

<b>NWS Form E-5</b> U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE  <b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>	<b>HYDROLOGIC SERVICE AREA:</b> Pocatello, Idaho
	<b>REPORT FOR:</b>  <b>MONTH:</b> June <b>YEAR:</b> 2014
<b>TO:</b> Hydrologic Operations Division, W/OH2 National Weather Service National Oceanic and Atmospheric Administration Silver Spring, Maryland 20910	<b>SIGNATURE</b>  Corey Loveland Service Hydrologist
<b>DATE:</b> July 11, 2014	
When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts and hydrologic products issued (NWS Instruction 10-924).	



An X in this box indicates that no flooding has occurred for the month within this hydrologic service area.

### Overview:

Precipitation across the Hydrologic Service Area (HSA) over the last three months (90 days) has been fairly dry with last month being very dry across southern Idaho. Across the HSA it has been 25 to 75% of normal with a small isolated pocket of near normal precipitation in eastern Bannock county. AHPS current water year-to-date precipitation ranks most of Bannock and Power counties receiving near to above normal amounts with the remainder of the area capturing 25 to 90% of normal. This past month was very dry in the central mountains, mostly in the Wood and Lost River drainages. This spring has not seen too much moisture and is mostly two to four inches in deficit in the last 90 days over the area. The Big/Little Wood and Big Lost River basins only received 10-15% of their normal precipitation amounts last month. All the high elevation snowpack has melted out.

We did not get the expected flooding in the upper Snake, Henrys Fork and Teton Rivers this spring as the snowpack slowly released due to the moderate spring weather pattern. Peak flows did occur late in the month on the Teton River and Spring Creek, which contributes to the Snake just above American Falls reservoir.

June brought an average of around a half to one and a half inches of precipitation within the mid to higher elevations in the HSA, according to AHPS data. The temperature departure from normal for May shows that mostly across the HSA, temperatures were mostly minus three to one degree F below normal.

As far as the one-month Climate Prediction Center Outlook is concerned, we stand to have a 33 to 40 percent chance of above normal temperatures in eastern Idaho. For precipitation, the forecast is eastern Idaho receiving 33 to 40% chance of receiving above normal precipitation. Looking at the long-term climate forecast in the next three months, it appears that we have an equal chance of having normal temperatures and a 33 to 40 percent chance of receiving above normal precipitation eastern Idaho.

Of the data available for the month, the station within the HSA reaching the highest 24-hour temperature (non-SNOTEL) was the Raft River RAWS station which reached 92°F on the 12<sup>th</sup>. The station with the lowest recorded temperature was the Copper Basin RAWS station at 18°F on June 15<sup>th</sup>. The highest recorded 24-hr precipitation (non-SNOTEL) occurred at the Preston CoCoRaHS station where 0.86 inch fell on the 28<sup>th</sup>. The highest recorded precipitation total (non-SNOTEL) occurred at the Swan Valley COOP station where 1.94 total inches fell. The White Elephant SNOTEL station received 4.5 inches of precipitation total for the month.

Reservoirs last month decreased capacity overall by around 8% in the upper Snake River basin system (a decrease of about 310 KAF occurred over the month and is currently sitting at 70% of capacity overall). Compared to last year at this time, it was about 70% of capacity. Water storage varies across the area; according to NRCS reservoir data, the most notable increases last month were Jackson Lake and Palisades reservoirs storing 24% and 16% of capacity respectively. American Falls and Mackay reservoirs have dropped -26% and -24% respectively during the past month.

Current streamflow conditions in eastern Idaho are mostly near normal with a few below normal for the majority of the unregulated streams (see graphic below) as a result of the spring flows entering the streams.

Drought conditions across the state remained mostly the same since last month, with all of eastern Idaho remaining the same. No new counties have declared drought emergencies this past month according to the Idaho Department of Water Resources. The USDA has designated Bonneville, Cassia, and Power counties as primary natural disaster areas due to the recent drought. Bannock, Bingham, Blaine, Caribou, Jefferson, Madison, Minidoka, Oneida, Teton, counties are the contiguous counties that also qualify for assistance. The U.S. Seasonal Drought Outlook forecasts drought to remain across the central mountains and has been removed in the upper Snake River plain and in southeastern Idaho.

With dry conditions of this spring, wildfire season has started with full force in June as many wildfires have ignited from both natural and human sources. It is expected to remain fairly active throughout the summer months as conditions continue to dry out and with the lack of precipitation.

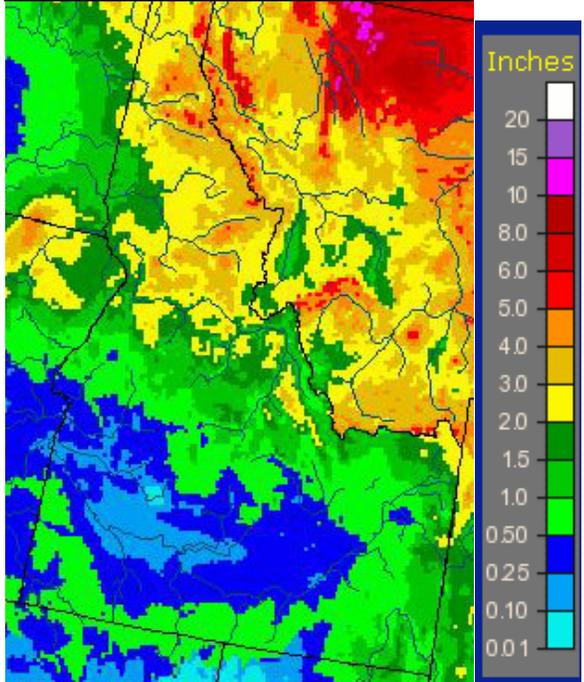
According to the Idaho NRCS Snow Survey July 1<sup>st</sup> Idaho Surface Water Supply Index (SWSI); combining streamflow volume forecasts and reservoir storage (where appropriate), rates the greatest valued basin for water supply within the HSA as being the Teton River basin. The basin was given a SWSI rating of 0.9 (near normal). This rating reflects overall water availability in the basins and are mostly used for irrigational planning purposes. The three lowest ranked basins within the HSA are the Little Wood, and Big/Little Lost basins which were rated at -3.8, -2.8 and -2.3 respectively, which are all below normal.

For more information on the Idaho Surface Water Supply Index (SWSI) July 1<sup>st</sup> Outlook please visit:

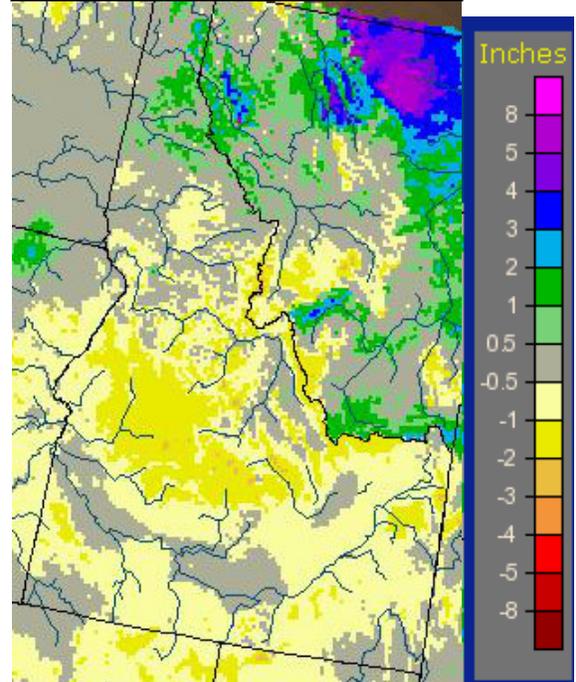
<ftp://ftp-fc.sc.egov.usda.gov/ID/snow/webftp/swsi/tables/Jul/SWSI07.pdf>

**Precipitation:**

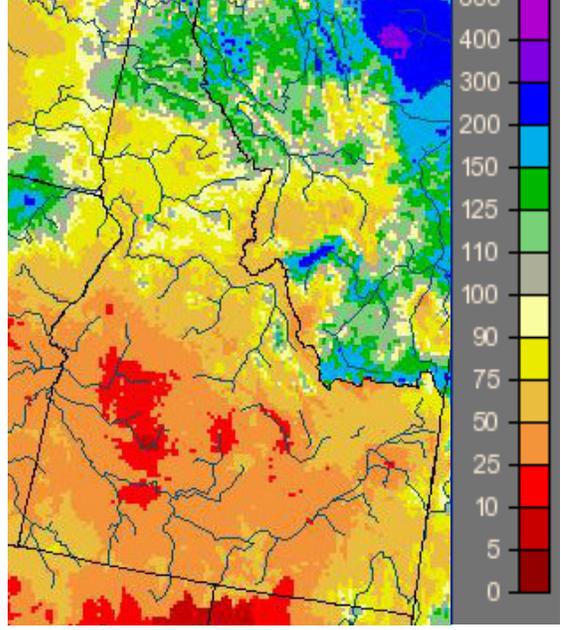
June 2014, Observed  
Precipitation



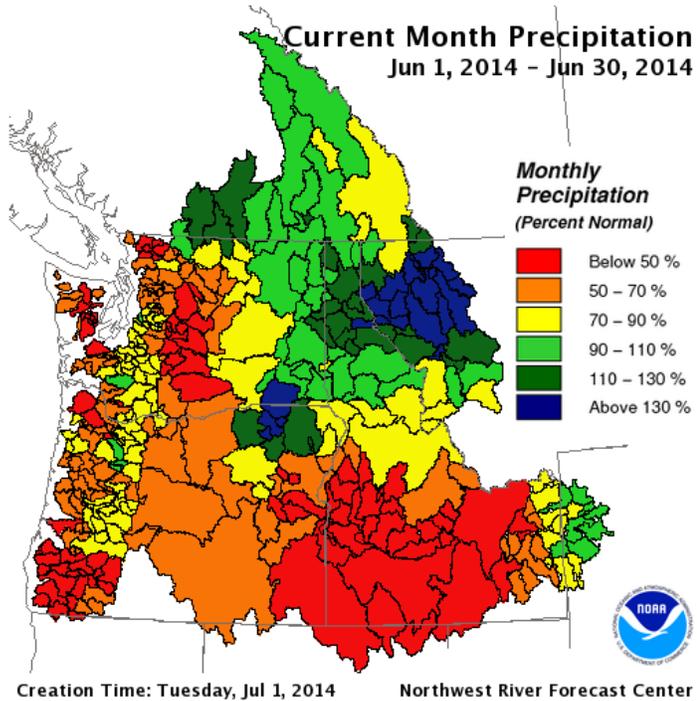
June 2014, Departure from  
Normal Precipitation



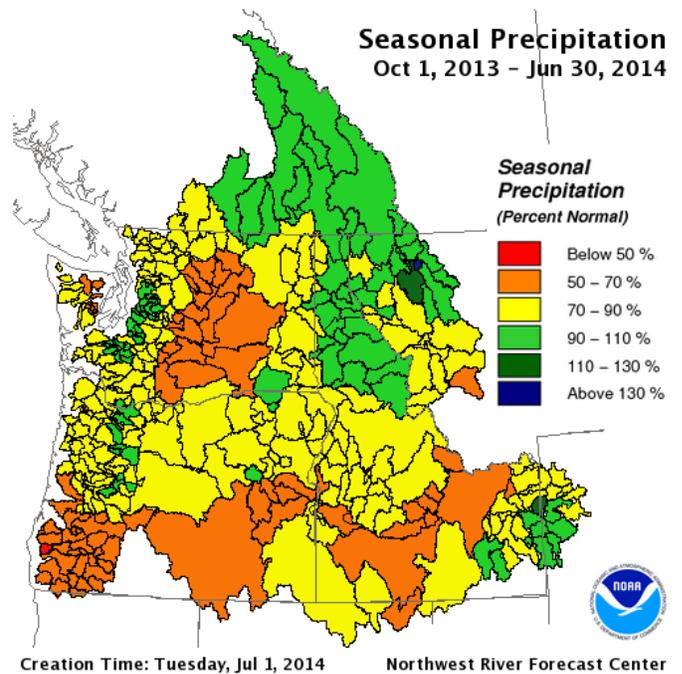
June 2014, Percent of Normal  
Precipitation



[water.weather.gov/precip/index.php](http://water.weather.gov/precip/index.php)



[nwrfc.noaa.gov/WAT\\_RES\\_wy\\_summary/20140701/CurMonMAP\\_2014Jun30\\_2014070122.png](http://nwrfc.noaa.gov/WAT_RES_wy_summary/20140701/CurMonMAP_2014Jun30_2014070122.png)

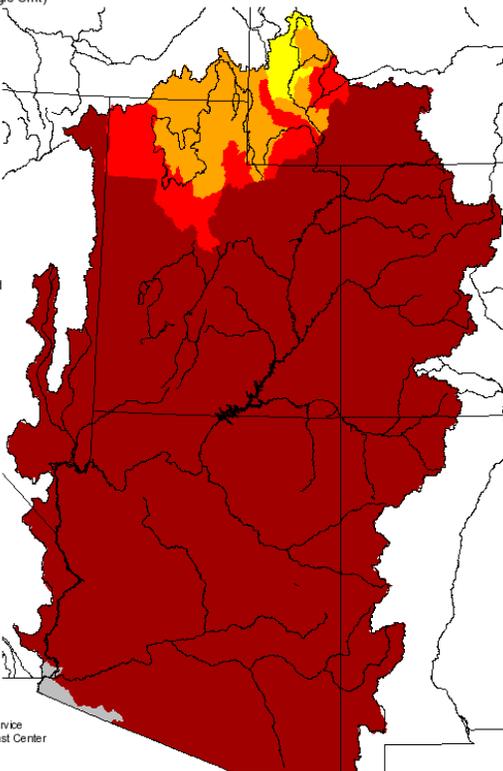
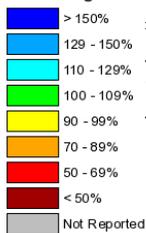


[nwrfc.noaa.gov/WAT\\_RES\\_wy\\_summary/20140701/SeasonalMAP\\_2014Jun30\\_2014070122.png](http://nwrfc.noaa.gov/WAT_RES_wy_summary/20140701/SeasonalMAP_2014Jun30_2014070122.png)

### Monthly Precipitation for June 2014

(Averaged by Hydrologic Unit)

#### % Average



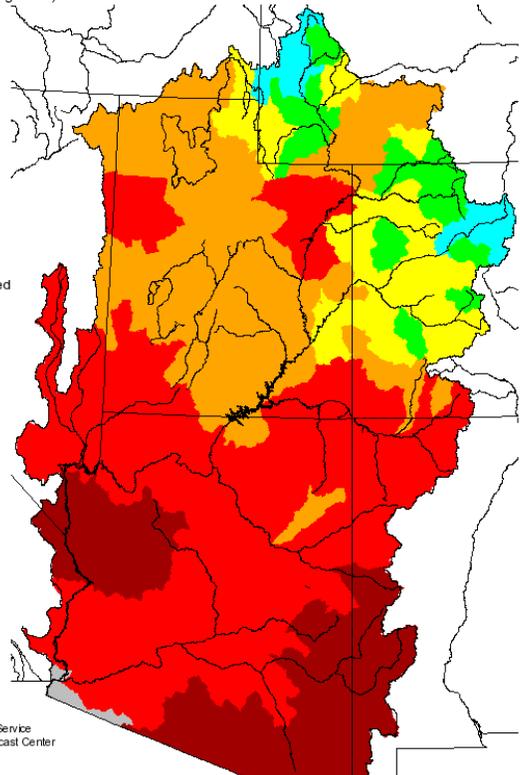
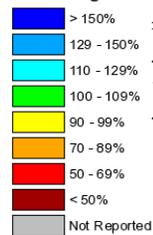
Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

[cbrfc.noaa.gov/product/mapsum/mapsum.cgi??cbrfc?M?2014?06](http://cbrfc.noaa.gov/product/mapsum/mapsum.cgi??cbrfc?M?2014?06)

### Seasonal Precipitation, October 2013 - June 2014

(Averaged by Hydrologic Unit)

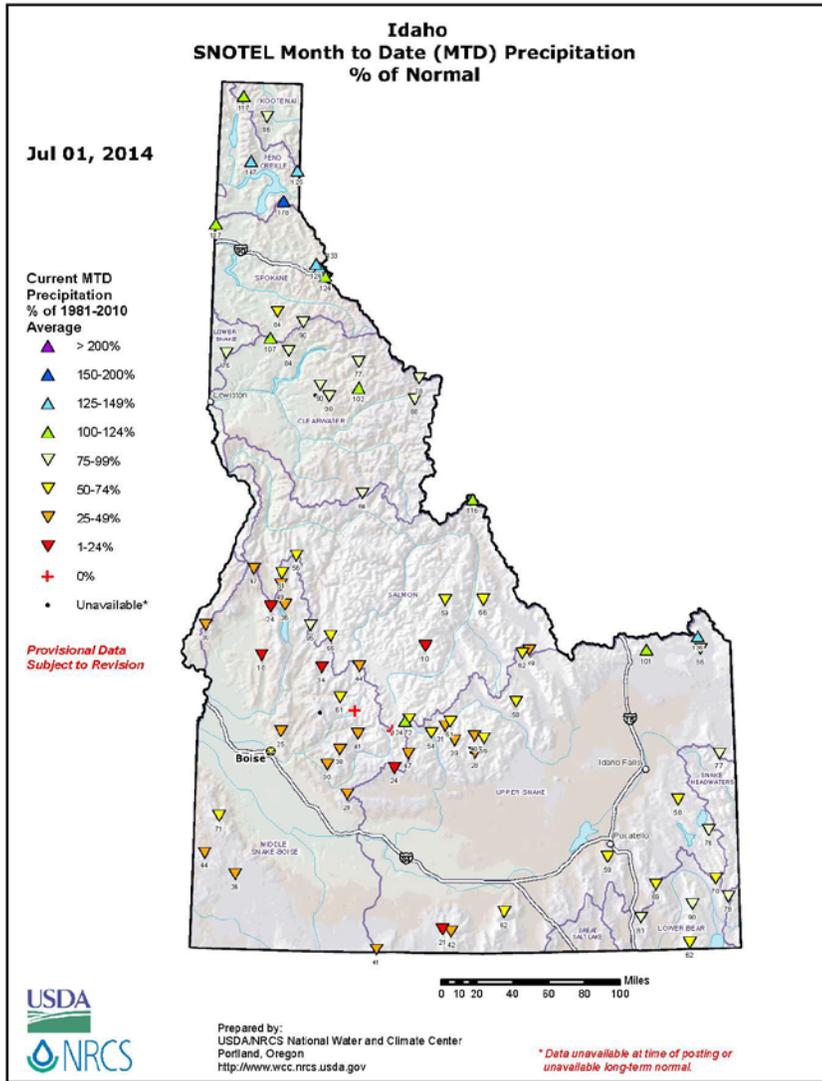
#### % Average



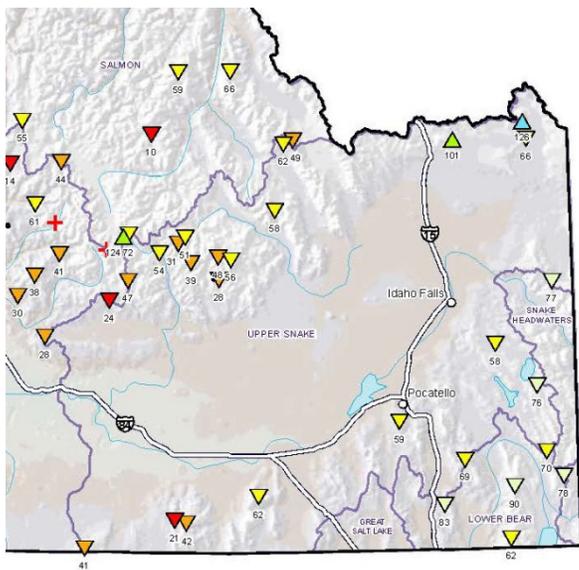
Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

[cbrfc.noaa.gov/product/mapsum/mapsum.cgi??cbrfc?S?2014?06](http://cbrfc.noaa.gov/product/mapsum/mapsum.cgi??cbrfc?S?2014?06)





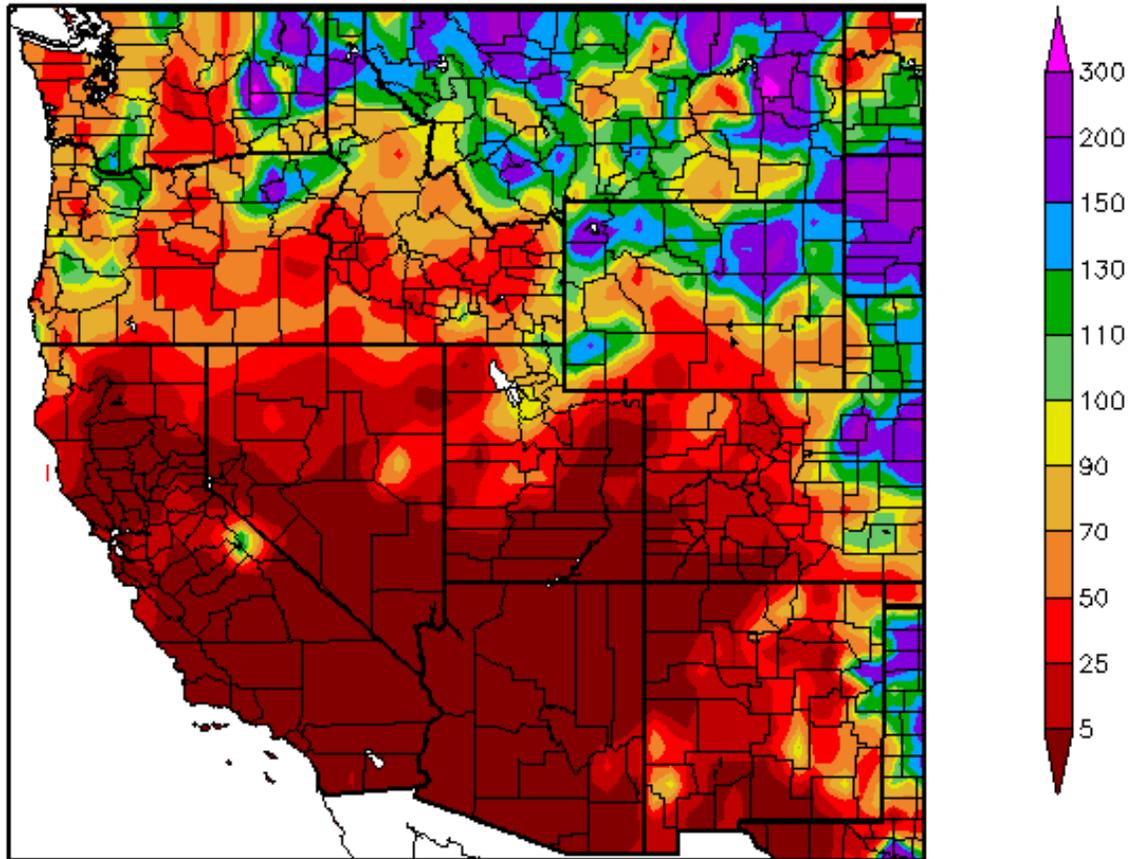
[ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/1stmonth/id/prec/id\\_mtdprecptnormal\\_Jul.pdf](ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/1stmonth/id/prec/id_mtdprecptnormal_Jul.pdf)



**SNOTEL MTD % of Normal  
Precipitation for end of June 2014**  
(image is cropped from above image)

\*\*June was relatively dry in eastern Idaho, especially in the Snake River plain and central mountains. The most precipitation fell in the Bear Lake area, Palisades Reservoir and near Burley. Clark, Butte, Jefferson, Bonneville, Blaine, and Bingham counties were among the driest in June. Most of the west was dry, especially California, Nevada, Utah, Arizona, Colorado and New Mexico.

## Percent of Normal Precipitation (%) 6/1/2014 – 6/30/2014

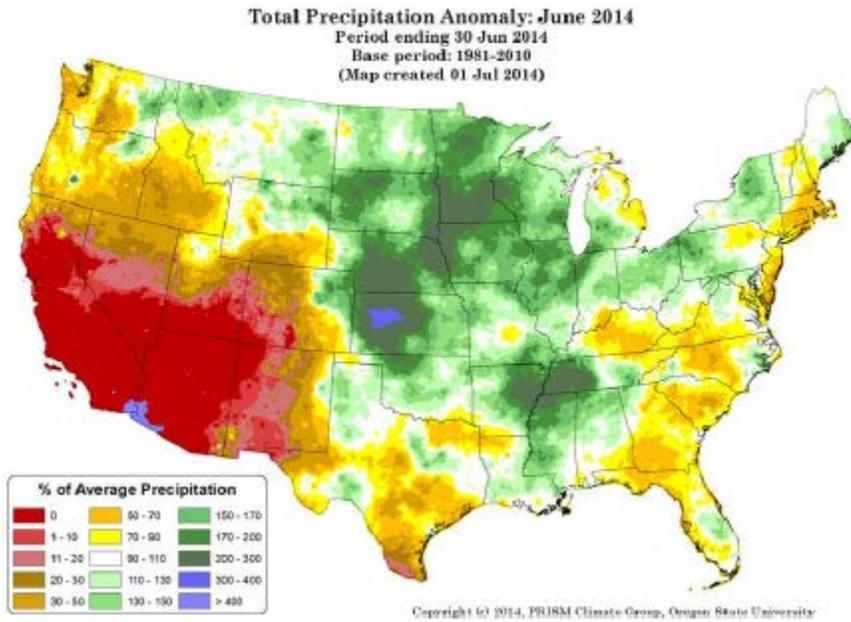


Generated 7/5/2014 at HPRCC using provisional data.

Regional Climate Centers

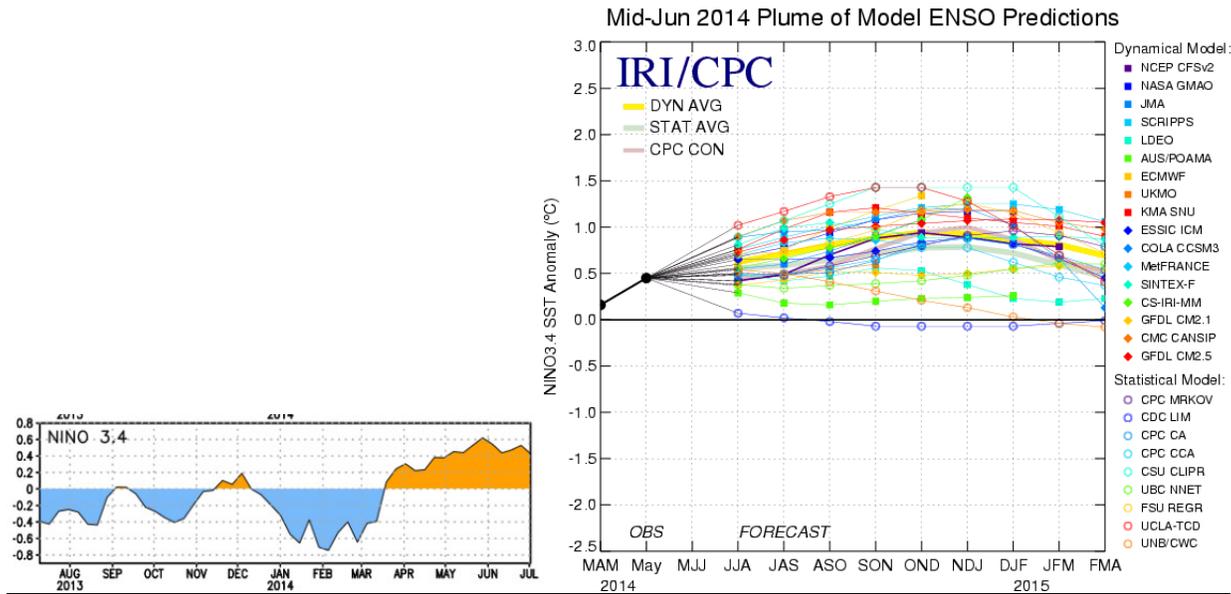
[hprcc.unl.edu/maps/current/index.php?action=update\\_type&map\\_type=](http://hprcc.unl.edu/maps/current/index.php?action=update_type&map_type=)

**June CONUS Total Precipitation Anomaly (SW vs. Midwest):**



**ENSO Update:**

**Latest Observed SST Departure: Niño 3.4 ~ 0.4 Deg C**



[cpc.ncep.noaa.gov](http://cpc.ncep.noaa.gov), [iri.columbia.edu/climate/ENSO](http://iri.columbia.edu/climate/ENSO) and [cpc.ncep.noaa.gov/products/analysis\\_monitoring/enso\\_advisory/ensodisc.pdf](http://cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.pdf)

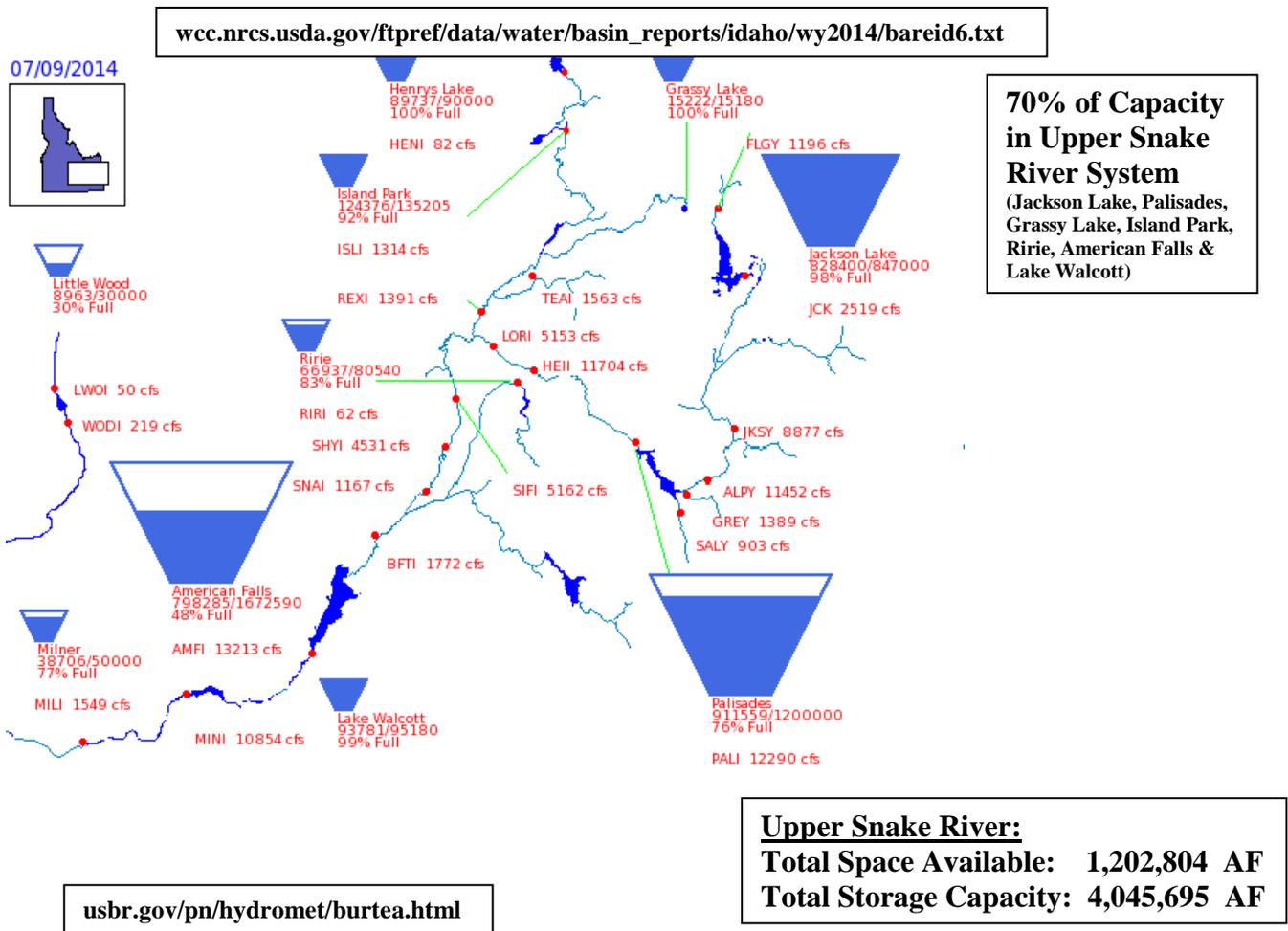
**CPC Synopsis:** ENSO-Neutral conditions continue, forecast is a 70% chance of El Niño developing during summer in Northern Hemisphere and reaches 80% during fall and winter.

**Note:** The ENSO-Neutral climate pattern is forecast to continue in the Northern Hemisphere and transition to El Niño by end of summer/fall. Equatorial sea surface temperatures (SSTs) are above average across the equatorial Pacific Ocean. The MJO remains weak and forecast to remain so.

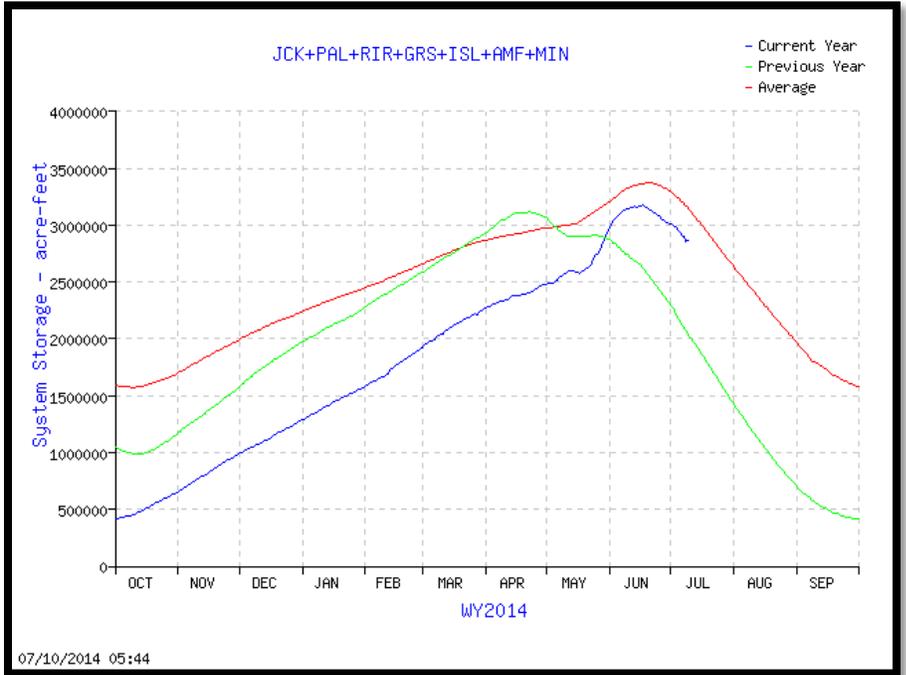
**Reservoirs:**

Reservoir	% Capacity May 31 <sup>1</sup>	% Capacity Jun. 30 <sup>2</sup>	Percent Change	% of Average <sup>2</sup>	% of Last Year <sup>2</sup>
Henrys Lake	95	100	5	105	104
Island Park	93	98	5	106	113
Jackson Lake	75	99	24	121	113
Palisades	61	77	16	90	156
Ririe	88	85	-3	98	106
Blackfoot	62	55	-7	84	87
American Falls	84	58	-26	76	126
Bear Lake	53	52	-1	87	85
Magic	37	20	-17	31	117
Little Wood	53	38	-15	46	64
Mackay	59	35	-24	47	51
Oakley	33	24	-9	57	86
Lake Walcott	98 <sup>3</sup>	99 <sup>4</sup>	1	n/a	n/a
Milner	77 <sup>3</sup>	77 <sup>4</sup>	0	n/a	n/a

Source: (1) NRCS May 31, 2014; (2) NRCS June 30, 2014.  
 (3) US Bureau of Reclamation (BOR) June 10, 2014 (4) BOR July 9, 2014



**Graph of Upper Snake River  
Current Total System Reservoir  
Storage**



[usbr.gov/pn-bin/graphwy2.pl?snasys\\_af](http://usbr.gov/pn-bin/graphwy2.pl?snasys_af)

**Bear River Basin Current Reservoir Conditions:**

**Dam Level Condition**

● No Data ● Normal ● Near Spill ● Spill ● Pass Flow ● Critical ● Forecast Spill

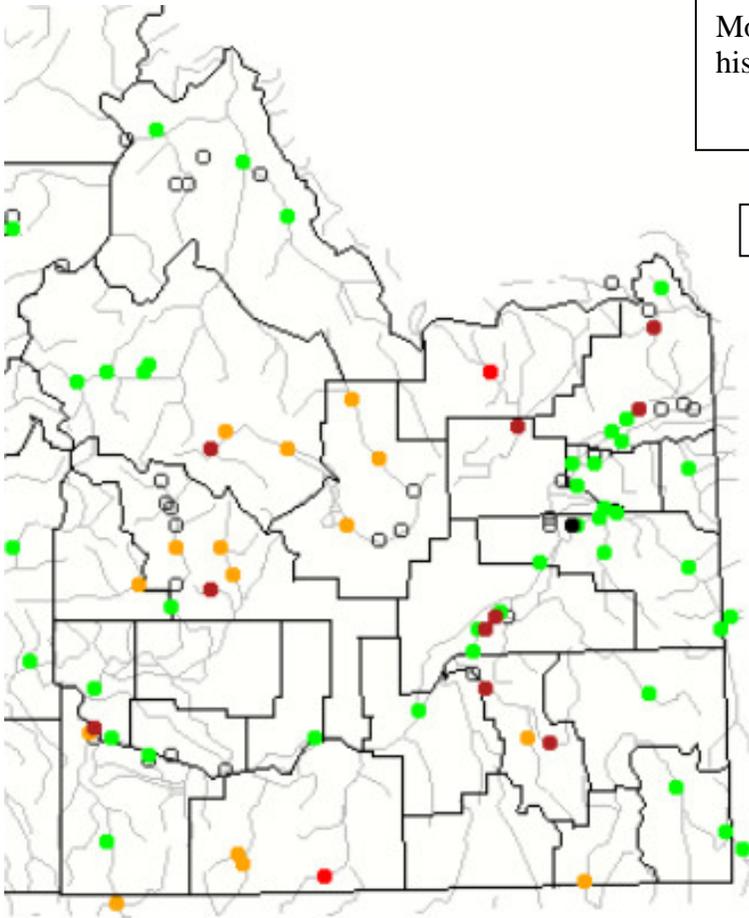
NWS ID	Location	Level Condition	Current Level	Observed Date	Forecast Peak (5 days)	Peak Date	Gate Level	Gate	Pass Flow Level	Crit Level
1 BLK11	Bear River - Bear Lake, Nr Lifton	Normal	5913.8	7/9 06:00	5913.8	7/10 18:00				5925

[cbrfc.noaa.gov/gmap/list/list.php?search=&point=all&plot=&sort=damcritids&type=damcrit&basin=5&subbasin=0&espqpf=0&espdist=empirical](http://cbrfc.noaa.gov/gmap/list/list.php?search=&point=all&plot=&sort=damcritids&type=damcrit&basin=5&subbasin=0&espqpf=0&espdist=empirical)

**Streamflow:**

Monthly average streamflow compared to historical average streamflow for June 2014.  


[waterwatch.usgs.gov/?m=mv01d&r=id&w=map](http://waterwatch.usgs.gov/?m=mv01d&r=id&w=map)



Explanation - Percentile classes							
							
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		

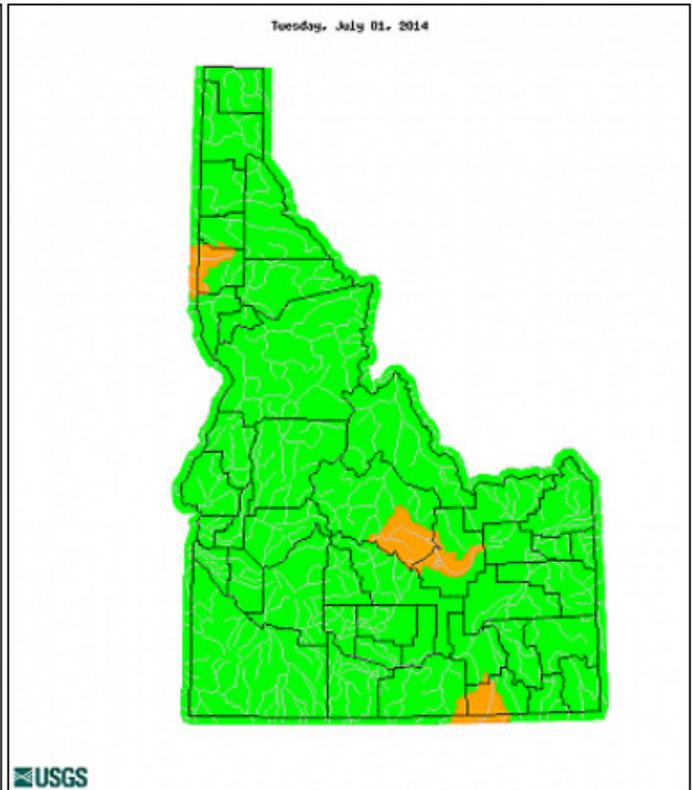
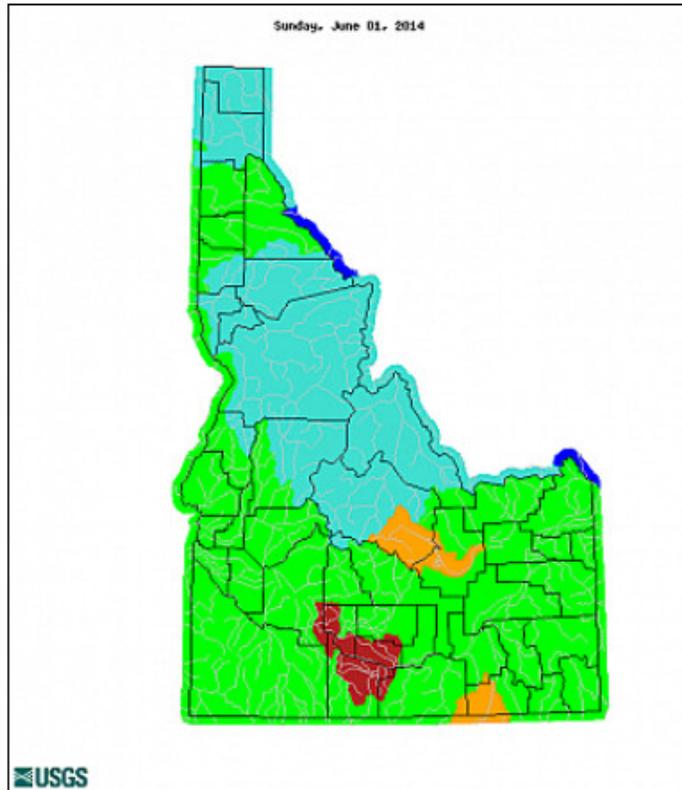
# Historic Streamflow Comparison, May 2014 and June 2014:

## Comparison of Monthly Streamflow Maps

<b>Geographic Area:</b> <input type="text" value="Idaho"/>	<b>Water Resource Region:</b> <input type="text"/>	<b>Map Type:</b> <input type="text" value="HUC"/> <input type="button" value="GO"/>
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Date (YYYYMM):

Date (YYYYMM):



Explanation - Percentile classes						
	<10	10-24	25-75	76-90	>90	
Low	Much below normal	Below normal	Normal	Above normal	Much above normal	High

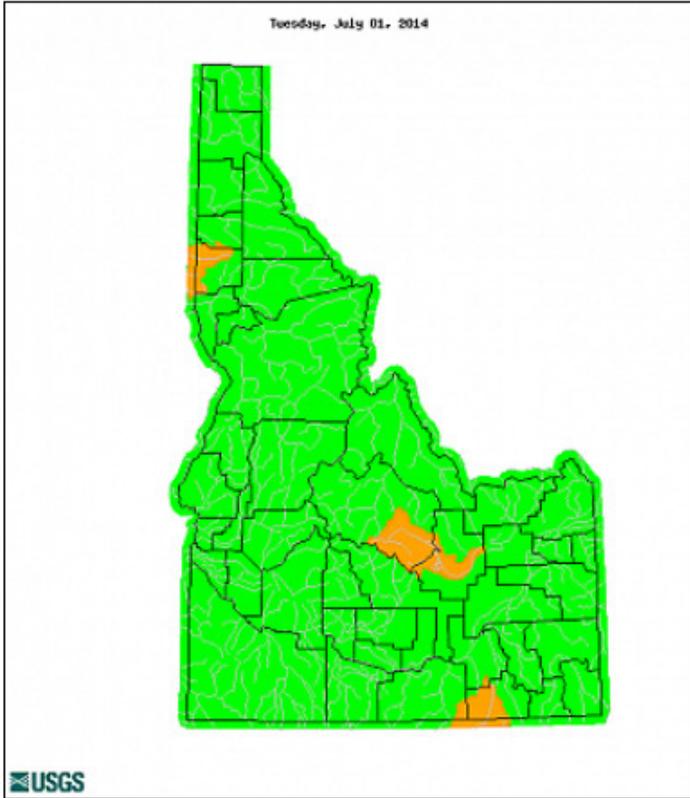
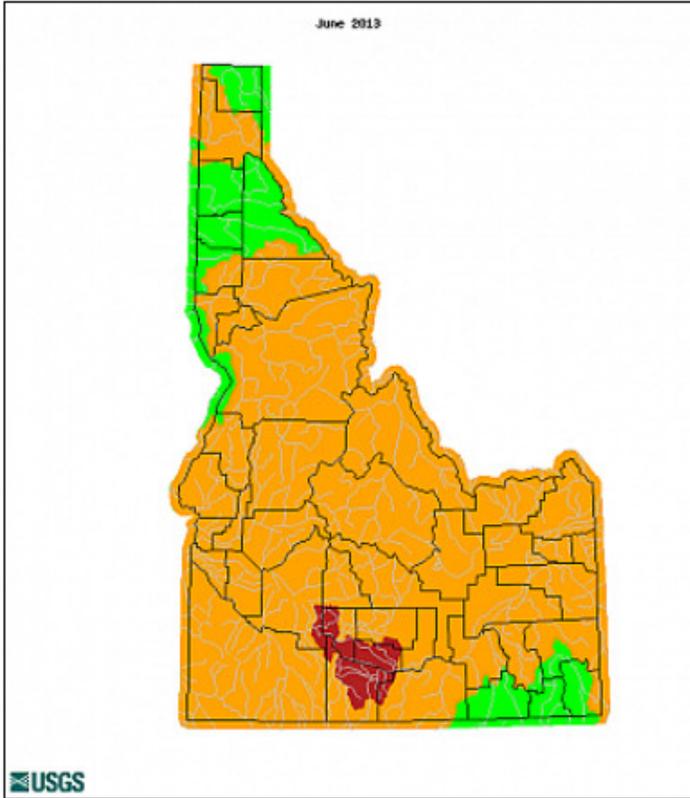
# Historic Streamflow Comparison, June 2013 and June 2014:

## Comparison of Monthly Streamflow Maps

**Geographic Area:**  **Water Resource Region:**  **Map Type:**

Date (YYYYMM):

Date (YYYYMM):

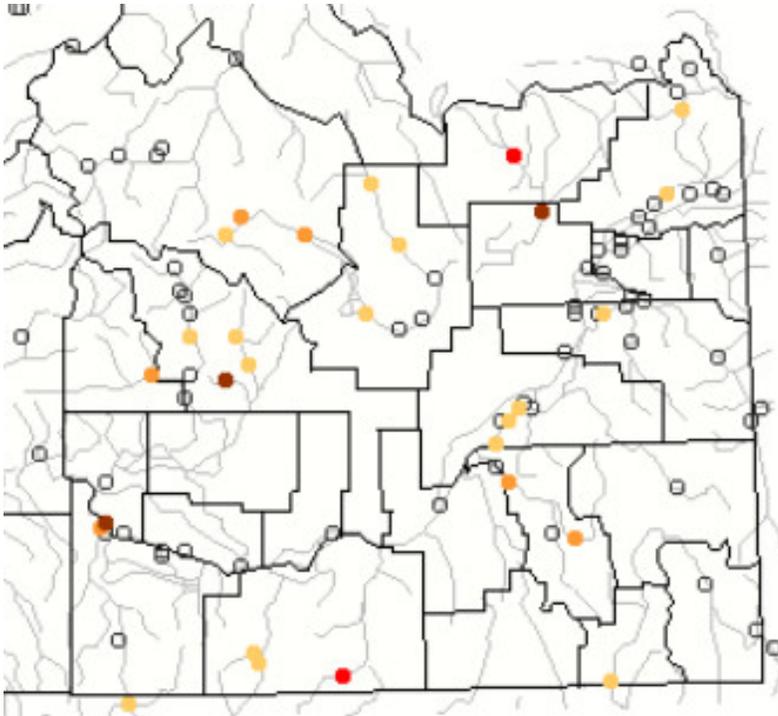


Explanation - Percentile classes						
	<span style="display: inline-block; width: 15px; height: 15px; background-color: red; border: 1px solid black;"></span>	<span style="display: inline-block; width: 15px; height: 15px; background-color: orange; border: 1px solid black;"></span>	<span style="display: inline-block; width: 15px; height: 15px; background-color: green; border: 1px solid black;"></span>	<span style="display: inline-block; width: 15px; height: 15px; background-color: cyan; border: 1px solid black;"></span>	<span style="display: inline-block; width: 15px; height: 15px; background-color: blue; border: 1px solid black;"></span>	<span style="display: inline-block; width: 15px; height: 15px; background-color: black; border: 1px solid black;"></span>
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

[waterwatch.usgs.gov/index.php](http://waterwatch.usgs.gov/index.php)

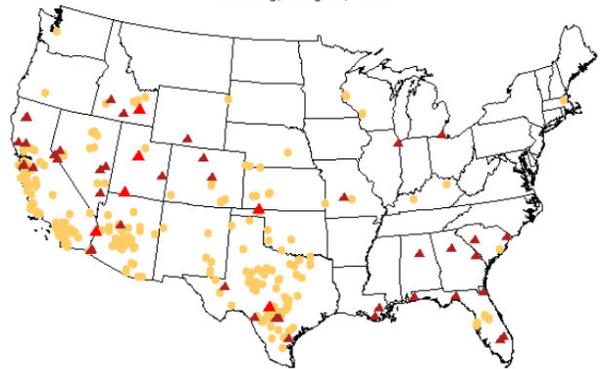
**Below Normal 28-Day average streamflow as of July 10, 2014 (see graphic below):**

Medicine Lodge Creek nr Small, 25.8 cfs, 2<sup>nd</sup> percentile, (new low),  
 Raft River nr Malta, 1.1 cfs, 1<sup>st</sup> percentile, (new low),  
 Camas Creek at Camas, 0 cfs, 1<sup>st</sup> percentile,  
 Silver Creek nr Picabo, 74 cfs, 4<sup>th</sup> percentile



**Map of Record Low 7-day Streamflow**

Thursday, July 10, 2014



**Explanation**

- ▲ Record low flow with more than 30 years data
- ▲ Record low flow with less than 30 years data
- Zero flow sites



Choose a data retrieval option and select a location on the map

- List of all stations    Single station    Nearest stations

Explanation - Percentile classes				
●	●	●	●	○
New low	≤5	6-9	10-24	Not ranked
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

[waterwatch.usgs.gov/index.php?id=wwdrought\\_us](http://waterwatch.usgs.gov/index.php?id=wwdrought_us)

[waterwatch.usgs.gov/index.php?m=pa28d\\_dry&r=id&w=map](http://waterwatch.usgs.gov/index.php?m=pa28d_dry&r=id&w=map)

**Drought Information:**

**U.S. Drought Monitor  
Idaho**

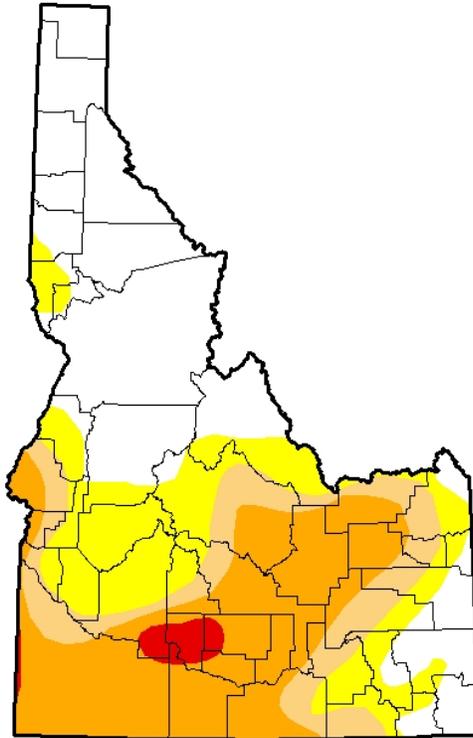
**July 8, 2014**

(Released Thursday, Jul. 10, 2014)

Valid 8 a.m. EDT

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	38.01	61.99	41.29	28.41	1.82	0.00
<b>Last Week</b> <i>7/1/2014</i>	38.01	61.99	41.29	28.41	1.82	0.00
<b>3 Months Ago</b> <i>4/9/2014</i>	44.49	55.51	40.36	27.96	1.63	0.00
<b>Start of Calendar Year</b> <i>12/31/2013</i>	21.66	78.34	70.07	45.43	7.70	0.00
<b>Start of Water Year</b> <i>10/1/2013</i>	12.06	87.94	76.96	43.33	5.09	0.00
<b>One Year Ago</b> <i>7/8/2013</i>	4.49	95.51	84.46	17.51	0.00	0.00



Intensity:

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

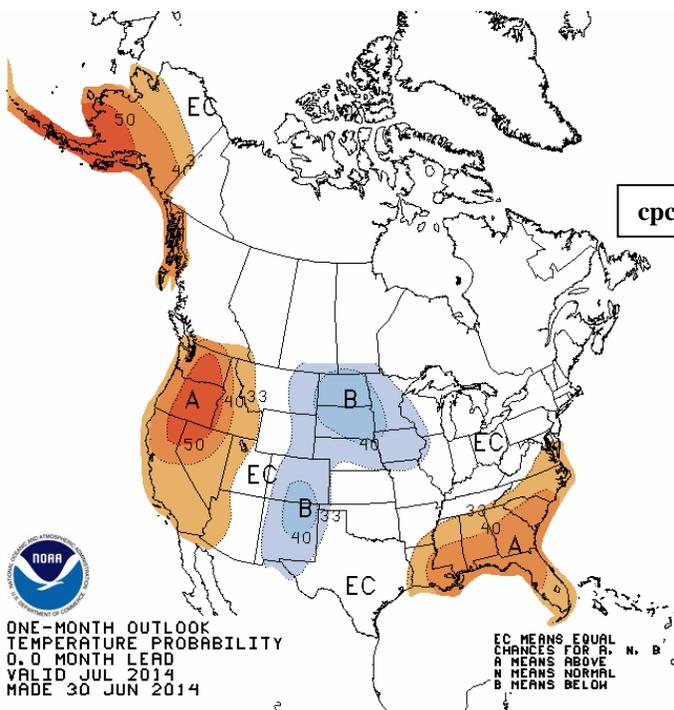
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

**Author:**

Anthony Artusa  
NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

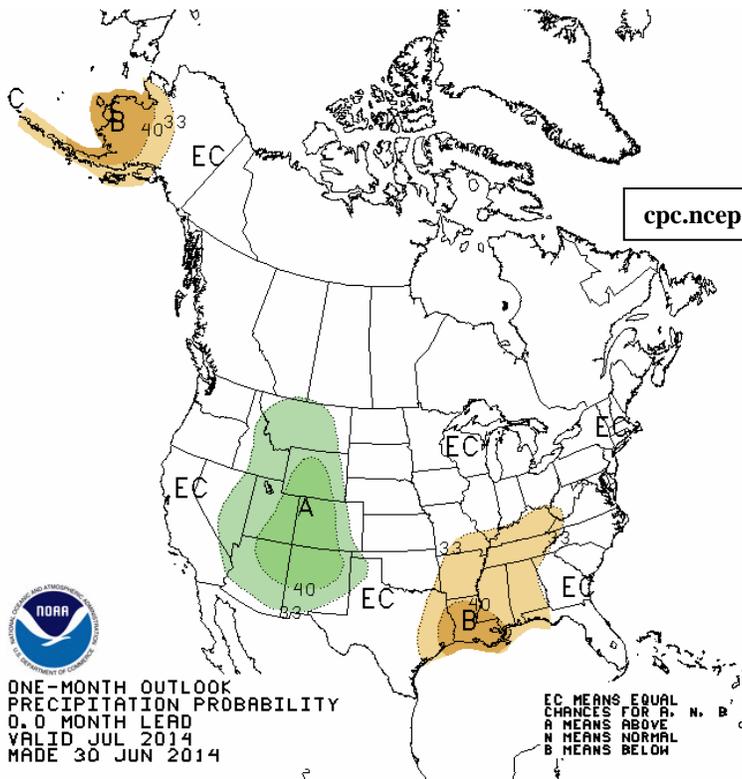


[cpc.ncep.noaa.gov/products/predictions/30day/off15\\_temp.gif](http://cpc.ncep.noaa.gov/products/predictions/30day/off15_temp.gif)



ONE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
0.0 MONTH LEAD  
VALID JUL 2014  
MADE 30 JUN 2014

EC MEANS EQUAL  
CHANCES FOR A, N, B  
A MEANS ABOVE  
N MEANS NORMAL  
B MEANS BELOW

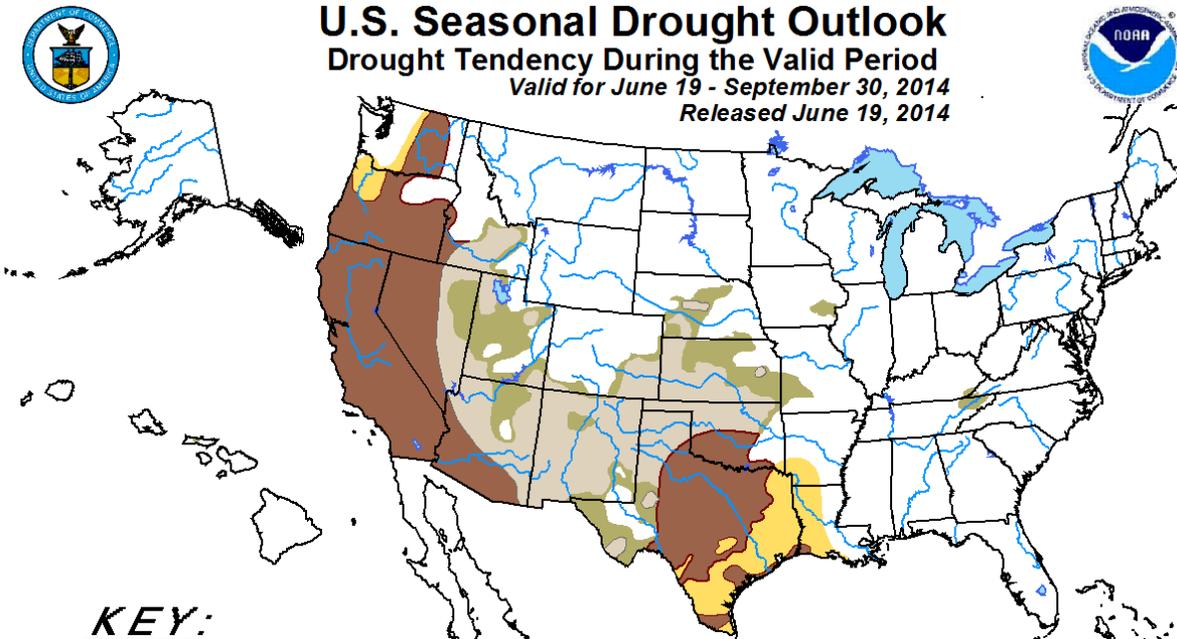


[cpc.ncep.noaa.gov/products/predictions/30day/off15\\_prpc.gif](http://cpc.ncep.noaa.gov/products/predictions/30day/off15_prpc.gif)

## U.S. Seasonal Drought Outlook

### Drought Tendency During the Valid Period

Valid for June 19 - September 30, 2014  
Released June 19, 2014



### KEY:

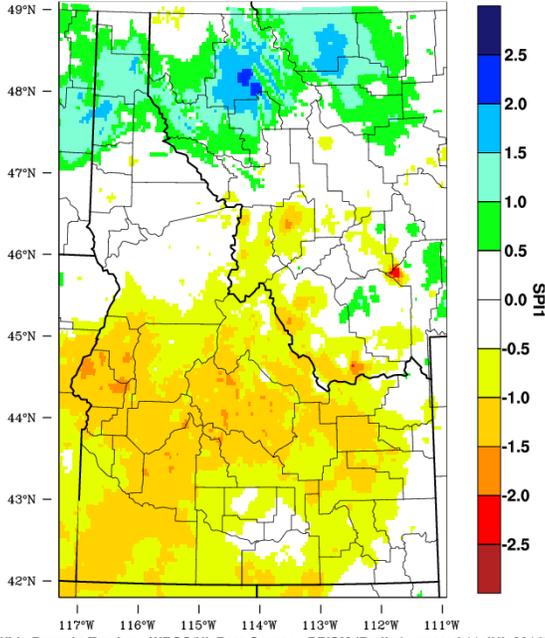
- Drought persists or intensifies
- Drought remains but improves
- Drought removal likely
- Drought development likely

Author: David Miskus, Climate Prediction Center, NOAA  
[http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/season\\_drought.html](http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html)

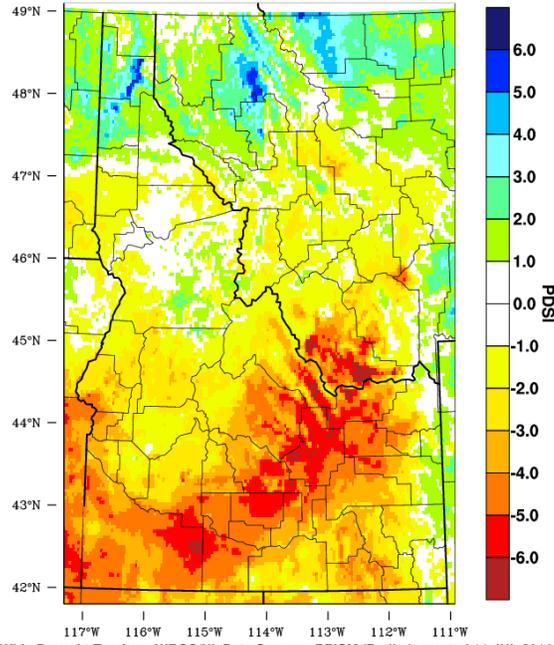
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: The tan area areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain. The Green areas imply drought removal by the end of the period (D0 or none)

[cpc.ncep.noaa.gov/products/expert\\_assessment/season\\_drought.png](http://cpc.ncep.noaa.gov/products/expert_assessment/season_drought.png)

Idaho - 1 month SPI  
June 2014



Idaho - PDSI  
June 2014



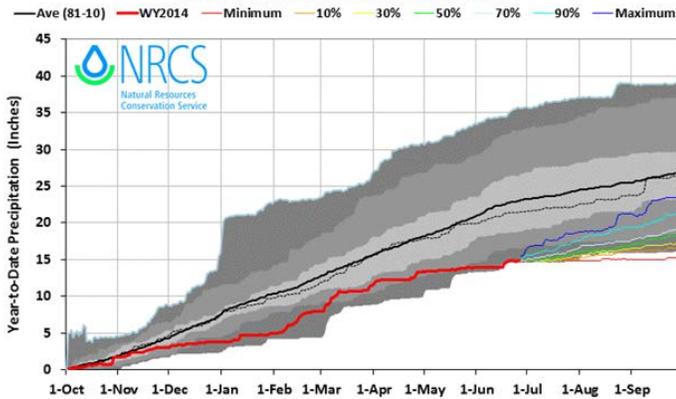
WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 11 JUL 2014 WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 11 JUL 2014

[wrcc.dri.edu/monitor/WWDT/index.php?region=id](http://wrcc.dri.edu/monitor/WWDT/index.php?region=id)

**Lack of Observed and Projected Precipitation in the Big Lost and Little Wood basins:**

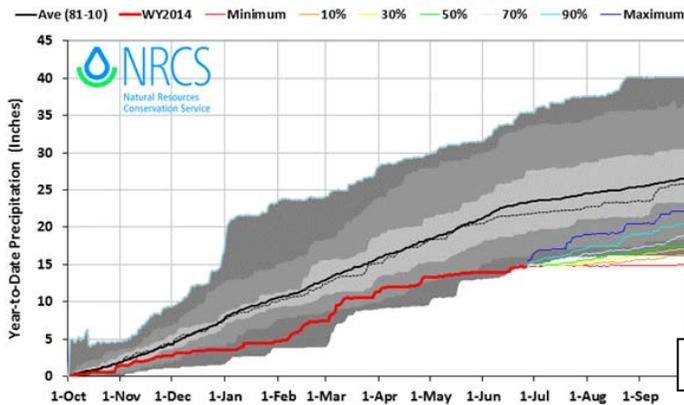
Big Lost Basin 2014 Precipitation with Non-Exceedence Projections (5 sites)

Based on Provisional SNOTEL data as of Jun 26, 2014



Little Wood Basin 2014 Precipitation with Non-Exceedence Projections (5 sites)

Based on Provisional SNOTEL data as of Jun 26, 2014

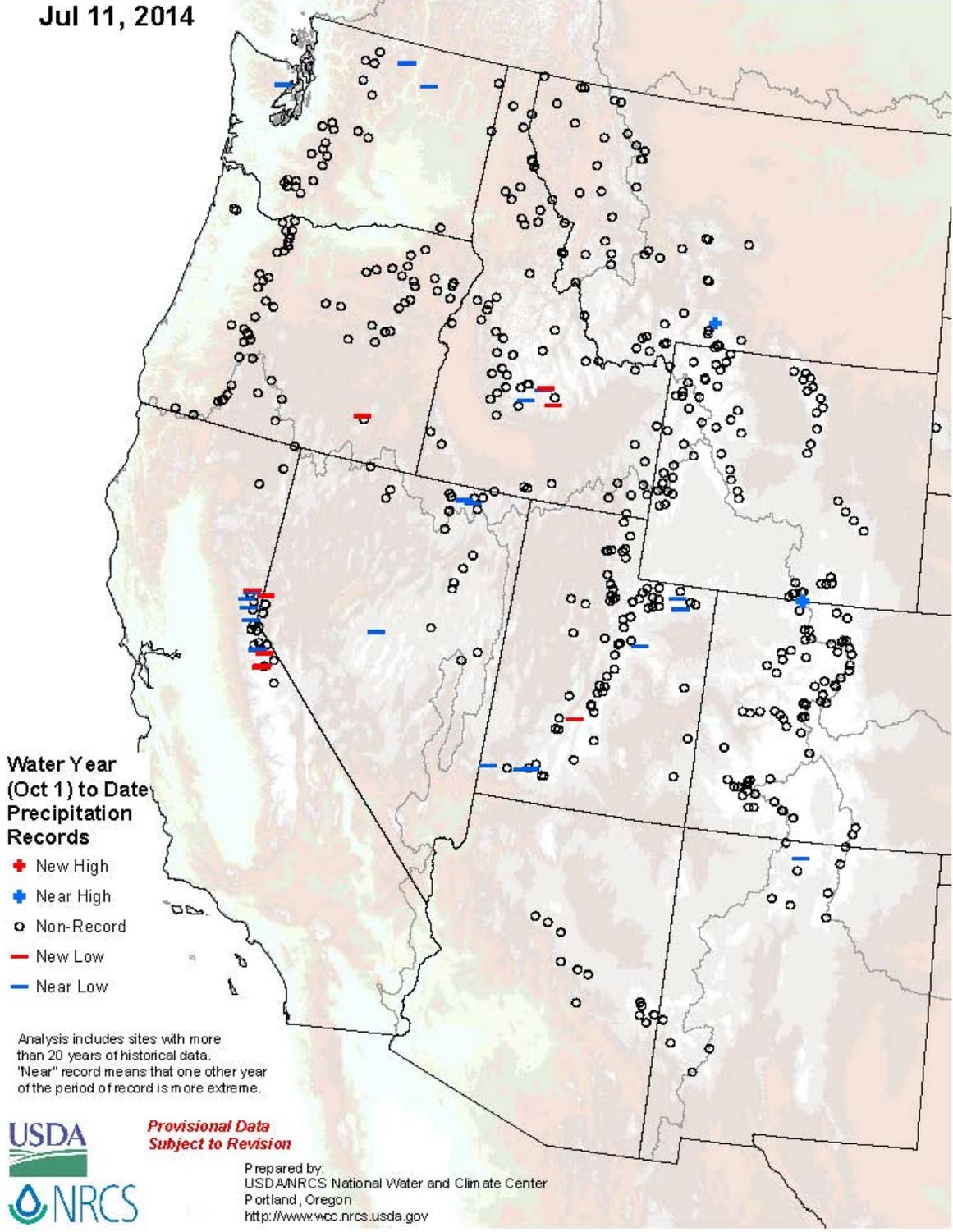


[nrcc.usda.gov/wps/portal/nrcc/detail/id/snow/?cid=stelprdb1241667](http://nrcc.usda.gov/wps/portal/nrcc/detail/id/snow/?cid=stelprdb1241667)

Record low water year to date precipitation levels:

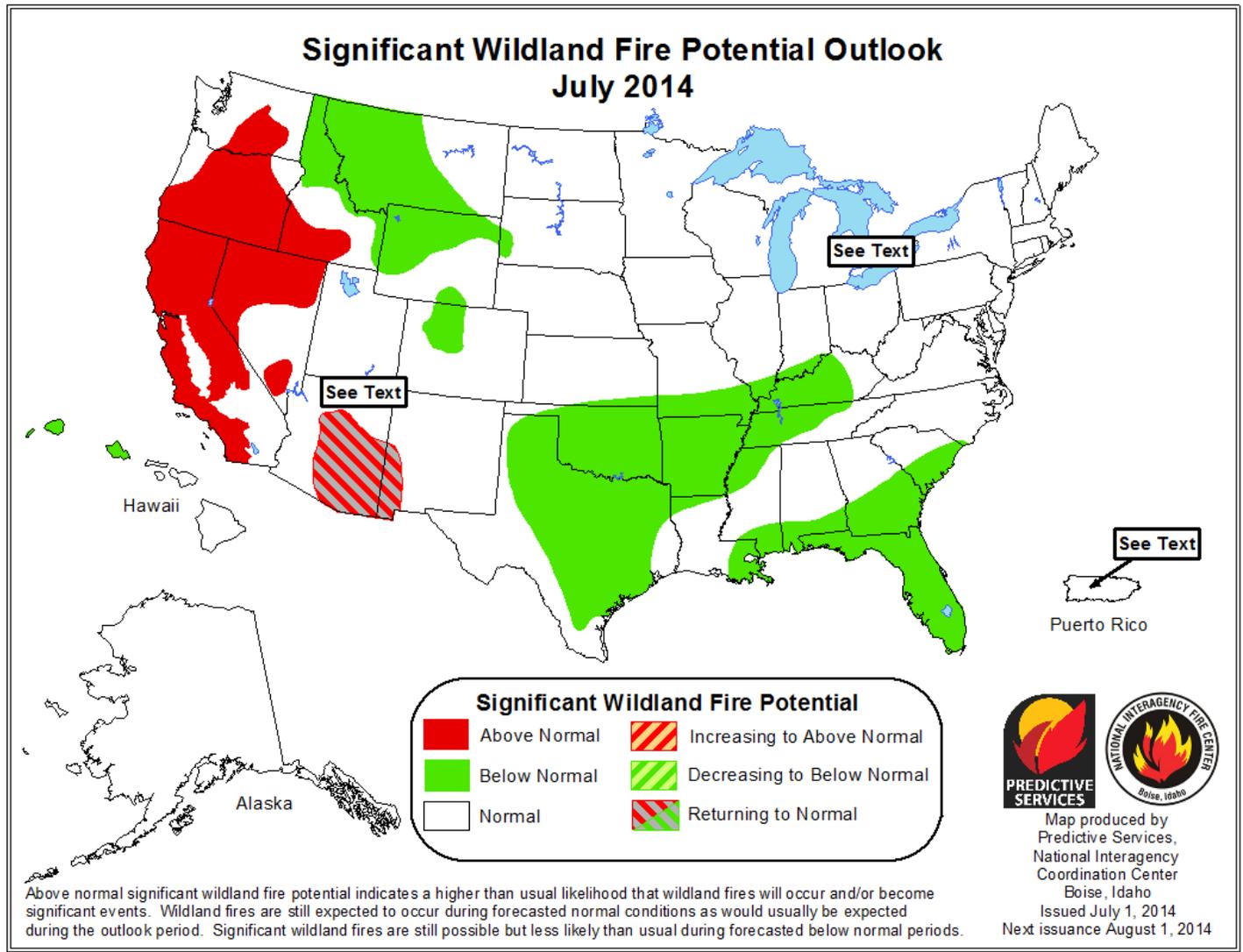
**SNOTEL Water Year (Oct 1) to Date Precipitation Records**

Jul 11, 2014



[wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/WestwideWYTDPrecipRecord.pdf](http://wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/WestwideWYTDPrecipRecord.pdf)

**Wildland Fire Outlook and Current Conditions:**



[predictiveservices.nifc.gov/outlooks/month1\\_outlook.png](http://predictiveservices.nifc.gov/outlooks/month1_outlook.png)

**Current (Active) Fires in HSA as of 7/11/14:**

**Colorado Gulch**, Blaine County. 5 mi. west of Hailey, Brush and grass. 728 acres and contained.

**Pagari**, Lincoln County, 6 mi. northeast of Richfield, BLM land, 5008 acres and contained.

**Hell Roaring**, Custer County, 12 mi. south of Stanley, USFS land, 325 acres and contained.

**Dietrich Butte**, Lincoln County, 3.5 mi. north of Dietrich, BLM land, 40 acres and contained.

**Sources:** [www.nifc.gov/nicc/sitreprt.pdf](http://www.nifc.gov/nicc/sitreprt.pdf) and [www.inciweb.nwccg.gov](http://www.inciweb.nwccg.gov)

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