The minus signs on this map represent the record or near record low snowpacks at many SNOTEL sites across Idaho and the West. These dry conditions may be surprising since cold ocean temperatures, that signal a La Nina, have been measured in the Pacific Ocean ever since last winter. La Nina conditions are often touted as producing cold and stormy winters in the Pacific Northwest. Last winter was a textbook example. While this year’s La Nina is not as strong as last year, climate models are still predicting an above average winter. At this point our best advice is to be patient; snow is on its way (we hope).
Fall moisture improved soil moisture, Jan 1 surveys showed ground was frozen at Bogus, Mores and probably more locations.
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
Idaho Jan 1-12 % of Jan
Total Monthly:
- 10% north of Salmon River and 0-8% south of Salmon River

Provisional data subject to revision
Mountain Snowpack as of January 1, 2012

Legend
Percent of Average
- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25
- No Survey

Prepared by USDA, Natural Resources Conservation Service
National Water and Climate Center
Portland, Oregon
http://www.wcc.nrcs.usda.gov
New Mexico

Jan 10, 2012


- unavailable *
- < 0%
- 0 - 29%
- 30 - 69%
- 70 - 99%
- 100 - 129%
- 130 - 149%
- > 150%

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

Provisional Data Subject to Revision

Jan 11, 2012


Alaska winter meaner than usual this year

One town is buried in snow. Another is iced in. Now, residents are looking for help.

BY MARY PEMBERTON
AND RACHEL D'ORO
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@or.usda.gov 503 414 3047
Spring and Summer Streamflow Forecasts as of January 1, 2012

Percent
1971 to 2000 Normal

- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25

No Forecast

Prepared by
USDA, Natural Resources Conservation Service
National Water and Climate Center
Portland, Oregon
http://www.wcc.nrcs.usda.gov
January 1, 2012
50% Exceedance
Summer Streamflow Forecasts
Idaho

Map based on provisional data
### Idaho Surface Water Supply Index (SWSI) January 1, 2012

<table>
<thead>
<tr>
<th>Basin or Region</th>
<th>January SWSI Value</th>
<th>Similar Year</th>
<th>Surface Agricultural Water Supply Shortages Occur when SWSI is Less Than</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Panhandle</td>
<td>-0.4</td>
<td>1995</td>
<td>NA</td>
</tr>
<tr>
<td>Spokane</td>
<td>-0.7</td>
<td>2010</td>
<td>NA</td>
</tr>
<tr>
<td>Clearwater</td>
<td>-1.7</td>
<td>2010</td>
<td>NA</td>
</tr>
<tr>
<td>Salmon</td>
<td>-1.4</td>
<td>2004</td>
<td>NA</td>
</tr>
<tr>
<td>Weiser</td>
<td>-1.7</td>
<td>2004</td>
<td>NA</td>
</tr>
<tr>
<td>Payette</td>
<td>-1.4</td>
<td>2004</td>
<td>NA</td>
</tr>
<tr>
<td>Boise</td>
<td>0.7</td>
<td>2007</td>
<td>-1.3 to -1.6</td>
</tr>
<tr>
<td>Big Wood</td>
<td>0.6</td>
<td>2011</td>
<td>0.5 to 0.7</td>
</tr>
<tr>
<td>Little Wood</td>
<td>0.7</td>
<td>2005</td>
<td>-1.3 to -1.6</td>
</tr>
<tr>
<td>Big Lost</td>
<td>-0.4</td>
<td>2010</td>
<td>0.3 to 0.5</td>
</tr>
<tr>
<td>Little Lost</td>
<td>-1.2</td>
<td>2008</td>
<td>1.0 to 1.3</td>
</tr>
<tr>
<td>Teton</td>
<td>-0.9</td>
<td>2005</td>
<td>-3.7 to -3.9</td>
</tr>
<tr>
<td>Henrys Fork</td>
<td>-0.8</td>
<td>2010</td>
<td>-3.4 to -3.6</td>
</tr>
<tr>
<td>Snake (Heise)</td>
<td>0.9</td>
<td>2008</td>
<td>-1.3 to -1.6</td>
</tr>
<tr>
<td>Oakley</td>
<td>1.4</td>
<td>2000</td>
<td>0.3 to 0.5</td>
</tr>
<tr>
<td>Salmon Falls</td>
<td>0.1</td>
<td>2010</td>
<td>-0.4 to -0.8</td>
</tr>
<tr>
<td>Bruneau</td>
<td>-2.4</td>
<td>2003</td>
<td>NA</td>
</tr>
<tr>
<td>Owyhee</td>
<td>0.4</td>
<td>2005</td>
<td>-3.0 to -3.5</td>
</tr>
<tr>
<td>Bear River</td>
<td>2.0</td>
<td>2011</td>
<td>-2.3 to -2.6</td>
</tr>
</tbody>
</table>

SWSI period is based on the 1981 to 2011 period
Northern Panhandle Region 2012 Snowpack Comparison Graph (6 sites)
Based on Provisional SNOTEL data as of Jan 10, 2012

- Average - WY1999 - WY2009 - WY2011 - WY2012

Current as Pct of Avg: 84%
Current as Pct of 2011: 93%
Current as Pct of Peak: 42%
Average as Pct of Peak: 51%
Pct of Avg Needed to Reach Peak: 117%
Average Peak Date: Apr 13

Comparison Year Info
2011 & 1999 = strong LaNina
2009 = neutral
2012 forecast as LaNina

Salmon Basin 2012 Snow Water with Non-Exceedence Projections (22 sites)
Based on Provisional SNOTEL data as of Jan 10, 2012

- Average - WY2012 - Minimum - 10% - 30% - 50% - 70% - 90% - Maximum
33% chance to return to normal snow by April 1 based on 6 out of 18 years with below normal snow on Jan 1 that returned to average by April 1
Boise Basin 7 Station Snow Index for Years 1961 - Jan 2012
Atlanta, Dollarhide, Graham, Jackson, Mores Creek, Trinity Mountain, Vienna Mine

45% chance to return to normal snow by April 1 based on 13 out of 29 years with below normal Jan 1 snow that returned to 80% of average (March 1 average amounts) by April 1.
Snow Riders
Drought

Soldier Mountain Resort February 2010

Northern Idaho March 1, 2011
January 1 Surface Water Supply Index (SWSI)
Snake River near Heise & Jackson and Palisades Reservoirs

Adequate Irrigation Water Supply Above 4,200 KAF
Comparison of January and April Snow Water Amounts
Lewis Lake Divide 1951-2012

- January 1 Snow Water
- April 1 Snow Water

- January 1 Average = 14.8
- February 1 Average = 23.1
- March 1 Average = 29.7
- April 1 Average = 35.8

Year

Moderate La Nina
Strong La Nina Years

Natural Resources Conservation Service
Runoff 2011 149% of Normal, 5322 KAF

2012 -- based on irrigation demand of 4,500 KAF and Dec 31 Jackson and Palisades storage of 1,867 KAF, 63% of average runoff for Apr-Sep or 2,600 KAF is needed for marginally adequate surface irrigation supply.

SNOTEL Sites used: Base Camp, Blind Bull, Cottonwood Ck, Lewis Lake, Snake River Sta, Slug Creek, Thumb Divide and Willow Ck
Mid-months forecasts and use of them?

- Started as requests from users,
- Then forecast most points,
- Today, we have Daily Water Supply Forecasts
- Added more forecasts this summer, now 27 run daily

SNOTEL Sites used: Base Camp, Blind Bull, Cottonwood Ck, Lewis Lake, Snake River Sta, Shug Creek,
Bear Basin 2012 Snow Water with Non-Exceedence Projections

Based on Provisional SNOTEL data as of Jan 10, 2012

Average - WY2012 - Minimum - 10% - 30% - 50% - 70% - 90% - Maximum

NRCS Natural Resources Conservation Service

2012 Bear River below Stewart Dam: Apr - Jul Volume, NRCS Monthly/mid-Monthly Forecasts are Squares

Updated January 11, 2012

Runoff 2011 261% of Normal, 610 KAF

2012 -- based on irrigation demand of 500KAF and Dec 31 Bear Lake storage of 1078 KAF, minimum streamflow is needed for marginally adequate surface irrigation supply for Bear Lake water users.
Bruneau River Basin 4 Station Snow Index 1984 - Jan 2012
Bear Creek, Big Bend, Pole Creek RS and Seventysix Creek

- January 1 Snow Water
- April 1 Snow Water

- January 1 Average = 6.4
- February 1 Average = 10.0
- March 1 Average = 13.4
- April 1 Average = 15.3

Year
- 2011 had over 3 months with flows over 800 cfs for river running
- Jan 2012 forecast Mar – Jul for 47% of average
- 1959 flow was 42%

13168500: Bruneau R near Hot Spring, ID
1959 Mar-Jul volume was 42%, 93.0 KAF, Average is 220.3 KAF

Bruneau -- June 1, 2011 snow highest since daily records start in 1982, Salmon Falls was highest since 1984
Bogus Basin Snow Course Dec 31, 2011

1st 1977 1.7
2nd 1990 2.0
3rd 1963 2.5
4th 2012 3.0 4th lowest since record starts in 1944

Many snow measuring sites are on north-facing slopes that hold the snow