

NWS Form E-5 U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE MONTHLY REPORT OF HYDROLOGIC CONDITIONS	HYDROLOGIC SERVICE AREA: Pocatello, Idaho
	REPORT FOR: MONTH: March YEAR: 2013
TO: Hydrologic Operations Division, W/OH2 National Weather Service National Oceanic and Atmospheric Administration Silver Spring, Maryland 20910	SIGNATURE Corey Loveland Service Hydrologist
DATE: April 5, 2013	
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:

Unfortunately, less than normal precipitation has continued through the month of March over the entire state. In fact, it appears that only 0.25 to two inches of precipitation has fallen in the mountainous regions of the Hydrologic Service Area this past month. Once again, each month's total precipitation accumulation has gotten progressively drier since the beginning of the water supply season beginning October 1st. It appears we are one to two inches in deficit and about 10-25 percent of normal in the mountains for this time of year. A good thing for our water supply is that soils were moistened and we received some great snowpack in the higher elevations with the early fall precipitation. The mid-level snowpack has suffered throughout the winter, which has brought the overall snowpack percentages down. Looking at the current snow water equivalent situation, some SNOTEL sites slightly increased in the Snake River headwaters, south of Pocatello and in the Henry's Fork basins. We had some storms bring in some upper elevation snow during early March. Most all other stations decreased in swe last month. Looking at basin filled averaged swe content, the Raft River basin increased slightly, but again, every other basin decreased in swe this past month.

In the Wood and Lost River basins, near record high (in the fall) to record low precipitation (last few months) seems to sum up this water year. October through December precipitation was the second wettest in the last 30 years at Hyndman, Moonshine, and Bear Canyon SNOTELs; making it one of the best starts to the water supply season on record. Unfortunately, the January-March period has set new records for mid-winter dryness at some SNOTEL sites. The forecast does not look that great as the El Niño neutral pattern is forecast to continue through at least into the fall. The western half of the Bear River basin has reduced to below 50% of average for monthly precipitation during March. The upper Snake River basin is also similar as for the water supply season, it has received 50-90% of normal precipitation thus far.

The highest stream volume forecast in the HSA continues to be the Big Lost River at Mackay, which has dropped 7% and is currently at 90% of average for the Apr-Sep forecast (ranked 24 out of 43 years). The lowest streamflow forecast continues to be Willow Creek at Ririe increasing by 3% and is at 25% of average (ranked 27 of 27-driest). The SNOTEL site having the greatest amount of swe is the Galena Summit site (elevation 8795 ft) at 88% of average (it was Stickney Mill previously, which is now at 82%). The site with the lowest swe value again is Giveout in the Bear River basin at 21% of Average. Looking at swe value changes at SNOTEL sites in March, many sites increased around one to four inches during the month, but many did not accumulate swe (27 sites including western WY). Most notable was the Howell Canyon site (Cassia County) that

accumulated 4.1 inches over the month-hence the increase in the Raft River basin. The Bear River basin SNOTEL sites currently range from 1.3% of average (Oxford Springs which is about melted out) to 71% (Sedgwick Peak) for swe. The Bear River basin continues to not fare so well as indicated by the forecast point on the Bear River at Montpelier near Stewart Dam, which is currently at 15% of average for its streamflow volume April 1st forecast. As far as the three-month Climate Prediction Center outlook is concerned, we stand to have a 0-33% chance of above normal temperatures for eastern Idaho and the same chance for below normal precipitation.

Of the data available for the month, the highest 24-hour precipitation total was 0.84 inches on the 21st day of the month at the Lava Hot Springs station. The Ketchum Ranger Station received the greatest recorded monthly total snow accumulation at 5.0 inches on the 7th day of March. The station reaching the highest temperature was the Hagerman 2SW station at 76°F on the 31st. The station with the lowest recorded temperature was at the Island Park station at a very cold -13°F on March 24th.

For the month of March, reservoirs increased capacity overall by around 8% (remaining the same for each winter month) in the upper Snake River basin system (an increase of about 346 KAF over the month and sitting at 73% of capacity overall). Compared to last year at this time, it was about 84% of capacity. Most notable change was Lake Walcott with an increase of 60% of capacity and the Little Wood reservoir increasing 20% of capacity. Jackson Lake and the Blackfoot reservoir are currently at 146 and 127 percent of average capacity, respectively, according to NRCS data. Henry's Lake is full. Magic reservoir will probably not fill and may provide about 45 days of irrigation. The Jackson Lake and Palisades system may not fill due to last year's irrigation demands and the projected snowmelt. Oakley reservoir should fall short of the irrigation demand. The Bear Lake users should plan to have similar storage to last year.

This month's streamflow forecasts place the Bear River at only 6% of average and the Big Lost River basin at 80%. The Snake River above Jackson Lake is at 90% of average and decreases to the mid-80's as you move downstream. The Snake River near Heise is forecast at 74% of average while the Henrys Fork is a little better at 82%. Minimal water will pass Milner Dam this season with the exception of fish augmentation or other predetermined releases. Because of limited inflows this season, reservoirs will be drafted to near minimum levels by summer's end, which means carryover storage will be low for next year across most of the state, and a good snow year in 2014 is critical.

Drought categories have worsened slightly (2%) across the state in the category of D0 (abnormally dry), but have improved 2% in overall no drought declaration for the entire state. The U.S. Seasonal Drought Outlook continues to forecast a persistence of drought conditions throughout most of eastern Idaho.

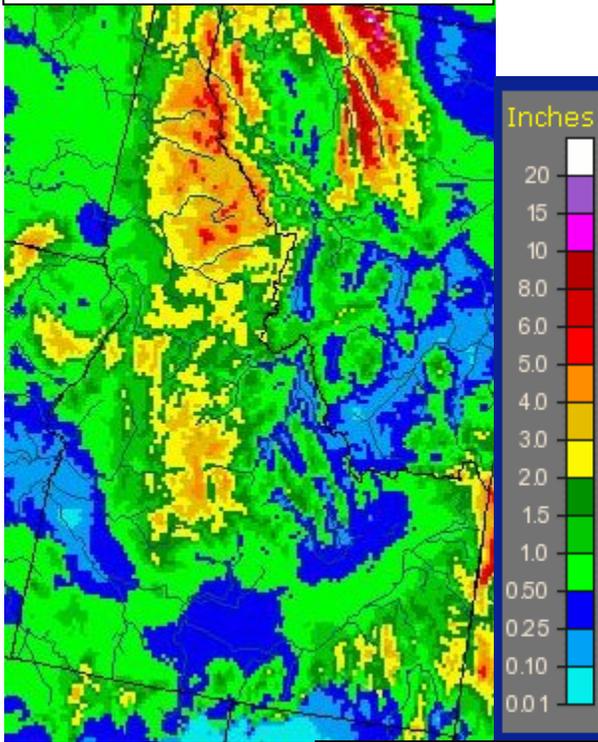
According to the Idaho NRCS Snow Survey April 1st Idaho Surface Water Supply Index (SWSI); combining streamflow volume forecasts and reservoir storage (where appropriate), rates the greatest valued basin for water supply within the HSA as being the Bear River basin, it was the Little Wood previously. This basin was given a SWSI value of 0.2 [near normal water supply] (All other basins were drastically reduced this past month). The lowest ranked basin within the HSA is the Teton basin (again) which continues to be rated at -2.0 (below normal water supply). From a water supply stance, the hydrologic basins within the HSA are currently tracking near to below normal for mountain snowpack conditions.

For more information on the April 1st Idaho Water Supply Outlook, please go to:
<ftp://ftp-fc.sc.egov.usda.gov/ID/snow/watersupply/bor/2013/borid413.pdf>

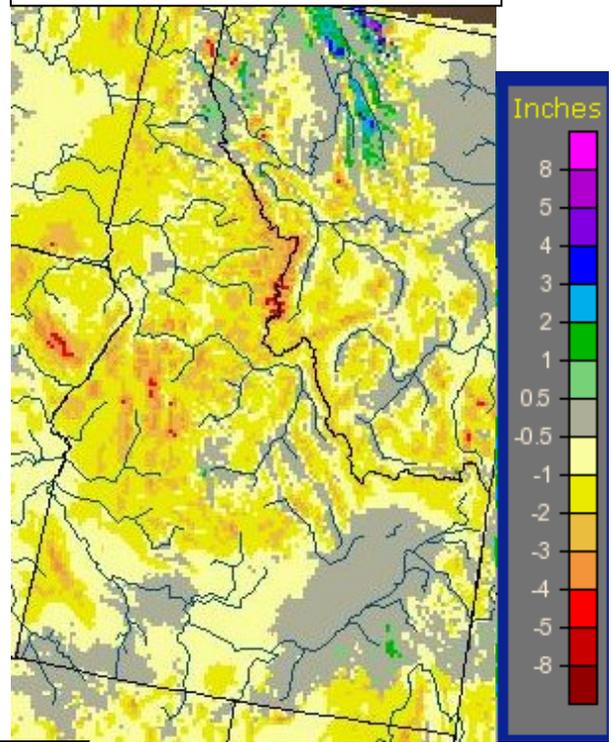
See NWRFC, CBRFC, and NRCS water supply stream volume forecasts below.

Precipitation:

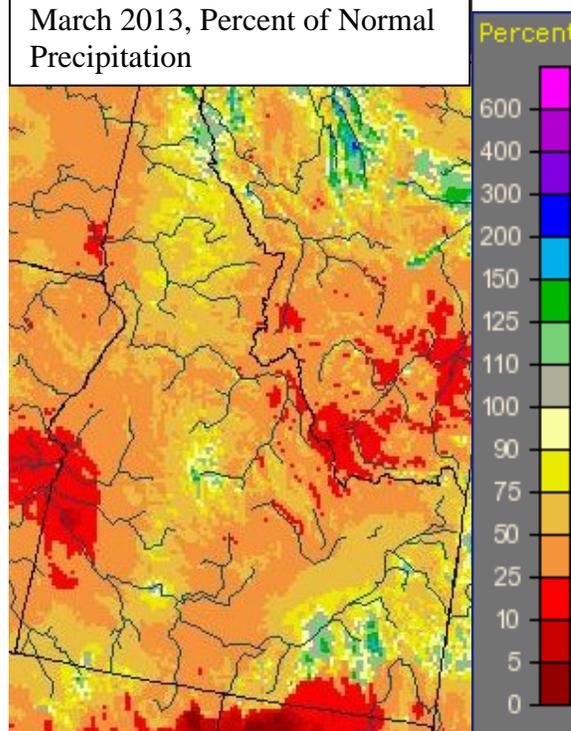
March 2013, Observed
Precipitation



March 2013, Departure from
Normal Precipitation

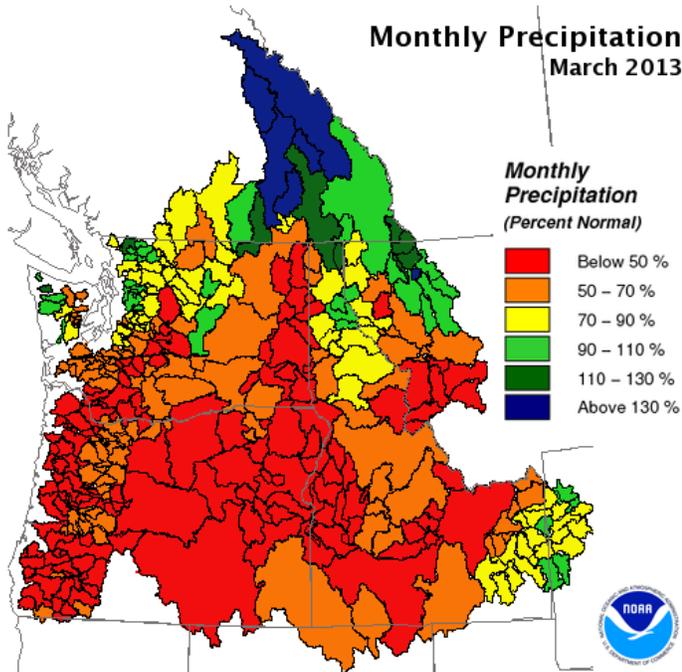


March 2013, Percent of Normal
Precipitation



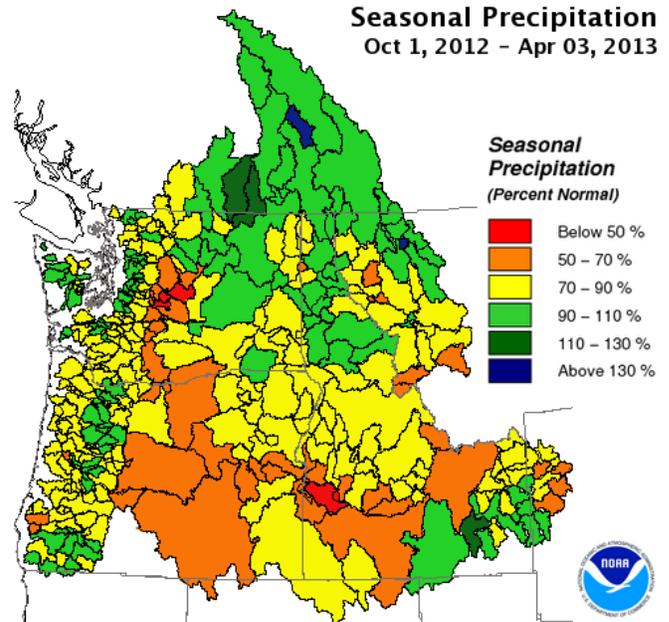
<http://water.weather.gov/precip/index.php>

Monthly Precipitation March 2013



Creation Time: Thursday, Apr 4, 2013 Northwest River Forecast Center

Seasonal Precipitation Oct 1, 2012 - Apr 03, 2013



Creation Time: Thursday, Apr 4, 2013 Northwest River Forecast Center

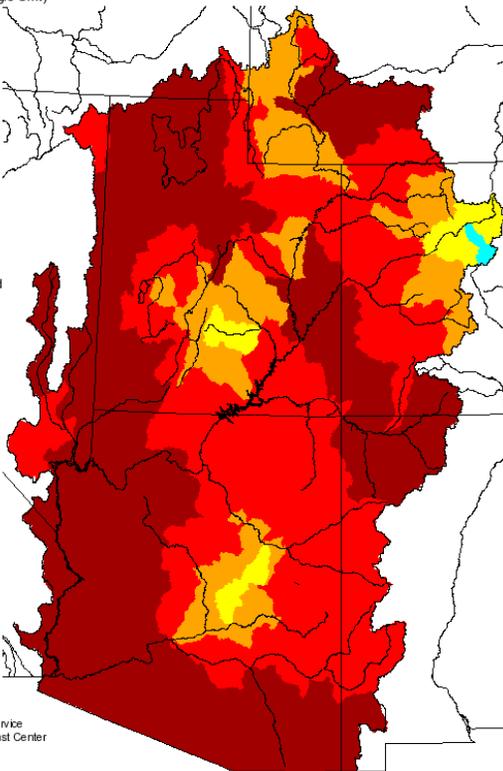
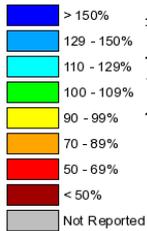
http://www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary_comp.php

http://www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary_comp.php

Monthly Precipitation for March 2013

(Averaged by Hydrologic Unit)

% Average

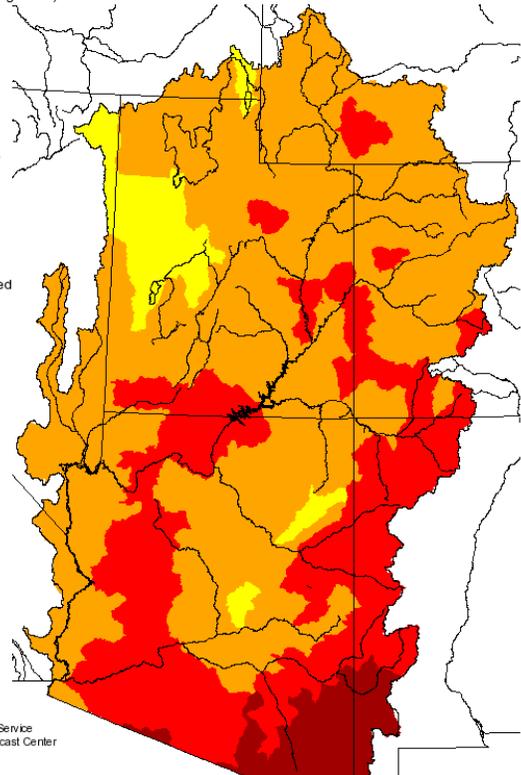
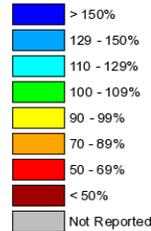


Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbrfc.noaa.gov

Seasonal Precipitation, October 2012 - March 2013

(Averaged by Hydrologic Unit)

% Average



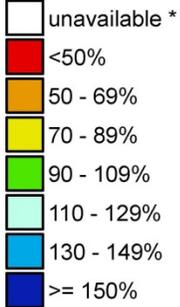
Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbrfc.noaa.gov

<http://www.cbrfc.noaa.gov/wsup/pub2/outlook3.php?region=sl&month=4&year=2013#precip>

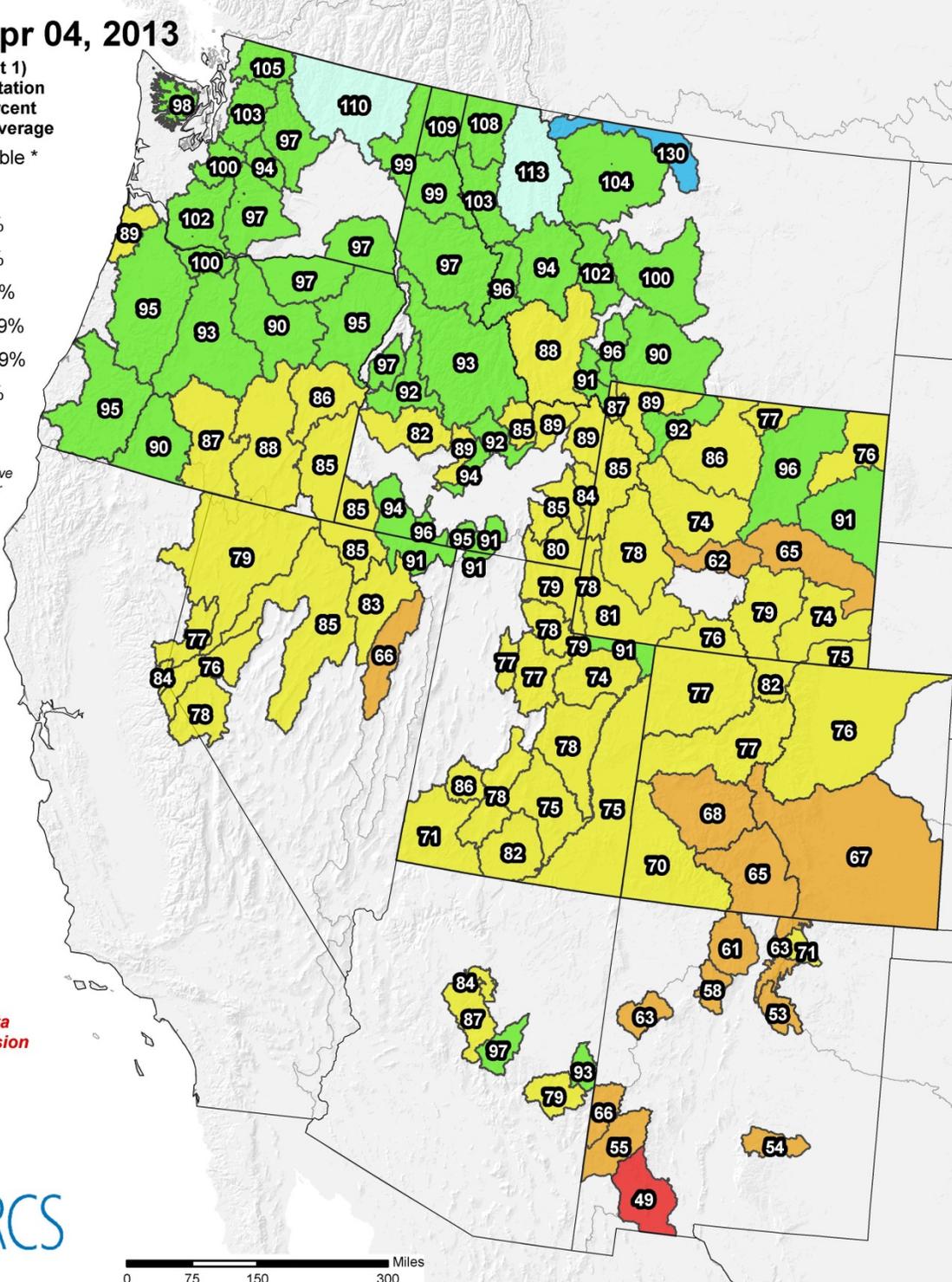
Westwide SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

Apr 04, 2013

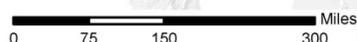
Water Year (Oct 1) to Date Precipitation Basin-wide Percent of 1981-2010 Average



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



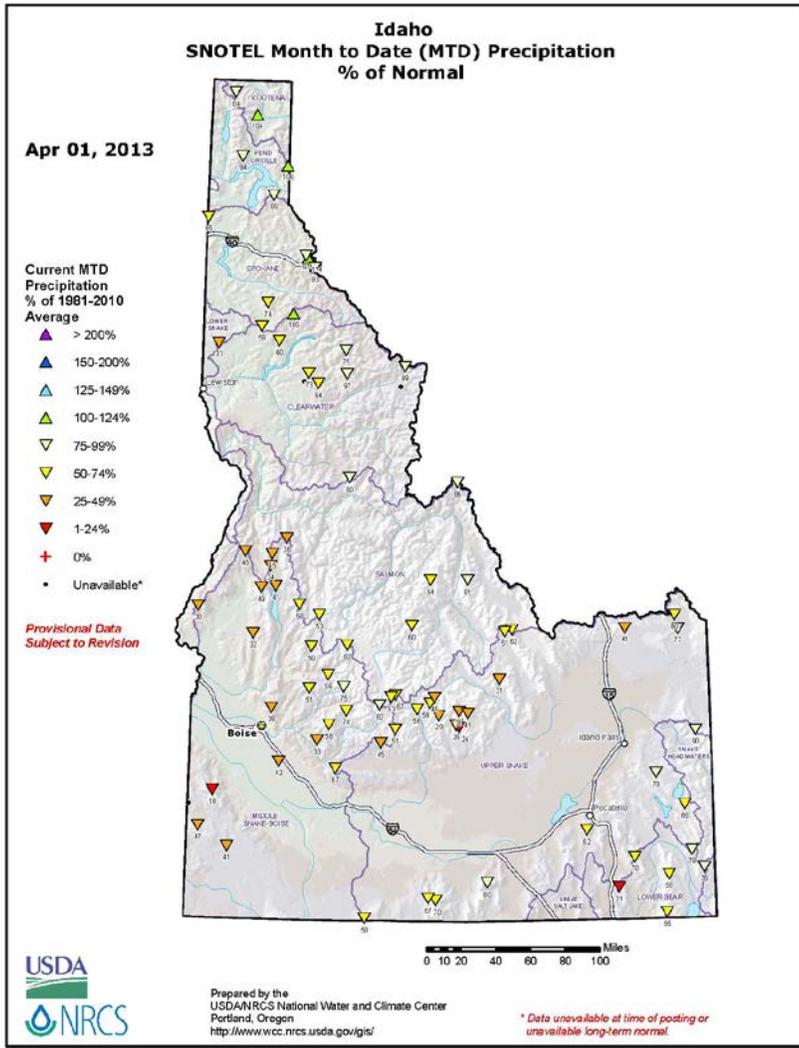
Provisional data subject to revision



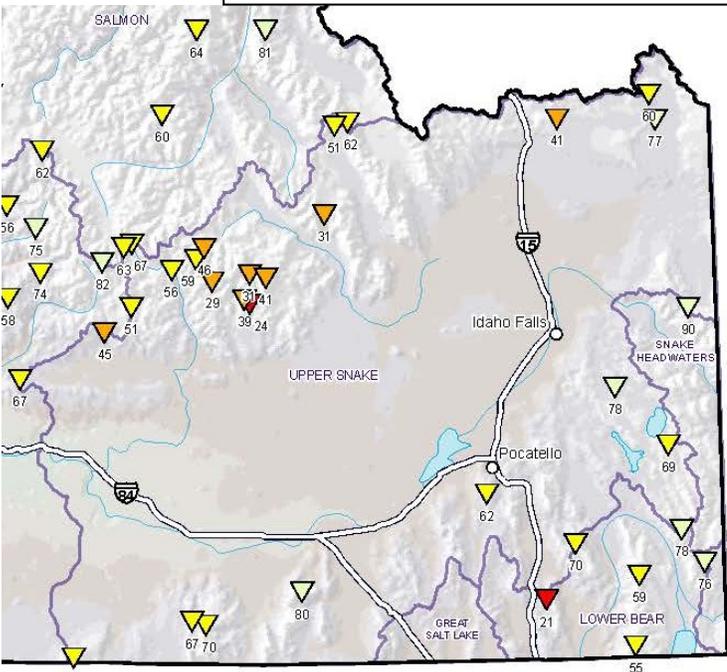
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by the USDA/NRCS National Water and Climate Center Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
Science contact: Jim.Marron@por.usda.gov 503 414 3047

http://www.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_Apr.pdf

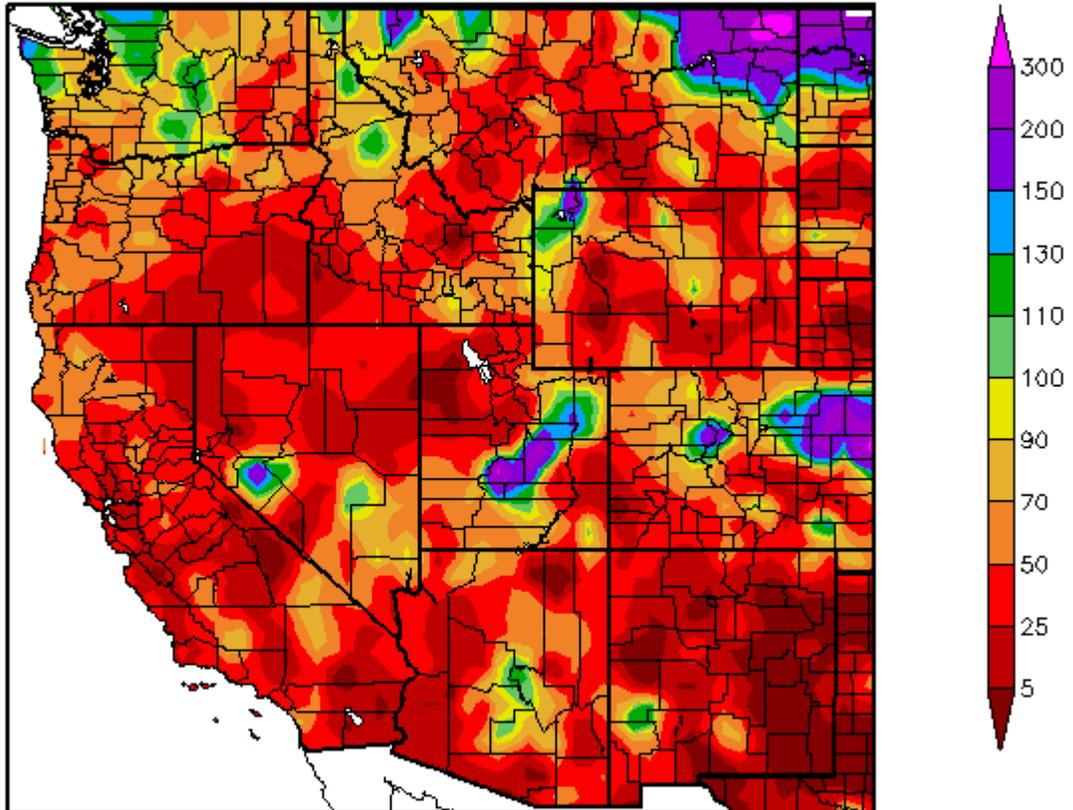


**SNOTEL MTD % of Normal
Precipitation for end of March 2013**
(image below is cropped from above image)

Note: The ENSO Neutral climate pattern is forecast to continue through the Spring and Summer and is suspected to continue into this Fall as well. (see below graphic on page 13).

March's overall precipitation was disappointing, as we look at last month's Percent of Normal precipitation graphic below, the areas receiving the least precipitation last month were the Big and Little Lost, Goose and parts of the Bear River Basins. Overall, the west lacked in overall precipitation in March.

Percent of Normal Precipitation (%) 3/1/2013 - 3/31/2013



Generated 4/2/2013 at HPRCC using provisional data.

Regional Climate Centers

http://www.hprcc.unl.edu/maps/current/index.php?action=update_type&map_type=

Idaho

SNOTEL Snow Water Equivalent (SWE) % of Normal

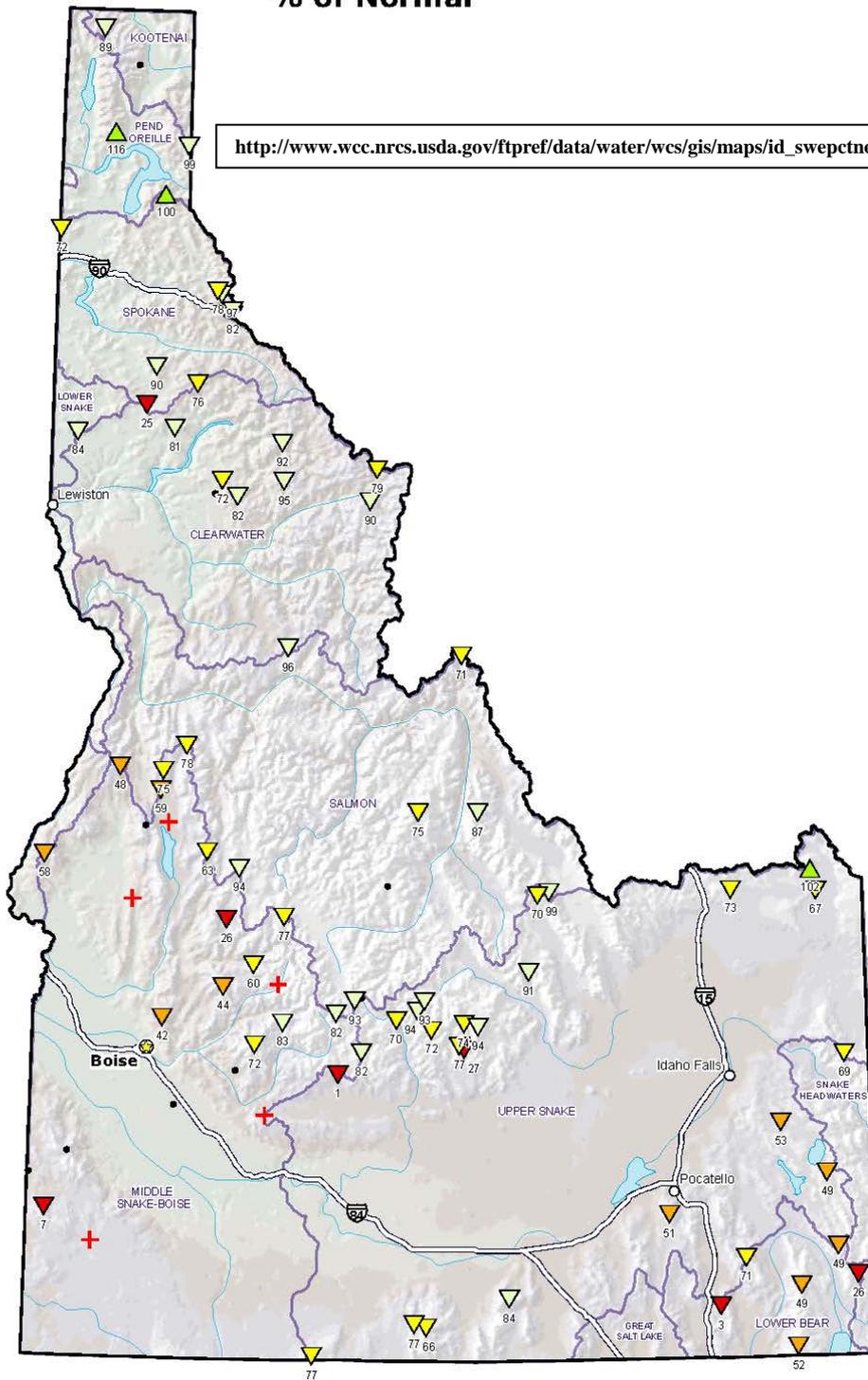
Apr 05, 2013

http://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/id_sweptnormal.pdf

**Current SWE
% of 1981-2010
Median**

- ▲ > 160%
- ▲ 140-160%
- ▲ 120-139%
- ▲ 100-119%
- ▼ 80-99%
- ▼ 60-79%
- ▼ 40-59%
- ▼ 1-39%
- +
- Unavailable*

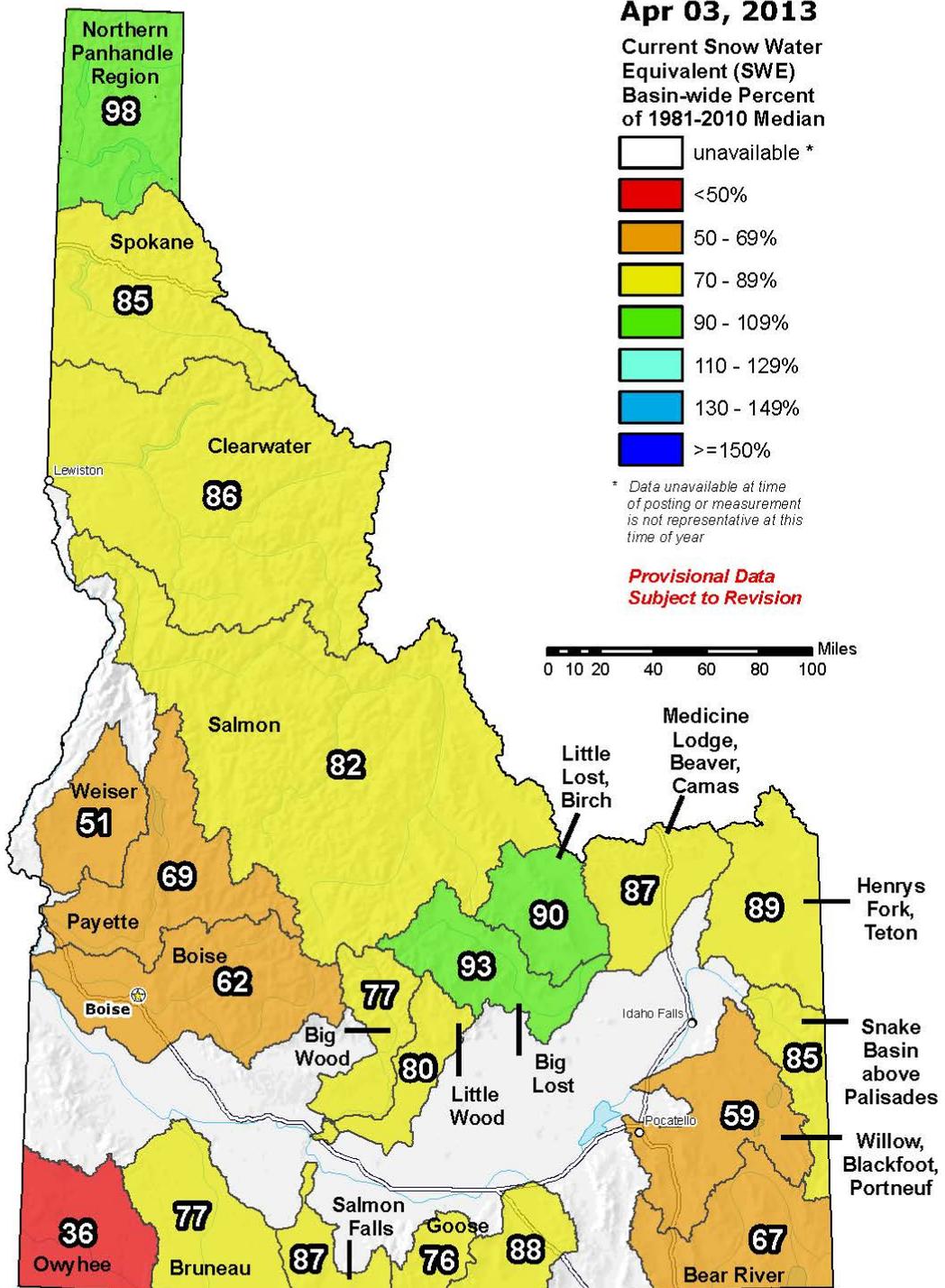
*Provisional Data
Subject to Revision*



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

** Data unavailable at time of posting or
unavailable long-term normal.*

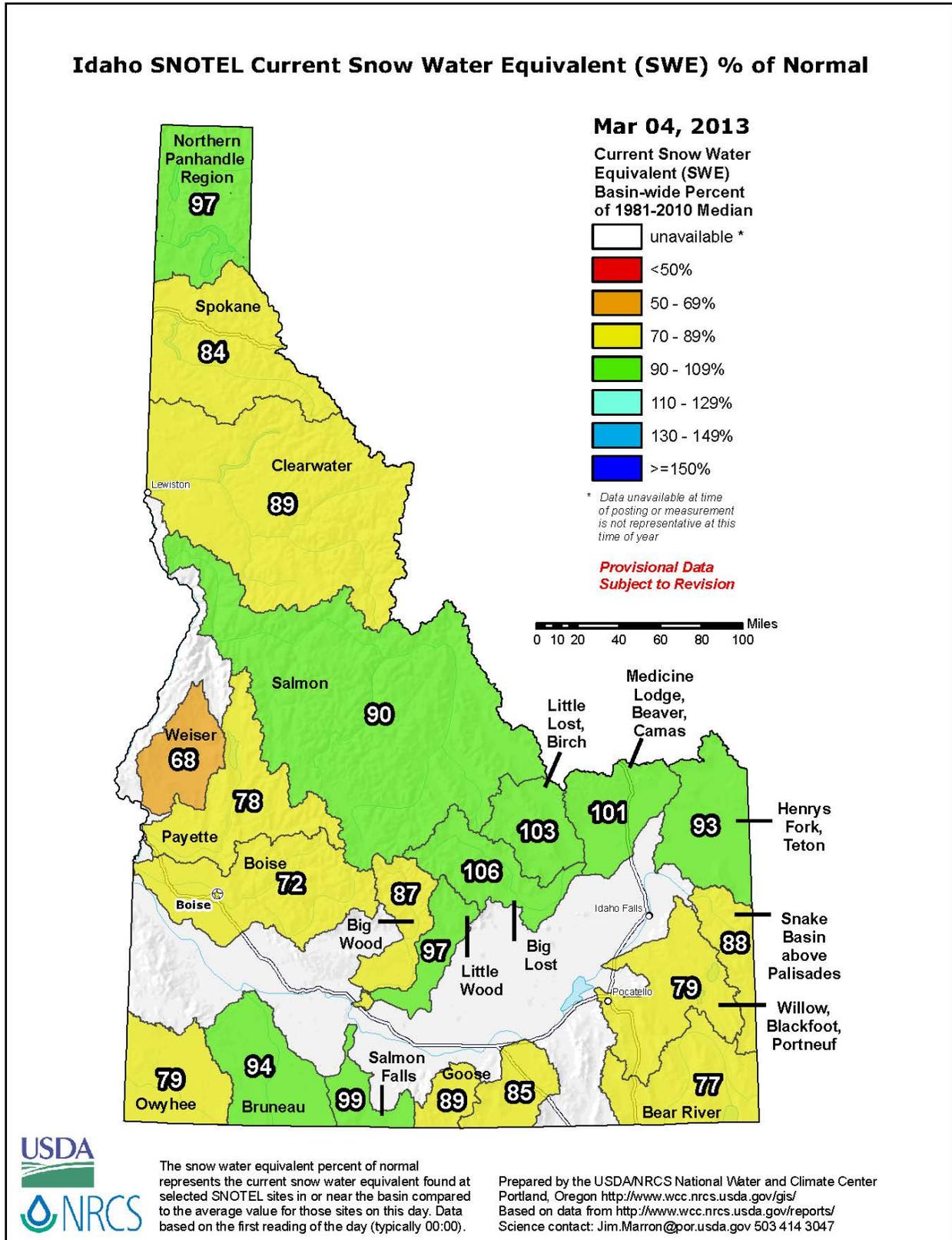
Idaho SNOTEL Current Snow Water Equivalent (SWE) % of Normal



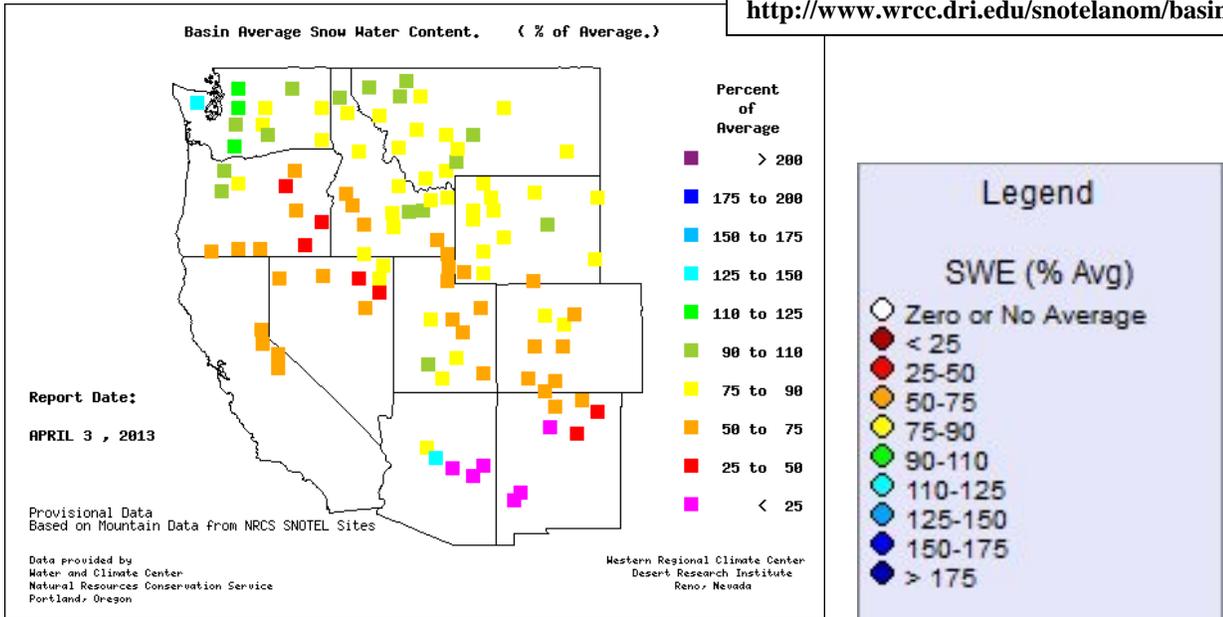
The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by the USDA/NRCS National Water and Climate Center Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
 Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
 Science contact: Jim.Marron@por.usda.gov 503 414 3047

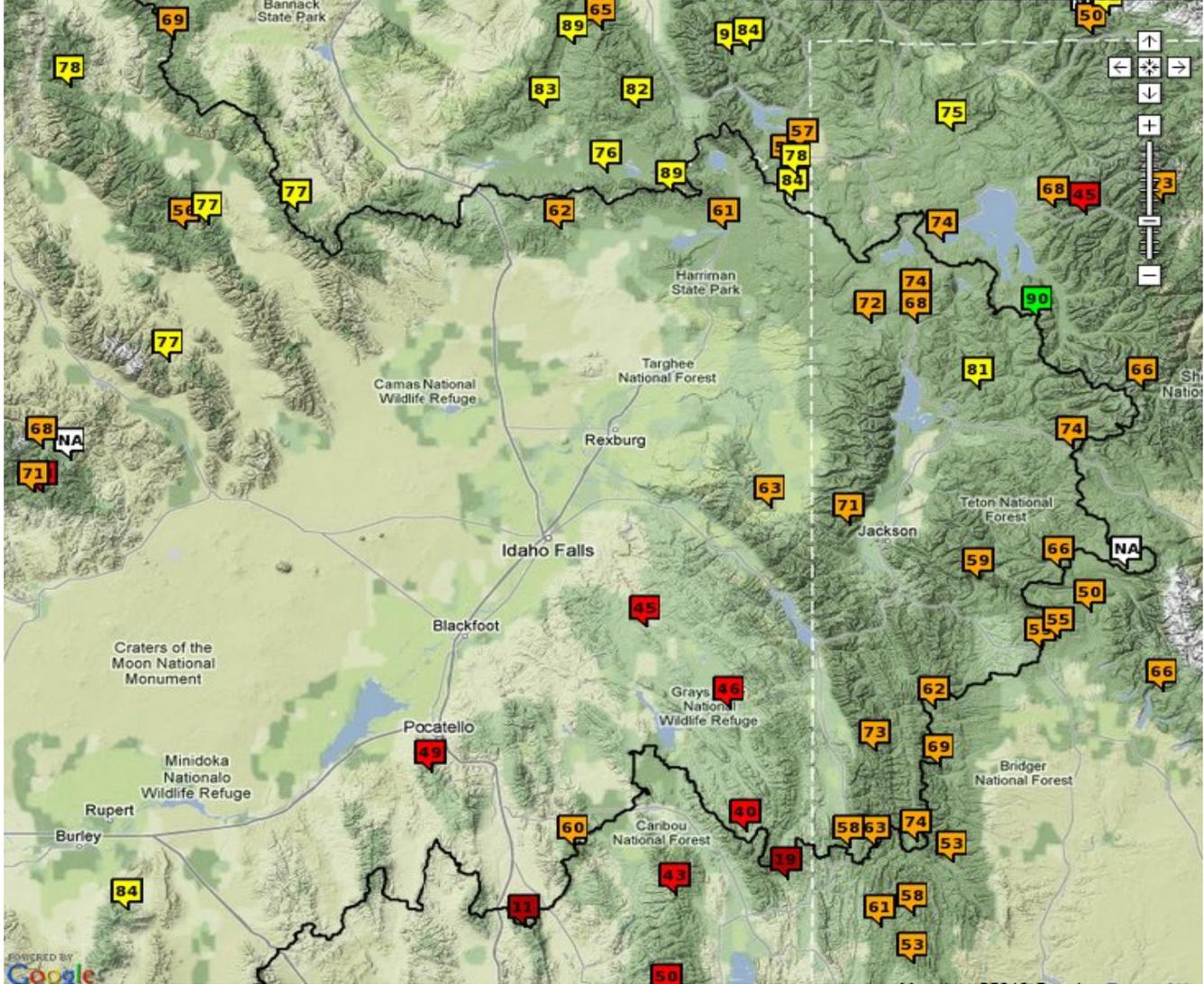
The dry pattern continues. An overall reduction in swe percents of normal (basin filled) continued over all the HSA basins compared to last month, with the exception of the Raft River Basin (see below):



http://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/id_swepctnormal_update.pdf



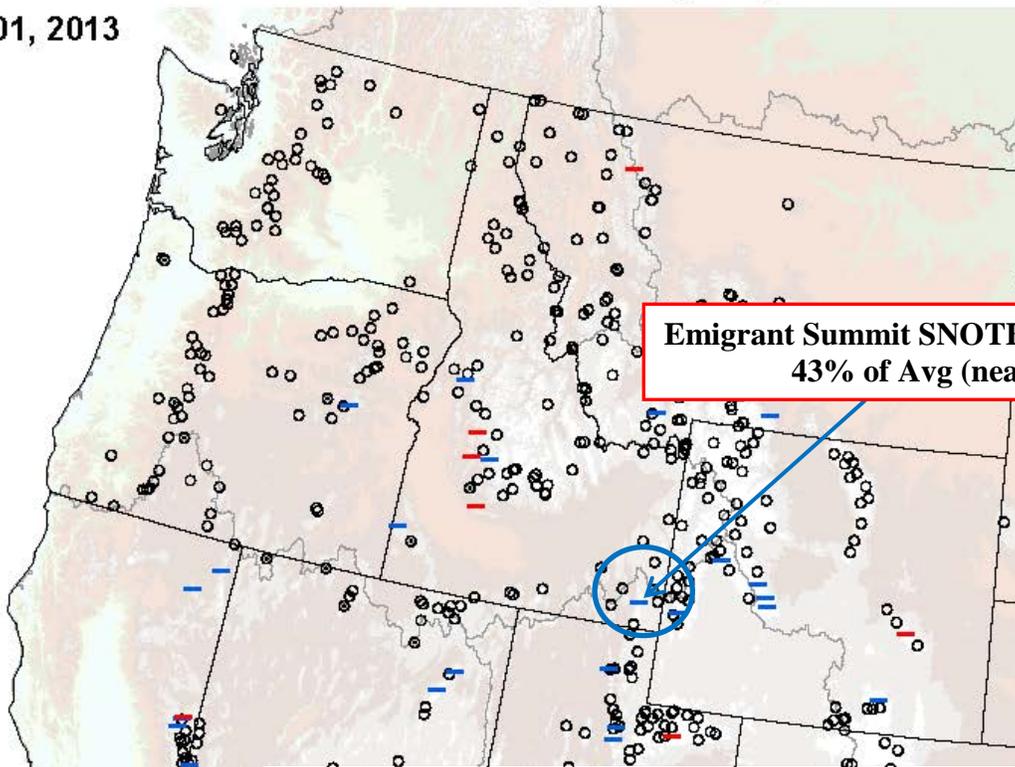
Current SWE Conditions: % of Avg (4/4/13) (SNOTEL): (NWRFC)



SWE Record Near Low:

SNOTEL Current Snow Water Equivalent (SWE) Records

Apr 01, 2013

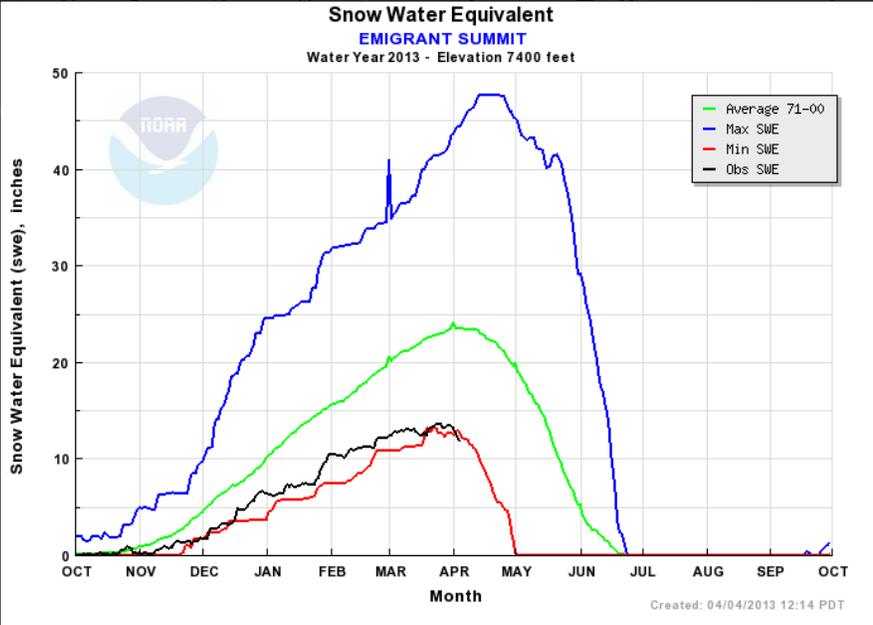


**Emigrant Summit SNOTEL elev. 7400 ft.
43% of Avg (near low)**

Current Snow Water (SWE) Equivalent Records

- + New High
- + Near High
- Non-Record
- New Low
- Near Low
- ⊙ snow free

Analysis includes sites with more than 20 years of historical data. "Near" record means that one other year of the period of record is more extreme.

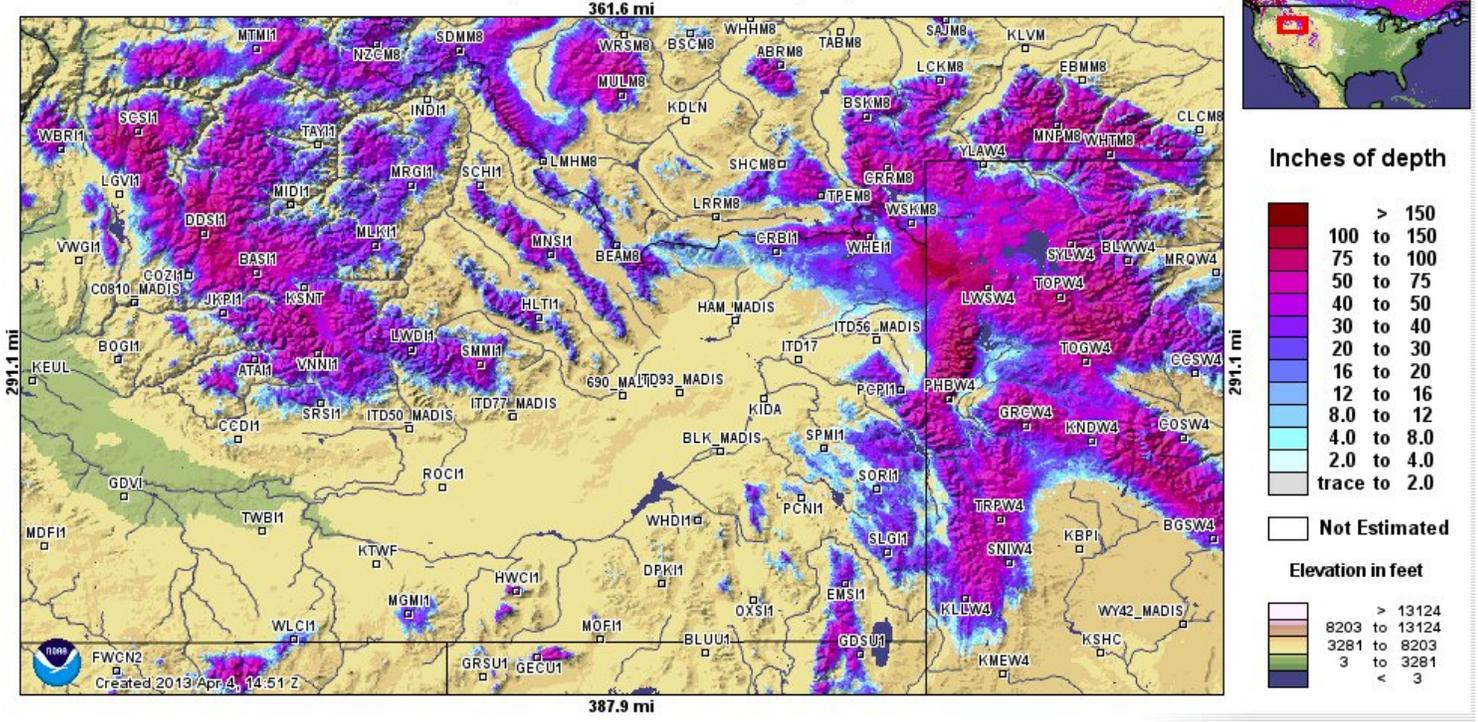


*Provisional Data
Subject to Revision*

Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/data>
Science contact: Jim.Marron@por.usda.gov 503 414 3047

Created: 04/04/2013 12:14 PDT

Modeled Snow Depth forecasted for 2013 April 4, 19:00 Z



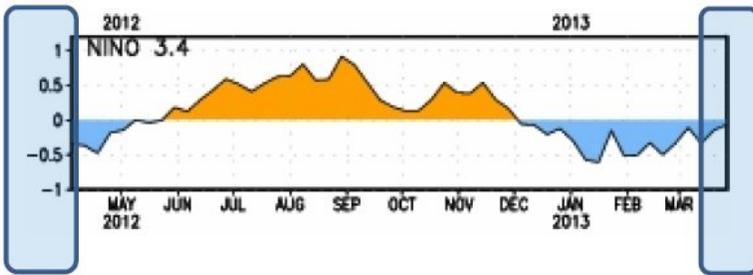
<http://www.nohrsc.noaa.gov/interactive/html/map.html>

ENSO Update:

Latest Observed SST Departure: Niño 3.4 ~ -0.1 Deg C

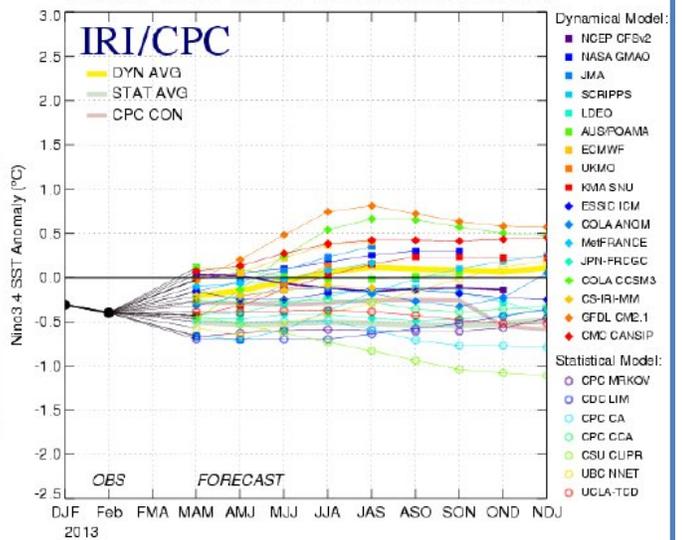
Latest observed: SST 3.4 ~ -0.1 Deg C

Latest calculated ONI 3.4 = -0.6 Deg C
 ONI = 3 month running mean of SST (Nov-Jan)



cpc.ncep.noaa.gov and iri.columbia.edu/climate/ENSO

Mid-Mar 2013 Plume of Model ENSO Predictions



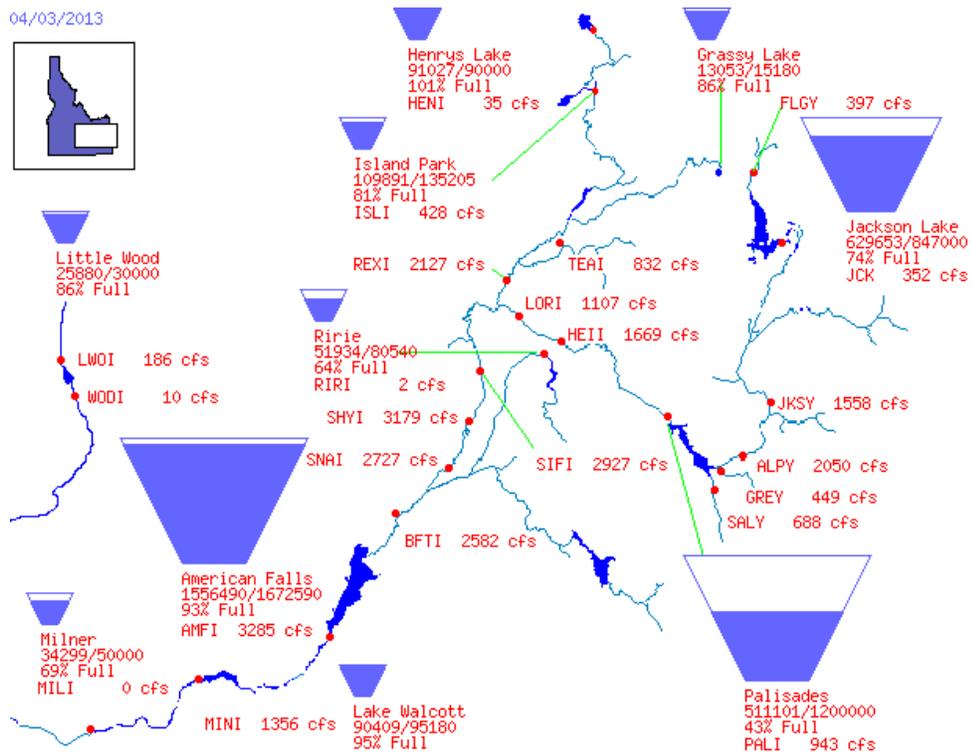
CPC Synopsis: ENSO-Neutral conditions favored through Summer and into Fall 2013

Reservoirs:

Reservoir	% Capacity Feb 28 ¹	% Capacity Mar 31 ²	Percent Change	% of Average ²	% of Last Year ²
Henry's Lake	100	100	0	111	100
Island Park	77	81	4	98	94
Jackson Lake	73	74	1	146	97
Palisades	44	50	6	77	62
Ririe	58	63	5	113	86
Blackfoot	66	68	2	127	80
American Falls	80	93	13	104	101
Bear Lake	63	65	2	126	80
Magic	14	21	7	46	22
Little Wood	63	83	20	126	94
Mackay	78	83	5	119	86
Oakley	29	34	5	88	62
Lake Walcott	35 ³	95 ⁴	60	n/a	n/a
Milner	64 ³	69 ⁴	5	n/a	n/a

Source: (1) NRCS February 28, 2013; (2) NRCS March 31, 2013.
 (3) US Bureau of Reclamation (BOR) March 3, 2013 (4) BOR April 3, 2013

http://www.wcc.nrcs.usda.gov/ftpref/data/water/basin_reports/idaho/wy2013/bareid3.txt

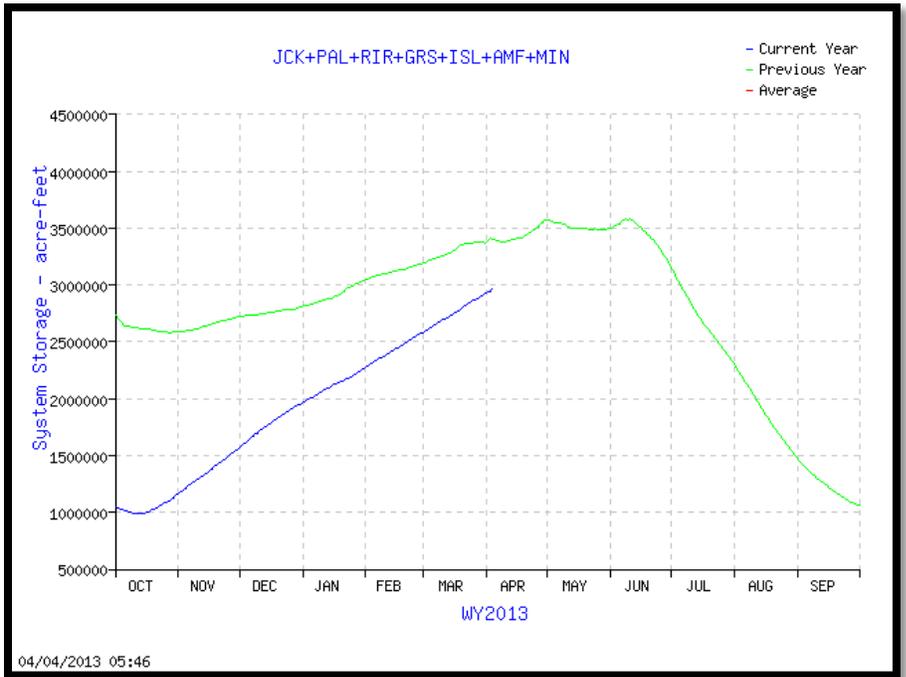


73% of Capacity in Upper Snake River System
 (Jackson Lake, Palisades, Ririe, American Falls & Lake Walcott)

Upper Snake River:
Total Space Available: 1,083,159 AF
Total Storage Capacity: 4,045,695 AF

<http://www.usbr.gov/pn/hydromet/burtea.html>

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



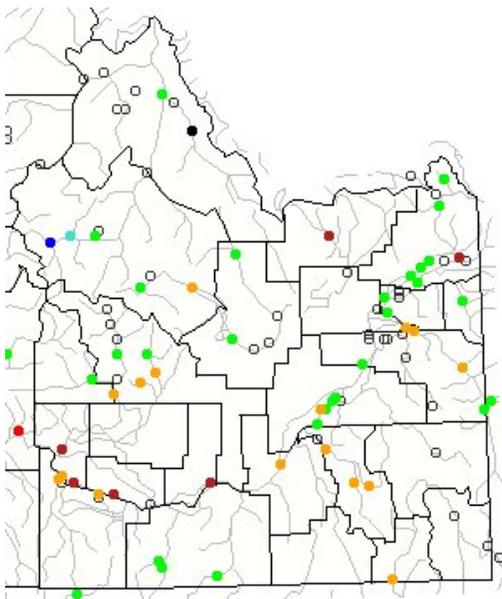
http://www.usbr.gov/pn-bin/graphwy2.pl?snasys_af

Bear River Basin End of Month (March) Reservoir Contents (KAF):

	<u>EOM Contents</u>	<u>Percent EOM Average</u>	<u>Percent Usable Capacity</u>	<u>Last Year EOM</u>	<u>Last Year %Average</u>	<u>EOM Average</u>	<u>Usable Capacity</u>
Bear Lake, Nr Lifton	920.0	126	71	1030.5	141	731.1	1302.0

<http://www.cbrfc.noaa.gov/wsup/pub2/outlook3.php?region=sl&month=4&year=2013#contents>

Streamflow:



Monthly average streamflow compared to historical average streamflow for March 2013.



<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		

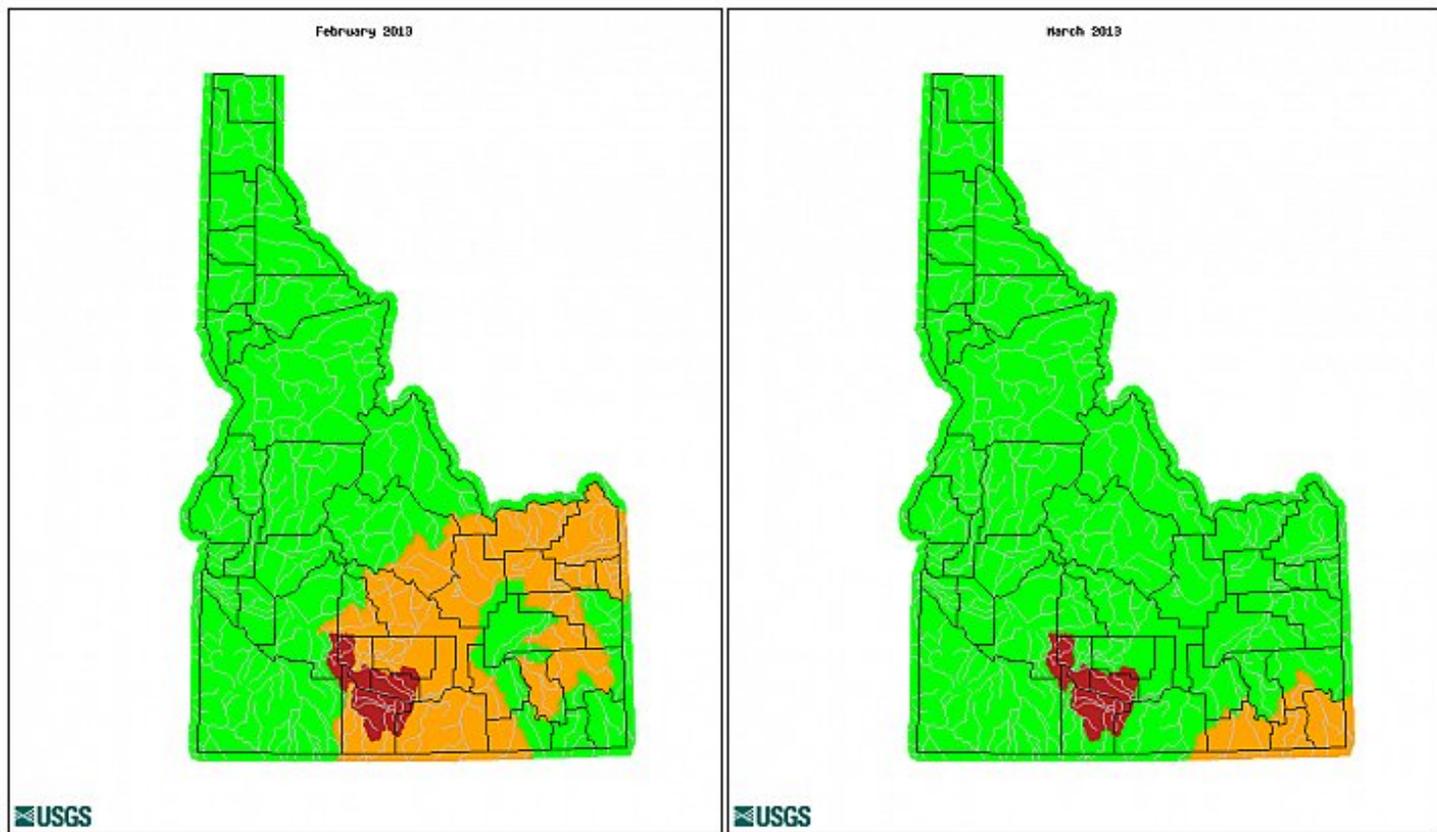
Historic Streamflow Comparison-February 2013 and March 2013:

Comparison of Monthly Streamflow Maps

Geographic Area: Water Resource Region: Map Type:

Date (YYYYMM):

Date (YYYYMM):



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

<http://waterwatch.usgs.gov/index.php>

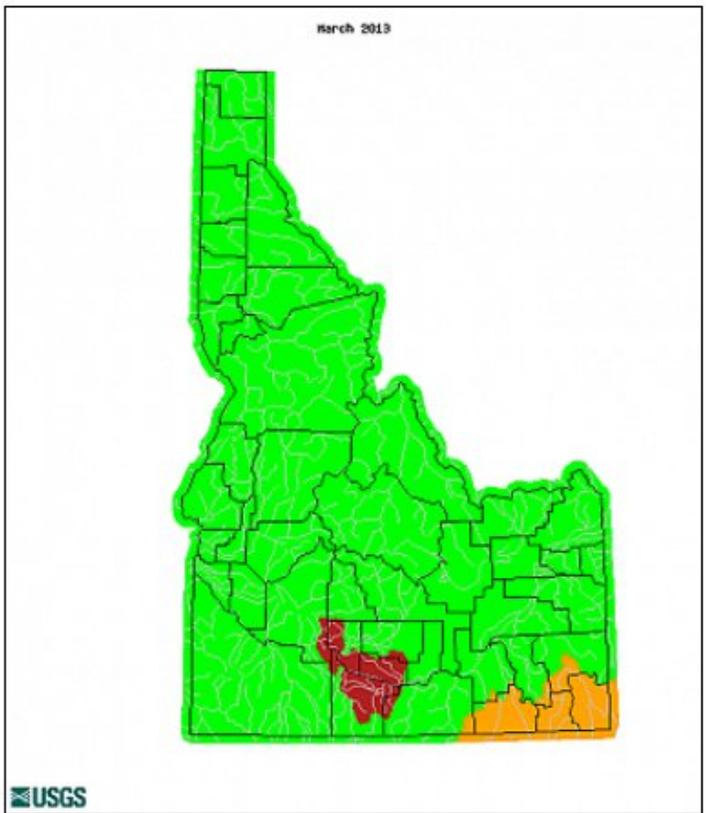
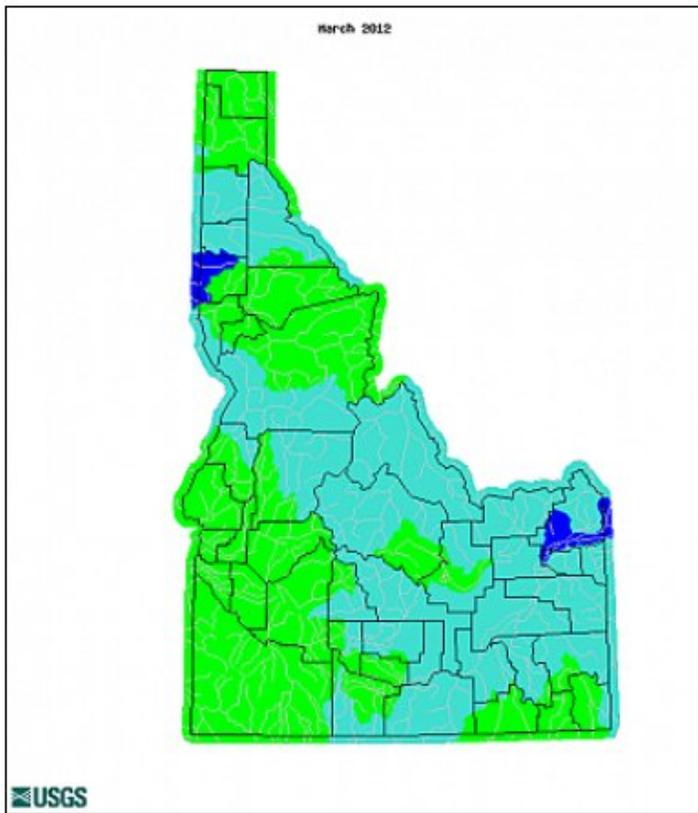
Historic Streamflow Comparison-March 2012 and March 2013:

Comparison of Monthly Streamflow Maps

Geographic Area:
Water Resource Region:
Map Type:

Date (YYYYMM):

Date (YYYYMM):



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

Drought Information:

U.S. Drought Monitor

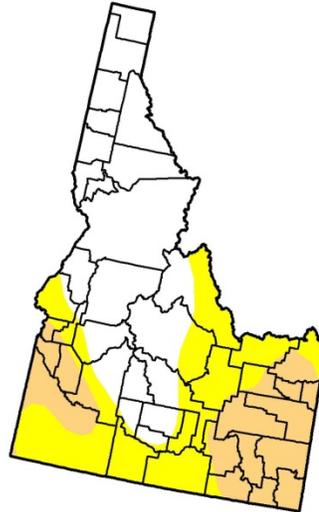
Idaho

April 2, 2013
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	47.55	52.45	22.61	0.00	0.00	0.00
Last Week (03/26/2013 map)	48.18	51.82	22.61	0.00	0.00	0.00
3 Months Ago (01/01/2013 map)	45.29	54.71	47.63	0.52	0.00	0.00
Start of Calendar Year (01/01/2013 map)	45.29	54.71	47.63	0.52	0.00	0.00
Start of Water Year (09/25/2012 map)	15.61	84.39	66.47	1.27	0.00	0.00
One Year Ago (03/27/2012 map)	94.71	5.29	0.00	0.00	0.00	0.00

Intensity:

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

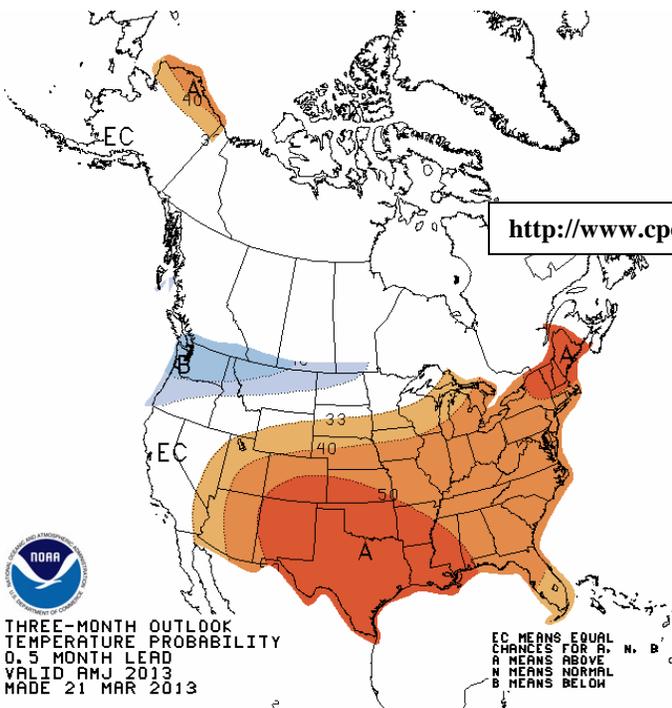


The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



Released Thursday, April 4, 2013
National Drought Mitigation Center,

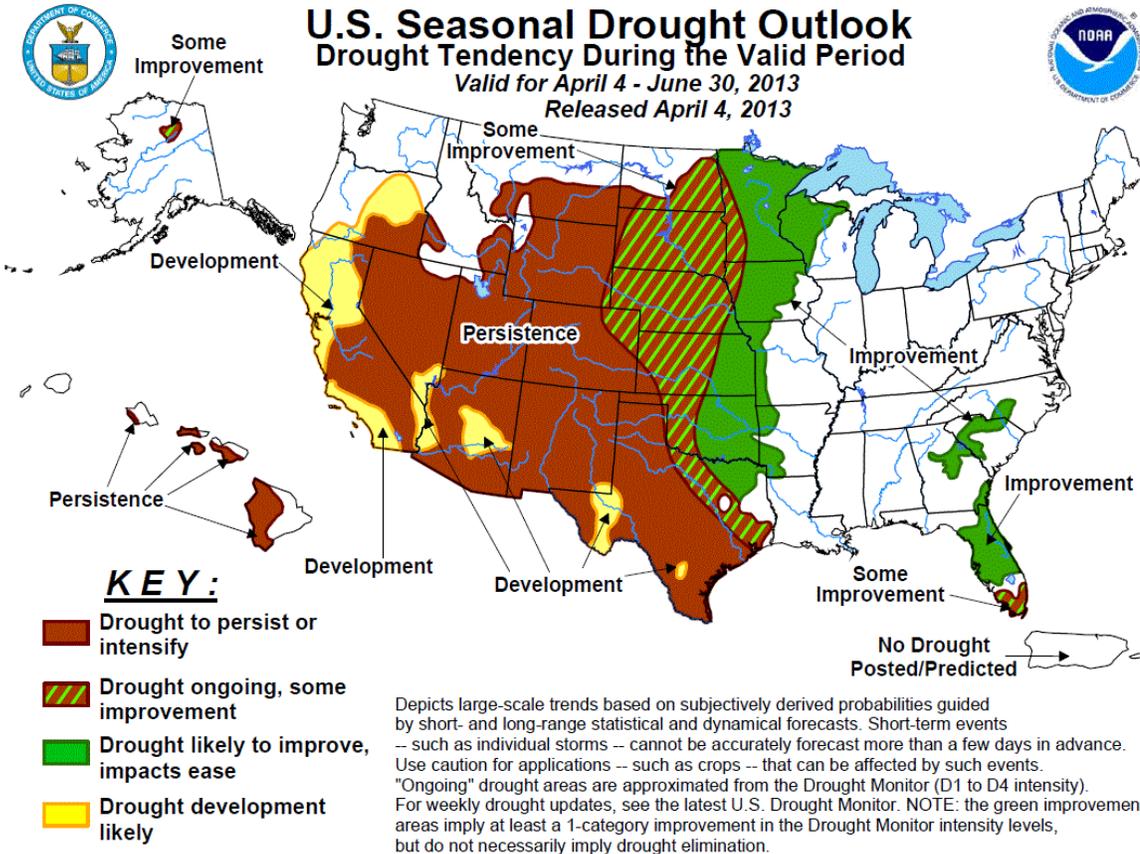
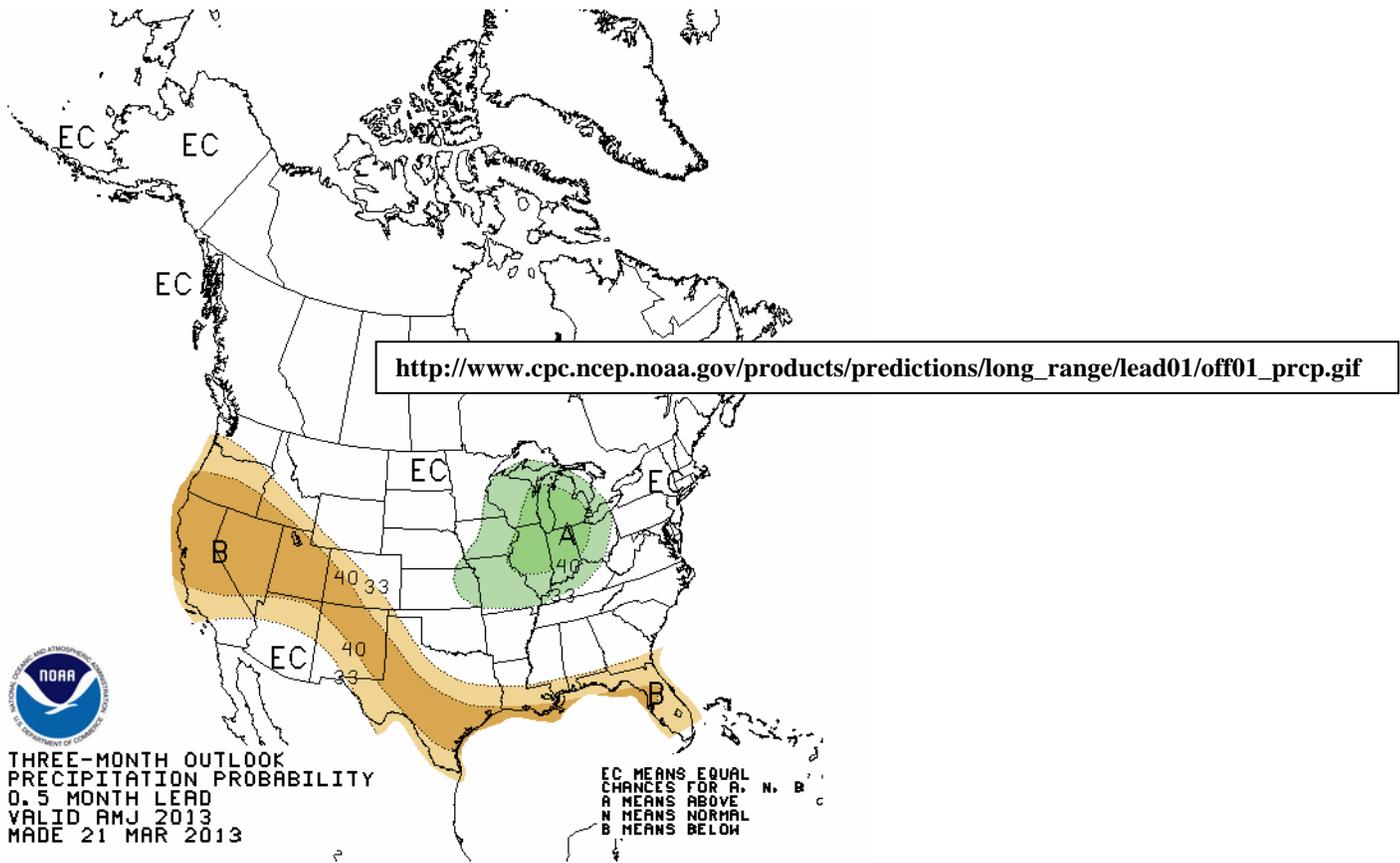
<http://droughtmonitor.unl.edu>



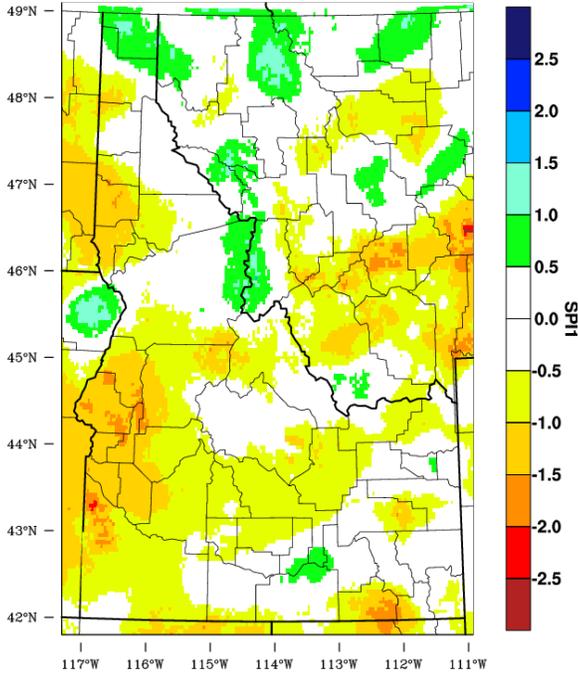
http://www.cpc.ncep.noaa.gov/products/predictions/30day/off01_temp.gif

THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID AMJ 2013
MADE 21 MAR 2013

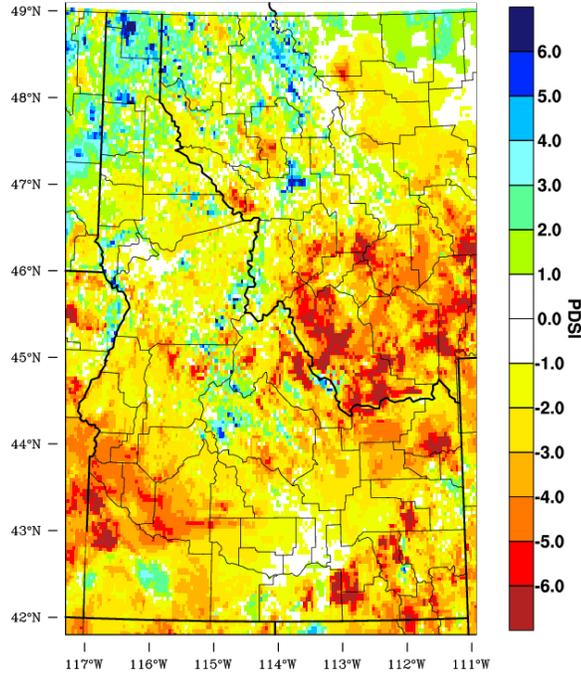
EC MEANS EQUAL CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW



Idaho - 1 month SPI
March 2013



Idaho - PDSI
March 2013

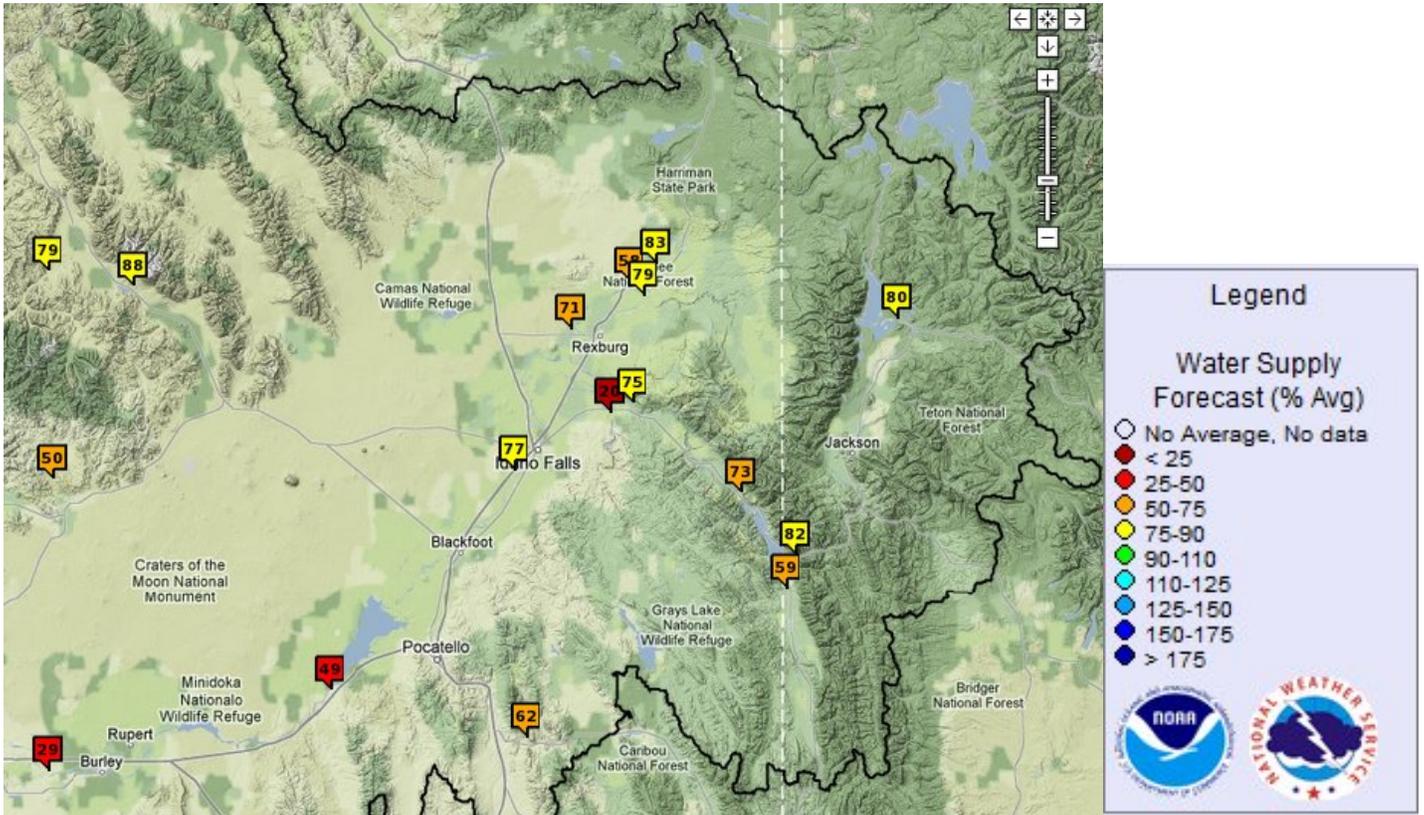


WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 2 APR 2013 WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 2 APR 2013

<http://www.wrcc.dri.edu/monitor/WWDWT/index.php?region=id>

Water Supply:

NWRFC Water Supply Volume Forecast Map (4/4/13):



NWRFC Water Supply Forecasts:

Ensemble Date: 2013-04-03 Issued Date: 2013-04-04

<u>ID</u>	<u>Forecast Period</u>	<u>Name</u>	<u>90% Exceedence KAF</u>	<u>50% Exceedence KAF</u>	<u>% Normal</u>	<u>10% Exceedence KAF</u>	<u>30 Year Normal</u>
<u>AMFI1</u>	APR-SEP	SNAKE - AT AMERICAN FALLS DAM	972	1426	51	2299	2806
<u>ANTI1</u>	APR-SEP	HENRYS FORK - AT ST. ANTHONY	413	497	59	664	836
<u>CHEI1</u>	APR-SEP	FALLS - NEAR CHESTER	274	314	84	390	375
<u>HALI1</u>	APR-SEP	BIG WOOD - AT HAILEY	160	207	79	257	263
<u>HEI1</u>	APR-SEP	SNAKE - NEAR HEISE	2547	2862	76	3469	3785
<u>HWR1</u>	APR-SEP	BIG LOST - AT HOWELL RANCH NEAR CHILLY	94.44	144	80	185	180
<u>MAC1</u>	APR-SEP	BIG LOST - MACKAY RESERVOIR NEAR MACKAY	87.96	135	90	183	151
<u>MAG1</u>	APR-JUL	BIG WOOD - MAGIC DAM	112	159	64	220	250
<u>PALI1</u>	APR-SEP	SNAKE - NEAR IRWIN	2311	2609	75	3152	3501
<u>REXI1</u>	APR-SEP	HENRYS FORK - AT REXBURG	1106	1290	72	1565	1785
<u>RIRI1</u>	APR-SEP	WILLOW CREEK - NEAR RIRIE	13.66	17.22	25	46.32	69.00
<u>SFLN2</u>	APR-SEP	SALMON FALLS CREEK - SALMON FALLS CK NR SAN JACINTO	28.94	40.34	55	87.09	74.00
<u>SHYI1</u>	APR-SEP	SNAKE - NEAR SHELLEY	3208	3956	78	5240	5051
<u>TEAI1</u>	APR-SEP	TETON - NEAR ST. ANTHONY	299	367	80	466	457
<u>TOPI1</u>	APR-SEP	PORTNEUF - AT TOPAZ	45.56	49.85	62	64.16	81.00
<u>WODI1</u>	APR-SEP	LITTLE WOOD - NEAR CAREY	27.31	41.95	51	59.29	83.00

http://www.nwrfc.noaa.gov/water_supply/ws_summary.cgi

For a table format of the volume forecasts and current runoff for WFO PIH:

http://www.nwrfc.noaa.gov/water_supply/ws_report.cgi?Type=WFO&Source=Pocatello&Wyr=2013&WyrDate=2013-04-05

CBRFC Water Supply Forecast Report for Bear River Basin (April 1 Forecast):

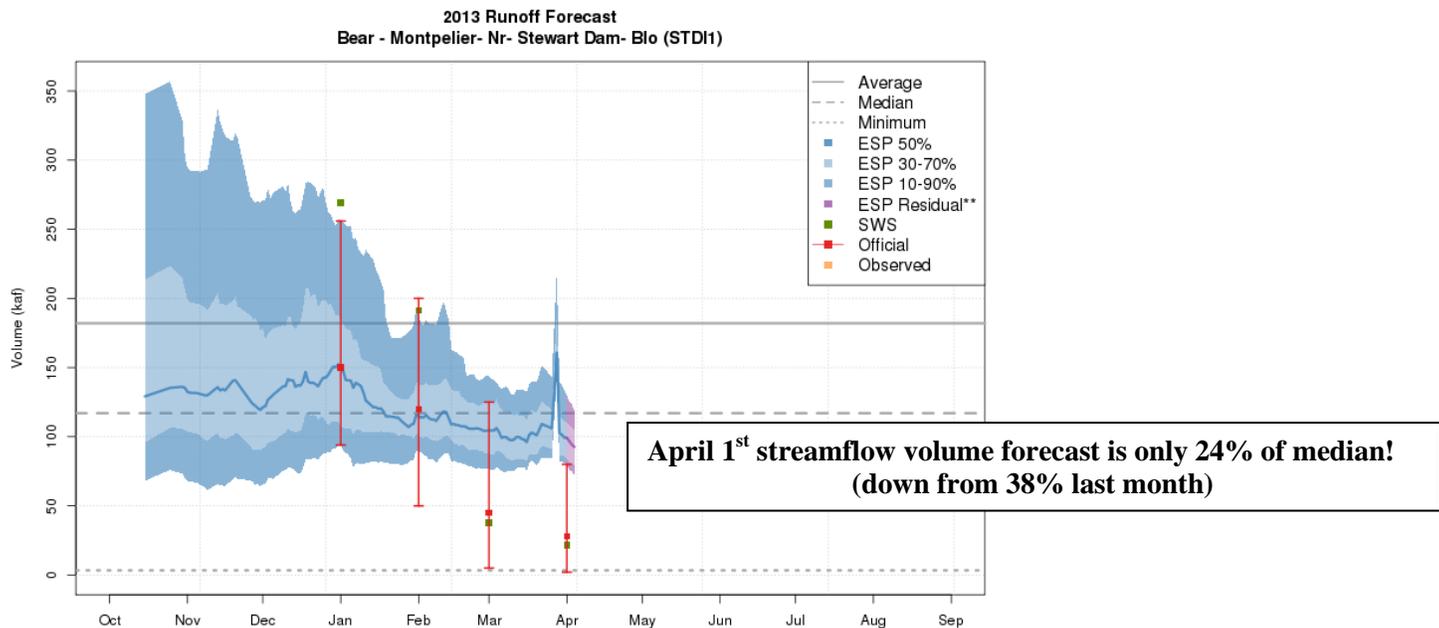
Area: CBRFC Lake Powell Upper Colorado Green San Juan Great Basin Sevier Virgin Lower Colorado
 Sub-Area: Bear Weber Six Creeks Utah Lake Great Salt Lake
 Plots: Auto Off On

Water Supply Point %Avg/Median
 ▲ < 70 ▲ 70-90 ▲ 90-110 ▲ 110-130 ▲ >130 ▲ Regulated

All forecasts and averages are in thousand acre-feet (kaf)
 MP=Most Probable

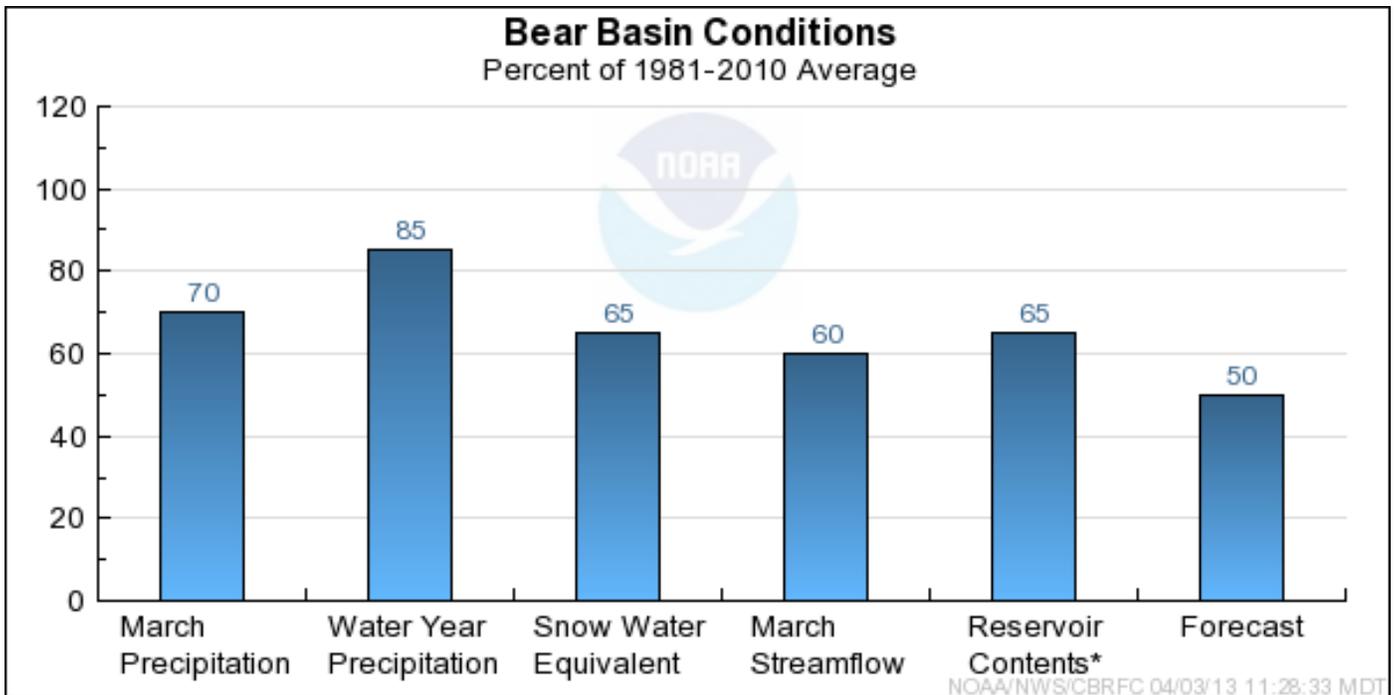
NWS ID	Location	Percent Avg/Med	Official Forecast Date	Official Min 90%	Official MP 50%	Official Max 10%	Official Percent Average	Official Percent Median	Average	Median
1 BEAW4	Bear - Woodruff Narrows Rsvr Abv	▲	2013-04-01	20	45	80	37%	41%	121	110
2 BERU1	Bear - Utah-wyoming State Line Nr	▲	2013-04-01	37	57	80	51%	54%	112	106
3 BORW4	Smiths Fork - Border Nr	▲	2013-04-01	29	55	75	62%	69%	89	80
4 HRMU1	Blacksmith Fork - Hyrum Nr Upnl Dam Abv	▲	2013-04-01	13.3	24	38	56%	83%	43	29
5 LGNU1	Logan - Logan Nr State Dam Abv	▲	2013-04-01	35	65	90	59%	67%	111	97
6 PRZU1	Little Bear - Paradise	▲	2013-04-01	6.3	13.5	34	29%	26%	47	51
7 STD11	Bear - Montpelier Nr Stewart Dam Blo	▲	2013-04-01	2	28	80	15.4%	24%	182	117

<http://www.cbrfc.noaa.gov/gmap/list/list.php?search=&point=all&plot=&sort=wsupids&type=wsup&basin=4&subbasin=0&espqpf=0&espdist=empirical>



Plot Created 2013-04-04 14:25:47, Lastest ESP Run from 2013-04-01, CBRFC / NWS / NOAA
 Maximum of 606.5 in 1986, Minimum of 3.3 in 1934, Average/Median for 1981-2010.
 **No residual observations available, ESP Residual is not total runoff.

Bear River Basin Conditions:



<http://www.cbrfc.noaa.gov/wsup/pub2/outlook3.php?region=sl&month=4&year=2013#br>

NRCS-NWCC Water Supply Forecast Report (April 1 Forecast):

Final NRCS Streamflow Forecasts-April 1, 2013
 USDA NRCS National Water & Climate Center
 * DATA CURRENT AS OF: 4/03/13 11:46:44

UPPER SNAKE RIVER BASIN

Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
Henrys Fork nr Ashton (2)	APR-JUL	440	83	545	480	400	345	530
	APR-SEP	580	82	710	630	530	465	710
Henrys Fork nr Rexburg (2)	APR-JUL	1150	82	1380	1240	1060	920	1400
	APR-SEP	1470	82	1730	1580	1360	1210	1790
Falls R nr Ashton (2)	APR-JUL	290	80	355	315	265	230	365
	APR-SEP	345	79	425	375	315	275	435
Teton R nr Driggs	APR-JUL	105	68	145	120	91.0	71.0	154
	APR-SEP	131	68	183	151	112	88.0	193
Teton R nr St. Anthony	APR-JUL	260	71	340	290	230	191	365
	APR-SEP	310	71	405	345	275	230	435
Snake R at Flagg Ranch	APR-JUL	420	90	485	445	395	355	465
	APR-SEP	455	89	525	485	425	385	510
Snake R nr Moran (1,2)	APR-JUL	645	84	785	690	600	505	765
	APR-SEP	710	84	875	760	660	545	845
Pacific Ck At Moran	APR-JUL	138	84	179	155	121	97.0	164
	APR-SEP	145	84	187	162	128	103	173
Buffalo Fork ab Lava nr Moran	APR-JUL	245	88	295	265	225	195	280
	APR-SEP	275	86	335	300	250	215	320

Snake R nr Alpine (1,2)	APR-JUL	1630	75	1950	1730	1530	1310	2170
	APR-SEP	1880	75	2290	2010	1750	1470	2500
Greys R Nr Alpine	APR-JUL	230	75	280	250	210	182	305
	APR-SEP	270	75	330	295	245	210	360
Salt R Nr Etna	APR-JUL	200	67	300	240	159	98.0	300
	APR-SEP	245	66	375	300	192	115	370
Snake R nr Irwin (1,2)	APR-JUL	2240	74	2710	2390	2090	1770	3010
	APR-SEP	2610	75	3150	2780	2440	2070	3500
Snake R nr Heise (2)	APR-JUL	2390	74	2400	2390	2390	2380	3240
	APR-SEP	2810	74	3280	3000	2620	2340	3780
Willow Ck nr Ririe (2)	APR-JUL	32.0	53	72.0	48.0	16.0	2.40	61.0
Blackfoot R ab Res nr Henry	APR-JUN	35.0	58	61.0	45.0	26.0	16.1	60.0
Snake R nr Blackfoot (1,2)	APR-JUL	3000	70	3760	3240	2760	2240	4260
	APR-SEP	3650	70	4580	3940	3360	2720	5220
Portneuf R at Topaz	APR-JUL	42.0	66	57.0	48.0	36.0	29.0	64.0
	APR-SEP	53.0	65	70.0	60.0	47.0	38.0	81.0
Snake R at Neeley (1,2)	APR-JUL	1750	66	2820	2080	1420	685	2650
	APR-SEP	1850	66	3000	2210	1490	695	2810

WOOD AND LOST RIVER BASINS

Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
Big Wood R at Hailey (1)	APR-JUL	176	75	245	198	154	105	235
	APR-SEP	199	75	295	230	169	104	265
Big Wood R ab Magic Res	APR-JUL	105	62	180	135	75.0	30.0	170
	APR-SEP	113	62	192	142	89.0	59.0	182
Camas Ck nr Blaine	APR-JUL	31.0	38	82.0	52.0	10.2	0.80	82.0
	APR-SEP	31.0	37	57.0	41.0	23.0	12.7	83.0
Big Wood R bl Magic Dam (2)	APR-JUL	157	63	255	197	117	59.0	250
	APR-SEP	167	63	255	205	131	77.0	265
Little Wood R ab High Five Ck	APR-JUL	52.0	75	79.0	63.0	41.0	25.0	69.0
	APR-SEP	56.0	75	85.0	67.0	46.0	33.0	75.0
Little Wood R near Carey (2)	APR-JUL	55.0	71	84.0	67.0	43.0	26.0	77.0
	APR-SEP	59.0	71	81.0	68.0	50.0	37.0	83.0
Big Lost R at Howell Ranch	APR-JUL	136	86	181	154	118	91.0	159
	APR-SEP	154	86	205	175	133	103	180
Big Lost R Below Mackay Res	APR-JUL	100	81	148	119	81.0	52.0	123
	APR-SEP	125	83	182	148	102	68.0	150
Little Lost R nr Howe	APR-JUL	22.0	79	31.0	26.0	18.7	14.2	28.0
	APR-SEP	27.0	79	39.0	32.0	23.0	17.3	34.0
Camas Ck at Camas	APR-JUL	19.8	71	36.0	26.0	13.3	3.80	28.0

SOUTHSIDE SNAKE RIVER BASINS

Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
Goose Ck ab Trapper Ck nr Oakley	APR-JUL	14.3	77	24.0	18.4	10.2	4.30	18.7
	APR-SEP	15.2	76	26.0	19.5	10.9	4.50	20.0
Trapper Ck nr Oakley	APR-JUL	4.20	84	5.60	4.70	3.70	2.80	5.00
	APR-SEP	5.30	87	6.80	5.90	4.70	3.80	6.10
Oakley Res Inflow (2)	APR-JUL	18.5	77	30.0	23.0	13.9	7.10	24.0
	APR-SEP	20.0	77	32.0	25.0	15.1	7.80	26.0
Salmon Falls Ck nr San Jacinto	APR-JUN	42.0	64	65.0	51.0	34.0	24.0	66.0
	APR-JUL	45.0	64	71.0	55.0	36.0	25.0	70.0
	APR-SEP	48.0	65	75.0	58.0	39.0	27.0	74.0
Bruneau R nr Hot Springs	APR-JUL	129	71	205	158	103	70.0	183

	APR-SEP	135	70	215	166	108	73.0	192
Reynolds Ck at Tollgate	APR-JUL	3.30	43	6.10	4.40	2.20	0.48	7.60
Owyhee R nr Rome	APR-JUL	156	45	306	217	95.0	6.00	345
Owyhee R bl Owyhee Dam (2)	APR-JUL	176	47	284	217	140	94.0	375
	APR-SEP	200	49	311	242	162	114	405
Snake R at King Hill (1,2)	APR-JUL	1690	65	2640	1990	1390	735	2620
Snake R nr Murphy (1,2)	APR-JUL	1920	74	2920	2230	1610	925	2610
Snake R at Weiser (1,2)	APR-JUL	3170	63	3220	3190	3150	3120	5010
Snake R at Hells Canyon Dam (1,2)	APR-JUL	3460	60	3710	3540	3380	3210	5760

BEAR RIVER BASIN

Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
Bear R nr UT-WY State Line	APR-JUL	56	50	85.0	68.0	44.0	27.0	112
	APR-SEP	61	50	93.0	74.0	48.0	29.0	123
Bear R ab Res nr Woodruff	APR-JUL	45	37	64.0	39.0	10.0	1.00	121
	APR-SEP	50	39	62.0	36.0	14.0	1.00	128
Big Ck nr Randolph	APR-JUL	1.33	35	2.10	1.22	0.49	0.04	3.80
Smiths Fk nr Border	APR-JUL	45.0	51	66.0	53.0	36.0	23.0	89.0
	APR-SEP	55	53	80.0	65.0	45.0	30.0	104
Bear R bl Stewart Dam	APR-JUL	14	8	106	40.0	4.00	2.00	183
	APR-SEP	12	6	77.0	20.0	4.00	2.00	205
Little Bear R at Paradise	APR-JUL	9.8	24	25.0	13.6	3.30	0.40	41.0
Logan R nr Logan	APR-JUL	38	34	67.0	50.0	27.0	10.0	111
Blacksmith Fork nr Hyrum	APR-JUL	18.6	43	45.0	29.0	8.00	1.30	43.0

Max is 90 percentile and min is 10 percentile except with footnote 1 below.
Averages are for the 1971-2000 period.
All volumes are in KAF.

footnotes:

- 1) max is 95 percentile and min is 5 percentile
- 2) streamflow is adjusted for upstream storage

<ftp://ftp-fc.sc.egov.usda.gov/ID/snow/watersupply/forecasts/ID04.txt>

cc:
 Mike Schaffner, Western Region HCSD
 Harold Opitz, Hydrologist-in-Charge, Northwest River Forecast Center
 Joe Intermill, Service Coordination Hydrologist, Northwest River Forecast Center
 Andy Wood, Development and Operations Hydrologist, Northwest River Forecast Center
 Michelle Stokes, Hydrologist-in-Charge, Colorado Basin River Forecast Center
 Kevin Werner, Service Coordination Hydrologist, Colorado Basin River Forecast Center
 John Lhotak, Development and Operations Hydrologist, Colorado Basin River Forecast Center
 Hydrometeorological Information Center
 Rick Dittmann, Meteorologist-in-Charge, Pocatello, Idaho
 Troy Lindquist, Senior Service Hydrologist, Boise, Idaho
 Brad Gillies, Hydrologist, Northwest River Forecast Center
 Taylor Dixon, Hydrologist, Northwest River Forecast Center
 Brent Bernard, Hydrologist, Colorado Basin River Forecast Center