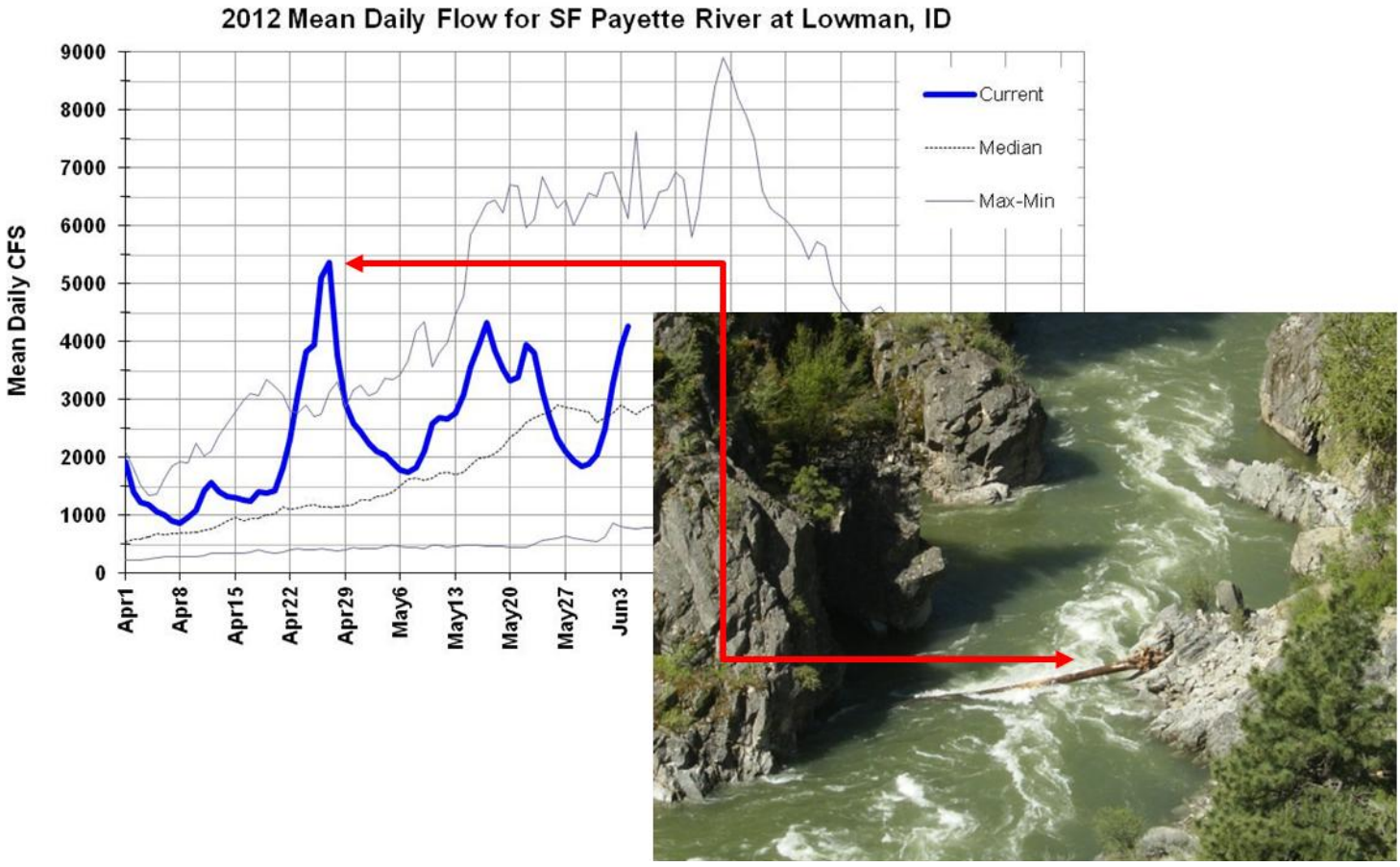
United States Department of Agriculture
Natural Resources Conservation Service

Idaho Water Supply Outlook Report
June 1, 2012



Log across Blackadar Rapid on the SF Payette River after April 27 peak flow of 5,360 cfs.

Record heat in April and snowfall on Memorial Day summarizes this spring's erratic weather. River flows have also been up and down and the South Fork Payette River is a good example. Like most other Idaho rivers, the South Fork has had three streamflow peaks already this spring and the level is currently rising for a fourth peak. The largest flow of the season (5,360 cfs) set an early season mean daily flow record for the Lowman gage based on records back to 1943. The picture above shows the log that was perched by this high flow across Blackadar, a class IV rapid. Catching a ride between peaks has been a challenge for Idaho river runners this spring. In central Idaho, the peak flows driven by snowmelt are now over, however more yo-yo like river conditions are possible until the springtime precipitation gives way to the typical dry summer weather pattern.

Basin Outlook Reports
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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when the snow melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to produce runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertainty is in the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

IDAHO WATER SUPPLY OUTLOOK REPORT
JUNE 1, 2012

SUMMARY

First, an apology to those that had to pay forty cents to the Post Office to receive their May 1 Water Supply report. The printer we used this season was bulk mailing the reports, but the turnaround to receive them was too slow. The May 1 reports were mailed first class using a pre-sorted rate, but apparently that rate was not honored in all the towns where our 360 subscribers live. We'll get this resolved for next year. If you have any feedback on the Water Supply Report, please send an email to Ron.Abramovich@id.usda.gov with your ideas, thoughts or concerns.

The 2011-2012 winter and 2012 runoff season is best characterized as a rollercoaster ride of highs and lows. May continued that carnival ride with variable weather causing snowmelt to start and stop at various times during the month. As a result, Idaho rivers had multiple peaks this spring. Irrigation demand was also up and down. Hot and dry weather in early May increased irrigation demand to well above normal levels, followed by a mid-May cold front that reduced demand back to near normal levels.

This year, the Snake River is a dividing line for moisture in Idaho and the West as a whole. South of the Snake River and stretching to Colorado and New Mexico, April's record high heat melted snow earlier than normal. This resulted in streams reaching near minimum levels in May, rather than peaking like they normally do. North of the Snake River and stretching into western Montana, and across most of Oregon and Washington, the snowpack survived the April hot spell leaving enough snowmelt to sustain decent streamflow levels this summer. In Idaho, June-July residual streamflow forecasts for most streams north of the Snake River, as well as the Upper Snake, range from 65-100% of average.

Last year, farmers were challenged to get their crops planted because of the cool and wet weather. This year, dryland farmers and rangeland ranchers are feeling the impacts of too little moisture. High winds and the lack of rain across southern Idaho dried the soils out. As a result, runoff for the June-July period across southern Idaho will be minimal ranging from 16% for Owyhee River near Rome, 23% of average for the Bear River, 27% for Salmon Falls Creek and 48% for Oakley Reservoir inflow.

Fortunately, the sting of the dry conditions south of the Snake will be dulled for irrigators that have access to reservoir storage water. They should have adequate supplies to make it through the growing season thanks to good reservoir carryover storage from last winter. Owyhee, Salmon Falls, Oakley and Bear Lake water users will be using water from last year's abundant runoff. However with minimal inflows this year, carryover amounts could be low for next year, except in Bear Lake which contains a multi-year water supply.

Water supplies will be adequate in the Boise and Big Wood basins. Supplies will be marginally adequate for the numerous users that rely on Snake River water. Upper Snake water users had good reservoir carryover storage, but with residual streamflow forecasts at only 77% of average for the Snake River near Heise water supplies could be tight by summer's end. Summer weather will dictate irrigation demand. Drought impacts would be felt first by those that rely solely on

natural streamflow, without supplemental water rights. Another cool summer would reduce demand allowing users to make it through this season.

The Big and Little Lost watersheds remain the challenging region to determine if water supplies will be adequate or not. We know the streams have peaked, but early June produced additional runoff that will help sustain flows into the summer months. Mackay reservoir remains full. Residual streamflow forecasts are for 82-97% of average for the Big Lost and Little Lost rivers, respectively. Groundwater levels are high and springs have been flowing much better since April 2009 in these basins. This is the main reason to remain optimistic as a high water table would continue to feed the streams though the summer months.

A cool summer with moderate temperatures like those experienced since 2008 would stretch this year's water supply. A return to hot summer weather, like those years in the first half of the last decade, would increase irrigation demand and could cause shortages. Since the Pacific Decadal Oscillation (PDO) is still in the cool phase, like it has been since 2008, another cooler than normal summer is certainly possible.

SNOWPACK

Idaho's June 1 snowpack levels range from 130% of average in the Panhandle region to ZERO across many of Idaho's southern basins. Snowpacks are 50-70% of average in the Salmon, Payette, Boise, Big Wood, and Upper Snake and increase to 109% in the Clearwater and to 115% for the Coeur d'Alene River basin. This means there is still enough snow in the mountains to sustain summer's flows and the farther north you travel in Idaho the more near normal, to above normal, the flows will be this summer. Most streams have peaked and seen their highest flows for the season; the exceptions are the Teton River, in eastern Idaho, and possibly the Moyie River in northern Idaho.

PRECIPITATION

May precipitation across the state can be described in three categories: average, fair and poor. Regions that received 85-100% of average include the Panhandle, Clearwater, Salmon, Weiser, Payette, Big Wood and Upper Snake above American Falls Reservoir. Basins that received 65-75% of average include Boise, Little Wood, Big Lost, Little Lost and Bear River. Only half of average amounts fell in Oakley, Salmon Falls, Bruneau and Owyhee basins. These southern Idaho basins also host the lowest precipitation since the water year started October 1st at 77-85% of average, except for Oakley at 97% of average. Most of the rest of the state has had 90-110% of average precipitation this water year.

RESERVOIRS

Idaho's reservoirs are worth their weight in gold this year! Depending on location reservoirs across the state have been multi-tasking between flood control and water storage. The Boise reservoir system is 93% full and mitigated floods by temporarily storing inflows that exceeded 20,000 cfs. That water was released at 6,000 to 8,000 cfs through town for over a month and a half. Magic and Mackay reservoirs have been full or nearly full for a month and passing inflows. Flood control releases were made from the Upper Snake system because of the good carryover storage from last year. Excess water was used to recharge Idaho's aquifers. The Upper Snake's eight reservoirs are storing over 4 million acre-feet, 109% of average, 88% of capacity.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive and in some cases, dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in this report.

STREAMFLOW

Residual June-July streamflow forecasts range from 15-50% of average across southern Idaho streams, and up to 125-150% of average for Idaho's Panhandle tributaries including the Moyie, Smith, Boundary and Priest rivers. Elsewhere, expect above average volumes in the Coeur d'Alene River basin and near average volumes in the Clearwater basin. Across the heart of central Idaho, from the Weiser to the Salmon basin and Upper Snake streams, users can expect residual volume in the 60-90% of average range.

Note: The volumes referenced in these narratives are the 50% Chance of Exceeding Forecast, unless otherwise noted. Users may wish to use a different forecast to reduce their risk of having too much or too little water. Forecasts published in this report are produced between the USDA NRCS and NOAA NWS; the joint west-wide Water Supply Outlook for the Western US is available at: http://www.wcc.nrcs.usda.gov/wsf/westwide.html.

RECREATION

Multiple streamflow peaks, as depicted on this month's cover, have had Idaho's river runners trying to catch the ride between peaks. The first week of June will produce another peak, as above normal temperatures are brought to a swift end by a cold front. This front will decrease flows again and allow streams to bounce up when warm weather returns. The remaining snow will sustain flow levels well into the summer months, especially in northern Idaho where the Moyie and Priest rivers are forecast at 125-130% of average. What an amazing and diverse state Idaho is with southern desert streams approaching near record low flow levels and higher flows still happening in central, eastern and northern Idaho. Water users and river runners should continue to watch the current yo-yo like spring weather pattern closely, as it is still influencing streamflow levels. The dry summer weather pattern will return, so it is just a matter of time until the rivers start to behave in a predictable manner. There is a long summer boating season in our great state to look forward to.

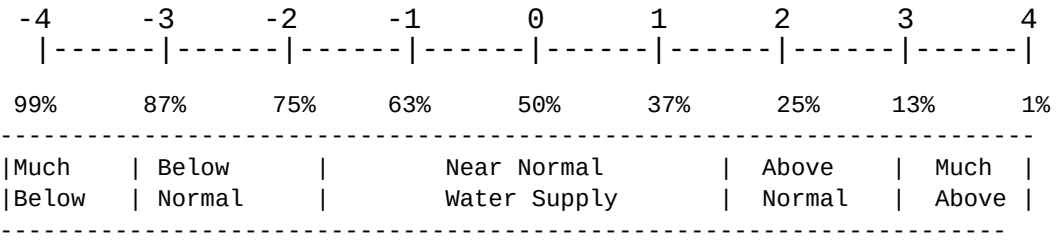
IDAHO SURFACE WATER SUPPLY INDEX (SWSI) June 1, 2012

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.0 (abundant supply) to -4.0 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences. The SWSI analysis period is from 1971 to present.

SWSI values provide a more comprehensive outlook of water availability by combining streamflow forecasts and reservoir storage where appropriate. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been determined for some basins to indicate the potential for agricultural irrigation water shortages.

BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortages Occur When SWSI is Less Than*
Northern Panhandle	**2.0**	**2002**	**NA**
Spokane	**0.7**	**2009**	**NA**
Clearwater	**0.1**	**2009**	**NA**
Salmon	**0.1**	**2003**	**NA**
Weiser	**0.1**	**2003**	**NA**
Payette	**-0.4**	**2009**	**NA**
Boise	**0.1**	**2009**	**-1.8 to -2.1**
Big Wood	**0.8**	**1993**	**0.6 to 0.8**
Little Wood	**0.2**	**2010**	**-1.6 to -2.3**
Big Lost	**0.2**	**2010**	**0.1 to -0.2**
Little Lost	**0.9**	**2010**	**1.0 to 0.7**
Teton	**-1.4**	**2002**	**-3.7 to -3.9**
Henrys Fork	**0.0**	**2006**	**-3.4 to -3.6**
Snake (Heise)	**0.4**	**2010**	**-1.3 to -1.6**
Oakley	**-0.1**	**2009**	**0.0 to -0.5**
Salmon Falls	**1.7**	**1999**	**-0.8 to -1.3**
Bruneau	**-0.8**	**2003**	**NA**
Owyhee	**-0.4**	**2000**	**-3.2 to -3.5**
Bear River	**1.6**	**2011**	**-3.0 to -3.4**

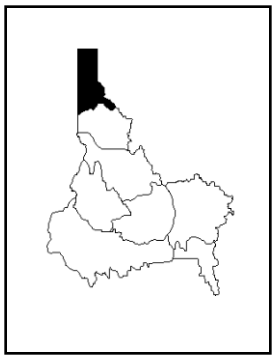
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION

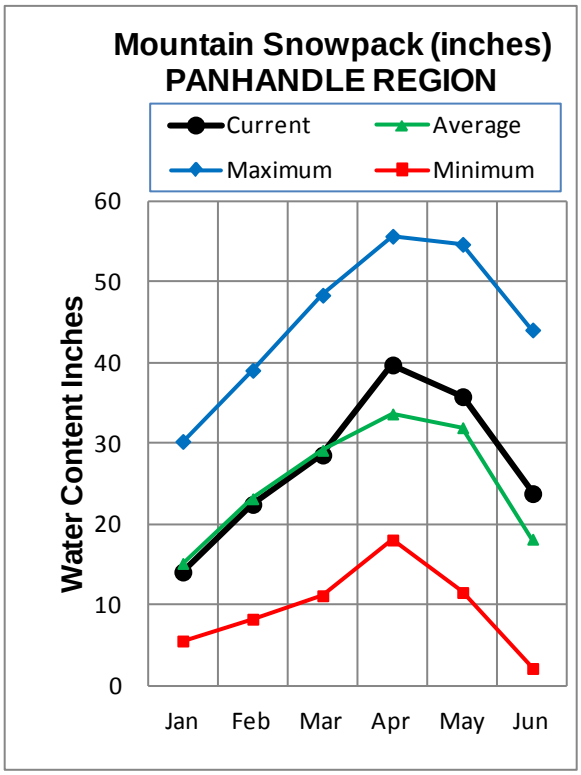


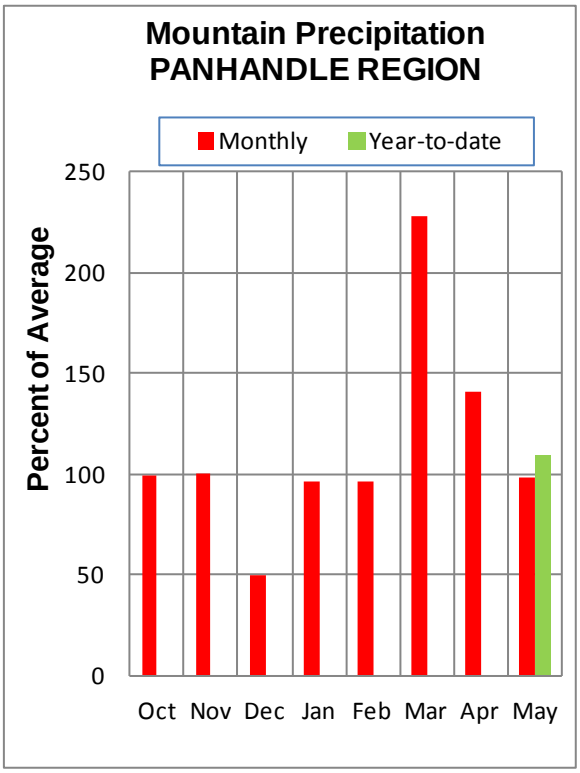
NA = Not Applicable, Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply," represents three SWSI units and would be expected to occur about one-third (36%) of the time.

PANHANDLE REGION

JUNE 1, 2012







WATER SUPPLY OUTLOOK

The Panhandle's snowpack is a little more than half melted. Rivers have seen multiple streamflow peaks this season as snowmelt rates have varied up and down with temperatures and sporadic rain. This is the best scenario for melting a deep snowpack; much better than one large damaging peak. June 1 snowpacks are still 131% of average across the region. The Priest River basin has the best snow in Idaho with 172% of average, similar to much of Washington which hosts the West's best snow. Weather Service river forecasts predict another rise this week. Expect streamflow peaks similar to those in May for the St. Joe and Moyie rivers. May brought average monthly precipitation, while water year-to-date precipitation since October 1 is slightly above average at 109%. As of June 1 Lake Pend Oreille is 77% of capacity, Coeur d'Alene Lake is 87% of capacity and Priest Lake is a little more than its normal summer capacity. The June-July streamflow volume forecasts are 125-150% of normal for Moyie, Smith, Boundary and Priest rivers, other streams are 107-116%. Lake levels and streamflows this summer will provide wonderful recreation and a plentiful water supply.

PANHANDLE REGION
Streamflow Forecasts - June 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Kootenai R at Leonia (1,2)	JUN-JUL	3760	4350	4620	118	4890	5480	3920
	JUN-SEP	4920	5640	5970	119	6300	7020	5000
Moyie R at Eastport	JUN-JUL	145	171	189	130	205	235	145
	JUN-SEP	162	191	210	131	230	260	160
Smith Ck nr Porthill	JUN-JUL	57	69	77	154	85	97	50
	JUN-SEP	60	75	85	152	95	110	56
Boundary Ck nr Porthill	JUN-JUL	49	58	64	139	70	79	46
	JUN-SEP	55	65	72	139	79	89	52
Clark Fork at Whitehorse Rpds (1,2)	JUN-JUL	4190	4940	5280	94	5620	6370	5620
	JUN-SEP	5240	6140	6540	97	6940	7840	6750
Pend Oreille Lake Inflow (2)	JUN-JUL	4740	5330	5720	94	6110	6700	6120
	JUN-SEP	5830	6530	7000	96	7470	8170	7280
Priest R nr Priest River (1,2)	JUN-JUL	285	335	365	126	395	445	290
	JUN-SEP	335	390	430	125	470	525	345
NF Coeur d'Alene R at Enaville	JUN-JUL	141	166	184	116	200	225	159
	JUN-SEP	179	210	230	116	250	280	198
St. Joe R at Calder	JUN-JUL	330	390	435	115	480	540	380
	JUN-SEP	400	465	510	113	555	620	450
Spokane R nr Post Falls (2)	JUN-JUL	575	660	720	107	780	865	675
	JUN-SEP	635	755	830	107	910	1020	775
Spokane R at Long Lake (2)	JUN-JUL	730	825	890	106	955	1050	840
	JUN-SEP	905	1040	1130	107	1220	1350	1060

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
Pend Oreille	1561.3	1204.3	588.2	1333.1
Coeur d'Alene	238.5	206.5	418.8	270.4
Priest Lake	119.3	133.9	153.6	138.5

PANHANDLE REGION
Watershed Snowpack Analysis - June 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	8	62	144
Moyie River	1	59	134
Priest River	2	77	172
Pend Oreille River	42	53	122
Rathdrum Creek	1	0	0
Coeur d'Alene River	4	34	103
St. Joe River	4	59	120
Spokane River	9	45	115
Palouse River	1	0	0

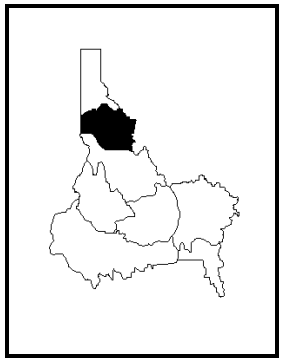
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

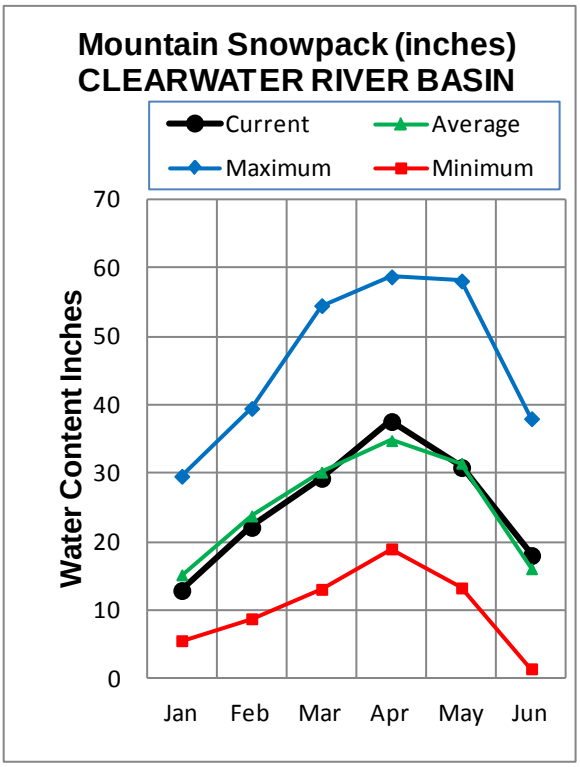
The average is computed for the 1971-2000 base period.

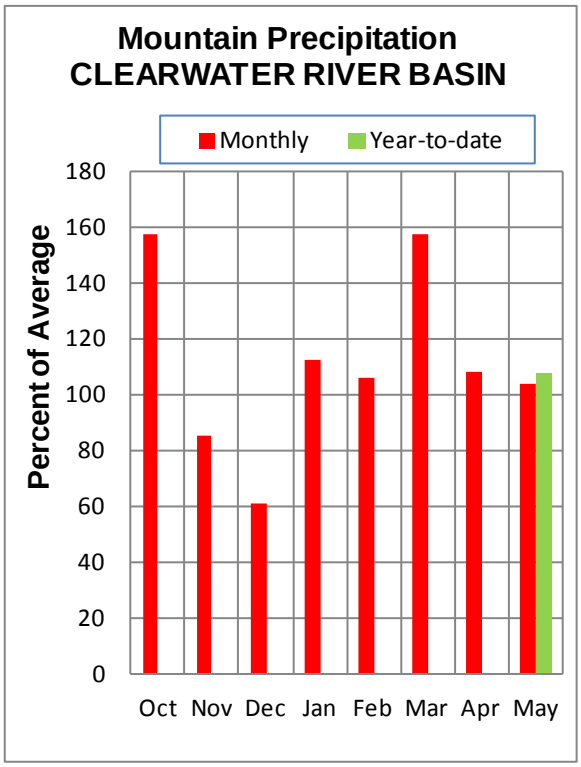
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

CLEARWATER RIVER BASIN

JUNE 1, 2012







WATER SUPPLY OUTLOOK

Similar to the stair-step pattern of snow accumulation in the Clearwater basin earlier this winter, this season's snowmelt has also been on and off. Snowmelt has been slowed three times by cool periods providing for an ideal runoff with three distinct peaks on the Selway and Locsha rivers. Another peak is forecast in early June by the Weather Service's River Forecast Center, however the record setting April peak will most likely remain the largest peak this season on the Selway and Lochsa rivers. The Clearwater snowpack is currently half melted and 109% of average for June 1. May precipitation was slightly above average and water year precipitation since October 1 is 107% of average. Dworshak reservoir is storing 3.1 million acre-feet, 89% of capacity, average for this time of year. The NRCS and Army Corps of Engineers will conduct a snowline flight in mid-June to determine final fill for Dworshak Reservoir. June-July streamflow forecasts call for near average flows, providing plentiful water for recreation, wildlife and water users this summer.

CLEARWATER RIVER BASIN
Streamflow Forecasts - June 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Selway R nr Lowell	JUN-JUL	700	820	905	96	990	1110	945
	JUN-SEP	785	920	1010	96	1100	1240	1050
Lochsa R nr Lowell	JUN-JUL	475	560	620	95	680	765	655
	JUN-SEP	540	635	700	95	765	860	735
Clearwater R at Orofino (1)	JUN-JUL	1240	1680	1880	95	2080	2520	1970
	JUN-SEP	1400	1900	2130	96	2360	2860	2220
Dworshak Res Inflow	JUN-JUL	640	855	950	99	1050	1260	960
	JUN-SEP	770	1000	1110	99	1220	1450	1120
Clearwater R at Spalding (1,2)	JUN-JUL	1680	2350	2650	90	2950	3620	2960
	JUN-SEP	2000	2760	3100	92	3450	4210	3370

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
Dworshak	3468.0	3081.5	2468.9	3085.8

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - June 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	8	52	115
Lochsa River	2	17	52
Selway River	4	39	82
Clearwater Basin Total	14	49	109

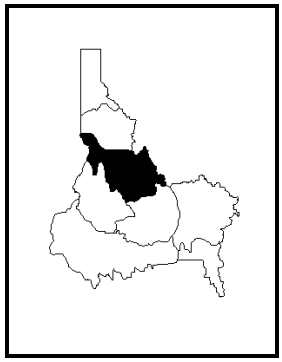
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

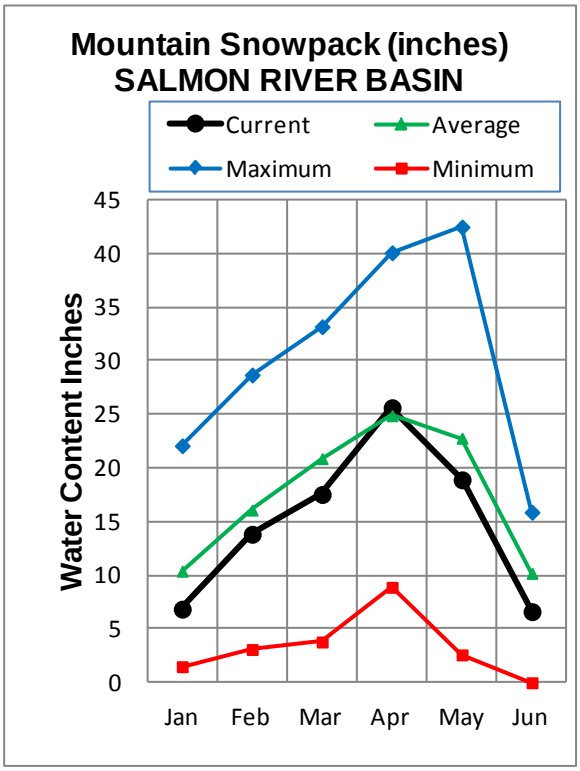
The average is computed for the 1971-2000 base period.

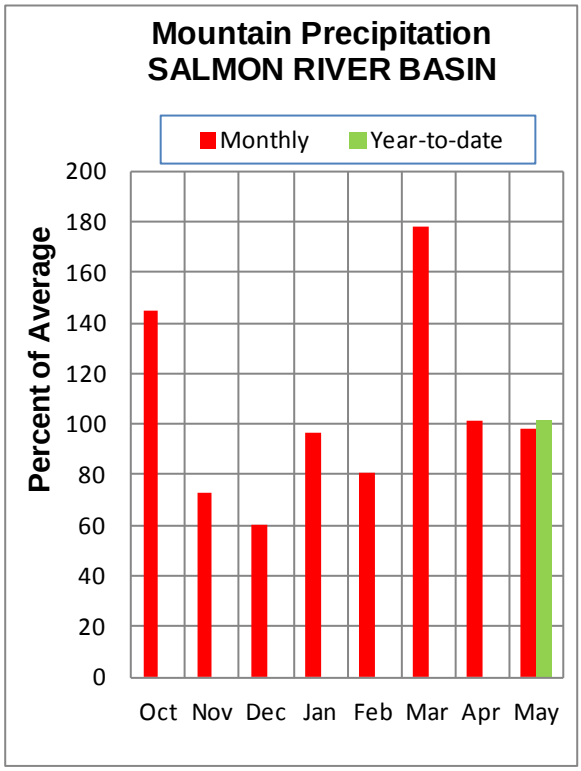
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

SALMON RIVER BASIN

JUNE 1, 2012







WATER SUPPLY OUTLOOK

Despite having a near average snowpack in early April, snowmelt has progressed faster than normal this spring. Currently, the Salmon basin's June 1 snowpack is 63% of average. June 1 snow amounts would have been even less, if not for the Memorial Day weekend storm which dropped up to 12-16 inches of snow at some Salmon and Lemhi basin SNOTEL sites. Monthly precipitation in May was average; the same is true for water year precipitation since October 1. So far this season, the Middle Fork Salmon River has had three distinct peak-flows above 9,000 cfs. The snowmelt peak associated with Banner Summit SNOTEL being half-melted occurred on May 17 with a mean daily flow of 10,100 cfs. Since then, rain and residual snowmelt once again increased flows over 9,000 cfs on May 23. With more rain in the forecast, expect another peak greater than 9,000 cfs by the end of the first week of June. The June-July streamflow forecast for the Middle Fork calls for an average amount; this is the highest forecast in the Salmon basin. Other forecasts range from 60% of average for the Lemhi River to about 85% of average for main-stem points on the Salmon River at Salmon and White Bird. The June 1 snowpack will provide good streamflow in central Idaho this summer.

SALMON RIVER BASIN
Streamflow Forecasts - June 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Salmon R at Salmon (1)	JUN-JUL	347	414	445	84	476	543	530
	JUN-SEP	434	524	565	84	606	696	670
Lemhi R nr Lemhi	JUN-JUL	23	28	31	60	35	40	52
	JUN-SEP	32	38	43	61	48	56	71
MF Salmon R at MF Lodge	JUN-JUL	342	400	440	99	480	538	445
	JUN-SEP	407	480	530	100	580	653	530
SF Salmon R nr Krassel RS	JUN-JUL	70	91	105	73	119	140	143
	JUN-SEP	93	109	120	73	131	147	164
Johnson Ck at Yellow Pine	JUN-JUL	62	76	86	77	96	110	112
	JUN-SEP	76	89	97	77	105	118	126
Salmon R at White Bird (1)	JUN-JUL	1950	2510	2770	86	3030	3590	3220
	JUN-SEP	2370	3040	3340	87	3640	4310	3850

SALMON RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN
Watershed Snowpack Analysis - June 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	7	35	64
Lemhi River	6	24	65
Middle Fork Salmon River	3	44	81
South Fork Salmon River	3	39	73
Little Salmon River	4	0	4
Salmon Basin Total	22	27	63

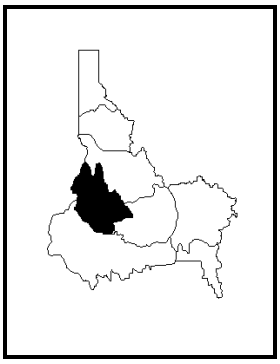
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

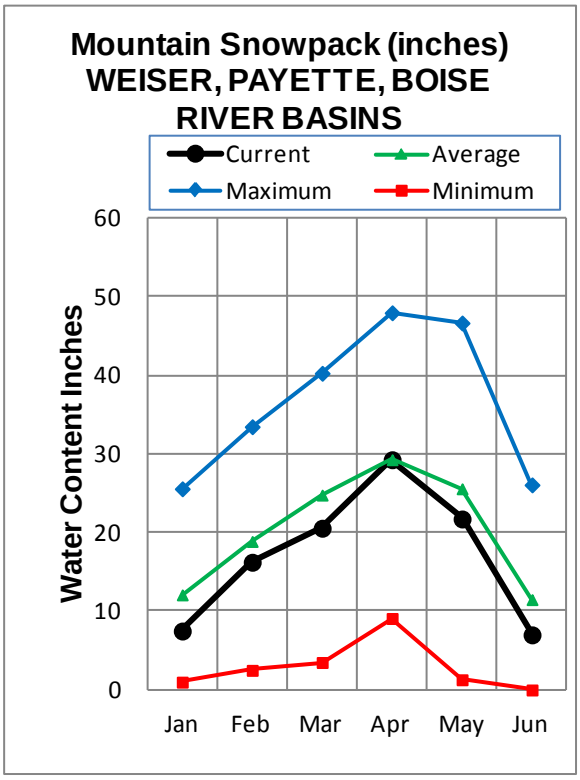
The average is computed for the 1971-2000 base period.

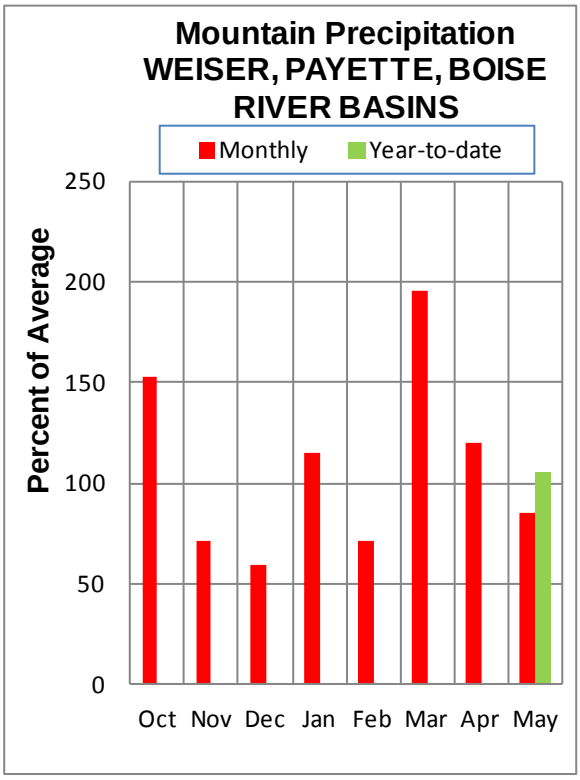
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS

JUNE 1, 2012







WATER SUPPLY OUTLOOK

Drier than normal conditions in May replaced the wet weather pattern that the west central mountains experienced in March and April. May's monthly precipitation was 85% of average. Water year precipitation since October 1 is still 105% of average. All snow sites in the Weiser basin are melted out, while the Payette and Boise basins have about 58% of their normal June 1 snow amounts. Monthly streamflows across these basins were average or better in May, although as snow dwindled flows fell below normal by the end of the month. June-July streamflow forecasts range from about 73% for the SF Boise and NF Payette rivers to about 80% of normal for the Boise River near Twin Springs, Boise River near Boise, Payette River near Horseshoe Bend, and Weiser River. The SF Payette River has the best forecast at 90% of normal. As of June 1, Deadwood and Cascade reservoirs are storing a total of 794,000 acre-feet, which is 93% of capacity, 109% of average. The Boise reservoir system is storing 949,000 acre-feet which is 93% of capacity, 115% of average. The Surface Water Supply Index which combines streamflow forecasts and reservoir storage indicates adequate water supplies for Boise River water users.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - June 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Weiser R nr Weiser (1)	JUN-JUL	46	74	88	80	104	143	110
	JUN-SEP	66	96	111	80	127	168	139
SF Payette R at Lowman	JUN-JUL	188	205	220	90	235	255	245
	JUN-SEP	230	255	270	90	285	310	300
Deadwood Resv Inflow (1,2)	JUN-JUL	41	51	55	83	59	69	66
	JUN-SEP	44	56	61	82	66	78	74
Lake Fork Payette R nr McCall	JUN-JUL	26	30	34	76	38	43	45
	JUN-SEP	27	32	36	75	40	46	48
NF Payette R at Cascade (1,2)	JUN-JUL	98	142	162	75	182	225	215
	JUN-SEP	111	158	179	76	200	245	235
NF Payette R nr Banks (2)	JUN-JUL	99	156	195	74	235	290	265
	JUN-SEP	113	174	215	74	255	315	290
Payette R nr Horseshoe Bend (1,2)	JUN-JUL	400	530	585	82	640	770	710
	JUN-SEP	490	620	680	82	740	870	830
Boise R nr Twin Springs (1)	JUN-JUL	170	205	220	79	235	270	280
	JUN-SEP	205	245	265	79	285	325	335
SF Boise R at Anderson Ranch Dam (1,	JUN-JUL	117	150	165	73	180	215	225
	JUN-SEP	134	172	190	73	210	245	260
Mores Ck nr Arrowrock Dam	JUN-JUL	16.0	21	25	78	29	36	32
	JUN-SEP	18.8	25	29	78	34	41	37
Boise R nr Boise (1,2)	JUN-JUL	340	410	440	78	470	540	565
	JUN-SEP	425	505	540	79	575	655	680

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
Mann Creek	11.1	10.7	11.0	10.5
Cascade	693.2	651.8	507.3	588.6
Deadwood	161.9	142.2	134.8	139.0
Anderson Ranch	450.2	426.3	376.6	388.7
Arrowrock	272.2	249.5	174.7	191.9
Lucky Peak	293.2	272.9	225.3	242.3
Lake Lowell (Deer Flat)	165.2	140.6	148.0	133.5

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - June 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	1	0	0
Weiser River	3	0	0
North Fork Payette	5	13	41
South Fork Payette	4	38	72
Payette Basin Total	10	21	57
Middle & North Fork Boise	5	28	49
South Fork Boise River	6	45	69
Mores Creek	2	0	0
Boise Basin Total	10	31	59
Canyon Creek	1	0	0

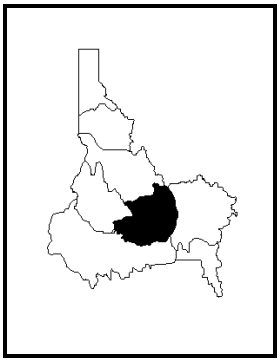
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

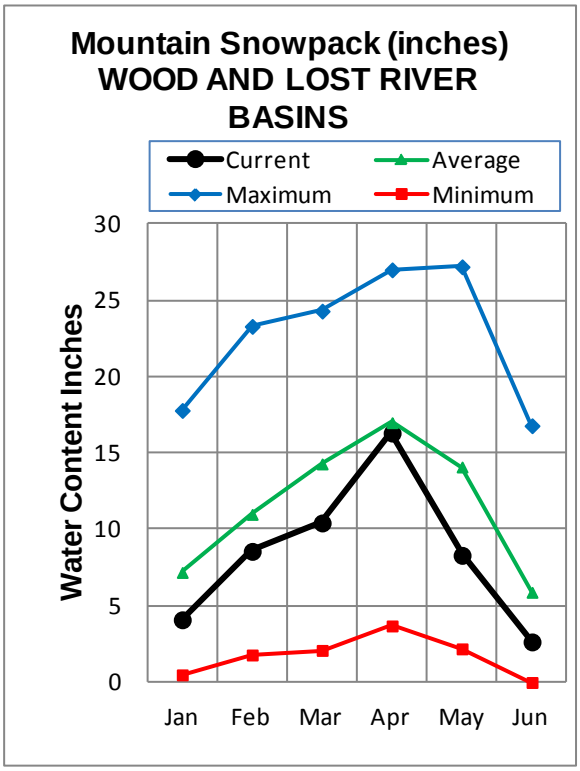
The average is computed for the 1971-2000 base period.

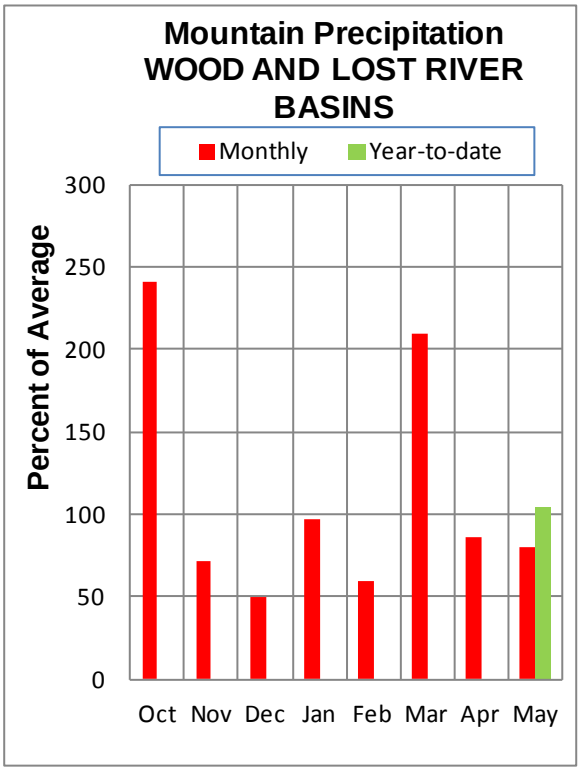
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

WOOD and LOST RIVER BASINS

JUNE 1, 2012







WATER SUPPLY OUTLOOK

An early meltout in the Wood and Lost basins means water supplies will need to stretch over a longer summer. Only SNOTEL sites above 8,400 feet elevation still have snow. These sites include Dollarhide and Vienna Mine in the Big Wood basin, Smiley Mountain in the Big Lost and Meadow Lake situated along the Lemhi-Little Lost Divide. All other SNOTEL sites in these mountains have melted out, many a month earlier than normal. June 1 snowpacks are 50% of normal in the Big Wood basin, 13% in the Big Lost, 7% in the Little Lost, while all Little Wood sites are melted out. The Big and Little Lost basins received about 68% of average precipitation in May, leaving water year precipitation since October 1 at 84% and 74% respectively. Monthly precipitation for May was best in the Big Wood basin with 91%, while the Little Wood basin received 77%. Water year precipitation stands at about 87% of normal for the Big and Little Wood basins. Magic, Mackay and Little Wood reservoirs are all nearly full, which is above average for the beginning of June. Streamflow forecasts for June-July period are best for the Little Lost River at 97% of average, and range to a low of 55% of average for the Big Wood River above Magic Dam. Irrigation demand will determine how quickly reservoirs are drafted and if the stored water can stretch through the summer. Big Wood, Big Lost and Little Lost baseflows were above average this winter, a carryover effect of last year's plentiful runoff resurfacing downstream as groundwater reemerges. If good baseflows persist this summer, it would help stretch the water supply. Once spring precipitation and snowmelt stops it will be interesting to see where baseflows in these rivers level out. Using the Surface Water Supply Index, which combines reservoir storage and the 50% chance of exceeding streamflow forecast, marginally adequate water supplies exist in all basins.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - June 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Big Wood R at Hailey (1)	JUN-JUL	51	83	97	67	111	143	144
	JUN-SEP	65	103	120	68	137	175	177
Big Wood R ab Magic Res	JUN-JUL	25	43	56	55	69	87	102
	JUN-SEP	29	50	64	55	78	99	116
Camas Ck nr Blaine	JUN-JUL	3.1	5.6	7.6	58	10.0	14.0	13.2
	JUN-SEP	3.5	6.1	8.2	59	10.7	14.8	14.0
Big Wood R bl Magic Dam (2)	JUN-JUL	26	49	64	56	79	102	114
	JUN-SEP	34	57	73	56	89	112	130
Little Wood R ab High Five Ck	JUN-JUL	16.5	21	25	76	29	35	33
	JUN-SEP	19.7	26	30	77	35	42	39
Little Wood R near Carey (2)	JUN-JUL	13.2	20	25	78	30	37	32
	JUN-SEP	17.9	26	31	80	36	44	39
Big Lost R at Howell Ranch	JUN-JUL	69	84	96	84	108	128	114
	JUN-SEP	83	102	117	84	132	157	139
Big Lost R bl Mackay Resv	JUN-JUL	61	72	79	82	86	97	96
	JUN-SEP	82	96	106	84	116	130	127
Little Lost R nr Howe	JUN-JUL	13.1	15.6	17.5	97	19.5	23	18.1
	JUN-SEP	18.8	22	25	96	28	32	26
Camas Ck at Camas	JUN-JUL	0.6	2.9	5.8	58	8.7	12.9	10.0

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
Magic	191.5	188.8	184.5	154.1
Little Wood	30.0	29.2	27.0	27.4
Mackay	44.4	44.3	26.2	34.9

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - June 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Hailey	7	31	50
Camas Creek	2	0	0
Big Wood Basin Total	9	31	50
Fish Creek	0	0	0
Little Wood River	3	0	0
Big Lost River	4	0	0
Little Lost River	3	3	7
Birch-Medicine Lodge Cree	2	3	8
Camas-Beaver Creeks	2	0	0

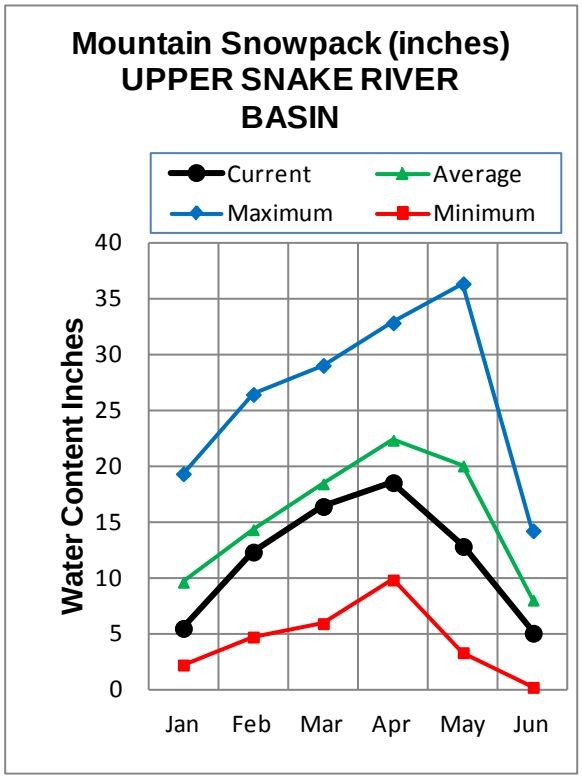
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

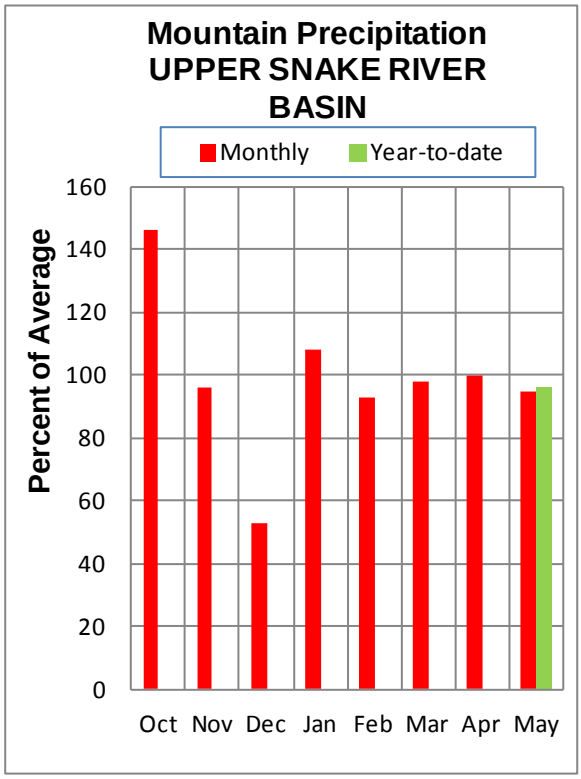
The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER SNAKE BASIN

JUNE 1, 2012





WATER SUPPLY OUTLOOK

The Upper Snake got one more spell of winter weather leading up to Memorial Day providing a boost to water supplies. In five days, May 23-28, the snowpack above American Falls increased 17 percentage points. At Grand Targhee SNOTEL 19 inches of wet snow fell, adding 3 inches of water to the snowpack. As of June 1 the snowpack is 61% of average for the Upper Snake taken as a whole, including 27 sites above American Falls. Only Two Ocean Divide SNOTEL, at the head of the Snake River and Black Bear SNOTEL at the head of the Henrys Fork have above normal snow. 18 SNOTEL sites are snow free. Monthly precipitation in May was near average for the entire basin, as is, water year precipitation since October 1. The eight reservoirs in the Upper Snake are storing 4 million acre-feet, 88% of capacity, 109% of average. Streamflow forecasts for the June-July period cover a wide range. On the low side is the Blackfoot River above the reservoir forecast for 46%, as well as, the Portneuf, Salt, Teton, Greys rivers forecast between 60-70%. The Snake River near Heise is forecast at 77%, while the Henrys Fork near Rexburg is predicted at 84%. Other streams higher in the basin such as Pacific Creek and Buffalo Fork should have near average streamflow. Water supplies are in good shape. The Surface Water Supply Index (SWSI) for the Snake River near Heise, which includes Jackson and Palisades's storage, predicts an adequate water supply using even the drier 70% and 90% exceedance forecasts.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - June 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Henrys Fork nr Ashton (2)	JUN-JUL	184	210	230	94	250	280	245
	JUN-SEP	340	380	410	93	440	485	440
Falls R nr Ashton (2)	JUN-JUL	133	160	180	91	200	235	199
	JUN-SEP	187	220	245	91	270	310	270
Teton R nr Driggs	JUN-JUL	52	62	70	65	78	90	108
	JUN-SEP	75	89	100	65	111	129	153
Teton R nr St. Anthony	JUN-JUL	130	152	168	70	185	210	240
	JUN-SEP	178	205	225	70	245	280	320
Henrys Fork nr Rexburg (2)	JUN-JUL	595	655	700	84	745	805	830
	JUN-SEP	940	1020	1080	84	1140	1220	1280
Snake R at Flagg Ranch	JUN-JUL	200	235	255	90	275	310	285
	JUN-SEP	240	275	300	90	325	360	335
Snake R nr Moran (1,2)	JUN-JUL	320	390	425	87	460	530	490
	JUN-SEP	375	465	505	87	545	635	580
Pacific Ck at Moran	JUN-JUL	63	82	95	95	108	127	100
	JUN-SEP	68	88	101	95	114	134	106
Buffalo Fork ab Lava nr Moran	JUN-JUL	166	192	210	93	230	255	225
	JUN-SEP	197	230	250	93	270	305	270
Gros Ventre R at Kelly	JUN-JUL	58	92	115	97	138	172	119
	JUN-JUL	58	92	115	97	138	172	119
Snake R nr Alpine (1,2)	JUN-JUL	900	1080	1160	79	1240	1420	1470
	JUN-SEP	1130	1360	1470	80	1580	1810	1840
Greys R nr Alpine	JUN-JUL	105	119	128	68	137	151	188
	JUN-SEP	134	154	167	68	180	200	245
Salt R nr Etna	JUN-JUL	44	78	101	62	124	158	162
	JUN-SEP	75	120	151	63	182	225	240
Snake R nr Irwin (1,2)	JUN-JUL	1100	1370	1490	76	1610	1880	1950
	JUN-SEP	1460	1760	1900	76	2040	2340	2500
Snake R nr Heise (2)	JUN-JUL	1250	1440	1570	77	1700	1890	2050
	JUN-SEP	1660	1890	2040	77	2190	2420	2650
Willow Ck nr Ririe (2)	JUN-JUL	6.0	10.7	13.9	70	17.1	22	20
Blackfoot R ab Res nr Henry	JUNE	2.2	6.0	9.7	46	14.2	22	21
Portneuf R at Topaz	JUN-JUL	16.6	19.7	22	60	24	28	37
	JUN-SEP	25	30	33	60	36	42	55
Snake River at Neeley	JUN-SEP	780	1270	1530	74	1820	2530	2070

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
Henrys Lake	90.4	89.4	87.9	89.2
Island Park	135.2	133.4	116.5	132.8
Grassy Lake	15.2	15.4	15.1	14.4
Jackson Lake	847.0	809.1	366.8	572.6
Palisades	1400.0	1180.9	511.6	1033.6
Ririe	80.5	81.2	77.6	70.3
Blackfoot	348.7	320.8	325.7	287.8
American Falls	1672.6	1390.0	1618.4	1476.1

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - June 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Henrys Fork-Falls River	5	31	74
Teton River	2	3	8
Henrys Fork above Rexburg	7	26	63
Snake above Jackson Lake	5	26	72
Pacific Creek	2	43	110
Gros Ventre River	3	23	64
Hoback River	5	14	46
Greys River	4	14	42
Salt River	3	0	0
Snake above Palisades	18	17	53
Willow Creek	2	0	0
Blackfoot River	2	0	0
Portneuf River	3	0	0
Snake abv American Falls	27	20	61

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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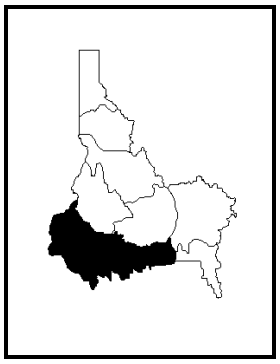
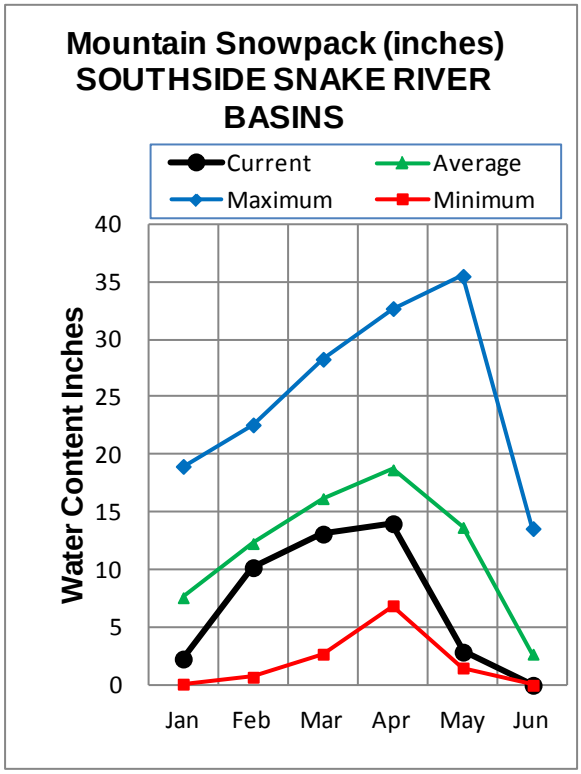
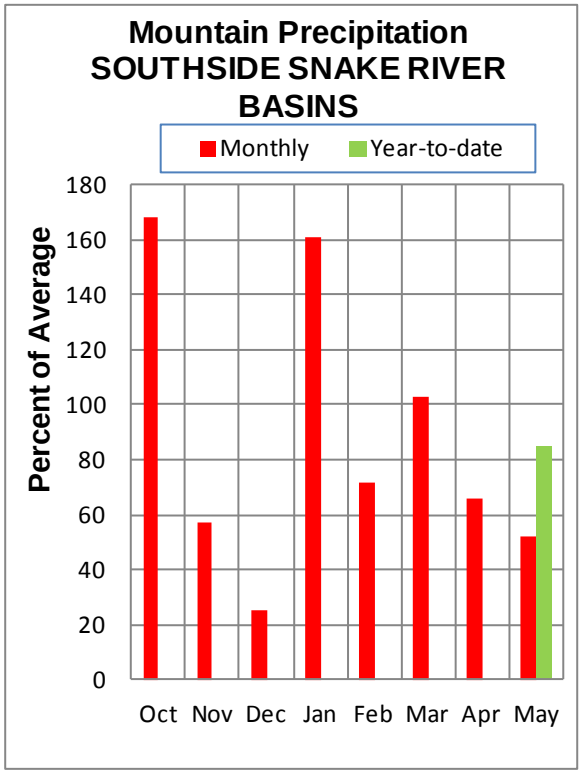
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

SOUTHSIDE SNAKE RIVER BASINS

JUNE 1, 2012







WATER SUPPLY OUTLOOK

Except for a late season snow squall the basins south of the Snake River have been snow free for weeks. The Owyhee basin melted out the last week of April, while the Bruneau, Salmon Falls and Oakley basins followed the second week of May. A storm just before Memorial Day dropped up to 6-8 inches of snow on bare ground at a handful of higher elevation SNOTEL sites. Most SNOTEL sites recorded 1-2 inches of precipitation in May which was about half the normal monthly precipitation amount. Water year precipitation since October 1 is 85% of normal. Streamflow forecasts for the June-July period range from 16% of average for the Owyhee River near Rome, to about 30% of average for Salmon Falls Creek and the Bruneau River, to a high of 48% of average for Oakley Reservoir Inflow. Fortunately, thanks to good reservoir storage, water users are in a better position to get through this summer. June 1 reservoir storage is still 87-92% of average in Oakley, Salmon Falls, Wildhorse and Owyhee reservoirs. Oakley and Salmon Falls are currently still storing half of their capacity while Wildhorse and Owyhee reservoirs are closer to three-quarters full. The Surface Water Supply Index indicates enough reservoir storage in the Owyhee basin to meet the rest of this summer's irrigation demand even without any streamflow. Supplies should also be adequate for Salmon Falls water users based on even the lowest forecasts. Oakley water users should plan on having marginally adequate water based on the 50% exceedance forecast, however shortages are possible based on the drier forecasts.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - June 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Goose Ck ab Trapper Ck nr Oakley	JUN-JUL	0.3	1.7	2.7	46	3.7	5.1	5.9
	JUN-SEP	0.7	2.3	3.4	49	4.5	6.1	6.9
Trapper Ck nr Oakley	JUN-JUL	0.6	0.9	1.1	48	1.3	1.6	2.3
	JUN-SEP	1.4	1.8	2.1	57	2.4	2.8	3.7
Oakley Res Inflow	JUN-JUL	1.7	2.9	3.9	48	5.1	7.0	8.2
	JUN-SEP	2.8	4.4	5.6	50	7.0	9.4	11.3
Salmon Falls Ck nr San Jacinto	JUN-JUL	2.8	4.8	6.5	27	8.5	11.8	24
	JUN-SEP	4.5	7.0	9.0	32	11.3	15.1	28
Bruneau R nr Hot Springs	JUN-JUL	14.0	21	26	32	32	42	82
	JUN-SEP	17.9	26	32	35	39	50	92
Reynolds Ck at Tollgate	JUN-JUL	0.2	0.5	0.7	37	1.0	1.5	1.9
Owyhee R nr Rome	JUN-JUL	1.4	4.3	11.5	16	23	39	71
	JUN-SEP	3.6	9.2	22	24	35	54	91
Owyhee R bl Owyhee Dam (2)	JUN-JUL	10.0	17.1	23	28	30	41	82
	JUN-SEP	27	38	46	41	55	70	112
Snake R at King Hill (1,2)	JUN-JUL			700	54			1290
Snake R nr Murphy (1,2)	JUN-JUL			735	59			1250
Snake R at Weiser (1,2)	JUN-JUL			1380	62			2210
Snake R bl Lower Granite Dam (1,2)	JUN-JUL	5220	6330	6840	73	7350	8460	9340

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
Oakley	75.6	39.0	52.6	45.0
Salmon Falls	182.6	90.9	133.7	101.2
WILDHORSE RESERVOIR	71.5	51.7	74.4	58.4
OWYHEE	715.0	565.6	721.3	614.6
Brownlee	1420.0	1272.4	1029.4	1263.0

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - June 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Raft River	1	0	0
Goose-Trapper Creeks	2	0	0
Salmon Falls Creek	5	0	0
Bruneau River	5	0	0
Reynolds Creek	0	0	0
Owyhee Basin Total	7	0	0
Owyhee Basin SNOTEL	7	0	0

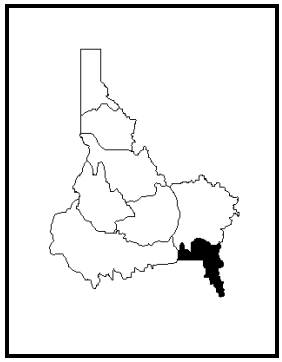
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

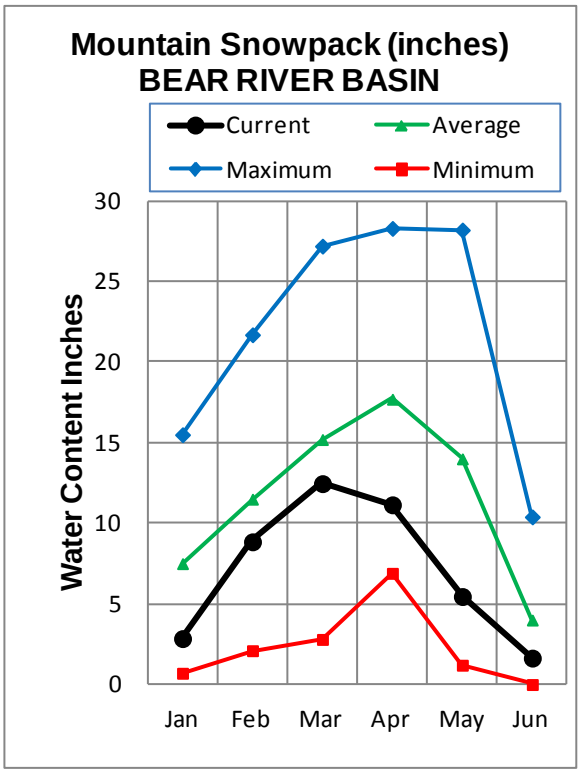
The average is computed for the 1971-2000 base period.

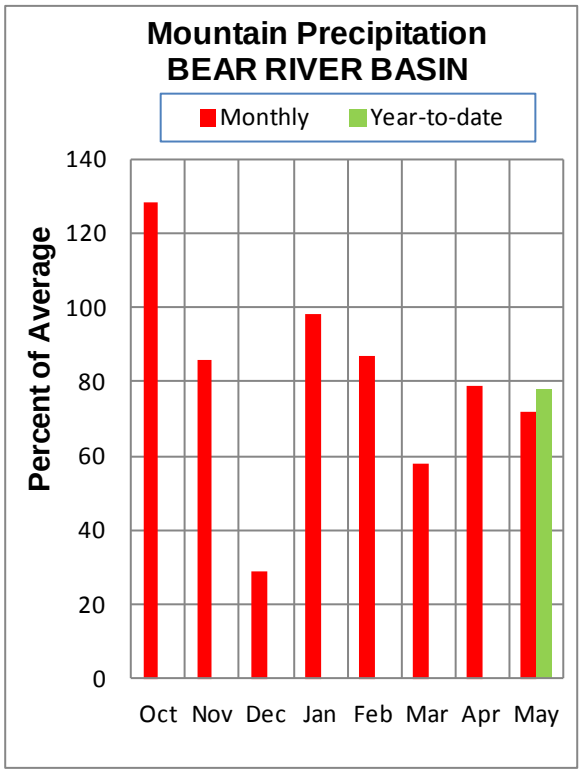
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

BEAR RIVER BASIN

JUNE 1, 2012







WATER SUPPLY OUTLOOK

Cooler temperatures since mid-May and a Memorial Day storm prolonged the snow season in Bear Basin but did little to change the water supply outlook. 10 out of 15 SNOTEL sites picked up a few new inches of snow on the holiday. At most sites the snow fell on bare ground and was quickly melted and absorbed by the soil. The only SNOTEL site with snow as of June 1 is Spring Creek Divide, in Wyoming at the head of the Smiths Fork. The June 1 snowpack is 14% of normal, a scant amount, especially compared to last year when there was five and a half times the normal June 1 amount. Monthly precipitation in May was 72% of normal. Water year precipitation since October 1 stands at 78% of normal. Streamflow forecasts tell the story of the disappointing snow year. The Bear River above the reservoir is forecast at 28% of average. The best forecasts are for 50-56% of average for the Smiths Fork, Big Creek, and the Bear River near the UT-WY state line. Fortunately for water users, much of last year's snowmelt is still stored in Bear Lake. June 1 storage in Bear Lake is 1.2 million acre-feet or 112% of average, 83% of capacity. Water users that depend on Bear Lake storage will have adequate water supplies this season independent of actual streamflow. Bear Lake storage also provides reassurance for next year, if another dry winter occurs.

BEAR RIVER BASIN
Streamflow Forecasts - June 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear R nr UT-WY State Line	APR-JUL	43	55	63	56	71	83	113
	JUN-JUL	4.5	14.3	21	30	28	38	70
	APR-SEP	46	60	70	56	80	94	125
	JUN-SEP	9.0	20	28	34	36	47	82
Bear R ab Res nr Woodruff	APR-JUL	7.0	25	38	28	51	69	136
	JUN-JUL	0.6	4.5	9.0	14	17.5	30	64
	APR-SEP	9.0	27	40	28	53	71	142
	JUN-SEP	0.7	3.6	11.0	16	20	33	71
Big Ck nr Randolph	APR-JUL	2.0	2.2	2.5	51	2.8	3.2	4.9
	JUN-JUL	0.1	0.3	0.6	26	0.9	1.3	2.3
Smiths Fk nr Border	APR-JUL	37	45	51	50	57	65	103
	APR-SEP	42	52	59	49	66	76	121
	JUN-JUL	5.6	14.2	20	33	26	34	61
	JUN-SEP	10.8	21	28	36	35	45	77
Bear R bl Stewart Dam	APR-JUL	2.0	22	56	24	90	141	234
	APR-SEP	3.0	22	60	23	98	155	262
	JUN-JUL	3.0	14.0	25	23	48	81	110
	JUN-SEP	1.0	8.0	29	21	59	102	138
Little Bear R at Paradise	APR-JUL	1.0	9.6	15.4	34	21	30	46
	JUN-JUL	0.3	3.1	5.0	42	6.9	9.7	11.9
Logan R nr Logan	APR-JUL	40	57	68	54	79	96	126
	JUN-JUL	12.4	19.9	25	36	30	38	70
Blacksmith Fork nr Hyrum	APR-JUL	1.5	13.7	22	46	30	42	48
	JUN-JUL	0.4	3.8	7.0	35	10.2	15.0	20

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of May

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
Bear Lake	1421.0	1176.9	888.6	1052.3
Montpelier Creek	4.0	4.0	2.3	3.3

BEAR RIVER BASIN
Watershed Snowpack Analysis - June 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	3	14	60
Bear River ab WY-ID line	3	14	60
Montpelier Creek	1	0	0
Mink Creek	1	0	0
Cub River	1	0	0
Bear River ab ID-UT line	9	6	28
Malad River	1	0	0

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Streamflow Adjustment List for All Forecasts Published in Idaho Water Supply Outlook Report: Streamflow forecasts are projections of runoff volumes that would occur without influences from upstream reservoirs or diversions. These values are referred to as natural, unregulated or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and inter-basin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made for each forecast point**. (Revised Dec 2011).**

Panhandle River Basins

Kootenai R at Leonia, MT
+ Lake Koocanusa storage change

Moyie R at Eastport – no corrections

Smith Creek nr Porthill – no corrections

Boundary Ck nr Porthill – no corrections

Clark Fork R at Whitehorse Rapids
+ Hungry Horse storage change
+ Flathead Lake storage change
+ Noxon Rapids Res storage change

Pend Oreille Lake Inflow
+ Pend Oreille R at Newport, WA
+ Hungry Horse storage change
+ Flathead Lake storage change
+ Noxon Rapids storage change
+ Pend Oreille Lake storage change
+ Priest Lake storage change

Priest R nr Priest R
+ Priest Lake storage change

NF Coeur d'Alene R at Enaville - no corrections

St. Joe R at Calder- no corrections

Spokane R nr Post Falls
+ Coeur d'Alene Lake storage change

Spokane R at Long Lake, WA
+ Coeur d'Alene Lake storage change
+ Long Lake, WA storage change

Clearwater River Basin

Selway R nr Lowell - no corrections

Lochsa R nr Lowell - no corrections

Dworshak Res Inflow
+ Clearwater R nr Peck
- Clearwater R at Orofino
+ Dworshak Res storage change

Clearwater R at Orofino - no corrections

Clearwater R at Spalding
+ Dworshak Res storage change

Salmon River Basin

Salmon R at Salmon - no corrections

Lemhi R nr Lemhi – no corrections

MF Salmon R at MF Lodge – no corrections

SF Salmon R nr Krassel Ranger Station – no corrections

Johnson Creek at Yellow pine – no corrections

Salmon R at White Bird - no corrections

Weiser, Payette, Boise River Basins

Weiser R nr Weiser - no corrections

SF Payette R at Lowman - no corrections

Deadwood Res Inflow
+ Deadwood R bl Deadwood Res nr Lowman
+ Deadwood Res storage change

Lake Fork Payette R nr McCall – no corrections

NF Payette R at Cascade
+ Cascade Res storage change
+ Payette Lake storage change

NF Payette R nr Banks
+ Cascade Res storage change
+ Payette Lake storage change

Payette R nr Horseshoe Bend
+ Cascade Res storage change
+ Deadwood Res storage change
+ Payette Lake storage change

Boise R nr Twin Springs - no corrections

SF Boise R at Anderson Ranch Dam
+ Anderson Ranch Res storage change

Mores Ck nr Arrowrock Dam – no corrections

Boise R nr Boise
+ Anderson Ranch Res storage change
+ Arrowrock Res storage change
+ Lucky Peak Res storage change

Wood and Lost River Basins

Big Wood R at Hailey - no corrections

Big Wood R ab Magic Res
+ Big Wood R at Stanton Crossing nr Bellevue
+ Willow Ck

Camas Ck nr Blaine – no corrections

Big Wood R bl Magic Dam nr Richfield
+ Magic Res storage change

Little Wood R ab High Five Ck – no corrections

Little Wood R nr Carey
+ Little Wood Res storage change

Big Lost R at Howell Ranch - no corrections

Big Lost R bl Mackay Res nr Mackay
+ Mackay Res storage change

Little Lost R bl Wet Ck nr Howe - no corrections

Upper Snake River Basin

Henrys Fork nr Ashton
+ Henrys Lake storage change
+ Island Park Res storage change

Falls R nr Ashton
+ Grassy Lake storage change
+ Diversions from Falls R ab nr Ashton

Teton R nr Driggs - no corrections

Teton R nr St. Anthony
- Cross Cut Canal into Teton R
+ Sum of Diversions for Teton R ab St. Anthony
+ Teton Dam for water year 1976 only

Henrys Fork nr Rexburg
+ Henrys Lake storage change
+ Island Park Res storage change
+ Grassy Lake storage change
+ 7 Diversions from Henrys Fk btw Ashton to St. Anthony
+ 21 Diversions from Henrys Fk btw St. Anthony to Rexburg
+ 3 Diversions from Falls R ab Ashton
+ 6 Diversions from Falls R nr Ashton to Chester
Snake R nr Flagg Ranch, WY – no corrections
Snake R nr Moran, WY
+ Jackson Lake storage change
Pacific Ck at Moran, WY - no corrections
Buffalo Fork ab Lava nr Moran, WY - no corrections
Gros Ventre R at Kelly, WY - no corrections
Snake R ab Res nr Alpine, WY
+ Jackson Lake storage change
Greys R nr Alpine, WY - no corrections
Salt R R nr Etna, WY - no corrections
Snake R nr Irwin
+ Jackson Lake storage change
+ Palisades Res storage change
Snake R nr Heise
+ Jackson Lake storage change
+ Palisades Res storage change
Willow Ck nr Ririe
+ Ririe Res storage change
The forecasted natural volume for Willow Creek nr Ririe does not include an adjustment for Grays Lake water diverted from Willow Creek drainage through the Clarks Cut diversion and into Blackfoot Reservoir.
Blackfoot R ab Res nr Henry
+ Blackfoot Res storage change
The forecasted Blackfoot Reservoir Inflow includes Grays Lake water diverted from the Willow Creek drainage through the Clarks Cut diversion and into Blackfoot Reservoir.
Portneuf R at Topaz - no corrections
Snake R at Neeley
+ Jackson Lake storage change
+ Palisades Res storage change
+ American Falls storage change
+ Teton Dam for water year 1976 only

Southside Snake River Basins
Goose Ck nr Oakley - no adjustments
Trapper Ck nr Oakley - no adjustments
Oakley Res Inflow - *flow does not include Birch Creek*
+ Goose Ck
+ Trapper Ck
Salmon Falls Ck nr San Jacinto, NV - no corrections
Bruneau R nr Hot Springs - no corrections
Reynolds Ck at Tollgate - no corrections
Owyhee R nr Gold Ck, NV
+ Wildhorse Res storage change
Owyhee R nr Rome, OR – no Corrections
Owyhee R bl Owyhee Dam, OR
+ Owyhee Res storage change
+ Diversions to North and South Canals

Bear River Basin
Bear R nr UT-WY Stateline, UT- no corrections
Bear R abv Res nr Woodruff, UT- no corrections
Big Ck nr Randolph, UT - no corrections
Smiths Fork nr Border, WY - no corrections
Bear R bl Stewart Dam nr Montpelier
+ Bear R bl Stewart Dam
+ Rainbow Inlet Canal
Little Bear R at Paradise, UT - no corrections
Logan R nr Logan, UT - no corrections
Blacksmith Fk nr Hyrum, UT - no corrections

Reservoir Capacity Definitions (Units in 1,000 Acre-Feet, KAF)
Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. This table lists these volumes for each reservoir, and defines the storage volumes NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage. **(Revised Dec 2011)**

Basin/ Reservoir	Dead Storage	Inactive Storage	Active Storage	Surcharge Storage	NRCS Capacity	NRCS Capacity Includes
Panhandle Region						
Hungry Horse	39.73	---	3451.00	---	3451.0	Active
Flathead Lake	Unknown	---	1791.00	---	1791.0	Active
Noxon Rapids	Unknown	---	335.00	---	335.0	Active
Pend Oreille	406.20	112.40	1042.70	---	1561.3	Dead + Inactive + Active
Coeur d'Alene	Unknown	13.50	225.00	---	238.5	Inactive + Active
Priest Lake	20.00	28.00	71.30	---	119.3	Dead + Inactive + Active
Clearwater Basin						
Dworshak	Unknown	1452.00	2016.00	---	3468.0	Inactive + Active
Weiser/Boise/Payette Basins						
Mann Creek	1.61	0.24	11.10	---	11.1	Active
Cascade	Unknown	46.70	646.50	---	693.2	Inactive + Active
Deadwood	Unknown	---	161.90	---	161.9	Active
Anderson Ranch	24.90	37.00	413.10	---	450.1	Inactive + Active
Arrowrock	Unknown	---	272.20	---	272.2	Active
Lucky Peak	Unknown	28.80	264.40	13.80	293.2	Inactive + Active
Lake Lowell	7.90	5.80	159.40	---	165.2	Inactive + Active
Wood/Lost Basins						
Magic	Unknown	---	191.50	---	191.5	Active
Little Wood	Unknown	---	30.00	---	30.0	Active
Mackay	0.13	---	44.37	---	44.4	Active
Upper Snake Basin						
Henrys Lake	Unknown	---	90.40	---	90.4	Active
Island Park	0.40	---	127.30	7.90	135.2	Active + Surcharge
Grassy Lake	Unknown	---	15.18	---	15.2	Active
Jackson Lake	Unknown	---	847.00	---	847.0	Active
Palisades	44.10	155.50	1200.00	---	1400.0	Dead + Inactive+Active
Ririe	4.00	6.00	80.54	10.00	80.5	Active
Blackfoot	Unknown	---	348.73	---	348.7	Active
American Falls	Unknown	---	1672.60	---	1672.6	Active
Southside Snake Basins						
Oakley	0.00	---	75.60	---	75.6	Active
Salmon Falls	48.00	5.00	182.65	---	182.6	Active + Inactive
Wildhorse	Unknown	---	71.50	---	71.5	Active
Owyhee	406.83	---	715.00	---	715.0	Active
Brownlee	0.45	444.70	975.30	---	1420.0	Inactive + Active
Bear River Basin						
Bear Lake	5000.00	119.00	1302.00	---	1421.0 includes 119	Active + Inactive: that can be released
Montpelier Creek	0.21	---	3.84	---	4.0	Dead + Active

Interpreting Water Supply Forecasts

Introduction
Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

90 Percent Chance of Exceedance Forecast. There is a 90 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 10 percent chance that the actual streamflow volume will be less than this forecast value.

70 Percent Chance of Exceedance Forecast. There is a 70 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 30 percent chance that the actual streamflow volume will be less than this forecast value.

50 Percent Chance of Exceedance Forecast. There is a 50 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 50 percent chance that the actual streamflow volume will be less than this forecast value. Generally, this forecast is the middle of the range of possible streamflow volumes that can be produced given current conditions.

30 Percent Chance of Exceedance Forecast. There is a 30 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 70 percent chance that the actual streamflow volume will be less than this forecast value.

10 Percent Chance of Exceedance Forecast. There is a 10 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 90 percent chance that the actual streamflow volume will be less than this forecast value.

*Note: There is still a 20 percent chance that actual streamflow volumes will fall either below the 90 percent exceedance forecast or above the 10 percent exceedance forecast.

These forecasts represent the uncertainty inherent in making streamflow predictions. This uncertainty may include sources such as: unknown future weather conditions, uncertainties associated with the various prediction methodologies, and the spatial coverage of the data network in a given basin.

30-Year Average. The 30-year average streamflow for each forecast period is provided for comparison. The average is based on data from 1971-2000. The % AVG. column compares the 50% chance of exceedance forecast to the 30-year average streamflow; values above 100% denote when the 50% chance of exceedance forecast would be greater than the 30-year average streamflow.

AF - Acre-feet, forecasted volume of water are typically in thousands of acre-feet.

These forecasts are given to users to help make risk-based decisions. Users can select the forecast corresponding to the level of risk they are willing to accept in order to minimize the negative impacts of having more or less water than planned for.

To Decrease the Chance of Having Less Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive less than this amount). To reduce the risk of .having less water than planned for, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded such as the 90 or 70 percent exceedance forecasts.

To Decrease the Chance of Having More Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive more than this amount). To reduce the risk of having more water than planned for, users can base their operational decisions on one of the forecasts with a lesser chance of being exceeded such as the 30 or 10 percent exceedance forecasts.

Using the forecasts - an Example
Using the 50 Percent Exceedance Forecast. Using the example forecasts shown below, there is a 50% chance that actual streamflow volume at the Boise River near Twin Springs will be less than 685 KAF between April 1 and July 31. There is also a 50% chance that actual streamflow volume will be greater than 685 KAF.

Using the 90 and 70 Percent Exceedance Forecasts. If an unexpected shortage of water could cause problems (such as irrigated agriculture), users might want to plan on receiving 610 KAF (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 610 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 443 KAF (from the **90** percent exceedance forecast). There is 10% chance of receiving less than 443 KAF.

Using the 30 or 10 Percent Exceedance Forecasts. If an unexpected excess of water could cause problems (such as operating a flood control reservoir), users might plan on receiving 760 KAF (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 760 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 927 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 927 KAF.

Users could also choose a volume in between any of these values to reflect their desired risk level.

Weiser, Payette, Boise River Basins
Streamflow Forecasts – January 2006

Forecast Point	Forecast Period	Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000 AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SF PAYETTE RIVER at Lowman	APR-JUL	329	414	471	109	528	613	432
	APR-SEP	369	459	521	107	583	673	488
BOISE RIVER near Twin Springs (1)	APR-JUL	443	610	685	109	760	927	631
	APR-SEP	495	670	750	109	830	1005	690

*90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table

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