). Locations in the northern Great Plains across to New England, and along the Mississippi River have good soil moisture conditions.

Much of the states east of the Mississippi River, are doing well, as noted below. These conditions also extend across the northern Great Plains and northern Rockies. Pasture and rangelands are stressed over California, the Great Basin, the Southwest, and the southern half of the Great Plains. Conditions have remained about the same over this past week.



Weekly Snowpack and Drought Monitor Update Report

Streamflow



Streams are high over much of the Mississippi River basin, and the upper Ohio Valley and Pennsylvania (left maps). Some flooding is occurring in a few scattered tributaries to the Mississippi River, the upper Red River in North Dakota, and the Wabash River in Indiana. (lower left map).

[Click maps to enlarge and update](#)

[Weather hazards](#)



Heavy rains are expected over the northern Great Plains to the Great Lakes with possible flooding in a few locations during the next several days.

National Long Range Outlook



During the next three months, there is a risk of flooding in a few places over the Red River Valley in North Dakota, the upper Midwest, the middle Mississippi River Valley and west-central Florida. Currently, **2** gages have a greater than 50% chance to experience major flooding; **12** gages for moderate flooding; **38** gages for minor flooding.

These numbers represent little change since last week.

Weekly Snowpack and Drought Monitor Update Report

[National Drought Summary for June 12, 2014](#)

Prepared by: Drought Monitor Author: Matt Rosencrans, NOAA/NWS/NCEP/CPC

“ Weather Summary: The previous 7 days featured an active weather pattern from the Central Great Plains to the Northeast. During the middle of last week, a low-pressure system moved from the Midwest to New England. After that, a slow moving low-pressure system moved across the southern Great Plains to the Tennessee Valley, spreading copious amounts of rain across much of the Great Plains, Midwest, and Southeast. Dry conditions persisted across the western portion of the contiguous 48 states. Strong trades persisted across Hawaii and Puerto Rico, bringing rains to northern and eastern facing slopes. A tranquil pattern persisted across most of Alaska, except the Alaska Panhandle.

Northeast: Abnormally dry (D0) conditions developed over portions of southern New England (Rhode Island and Massachusetts). D0 was introduced where precipitation is less than 50 percent of normal over 30 days and 14 days, and local streamflow reports are showing some abnormally low flows.

Mid-Atlantic and Carolinas: D0 (abnormal dryness) was expanded across small portions of North Carolina and South Carolina. The overall patterns in precipitation have been mixed, but a few areas stand out as quite a bit drier than normal when measured over 30-, 60-, and 90-day periods. Some initial effects on agriculture are being reported to the NC-DMAC (North Carolina Drought Management Advisory Council).

South Florida: No change was made to the depiction across South Florida. Recent rains (3.6 – 4.6 inches) across South Florida during June have arrested the developing dryness but were not enough to turn around the drought conditions.

The Ohio Valley, Tennessee Valley and southern Appalachians: Moderate rains fell across Tennessee, northern Mississippi, and northern Alabama, so drought intensity and coverage were reduced. The Moderate Drought (D1) near the intersection of Alabama, Mississippi and Tennessee was removed as rains of 2.5 – 4.3 inches fell there, while rains of up to 7.9 inches were reported across Central Tennessee. Most of the rains missed Kentucky and southwestern Virginia, where drought conditions expanded and intensified. Across Kentucky, a station in Breathitt County recorded the 3rd driest May on record. Most stream gages in the area are currently at or below the 15th percentile. Standardized Precipitation Index values over 3 months (SPI-3) indicate very dry conditions across southwest Virginia and northeast Tennessee, so an area of Moderate Drought (D1) was introduced.

The Midwest and Central Great Plains: Widespread rains from Minnesota to Kansas prompted the removal or reduction of drought across much of the Midwest and Central Great Plains. D1 was removed from most of Pipestone and Nobles Counties in Minnesota as rains up to 3.2 inches fell. Across Iowa, some rains fell throughout the week, which helped alleviate drought conditions for much of the state. The remaining drought conditions are tied to longer term soil moisture deficits, linked to a dry second half of 2013. Page, Washington, and Calhoun Counties reported 12-month precipitation totals at about the 7th, 10th, and 5th percentile, respectively.

The moderate to heavy rains (0.6 – 5.1 inches) that fell across much of Nebraska resulted in drought reduction. Deeper profiles into the soil are still showing dryness, so the reduction was tempered by the long-term conditions, although the Extreme Drought (D3) was removed from central Nebraska as those areas received enough rains to recharge soil moisture down to 2-3 feet, according to calculations by the Nebraska State Climatologist.

Abnormally dry conditions were removed from Illinois and Missouri as well. Rains there were more widespread but slightly less intense (1.5 - 4.9 inches), resulting in recharges of soil moisture and increased runoff. The discharge of the La Moine River went from 30cfs to 3,000 cfs in a couple of days and is now above median since June 4 at Collmar, IL. The surrounding subsoils are still dry. According to NASS, the rains greatly improved the topsoil but did not make much difference to subsoil moisture in western Illinois. The percentages of subsoil in very short (23%) to short (46%) is a slight improvement from the week before, with field tiles not running yet, according to reports out of the Illinois State Climatologist's office. In Missouri, COOP stations and the University of Missouri Agricultural sit at

Weekly Snowpack and Drought Monitor Update Report

Novelty reported rainfall amounts of nearly 5 inches, with widespread 2-4 inches for the week across Central Missouri, prompting the removal of D0.

A 1-category improvement was implemented for most of eastern Kansas due to the widespread rains, with the rains missing much of western Kansas. Long-term subsoil moisture deficits continue to plague that state as well, so D3 (Extreme drought conditions) were retained across western and southern Kansas with NASS reporting an 18 percentage point drop in topsoil reported as Short or Very Short of moisture, but 66 percent of subsoil reports indicating Short or Very Short conditions.

Southern Great Plains, Central and Southern High Plains: Rainfall (2-3+ inches) fell across much of east Texas, prompting the removal of dry conditions from some portions of east Texas. Rainfall near the Texas coast was more limited in scope, so minor reductions in D0 (Abnormally Dry) and D1 (Moderate Drought) conditions were pursued near Wharton County. Beneficial rains (0.9 – 2.7 inches) fell across much the Texas and Oklahoma panhandles. The rains prompted the contraction of D4 (exceptional drought) across northern Oklahoma and the Texas panhandle, while D3 (extreme drought) was trimmed from the Oklahoma panhandle and southeastern Colorado. Subsoil conditions across Oklahoma and Texas are still quite dry with 71 and 59 percent of the reports indicating Very Short or Short of Moisture conditions, respectively.

As with the Texas Panhandle, some beneficial rains (0.8 – 2.5 inches) fell across eastern New Mexico. D3 (extreme drought) was subsequently trimmed back from in and around Quay and Harding Counties. Huerfano County in Colorado has been dry as of late, and as part of a reassessment, D0 was reinstated. According to the Colorado Climate Center, recent rains have been beneficial for eastern Colorado, although reports are indicating that more rains are necessary to stem the tide of negative impacts due to the dry conditions. The heavier rains (0.7 – 3.0 inches) farther north in Colorado and Kansas, resulted in a nearly 1-category improvement in Colorado and near Hamilton County in Kansas.

The southern Rockies, Intermountain West, and West Coast: According to the Colorado Climate Center and the NIDIS Upper Colorado River Regional Drought Early Warning System have been warm and dry for the past week over south and central Utah. This time of year is typically a dry period for the region, and May was a both cool and wet month. No changes were made to the Upper Colorado River Basin area or the rest of Utah.

Persistent dry conditions prompted the expansion of drought conditions across Idaho. Thirty-day SPI as of June 10 is showing dryness expanding, so D0 was expanded to where SPI3 and 30-day SPI show dry conditions, but tempered where SPI3 and 90-day percent of normal precipitation show wet conditions that were present in the winter and spring.

Drought conditions were expanded in Arizona as SPI3 and SPI6 values showed conditions drier than what was previously depicted. Fuel moisture values are low and fire danger is high for much of Arizona, outside of the major metropolitan areas, and that is where drought depiction was increased. Water Year-to-Date (less than 50% of average) and 1-year precipitation totals support the expansion as well.

Alaska, Hawaii, and Puerto Rico: A large swath of Alaska, roughly the southeastern quarter and the Panhandle, has been affected by dryness the past four months. Streamflows, commercial fishing, and hydroelectric power generation are suffering in some areas. The lack of rain has meant a lack of lightning-induced wildfires across the state's interior, but conditions are favorable for fire development and quick expansion. The Funny River fire on the Kenai Peninsula has scorched 193,597 acres.

Isolated locations across the Alaska panhandle received some rains (0.5 - 2.6 inches), but most of the state was dry for another week with only a handful of reports of more than 1 inch of rain across central Alaska. Conditions across interior should be closely monitored.

The east half of the state has been getting wet trade winds. Gages along the Big Island's east-facing and southeast-facing slopes are running at an above average pace for June, so the abnormally dry conditions there have been abated.

Rainfall was sparse for most of Puerto Rico this past week, with the south central portions of the island continuing the dry period. The D0 (abnormal dryness) was expanded to match the spatial coverage of the most intense 30- and 60-day deficits in AHPS precipitation measurements.

Weekly Snowpack and Drought Monitor Update Report

Looking Ahead: Heavy rains are likely across the Great Plains from Oklahoma to Minnesota (5.1 inches is the maximum forecast value over Iowa). Widespread rains are also forecast over the Southeast and Florida. Little to no precipitation is forecast from Arizona and Utah to the West Coast. The ensuing 5 days (June 17 -21, 2014) features enhanced chances for above-normal rainfall from the Mississippi Valley to the East Coast, except Florida. The odds also favor surplus rainfall over northwestern Alaska. Odds for below-median rains are increased across much of the west, west of the Continental Divide and across portions of southern Texas.”

State Activities

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

More Information

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

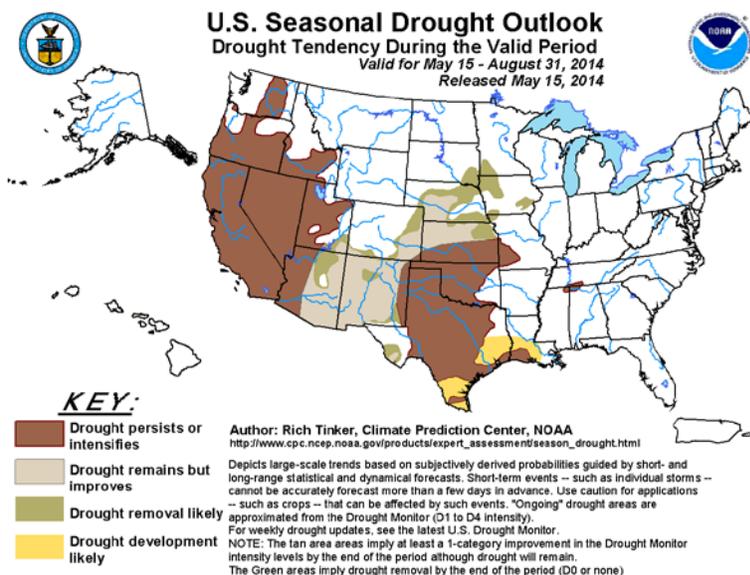
This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

/s/

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

Weekly Snowpack and Drought Monitor Update Report

Supplemental Drought Information



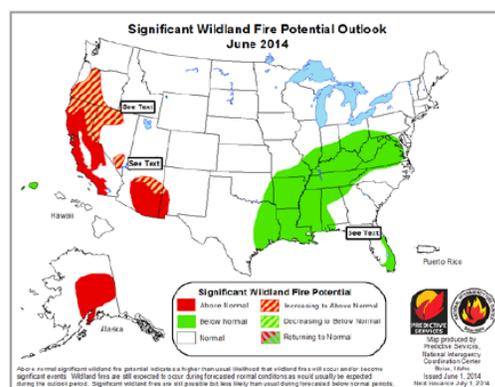
June

- Above normal fire potential will expand to include northern California, Nevada, and much of Oregon. Most of Alaska will continue to see above normal significant fire potential.

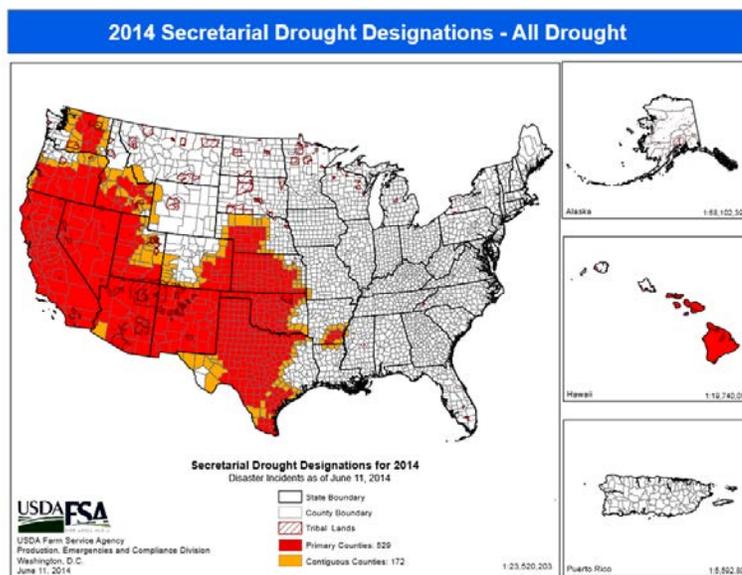
- Below normal fire potential will continue over the lower and mid-Mississippi, Tennessee and Ohio Valleys.

[Drought](#) is expected to persist over much of the West and southern Great Plains. Improvements are expected from the Southwest to the central Great Plains.

Also see: [National Significant Wildland Fire Potential Outlook](#) (updated on the first of each month) contains a content summary of the previous month's conditions.



June Forecast



Refer to the USDA Drought Assistance [website](#) and [National Sustainable Agriculture Information Service](#).

Read about the new [USDA Regional Climate Hubs](#).

New useful resource: [NASS Quick Stats](#)

Additional Maps

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

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

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Supplemental Drought-Agriculture News

Download [archived](#) "U.S. Crops in Drought" files

"The following is a collection of drought-related news stories from the past seven days or so. Impact information from these articles is entered into the [Drought Impact Reporter](#). A number of these articles will also be posted on the [Drought Headlines](#) page at the NDMC website. The list is compiled by Denise D. Gutzmer, Drought Impact Specialist, and National Drought Mitigation Center.

Great Plains Wheat

Drought, the cold winter and a late frost claimed several thousand acres of wheat in the Salina area (north central Kansas) and knocked the yield down to 2 to 5 bushels per acre, said the agricultural Extension agent in Salina and Ottawa counties. The wheat was in worse shape in western Kansas. Poor rainfall harmed the wheat crop from the Dakotas to north Texas.

Custom wheat harvesters in north Texas have found yields of just 5 to 15 bushels per acre with test weights of 59 pounds per bushel, which is on the light side since the industry standard is 60 pounds per bushel. Harvesters were finishing the combining jobs fairly quickly because there was not much wheat to harvest. Some harvesters have opted to stay home because there was so little wheat to be cut.

Most wheat being grazed in West Central Texas

Most wheat in West Central Texas was being grazed because drought damage left it too poor to harvest. Of the wheat to be harvested for grain, yields were expected to be low. Recent rainfall helped the region.

Drought reducing number of organic dairy herds

Organic dairy herds in the West, particularly in the San Joaquin Valley, were shrinking because drought has driven farmers to sell their herds and quit the dairy business, according to the USDA's Dairy Market News. Net gains from a year of organic milking brought in less than selling the cattle for slaughter. Some organic producers and representatives in the Northwest did not know of any new organic producers in the region who had gotten certification for starting a new organic dairy in the last several years.

Water deal to sustain citrus trees in Tulare County, California

Multiple water agencies cooperated to bring 5,400 acres of water at a cost of \$1,200 per acre-foot—about six times the normal price of water—to save thousands of acres of citrus trees in the Terra Bella Irrigation District in Tulare County. The high cost of the water will pay for returning the water to a Kern County water district in the future.

The Terra Bella Irrigation District will repay the Arvin-Edison Water Storage District in Kern County with five acres for every acre borrowed, or 25,000 acre-feet when rainfall returns to normal. The cooperation of the San Joaquin River Exchange Contractors Authority, the Metropolitan Water District of Southern California and federal, state and other water agencies and a total of 22 approvals were needed to move the water in the Friant-Kern Canal to Terra Bella. The cooperation among the water agencies is an achievement and shows a willingness to work hard to alleviate damage to agriculture during this intense drought.

Klamath River Basin agreement in southern Oregon

Parties in the Klamath Basin in southern Oregon, often at odds over water use, have compromised and come up with a water sharing deal that allows all parties to have some water. The Klamath Tribes were awarded the most senior water rights in much of Upper Klamath Lake and portions of its tributaries, but they prefer to see cooperation among water users in the basin by balancing water distribution and supporting local economies. Now water users are sharing the water shortage and are working together. Without the agreement, irrigation would already have ended in the upper basin and Klamath Project, said Richard Whitman, Gov. John Kitzhaber's natural resources policy director. Skeptics of the agreement say that it does not solve water shortage problems and will result in fish kills.

Northern California's rivers and streams suffering from marijuana growing operations

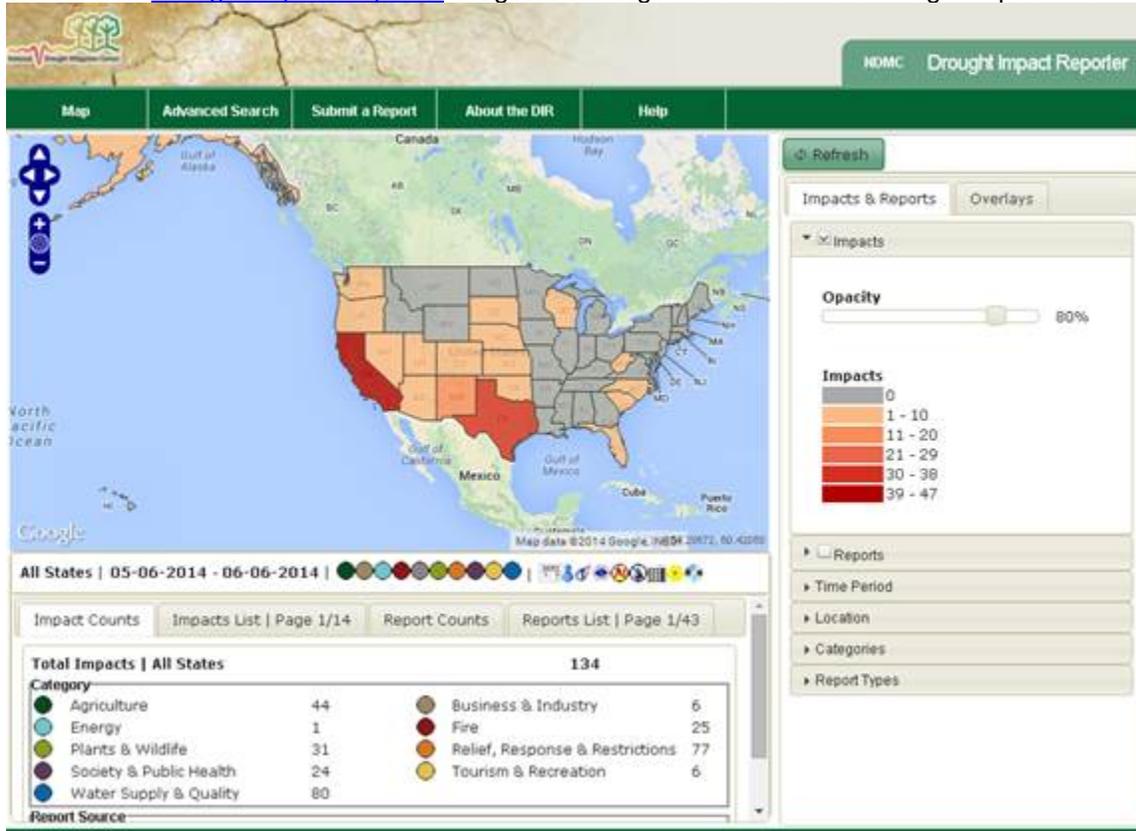
Marijuana growers in Northern California's coastal forests were taking so much water from the area's rivers and streams that they have virtually gone dry. Drought, on top of heavy water use for the water-intensive crop, has made the problem more apparent.

Weekly Snowpack and Drought Monitor Update Report

Panning for California gold

More people were prospecting for gold in California's rivers as drought narrowed them and allowed access to sections of river that were previously too deep for prospecting. Mining supply stores in Sacramento, Auburn and Bakersfield have seen an uptick in business as people pick up the needed supplies to strike it rich. Even desert prospectors have grabbed their metal detectors to look for gold in areas that have been dry for years."

Click on the [Drought Impact Reporter](#) image below to go the site for more drought impact info.



Tea Cup reservoir depictions:

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

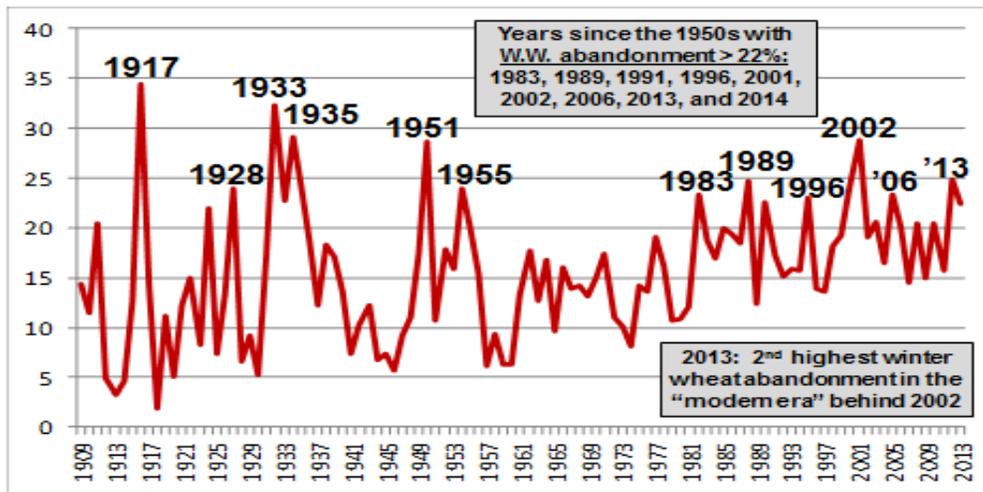
NWCC's Surface Water Supply Index (SWSI) maps are located [here](#).

Weekly Snowpack and Drought Monitor Update Report

Supplemental Information for the Week

Brad Rippey, USDA "The U.S. winter wheat abandonment chart is updated with a preliminary figure – 22.5% – for 2014. The marks the first time we've seen back-to-back years with >22% abandonment since 2001-02."

Percent U.S. Winter Wheat Abandonment 1909-2014



Western Governors sign pact with NOAA to provide drought information to states

Western Governors' signed a Memorandum of Understanding today (June 9, 2014) with the National Oceanic and Atmospheric Administration (NOAA) that renews and strengthens collaboration on drought and flood preparedness.

The purpose of the new MOU is to improve the development, coordination and dissemination of drought and extreme weather data, information and analysis in support of resource management decisions in Western states.

The agreement was signed in a ceremony during the opening day of the 2014 WGA Annual Meeting in Colorado Springs by NOAA Administrator Dr. Kathryn Sullivan and WGA Chairman and Colorado Gov. John Hickenlooper.

"The droughts and wildfires across our nation's western states directly, or indirectly, affect us all," said Dr. Sullivan. "NOAA is working, along with our partners like the WGA and governors, to ensure that people have the environmental intelligence they need to be prepared to tackle threats from drought and wildfires."

The parties will work to ensure that collection and sharing of crucial drought, flooding and extreme weather-related data and information are improved and sustained. This may include soil moisture monitoring in the Missouri River Basin and snowpack monitoring in the Mountain West and coastal watersheds.

"I never met anyone who ran for Governor because he or she wanted to be the state's chief emergency services manager," said Jim Ogsbury, WGA Executive Director. "But that is one of the roles that Governors perform. In renewing this MOU with NOAA, Western Governors are working to ensure that they have the data and analysis they need for an informed response to drought, flooding, and wildfire."

The partnership will also support the Western Governors' Drought Forum, an initiative of incoming WGA Chair Gov. Sandoval.

[Find and download the MOU](#)

For additional information or to arrange an interview, contact: Joe Rassenfoss, Communications Director, Western Governors' Association; 720-897-4555 or joe@westgov.org