

<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> August <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> September 5, 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:**

The month of August brought a lot of rain; almost over the course of the entire month! Flash flooding and major crop damage (grains, alfalfa hay, potatoes) was rather widespread across the Hydrologic Service Area (HSA)- estimated damages above \$10 million. Last month brought widespread rainfall (over 200 to 600% of normal) across southern Idaho. With the recent rain, all of the HSA is at normal or above normal for the last three months with most mountainous areas above 125% of normal. AHPS current water year-to-date precipitation ranks most of Bannock, Power, eastern Bonneville and Bear Lake counties receiving well above normal amounts with the remainder of the area capturing 50 to 90% of normal. The four-day period (midnight Aug 4 to midnight Aug 7) brought SNOTEL precipitation amounts ranging from 0 to 1 inch in the Big Wood & Big Lost basins. The Garfield SNOTEL received 1.8 inch in the Little Wood basin and then in southeast Idaho from Magic Mountain SNOTEL to Montpelier got 1-2 inches. A total of 6.70 inches of rainfall was recorded in Inkom last month from a COOP observer. Also see precipitation supplement report below for additional information.

It's a mixed bag for the precipitation deficit for eastern Idaho for the water-year-to-date, with most of the Snake River plain near normal; Bannock, Bear Lake and parts of Power and Bonneville counties are well above normal (over 4 inches) and the central mountains and the Idaho side of the Continental Divide being six to eight inches in deficit. The wildfire season is essentially over for southern Idaho with the recent rainfall, regrowth of vegetation and moist soils in the mountains.

August brought an average of around three to five inches of precipitation within the mid to higher elevations in the HSA, according to AHPS data with some areas gaining more than six inches! The temperature departure from normal for August shows that mostly across the HSA, temperatures were mostly -3 to -1 degree F below normal with the high elevation caribou highlands reaching -6 to -3 degrees below normal.

Last month brought storms of heavy rain and hail. Flash flooding and ponding of water in low lying areas occurred many times and throughout eastern Idaho; flooding roadways, basements, and overwhelming storm drains and sewers. Many people experienced flood damage to property. Debris flows from recent burn scars washed out roads and moved lots of material down hillslopes, and even a tornado briefly touched down in Custer county on the 20<sup>th</sup>!

Hydrologic Products issued for August: Five Flood Watches, 12 Flash Flood Warnings, and 26 Flood Advisories issued.

As far as the short term 8-14 day Climate Prediction Center Outlook is concerned, the forecast is for near normal temperatures. For the three-month outlook, we stand to have a 33 to 40% chance of above normal temperatures in eastern Idaho. For precipitation, the short-term forecast is 40% below normal for eastern Idaho and near normal for the three-month outlook.

Of the data available for the month, the station within the HSA reaching the highest 24-hour temperature (non-SNOTEL) was the Massacre Rocks S.P. COOP station which reached 99°F on the 4<sup>th</sup>. The station with the lowest recorded temperature were the Stanley COOP and Copper Basin RAWS stations at 29°F on August 27<sup>th</sup>. The highest recorded 24-hr precipitation (non-SNOTEL) occurred at the Blackfoot COOP where 1.67 inch fell on the 7<sup>th</sup>. The highest recorded precipitation total (non-SNOTEL) occurred at the Tetonia Experimental Station COOP where 6.63 total inches was recorded. The Lost-Wood Divide SNOTEL station received 7.31 inches of precipitation total for the month!

Reservoirs last month decreased capacity overall by around 5% in the upper Snake River basin system (a decrease of about 194 KAF occurred over the month and is currently sitting at 49% of capacity overall). Compared to last year at this time, it was about 14% of capacity. Water storage varies across eastern Idaho; according to NRCS reservoir data, the most notable decreases last month were Henrys Lake and Island Park dropping 19 and 16 percent capacity respectively. Both Magic and Mackay reservoirs gained 3% of capacity last month due to the rainfall producing inflow.

Current streamflow conditions in eastern Idaho are mostly above normal with a few much above normal monthly streamflows for the majority of the unregulated streams (see graphic below) as a result of the rainfall.

Drought conditions across eastern Idaho mostly remained the same since last month with Cassia county improving a category level (moderate). With the rainfall, no new counties have declared drought emergencies this past month according to the Idaho Department of Water Resources, but on September 3<sup>rd</sup>, the USDA designated the counties of Jerome and Twin Falls as primary natural disaster areas due to the Aug 3-7 excessive rainfall. That means that the contiguous counties of Cassia, Gooding, Minidoka and Lincoln also qualify for assistance. Other counties are in progress to make disaster declarations to receive financial assistance to damaged crops. The U.S. Seasonal Drought Outlook forecasts drought to persist/intensify across the central mountains and most of the Snake River plain where the extreme eastern Idaho and southeast counties are excluded from the outlook.

According to the Idaho NRCS Snow Survey September 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 Snake (Heise) basin. The basin was given a SWSI rating of 0.4 (near normal). This rating reflects overall water availability in the basins and are mostly used for irrigational planning purposes. The two lowest ranked basins within the HSA are the Little Wood and Little Lost basins rated at -2.6 and -1.6 respectively, which are below normal. The Little Wood basin is ranked as the seventh driest streamflow forecast non-exceedance probability (improvement since last month), 2001 was the driest.

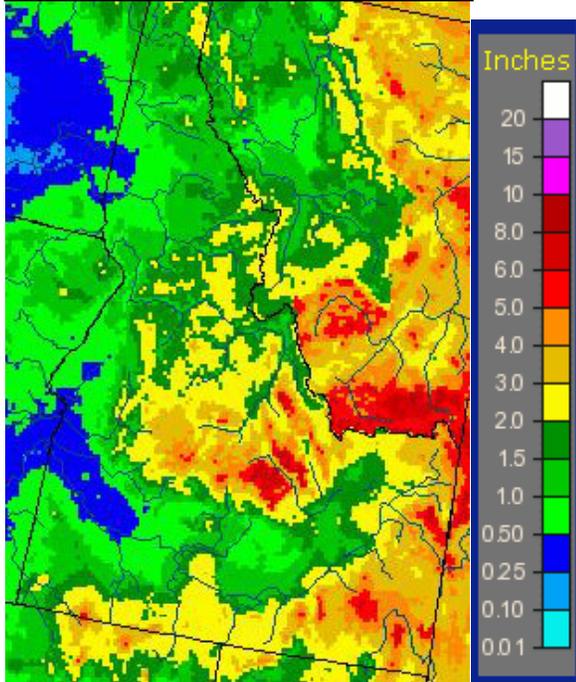
For more information on the Idaho Surface Water Supply Index (SWSI) September 1<sup>st</sup> Outlook please visit:

<ftp://ftp-fc.sc.egov.usda.gov/ID/snow/webftp/swsi/tables/Sep/SWSI09.pdf>

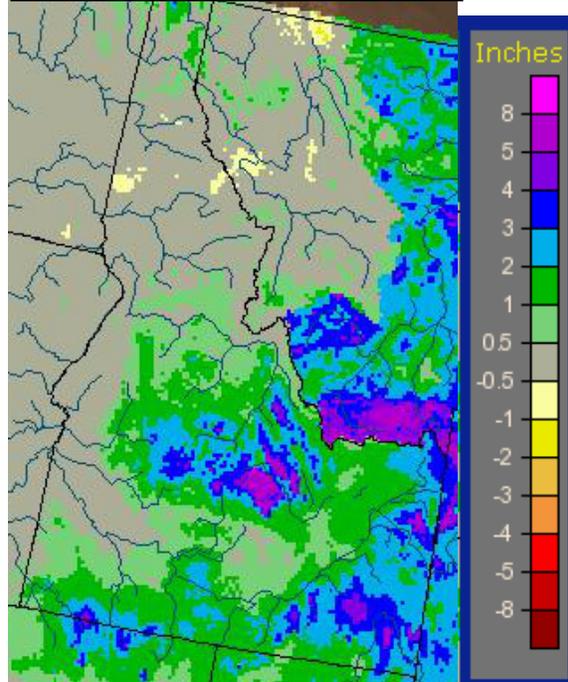
\*Again, please see supplemental August precipitation document found below this monthly E-5 report authored on August 29<sup>th</sup>.

**Precipitation:**

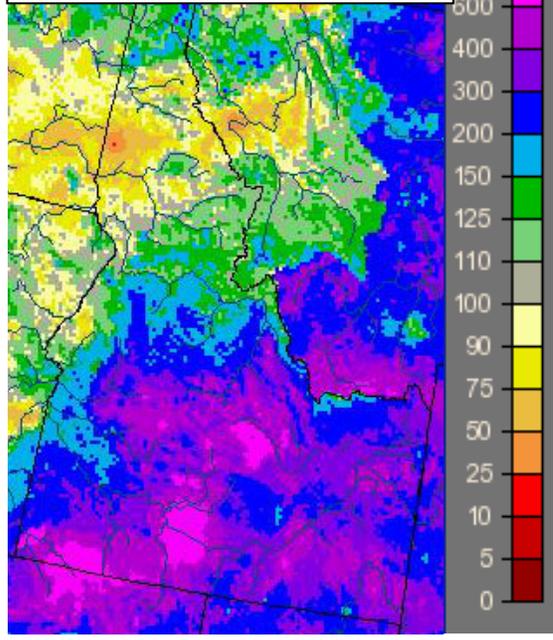
August 2014, Observed  
Precipitation



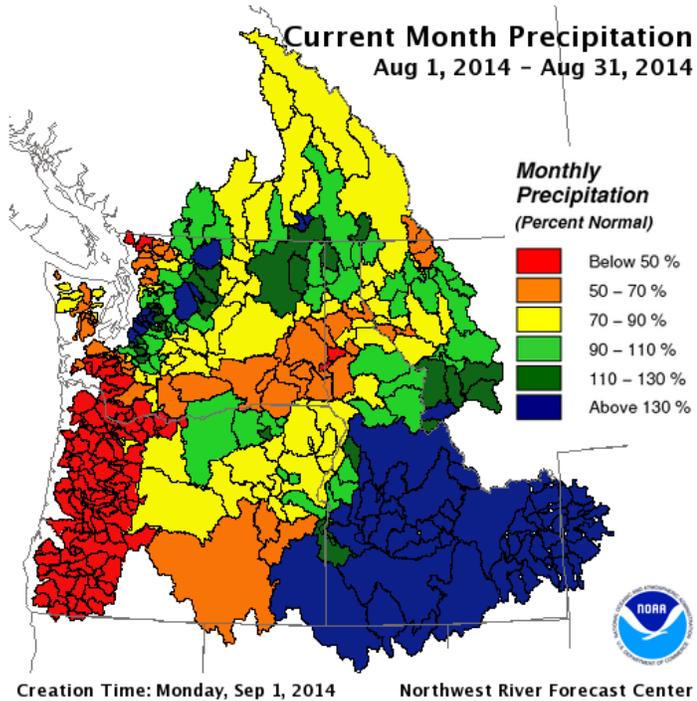
August 2014, Departure from  
Normal Precipitation



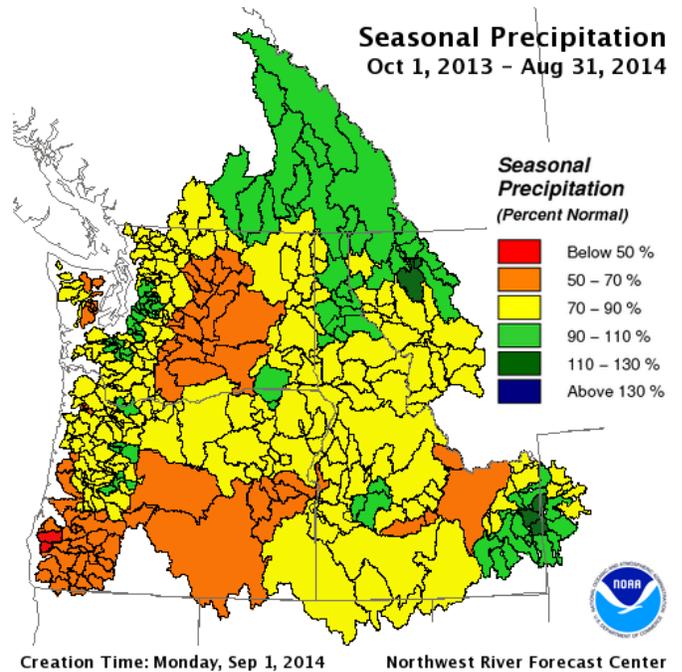
August 2014, Percent of  
Normal Precipitation



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



[nwrfc.noaa.gov/WAT\\_RES\\_wy\\_summary/20140901/CurMonMAP\\_2014Aug31\\_2014090115.png](http://nwrfc.noaa.gov/WAT_RES_wy_summary/20140901/CurMonMAP_2014Aug31_2014090115.png)



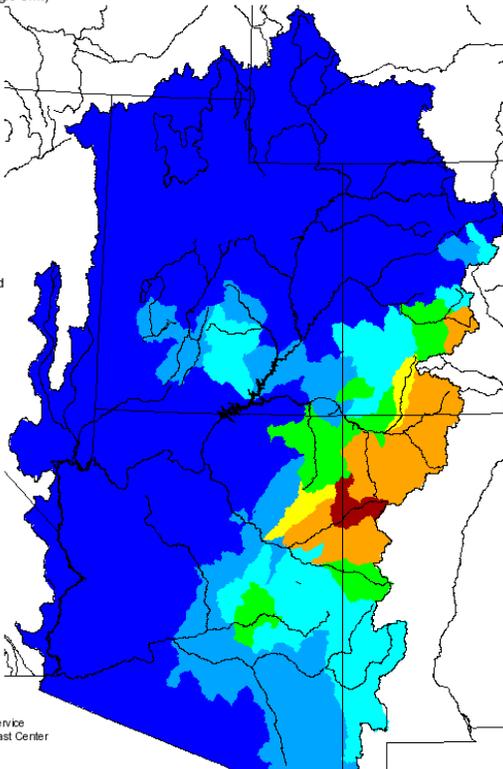
[nwrfc.noaa.gov/WAT\\_RES\\_wy\\_summary/20140901/SeasonalMAP\\_2014Aug31\\_2014090115.png](http://nwrfc.noaa.gov/WAT_RES_wy_summary/20140901/SeasonalMAP_2014Aug31_2014090115.png)

### Monthly Precipitation for August 2014

(Averaged by Hydrologic Unit)

#### % Average

- > 150%
- 129 - 150%
- 110 - 129%
- 100 - 109%
- 90 - 99%
- 70 - 89%
- 50 - 69%
- < 50%
- Not Reported



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

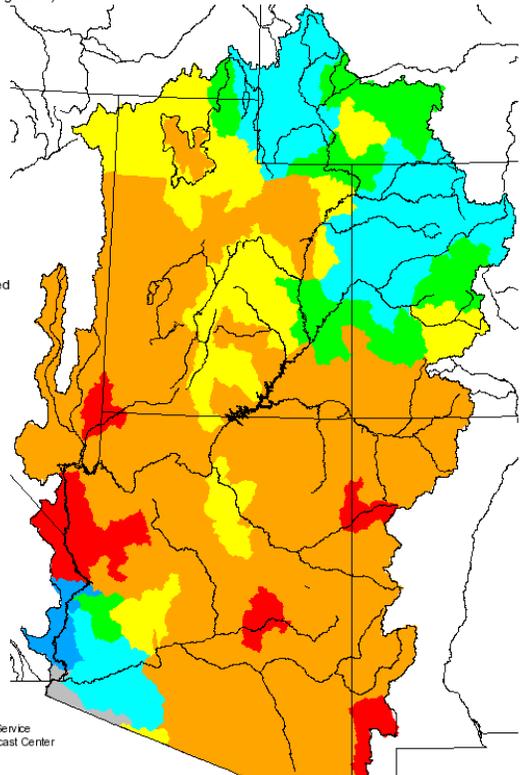
[cbrfc.noaa.gov/product/mapsum/mapsum.cgi??cbrfc?M?2014?08](http://cbrfc.noaa.gov/product/mapsum/mapsum.cgi??cbrfc?M?2014?08)

### Seasonal Precipitation, October 2013 - August 2014

(Averaged by Hydrologic Unit)

#### % Average

- > 150%
- 129 - 150%
- 110 - 129%
- 100 - 109%
- 90 - 99%
- 70 - 89%
- 50 - 69%
- < 50%
- Not Reported



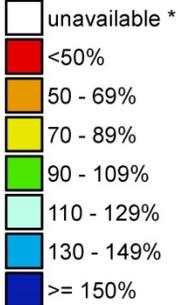
Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

[cbrfc.noaa.gov/product/mapsum/mapsum.cgi??cbrfc?S?2014?08](http://cbrfc.noaa.gov/product/mapsum/mapsum.cgi??cbrfc?S?2014?08)

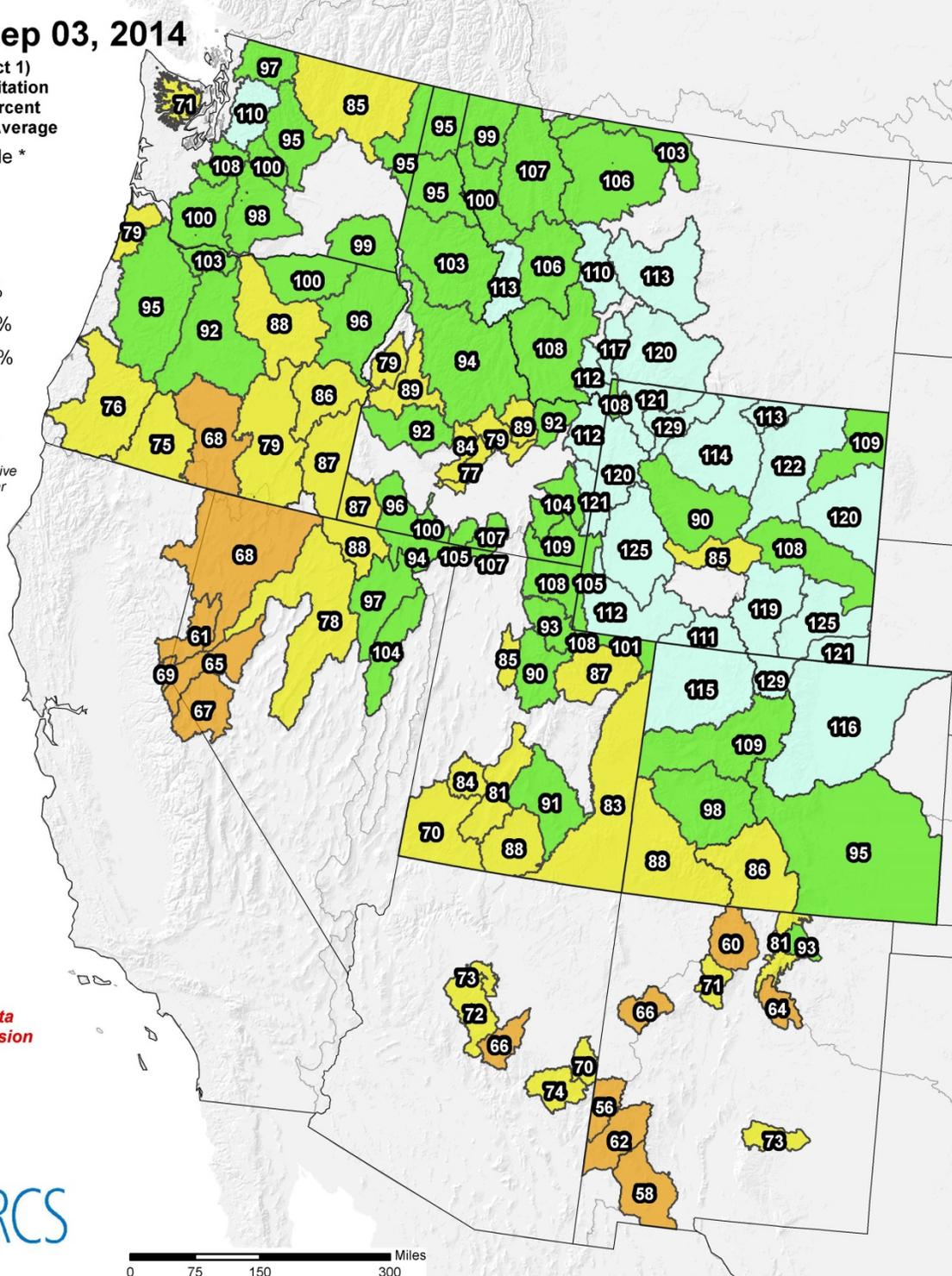
# Westwide SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

Sep 03, 2014

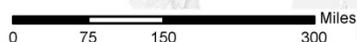
Water Year (Oct 1) to Date Precipitation Basin-wide Percent of 1981-2010 Average



\* Data unavailable at time of posting or measurement is not representative at this time of year



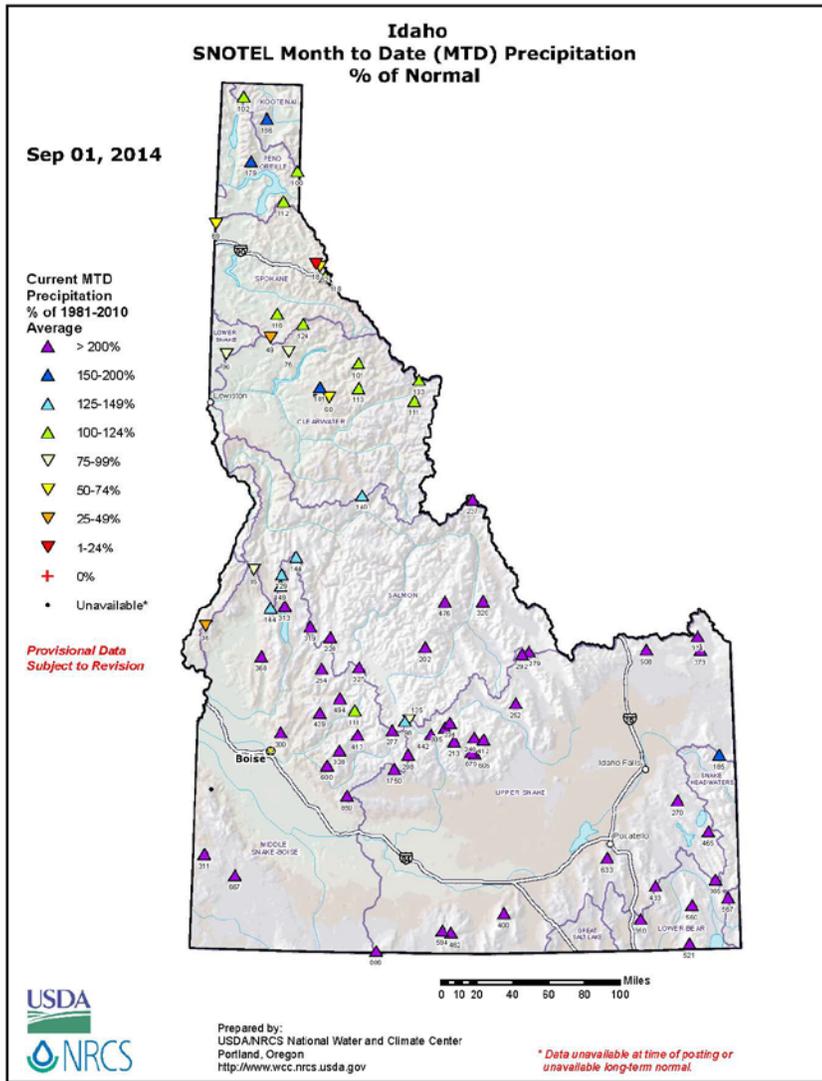
Provisional data subject to revision



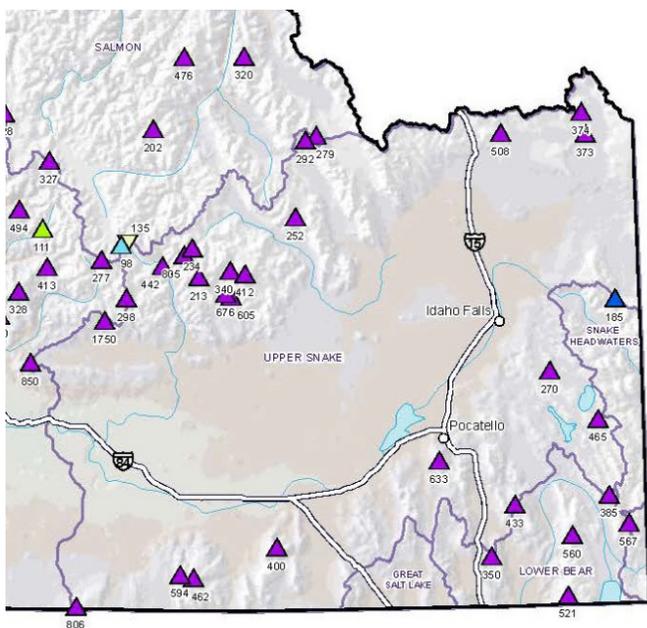
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by:  
 USDA/NRCS National Water and Climate Center  
 Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

[wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/west\\_wytdprecpcnormal\\_update.pdf](http://wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/west_wytdprecpcnormal_update.pdf)



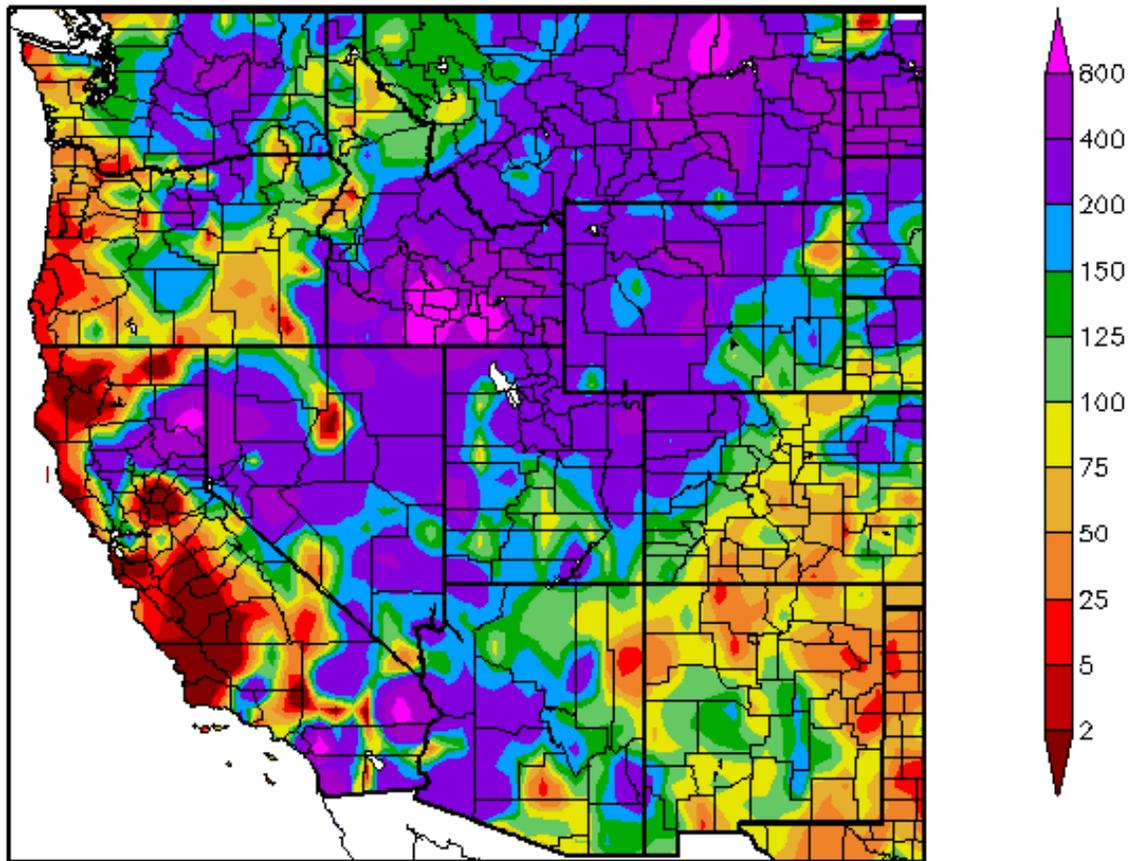
[ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/1stmonth/id/prec/id\\_mtdprecptnormal\\_Sep.pdf](ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/1stmonth/id/prec/id_mtdprecptnormal_Sep.pdf)



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

August's precipitation was the opposite of July for eastern Idaho, especially in the south central region with Twin Falls, Gooding, Jerome, Lincoln, parts of Cassia and Power counties receiving over 800 percent of Normal. All of southern Idaho received 200 percent or greater. Same story for Montana, Wyoming, northern Utah, Nevada, central Washington, northern Oregon and northwest Colorado where greater than normal precipitation fell. West of the Cascades and large portion of California were very dry last month.

## Percent of Normal Precipitation (%) 8/1/2014 - 8/31/2014



Generated 9/2/2014 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=)

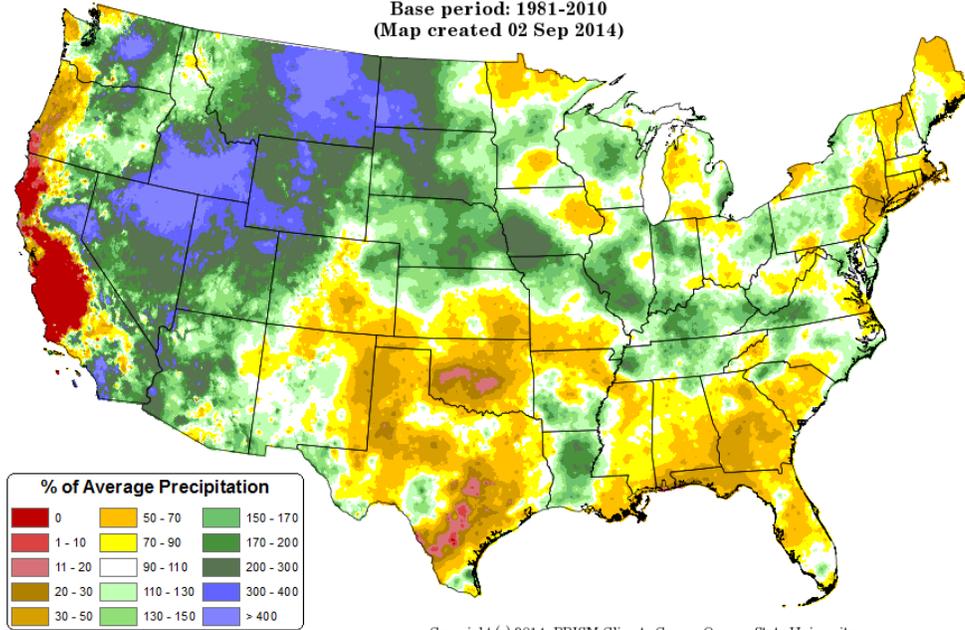
## August CONUS Total Precipitation Anomaly:

### Total Precipitation Anomaly: August 2014

Period ending 31 Aug 2014

Base period: 1981-2010

(Map created 02 Sep 2014)



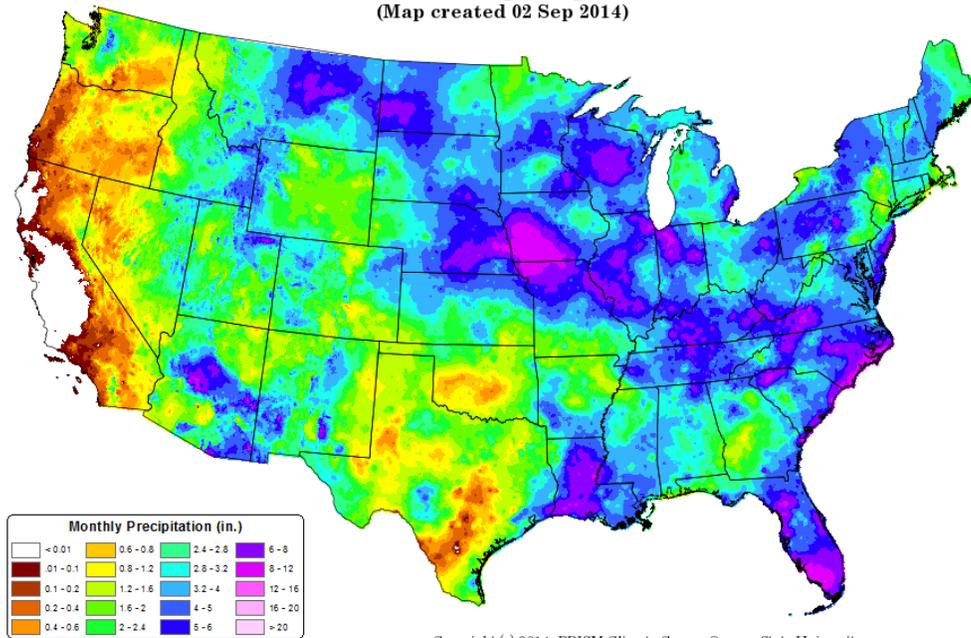
Copyright (c) 2014, PRISM Climate Group, Oregon State University

## August CONUS Precipitation:

### Total Precipitation: August 2014

Period ending 31 Aug 2014

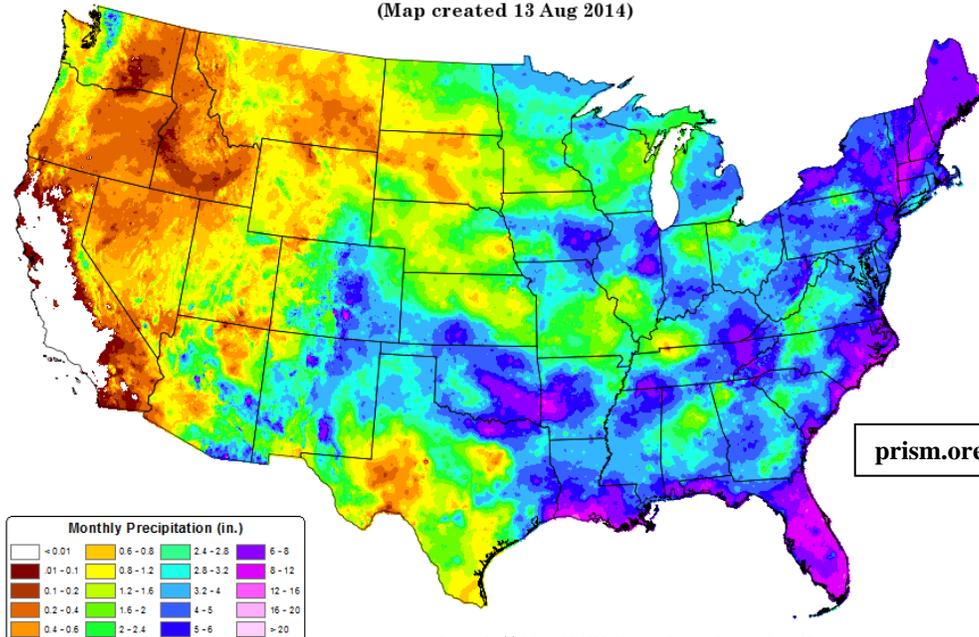
(Map created 02 Sep 2014)



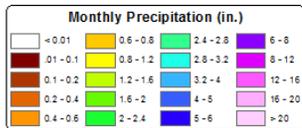
Copyright (c) 2014, PRISM Climate Group, Oregon State University

**July CONUS Precipitation for Comparison:**

**Total Precipitation: July 2014**  
 Period ending 31 Jul 2014  
 (Map created 13 Aug 2014)



[prism.oregonstate.edu/comparisons](http://prism.oregonstate.edu/comparisons)

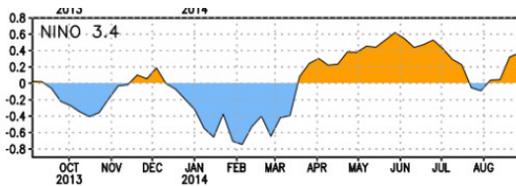
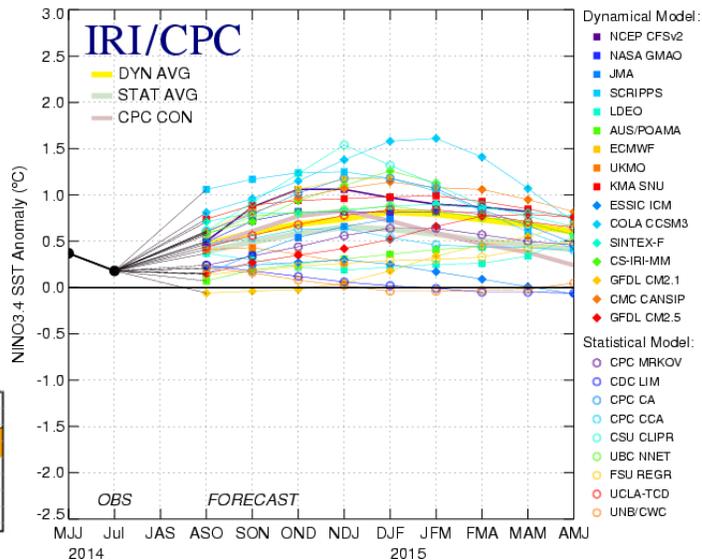


Copyright (c) 2014, PRISM Climate Group, Oregon State University

**ENSO Update:**

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

Mid-Aug 2014 Plume of Model ENSO Predictions



[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)

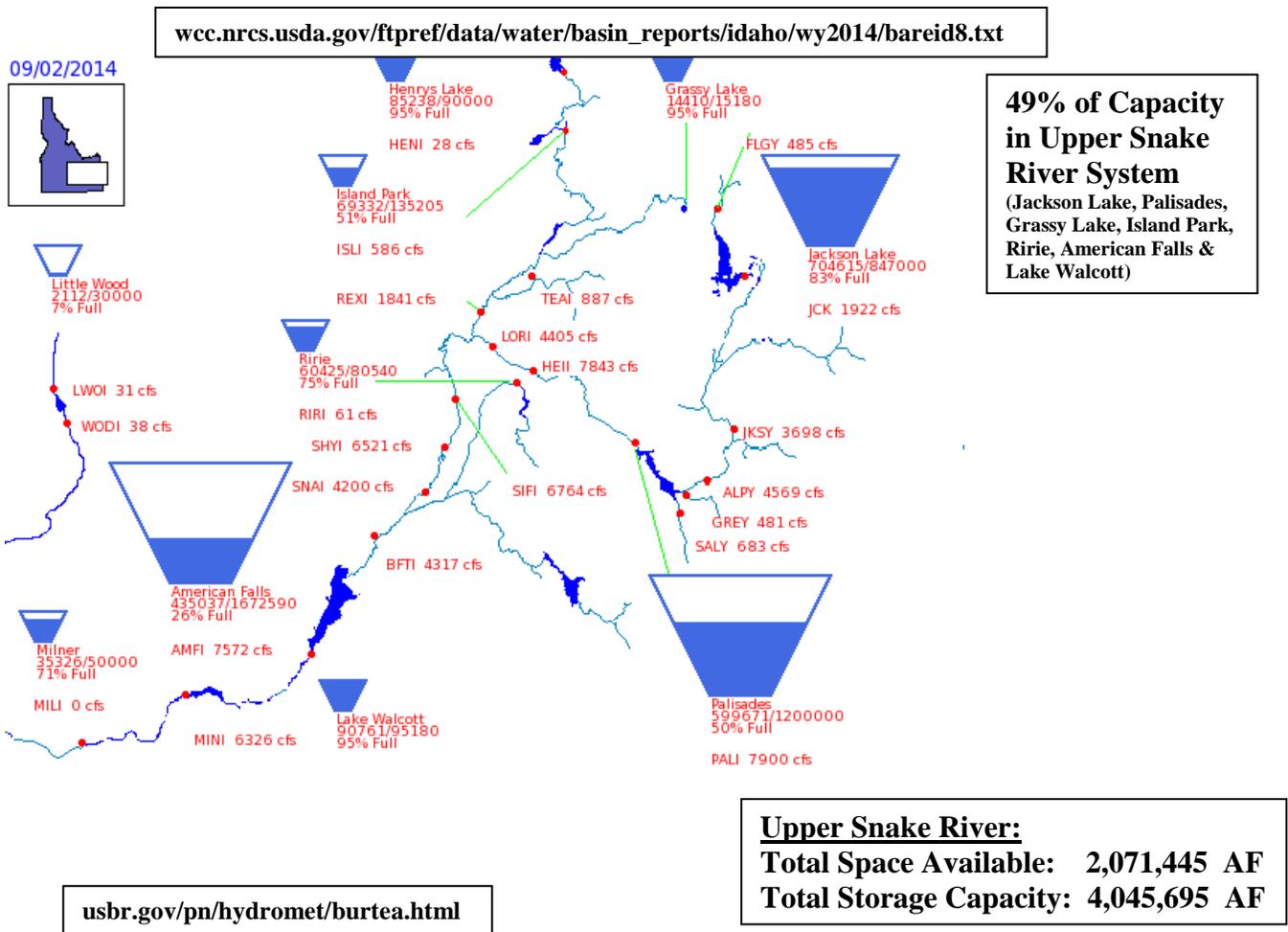
**CPC Synopsis:** ENSO-Neutral conditions continue, an El Niño watch remains in effect with probabilities lowering to near 65% chance of an El Niño developing during the fall/earlywinter.

**Note:** The ENSO-Neutral climate pattern is forecast to continue in the Northern Hemisphere and transition to El Niño by fall/winter. Positive equatorial sea surface temperatures (SSTs) anomalies continue in the eastern half of the eastern Pacific Ocean and just west of the Date Line. Tropical cyclone activity continues in eastern Pacific and both coasts of Mexico. MJO signal remains weak and expected to remain so for next few weeks.

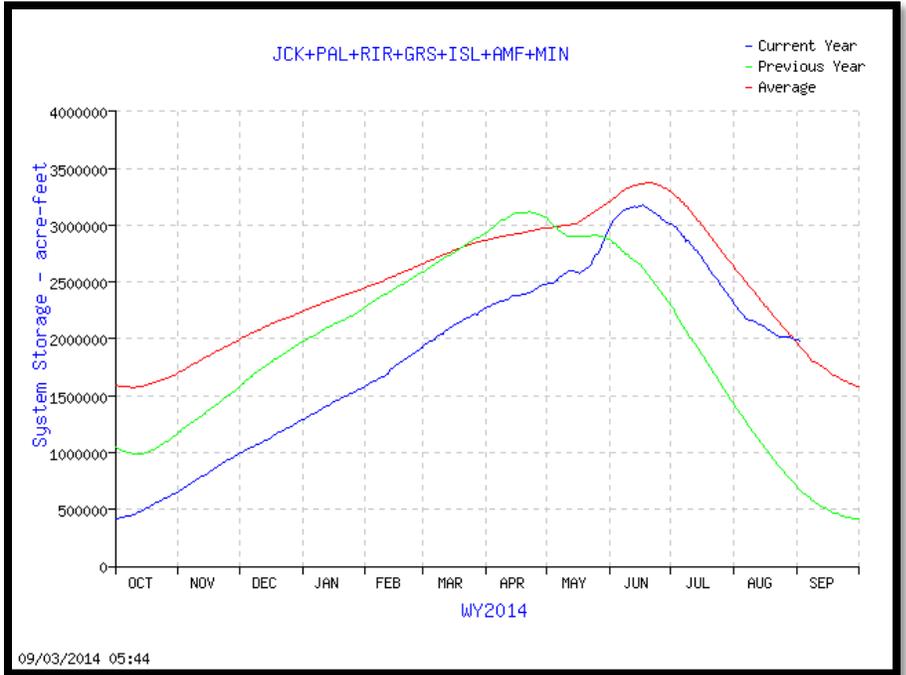
**Reservoirs:**

Reservoir	% Capacity July 31 <sup>1</sup>	% Capacity August 31 <sup>2</sup>	Percent Change	% of Average <sup>2</sup>	% of Last Year <sup>2</sup>
Henry's Lake	96	77	-19	91	102
Island Park	67	51	-16	107	151
Jackson Lake	93	84	-9	134	223
Palisades	71	58	-13	95	283
Ririe	79	75	-4	104	111
Blackfoot	47	44	-3	91	104
American Falls	27	26	-1	78	457
Bear Lake	40	37	-3	70	75
Magic	4	7	3	20	119
Little Wood	13	7	-6	26	275
Mackay	20	23	3	96	168
Oakley	17	17	0	67	131
Lake Walcott	100 <sup>3</sup>	95 <sup>4</sup>	-5	n/a	n/a
Milner	75 <sup>3</sup>	71 <sup>4</sup>	-4	n/a	n/a

Source: (1) NRCS July 31, 2014; (2) NRCS August 31, 2014.  
 (3) US Bureau of Reclamation (BOR) August 7, 2014 (4) BOR September 2, 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:**

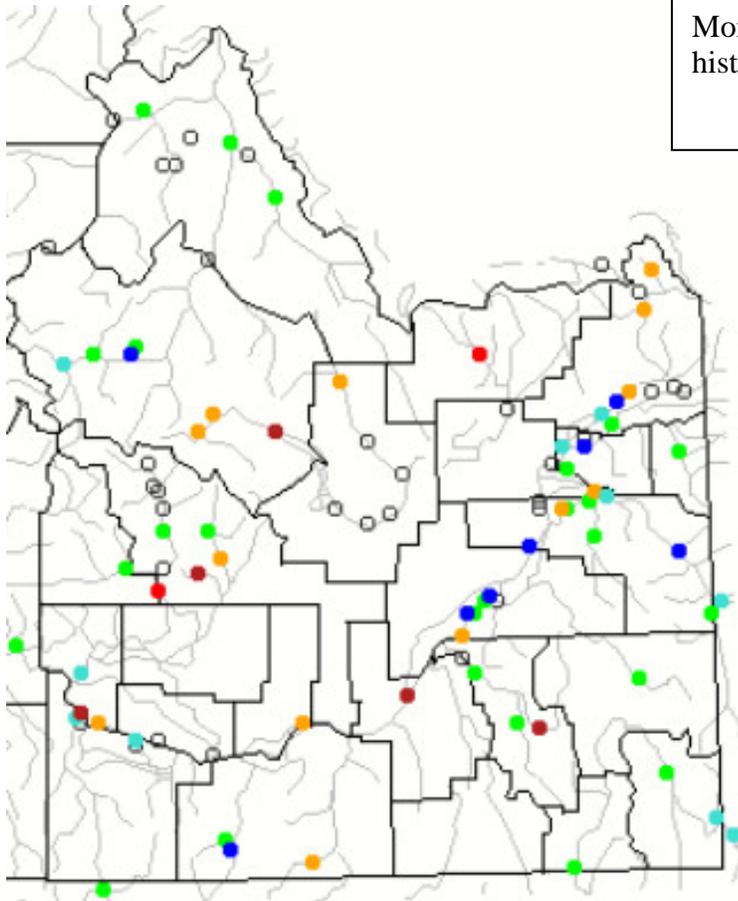
**Dam Level Condition**

● 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	5912.3	9/3 06:00	5912.3	9/3 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 August 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 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

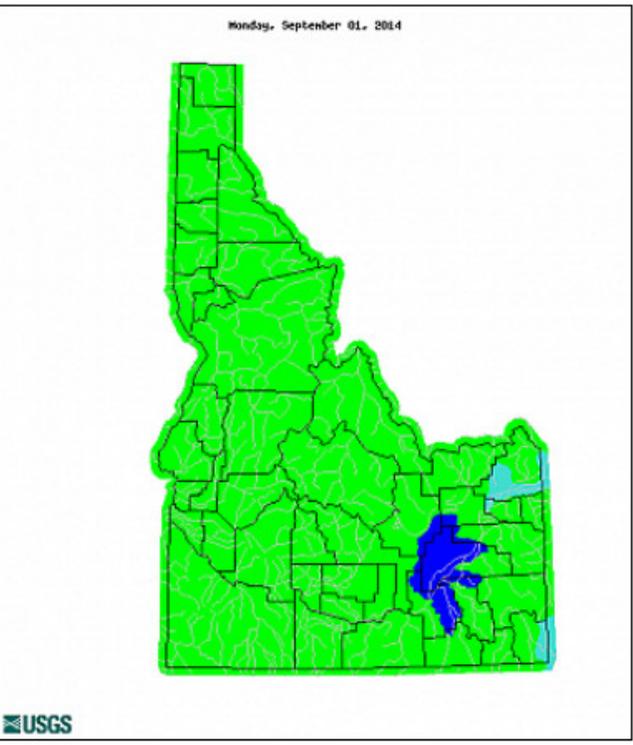
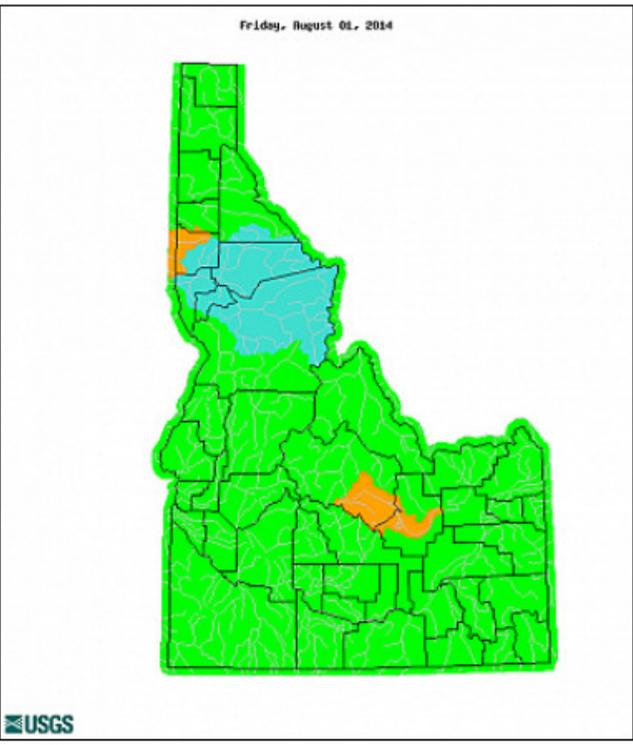
**Historic Streamflow Comparison, July 2014 and August 2014:**

## Comparison of Streamflow Maps

**Geographic area:**  **Water resource region:**    
**Map type:**  **Sub type:**

Date (YYYYMM):

Date (YYYYMM):



Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

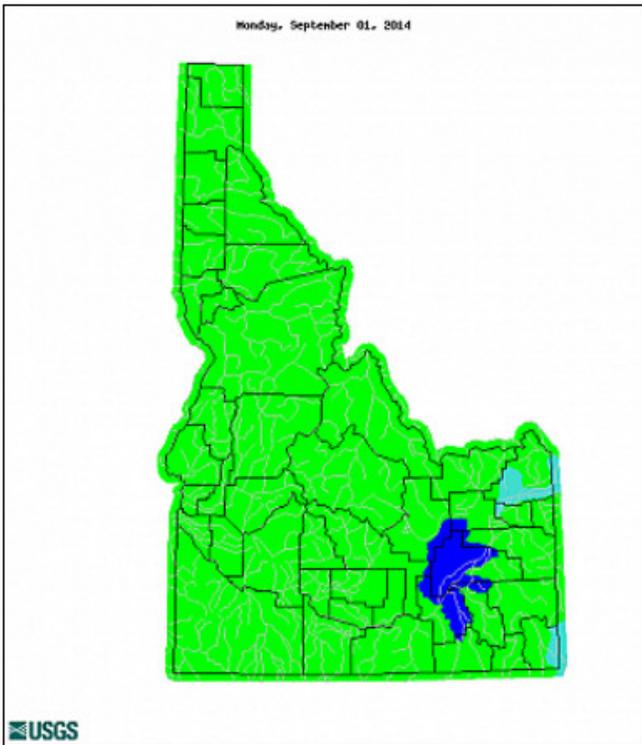
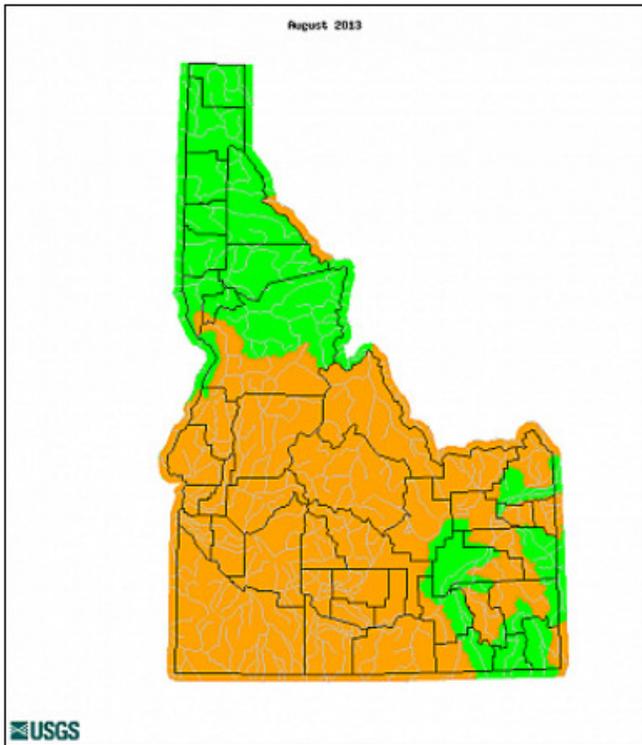
# Historic Streamflow Comparison, August 2013 and August 2014:

## Comparison of Streamflow Maps

**Geographic area:**  **Water resource region:**    
**Map type:**  **Sub type:**

Date (YYYYMM):

Date (YYYYMM):

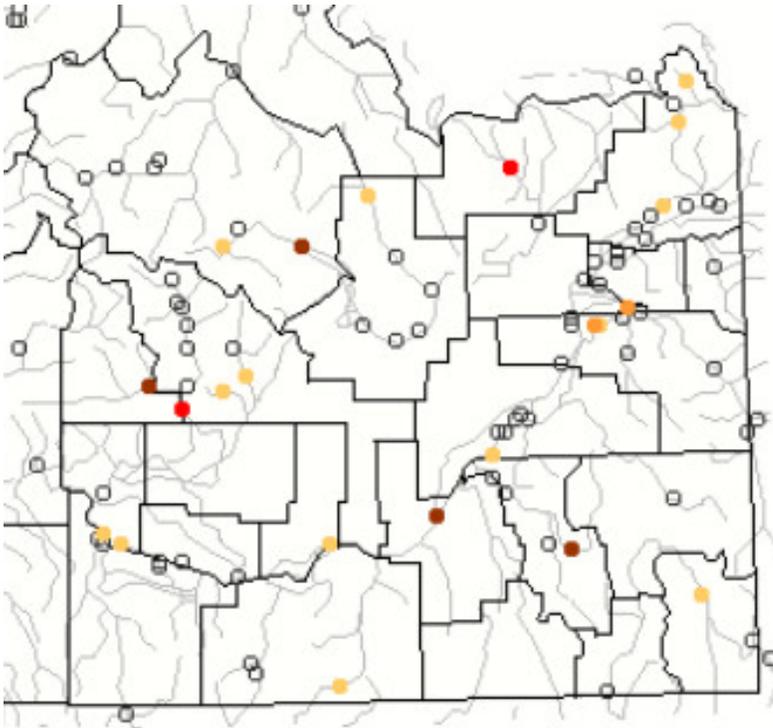


Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

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

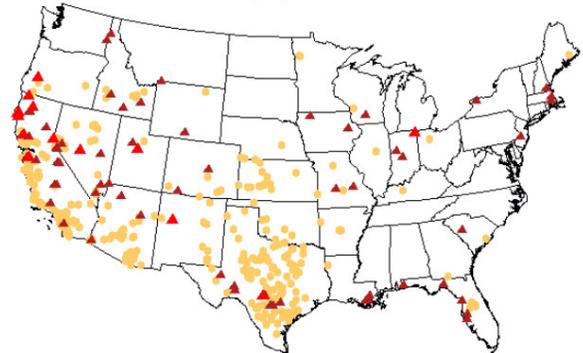
**Below Normal 28-Day average streamflow as of September 3, 2014 (see graphic below):**

Medicine Lodge Creek nr Small, 23.71 cfs, 2<sup>nd</sup> percentile, (new low),  
 Big Lost River blo Mackay Reservoir, 129 cfs, 2<sup>nd</sup> percentile,  
 Big Wood River blo Magic Dam, 0.27 cfs, 1<sup>st</sup> percentile, (new low),  
 Snake River at Neeley, 7315 cfs, 4<sup>th</sup> percentile,  
 Portneuf River at Topaz, 81 cfs, 3<sup>rd</sup> percentile



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

Wednesday, September 03, 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	

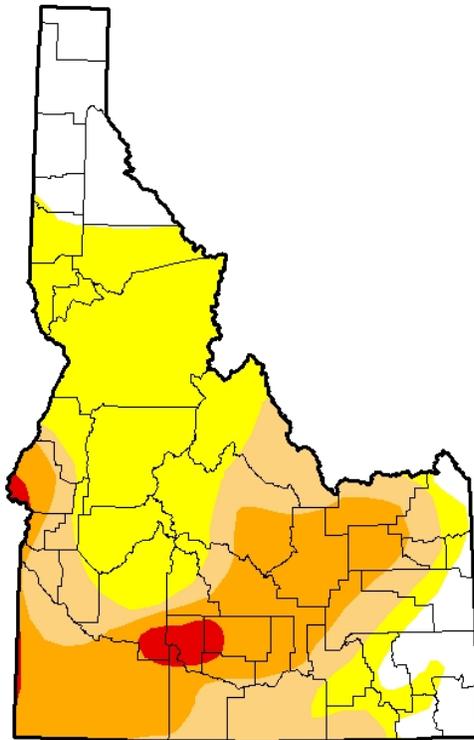
[waterwatch.usgs.gov/index.php?id=wwdrought\\_us](http://waterwatch.usgs.gov/index.php?id=wwdrought_us)

[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**

**September 2, 2014**  
(Released Thursday, Sep. 4, 2014)  
Valid 8 a.m. EDT



*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	16.04	83.96	46.30	25.27	2.09	0.00
<b>Last Week</b> 8/26/2014	15.92	84.08	46.26	28.95	2.09	0.00
<b>3 Months Ago</b> 6/9/2014	48.25	51.75	38.47	27.16	1.74	0.00
<b>Start of Calendar Year</b> 12/31/2013	21.66	78.34	70.07	45.43	7.70	0.00
<b>Start of Water Year</b> 10/1/2013	12.06	87.94	76.96	43.33	5.09	0.00
<b>One Year Ago</b> 9/2/2013	2.36	97.64	94.76	62.32	10.52	0.00

Intensity:

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

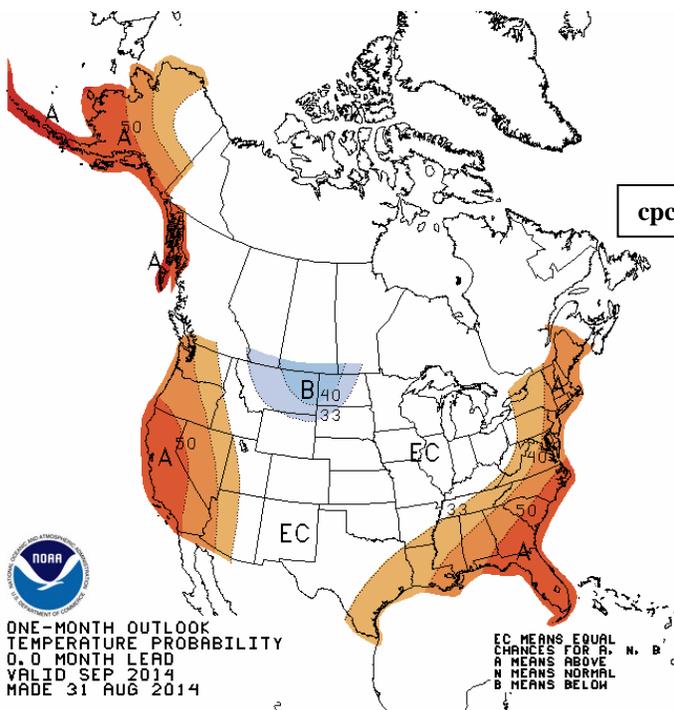
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

**Author:**

David Simeral  
Western Regional Climate Center



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



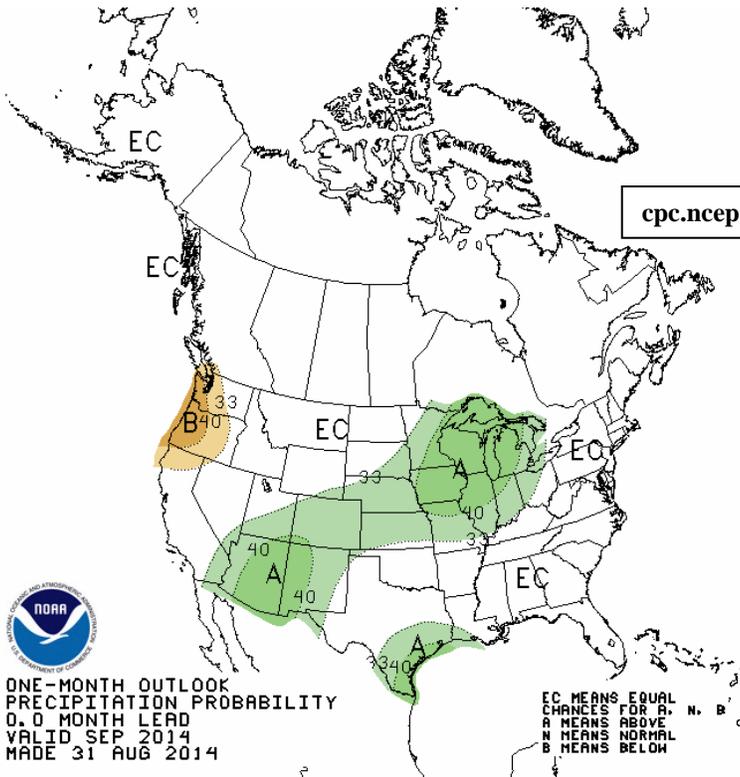
[cpc.ncep.noaa.gov/products/predictions/30day/off15\\_temp.gif](http://cpc.ncep.noaa.gov/products/predictions/30day/off15_temp.gif)



ONE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
0.0 MONTH LEAD  
VALID SEP 2014  
MADE 31 AUG 2014

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

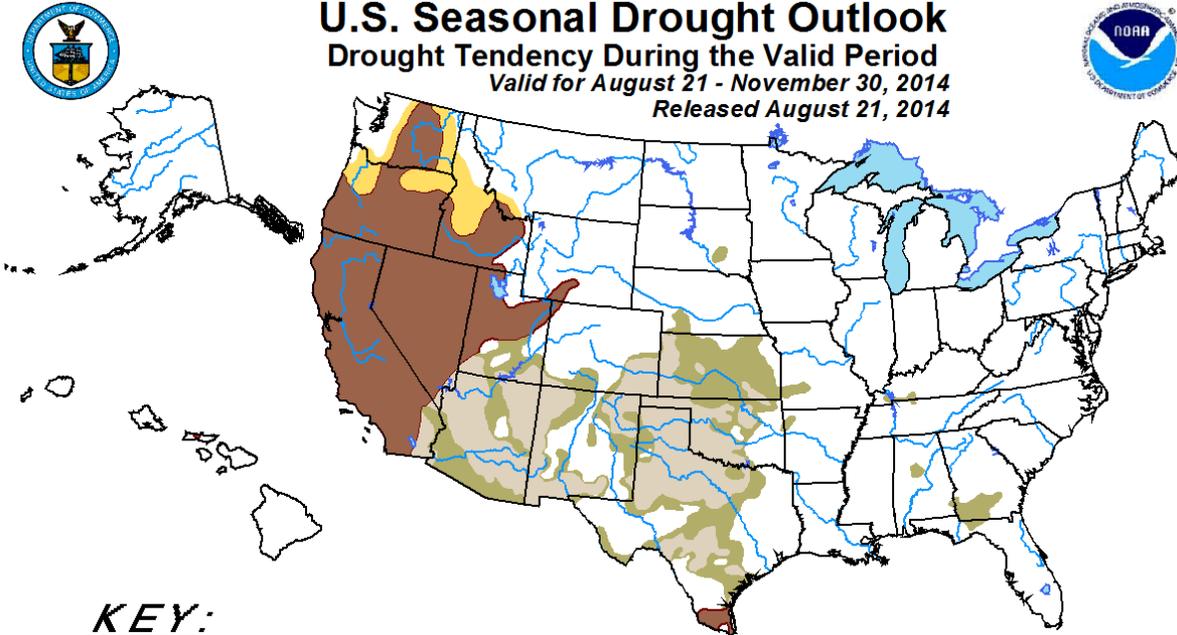
[cpc.ncep.noaa.gov/products/predictions/30day/off15\\_prpc.gif](http://cpc.ncep.noaa.gov/products/predictions/30day/off15_prpc.gif)



## U.S. Seasonal Drought Outlook

### Drought Tendency During the Valid Period

Valid for August 21 - November 30, 2014  
Released August 21, 2014



**KEY:**

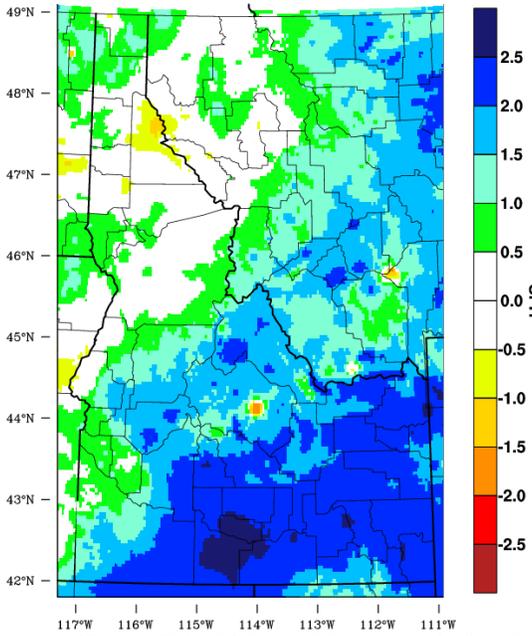
- Drought persists or intensifies
- Drought remains but improves
- Drought removal likely
- Drought development likely

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)

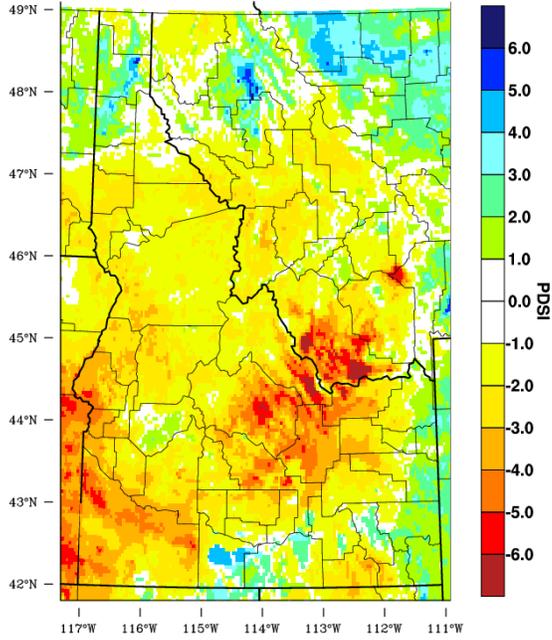
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- 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  
August 2014



Idaho - PDSI  
August 2014

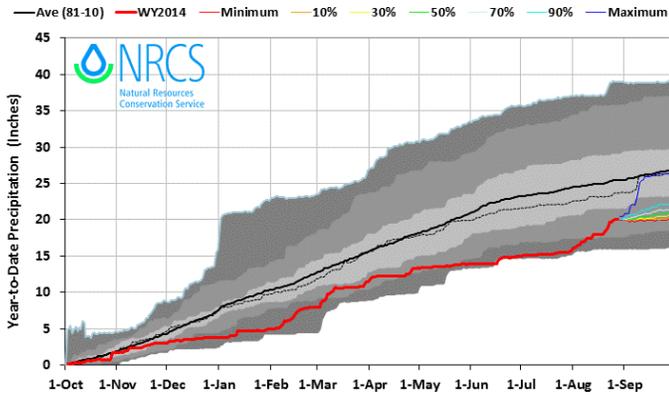


WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 2 SEP 2014 WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 2 SEP 2014

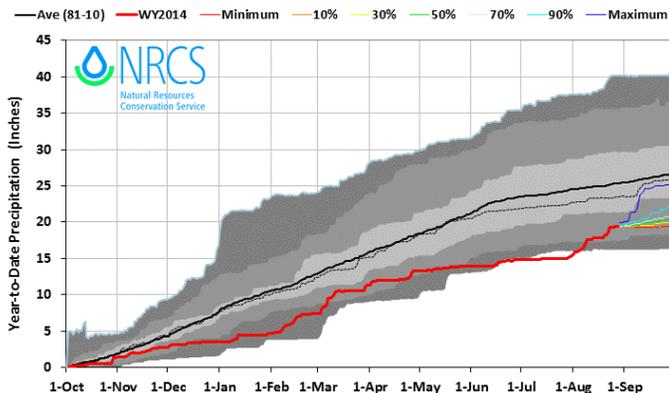
[wrcc.dri.edu/monitor/WWDT/index.php?region=id](http://wrcc.dri.edu/monitor/WWDT/index.php?region=id)

**Some benefit to recent August Precipitation: Water Year Observed and Projected Precipitation in the Big Lost and Little Wood basin graphs:**

Big Lost Basin 2014 Precipitation with Non-Exceedence Projections (5 sites)  
Based on Provisional SNOTEL data as of Aug 28, 2014

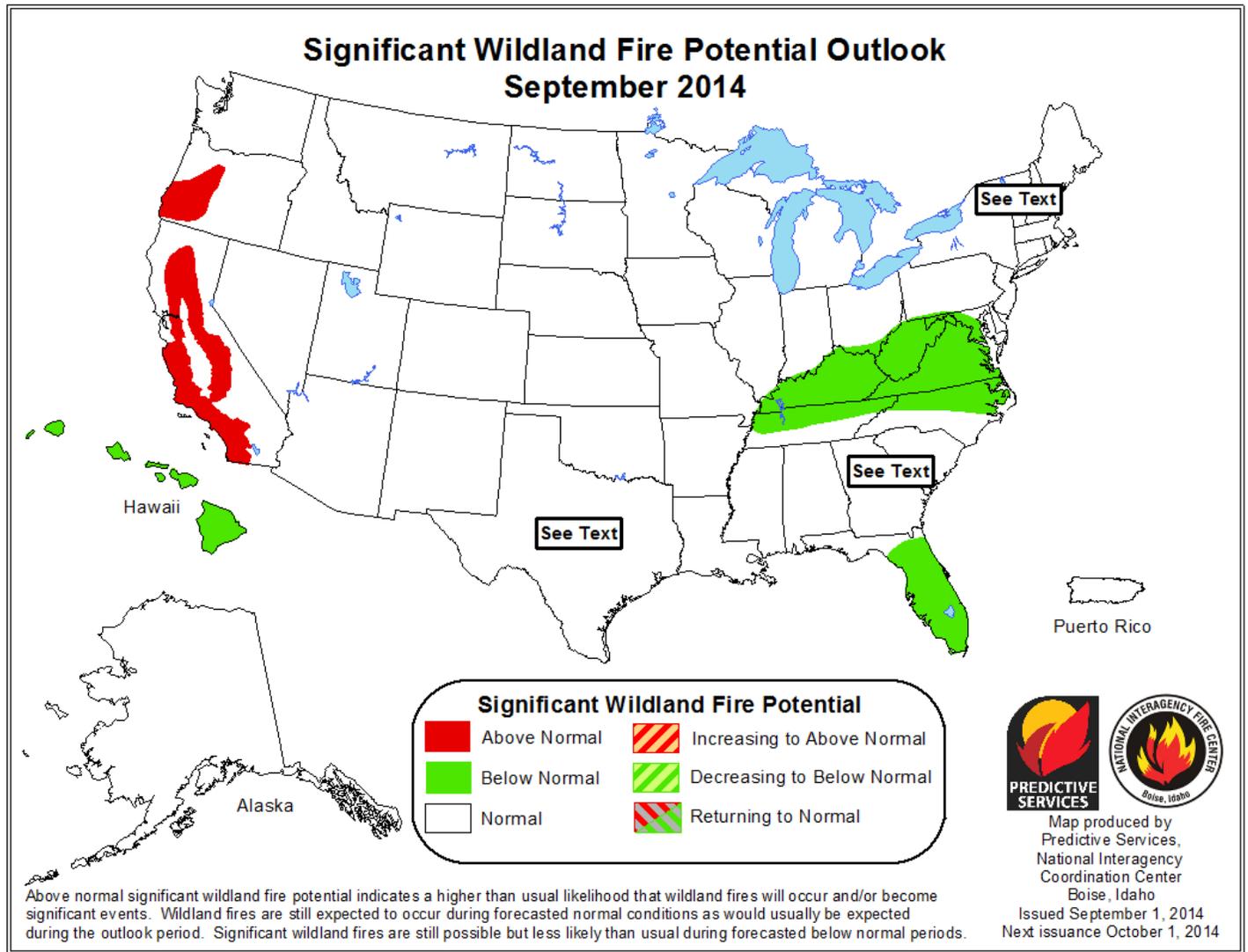


Little Wood Basin 2014 Precipitation with Non-Exceedence Projections (5 sites)  
Based on Provisional SNOTEL data as of Aug 28, 2014



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

**Wildland Fire Outlook and Current Conditions (normal with recent widespread rain):**



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

**Current (Active) Fires in HSA as of 9/4/14:**

None

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

**August Selected Chronological Flash Flooding and Miscellaneous Event Photos:**



**Aug 5<sup>th</sup>:** Under the railroad bridge on North Garrett Way in Pocatello. The underpass on North Main (downtown) and under I-15 on Hawthorne Road flooded as well in the Pocatello area.



**Aug 6<sup>th</sup>:** Ridley's parking lot and Collins St. in Blackfoot.



**Aug 6<sup>th</sup>:** (no photos) Flash flooding in the Warm Springs area near Beaver Creek burn-Forest Service reported two separate flooding incidents..... “a portion of hillside in the Castle Creek burn area succumbed to recent rains, washing a large quantity of mud and water down river. Additional flooding came one mile downstream from the Rooks Creek area. Flooding was primarily contained to the river bank, which left an approximately 3 1/2 foot mark on the embankment. The hot springs were inundated with mud and a lot of mud remains in the river.”



**Aug 8<sup>th</sup>:** Flooding in Beaver Creek burn area (Baker Creek near campground)



**Aug 19<sup>th</sup>:** Ponding of water in the parking lot at the mall in Idaho Falls.



**Aug 21<sup>st</sup>:** Hail accumulation and flash flooding near Arco.

- cc:
- Mike Schaffner, Western Region HCSD
  - Harold Opitz, Hydrologist-in-Charge, Northwest River Forecast Center
  - Joe Intermill, Service Coordination Hydrologist, Northwest River Forecast Center
  - Steve King, Development and Operations Hydrologist, Northwest River Forecast Center
  - Michelle Stokes, Hydrologist-in-Charge, Colorado Basin River Forecast Center
  - John Lhotak, Development and Operations Hydrologist, Colorado Basin River Forecast Center
  - Hydrometeorological Information Center
  - Dean Hazen, Science and Operations Officer, Pocatello, Idaho
  - Vern Preston, Warning Coordination Meteorologist, Pocatello, Idaho
  - Troy Lindquist, Senior Service Hydrologist, Boise, Idaho
  - Brian McInerney, Senior Service Hydrologist, Salt Lake City, Utah
  - Chuck Orwig, Senior Hydrologist, Northwest River Forecast Center
  - Joanne Salerno, Senior Hydrologist, Northwest River Forecast Center
  - Brent Bernard, Hydrologist, Colorado Basin River Forecast Center
  - PIH Mets/HMT's

### \*How wet has August been in Eastern Idaho?

- Twin Falls (airport) has received a whopping 5.55 inches of precipitation in August, July received 0.23 inch total for the month.
- Rexburg gained 3.80 inches recorded at the airport in August and in July it received 1.30 inches.
- Burley (airport) received 2.71 inches of precipitation in August, last month received 0.01 inch total.
- Idaho Falls (airport) gained 2.29 inches in August, July received 0.11 inch total for the month.
- Pocatello (airport) received 2.18 inches of precipitation in August, last month received 0.46 inch total.
- Challis (airport) gained 1.59 inches in August, July received 0.04 inch total for the month.
- Stanley (airport) received 0.98 inch in August, July gained 0.36 inch total.

### So what about the total accumulation since January 1<sup>st</sup> of this year to now? (in order from highest):

- Stanley: 14.60 inches (February alone gained 4.58 inches! Followed by 2.99 inches in March & 2.25 in April)
- Twin Falls: 12.23 inches (March received 1.89 inches)
- Rexburg: 10.89 inches (1.64 inches in March)
- Burley: 9.48 inches (May received 1.49 inches)
- Pocatello: 8.78 inches (March gained 2.29 inches)
- Idaho Falls: 6.24 inches (March received 1.40 inches)

### How does this compare to Normal?

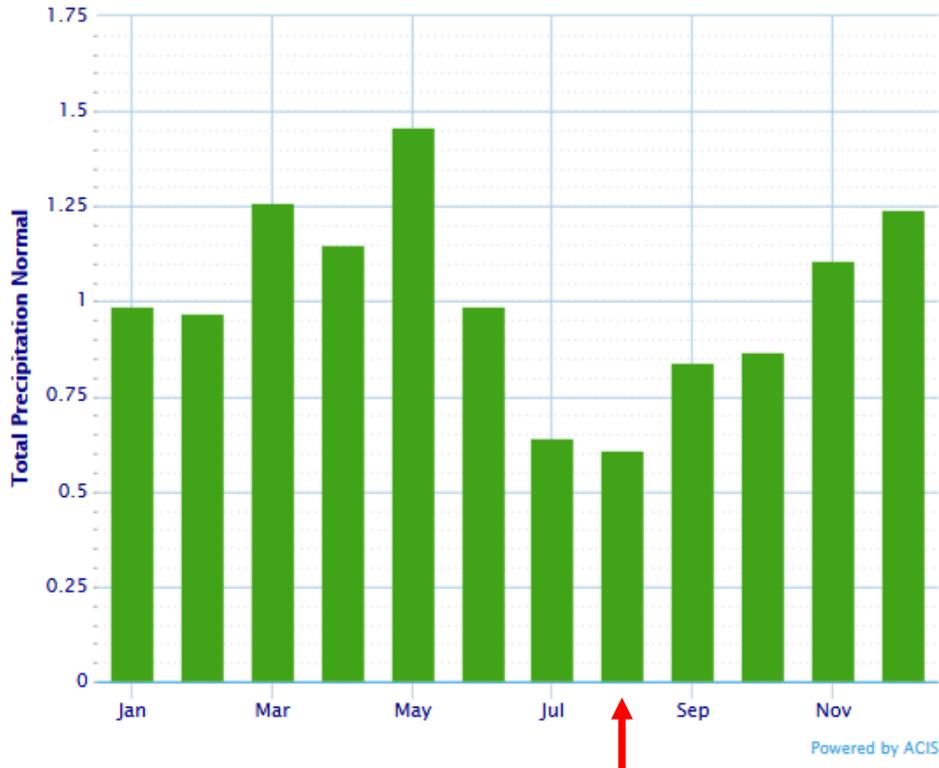
#### 1981-2010 Precipitation Normals for August:

- Twin Falls 0.33 inch (Normal for August) – 5.22 inches over August Normal!!! The yearly Normal for Twin Falls is 9.53 inches.
- Rexburg: 0.96 inch (Normal for August) – 2.84 inches over August Normal. The yearly Normal for Rexburg is 13.09 inches.
- Idaho Falls: 0.54 inch (Normal for August) – 1.75 inches over August Normal. The yearly Normal for

Idaho Falls is 10.39 inches.

- **Burley: 0.40 inch (Normal for August) – 2.31 inches over August Normal. The yearly Normal for Burley is 10.14 inches.**
- **Pocatello: 0.61 inch (Normal for August) – 1.57 inches over August Normal. The yearly Normal for Pocatello is 12.13 inches.**

Monthly Climate Normals (1981–2010) – POCATELLO RGNL AP, ID



Month	Total Precipitation Normal
January	0.99
February	0.97
March	1.26
April	1.15
May	1.46
June	0.99
July	0.64
August	0.61
September	0.84
October	0.87
November	1.11
December	1.24

**Precipitation totals thus far (Aug 1-29) that are over an inch (excluding mountain SNOTEL weather stations):**

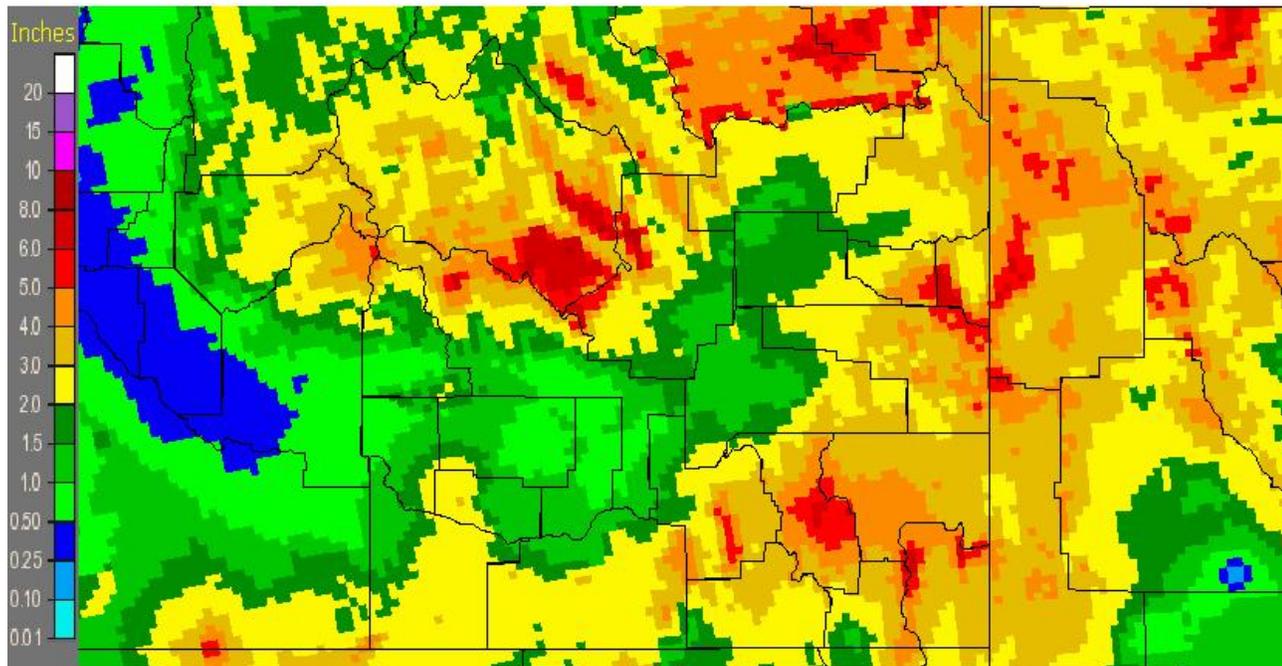
Name	Station Type	Total Precipitation
SODA SPRINGS 0.3 W	CoCoRaHS	5.34
TETONIA EXPERIMENT STN	COOP	5.33
GRACE	WBAN	4.63
MASSACRE ROCKS SP	COOP	4.63
CHUBBUCK 0.5 WSW	CoCoRaHS	4.58
SWAN VALLEY	COOP	4.57
BLACKFOOT	COOP	4.29
BERN	COOP	4.18
LAVA HOT SPRINGS	COOP	4.12
IDAHO FALLS 46 W	WBAN	3.98
MACKAY LOST RIVER RS	COOP	3.96
REXBURG 0.7 W	CoCoRaHS	3.91
DRIGGS	COOP	3.87
REXBURG MADISON CO AP	WBAN	3.80
REXBURG BYU IDAHO	COOP	3.70
RICHFIELD	COOP	3.59
AMERICAN FALLS 8.2 W	CoCoRaHS	3.58
RIGBY	COOP	3.57
ARCO	COOP	3.49
POCATELLO CITY	COOP	3.42
HOLBROOK 4.0 NNE	CoCoRaHS	3.38
LIFTON PUMPING STN	COOP	3.31
IDAHO FALLS 11.7 NE	CoCoRaHS	3.19
PRESTON	COOP	2.92
IDAHO FALLS 2 ESE	COOP	2.92
BURLEY MUNI AP	WBAN	2.71
CRATERS OF THE MOON	COOP	2.66
PRESTON 0.8 SE	CoCoRaHS	2.63
PAUL	COOP	2.61
MALAD CITY AP	WBAN	2.52
AMERICAN FALLS 3.6 ESE	CoCoRaHS	2.43
BELLEVUE 0.3 SSE	CoCoRaHS	2.38
ISLAND PARK	COOP	2.37
MCCAMMON	COOP	2.30
IDAHO FALLS FANNING FLD	WBAN	2.29
CHILLY BARTON FLAT	COOP	2.28
ARCO 17 SW	WBAN	2.25
MONTEVIEW	COOP	2.23
POCATELLO RGNL AP	WBAN	2.18
DUBOIS EXP ST	COOP	2.15
KETCHUM RS	COOP	1.90
ASHTON 1.4 E	CoCoRaHS	1.88
POCATELLO 9.0 WNW	CoCoRaHS	1.68
CHALLIS AP	WBAN	1.59
HAMER 4 NW	COOP	1.51
AMERICAN FALLS	COOP	1.43
STANLEY	COOP	1.23
PICABO	COOP	1.13

**Precipitation Daily Maximums thus far (Aug 1-29) that are over an inch with date of occurrence (excluding SNOTEL sites):**

Name	Station Type	Highest Precipitation	Date
BLACKFOOT	COOP	1.67	08-07
AMERICAN FALLS 8.2 W	CoCoRaHS	1.40	08-07
CHUBBUCK 0.5 WSW	CoCoRaHS	1.36	08-06
KETCHUM RS	COOP	1.34	08-22
DRIGGS	COOP	1.25	08-21
TETONIA EXPERIMENT STN	COOP	1.20	08-05
MASSACRE ROCKS SP	COOP	1.12	08-06
DUBOIS EXP ST	COOP	1.11	08-06
RICHFIELD	COOP	1.06	08-13
PRESTON	COOP	1.05	08-05
MCCAMMON	COOP	1.05	08-22
SODA SPRINGS 0.3 W	CoCoRaHS	1.05	08-23
MACKAY LOST RIVER RS	COOP	1.01	08-06

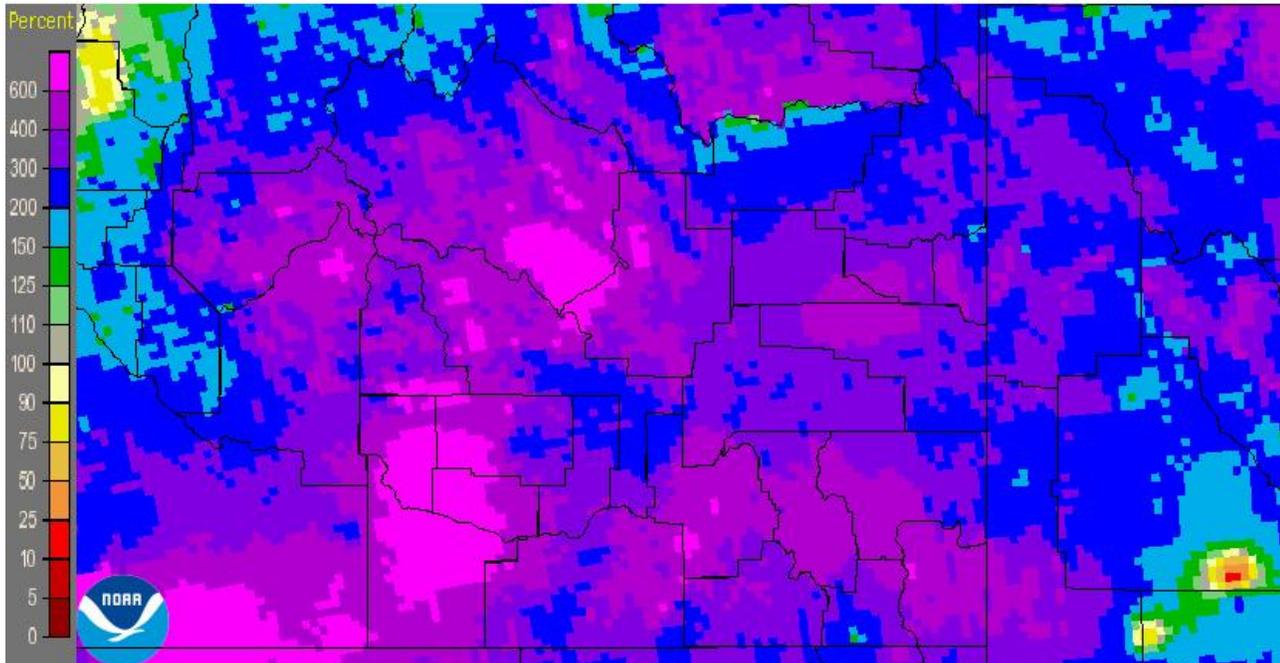
**August Month-to-Date Total Observed Precipitation, Percent of Normal and Departure from Normal (by Eastern Idaho Counties):**

Pocatello, ID (PIH): Current Month to Date Observed Precipitation  
 Valid at 8/29/2014 1200 UTC- Created 8/29/14 15:55 UTC



**Look at southeastern Custer and western Butte & Teton counties-widespread 5-8 inches in some locations!**

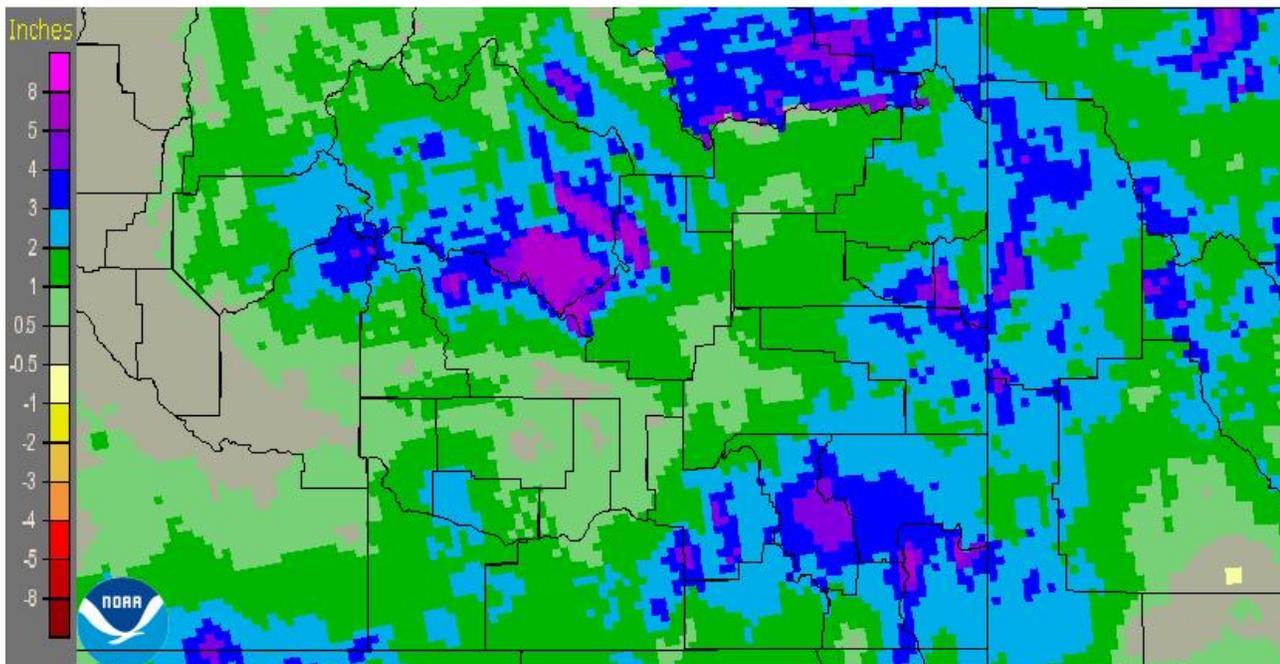
Pocatello, ID (PIH): Current Month to Date Percent of Normal Precipitation  
Valid at 8/29/2014 1200 UTC- Created 8/29/14 16:17 UTC



Look at all the area over 600% of normal, especially Twin Falls area and southeastern Custer County!! Most of eastern Idaho is over 200% of normal- which is pretty impressive.

#### Departure from Normal in inches of precipitation:

Pocatello, ID (PIH): Current Month to Date Departure from Normal Precipitation  
Valid at 8/29/2014 1200 UTC- Created 8/29/14 16:16 UTC



Again, southeastern Custer and also central Bannock and eastern Bear Lake Counties are roughly 5-8 inches over then Normal for this time of year.

### Select Daily Precipitation Records:

#### August 22<sup>nd</sup>:

- Burley received 0.79 inch of rainfall which beat the old record of 0.45 inch in 1973.
- Stanley received 0.52 inch of rainfall which beat the old record of 0.28 inch in 1973.

#### August 6<sup>th</sup>:

- Idaho Falls received 0.49 inch of rainfall which beat the old record of 0.32 inch in 2011.

#### August 5<sup>th</sup>:

- Burley received 0.47 inch of rainfall which beat the old record of 0.11 inch in 1961.

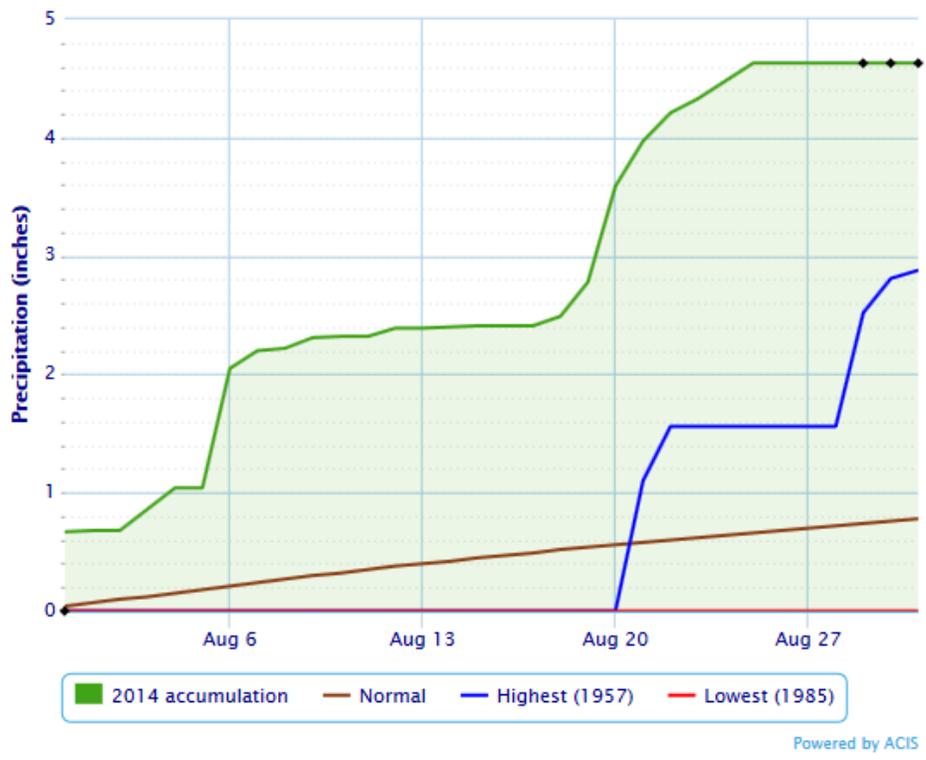
### Monthly Precipitation Records:

- Pocatello (airport), Record in August was 3.98 inches set in 1968, so we are the 2<sup>nd</sup> wettest August for records beginning in 1939.
- Blackfoot (airport), Record in August was 2.98 inches set in 1968.
- Burley (airport), Record in August was 4.13 inches set in 1968, again, 2<sup>nd</sup> wettest August for records beginning in 1948.
- Idaho Falls 2ESE, Record in August was 2.66 inches set in 1968 & 1972.

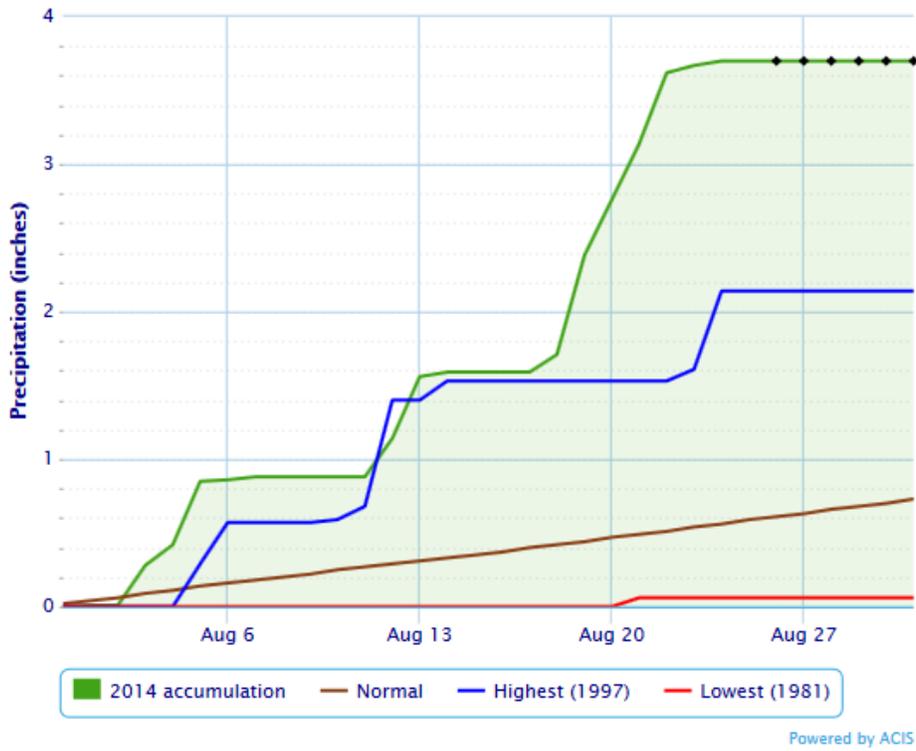
**August Accumulated Precipitation Graphs (compared to Normal and showing Highest and Lowest years):**

**Mackay Ranger Station:**

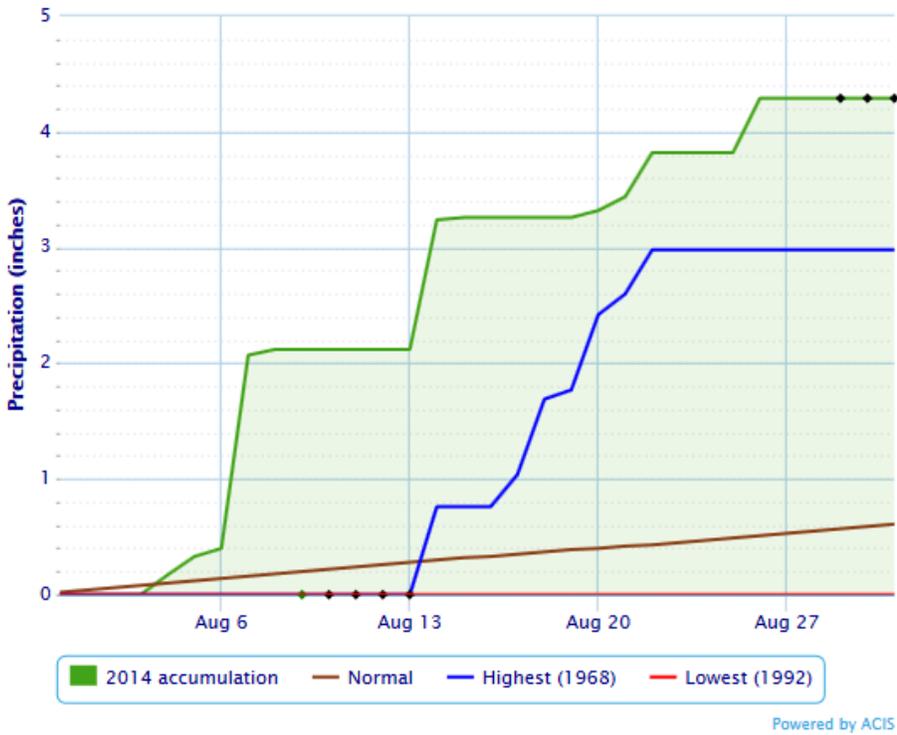
Accumulated Precipitation – MACKAY LOST RIVER RS, ID



### Accumulated Precipitation – REXBURG BYU IDAHO, ID



### Accumulated Precipitation – BLACKFOOT, ID



End, cbl