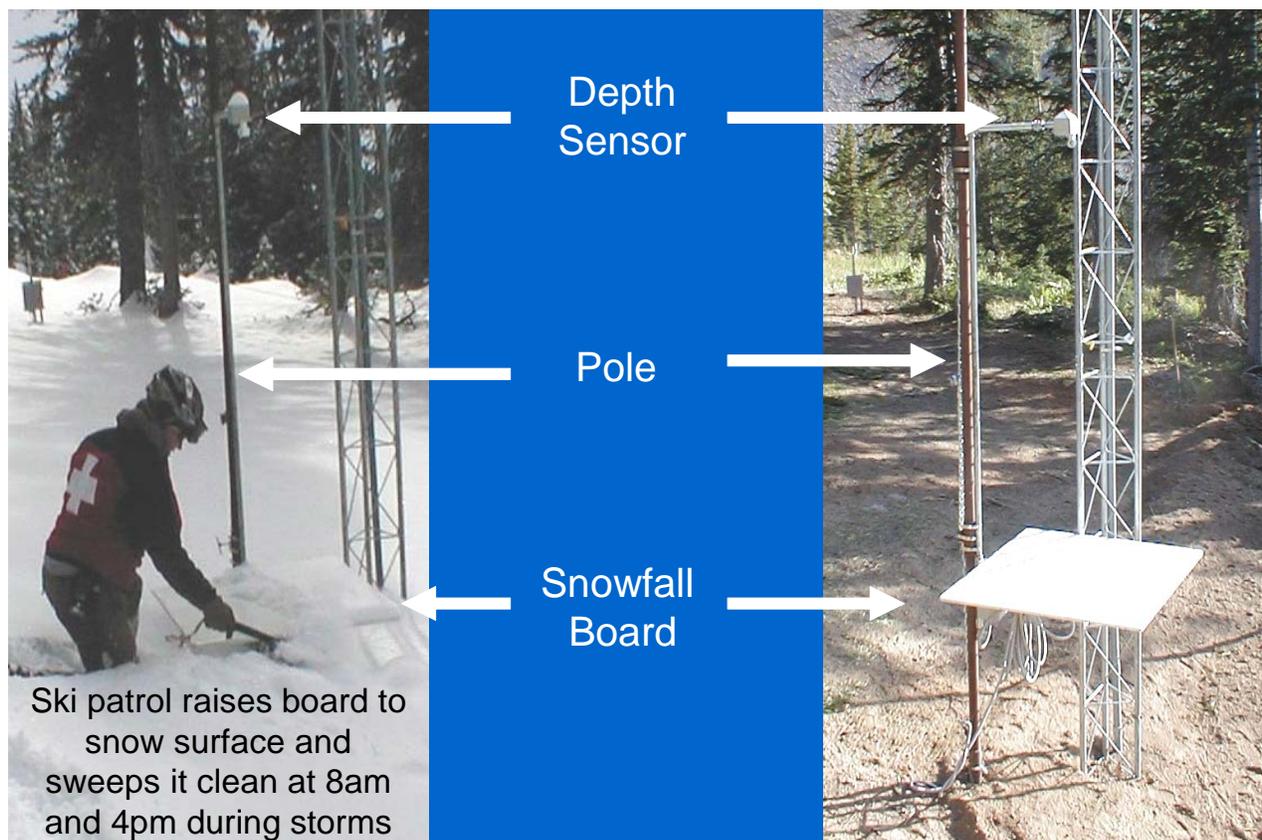


Idaho Water Supply Outlook Report January 1, 2007



Grand Targhee Adjustable Snowfall Recording Board

The **NEW** Grand Targhee SNOTEL site is equipped with a sensor which measures daily and overnight snowfall accumulation. The sensor is mounted above a horizontal board and reports the depth of snow on the board each hour. At 8am and 4pm the ski patrol sweeps the board clean and repositions the board at the snow surface by sliding the board-sensor combo up the pole. After being swept the data reading returns to a near zero value until the next snowfall event. Hourly SNOTEL data from this sensor and other depth sensors can be found from the Idaho Snow Survey Recreation webpage located at:

<http://www.id.nrcs.usda.gov/snow/recreation>

To better understand the strengths and limitations of automated snow depth measurement read the **NEW** frequently asked questions page linked to the recreation page. For other developments in the snow world see the "What's New in the Idaho NRCS Snow Survey Program?" section inside this report.

Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, or to subscribe to this publication

Contact - - Your local Natural Resources Conservation Service Office

or

**Natural Resources Conservation Service
Snow Surveys
9173 West Barnes Drive, Suite C
Boise, Idaho 83709-1574
(208) 378-5740**

Internet Web Address

<http://www.id.nrcs.usda.gov/snow/>

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 it 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 prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. 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 uncertain 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.

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IDAHO WATER SUPPLY OUTLOOK REPORT

January 1, 2007

SUMMARY

Idaho's surface water supply is looking promising for 2007. Fall rains provided good soil moisture conditions going into winter across most of the state. Water year-to-date precipitation is near average or much above and ranges from a low of 95% of average in Bear River and Upper Snake to 130% in the northern third of Idaho. Reservoir carryover storage is near normal or better across the state with the exception of Bear Lake at 58% of average. The highest snowpack is in the Oakley and Raft basins at 115% of average. The lowest is 75-80% of average in Owyhee, Bear River, Portneuf, Upper Snake and parts of the Lemhi Basin. Elsewhere, snowpacks are near average at 80-105%. The diverse basins in the corners of Idaho cover the range of forecasts with the Moyie River in northern Idaho forecast at 123% of average, Owyhee Reservoir inflow at 56%, Bear River at Stewart Dam 71% and the Snake River at Heise at 87%.

The July-November ocean conditions in the Pacific indicated a mild El Nino would be knocking at our door this year; however, this has not happened yet. In a typical El Nino year storms track across southern California and into the Desert Southwest while in a La Nina year the storm track is generally across the Pacific Northwest. So far, the Pacific Northwest has capitalized from the storm track with abundant rains and some flooding in November. The Front Range of Colorado also got hit hard with two storms that brought snowfall totals that exceeded 35 inches from the first storm and 20 inches from the second storm. Keep in mind that El Nino conditions sometimes kick in soon after Christmas or New Year's. If this happens and the storms cease to come into Idaho, we will see the snowpack percentages gradually decline not because the snow is melting, but because the snow water is not increasing when compared to its normal winter accumulation rate. This occurs during winter dry spells when snowpack percentages decrease one or two points a day. With half the winter still in front of us, let's hope we don't travel this path and storms continue to track across Idaho.

SNOWPACK

Most of Idaho's snowpack is on par when compared to the 30-year averages. Highest snowpacks are in the Oakley and Raft river basins at 115% of average. The lowest snowpacks are 75% of average across parts of southern Idaho and the Upper Snake River basin in Wyoming. Snow amounts can change quickly in southern Idaho's high desert watersheds. Snowpacks in the Salmon, Weiser, Payette and Boise basins are 95-105% of average, and decrease slightly to 80-90% across central Idaho and into the Henrys Fork and Teton basins. The snowpack in northern Idaho's Clearwater basin is 87% of average and increases to near average in the Panhandle Region. Let's hope storms continue heading for Idaho, but if it remains dry the rest of winter, the current snowpack is only 30-45% of the April 1 seasonal peaks.

PRECIPITATION

The new water year started October 1 and brought monthly precipitation amounts that were 120-140% of average across central and southern Idaho and decreased to 60% in northern Idaho. Then, November came with amounts that set a new 24 hour precipitation record for Idaho. Bear Mountain SNOTEL site, north of Pend Oreille Lake along the Montana border, received 9.4 inches of precipitation from November 6-7 producing flooding in Lightning Creek. In addition, 2.9 inches of snow water melted and two-day precipitation total was 14.7 inches. Bear Mountain received 37.7 inches of precipitation in November 2006; previous monthly maximum was 30 inches in January and November 1990. November monthly precipitation in the Panhandle Region was 234% of average and 215% in the Clearwater basin. Other northern Idaho SNOTEL sites also received record or near high amounts in November. November precipitation was 140% of average in the Salmon and west-central basins and decreased to 105-115%

across central and southern Idaho. December precipitation was only 65% of average in the opposite ends of the state, Panhandle Region and Bear River basin. Across the middle of the state, December precipitation amounts ranged from 75-110% of average.

Water year-to-date precipitation is encouraging with the whole state near or well above average. Highest water year-to-date totals are 130% of average in the Panhandle Region and Clearwater basin. A handful of northern Idaho SNOTEL stations have already received more than half their average annual precipitation amounts in the first three months of the water year with nine months still to go.

RESERVOIRS

Reservoir carryover storage is in pretty good shape this year thanks to last year's abundant runoff that ranged from below normal in the Bear River to nearly twice normal in the Big Wood River. Reservoir storage is currently near average or better across the state except for Bear Lake at 58% of average, and Blackfoot and Mann Creek reservoirs which are both at 75% of average. Water managers will be watching the snow data and streamflow forecasts to determine if or when releases are needed to maintain storage for the spring runoff. Surface water supplies should be adequate even with a marginal snowpack where good reservoir storage exists. This includes the Payette, Boise, Big Wood, Oakley, Salmon Falls, and Owyhee basins. Other basins will be more dependent upon a good snowpack to help ensure adequate surface water supplies.

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

November and December rains wetted soils which will help snowmelt to run off efficiently this spring as less melt water is needed to fill the soil profile. Fall rains also increased stream baseflows going into winter which indicates the system is primed, especially when compared to flows in previous drought years. Streamflow forecasts for this season mirror the snowpack and range from a low of 55-60% of average in the Owyhee basin. The highest forecasts are slightly above average at 110-120% in northern Idaho's Panhandle tributaries. Early season indicators are pointing toward adequate surface water supplies especially for those with reservoir carryover. Stay tuned and keep watching your favorite snow site as conditions can change in the second half of winter or, as we have seen, on the final play of the game.

Note: Forecasts published in this report are NRCS guidance forecasts. NRCS is using SNOTEL data in a timely manner to provide timely streamflow forecast for users. Official jointly coordinated and published forecasts by the USDA Natural Resources Conservation Service and the US Department of Commerce, NOAA, National Weather Service are available at the joint west-wide Water Supply Outlook for the Western US at <http://www.wcc.nrcs.usda.gov/wsf/westwide.html>.

RECREATION

Winter recreationists received a holiday gift after mid-December storms brought rain to elevations above 7,500 feet and left the snowpack gleaming with an ice crust in parts of central Idaho. With snowpacks hovering near to slightly below normal for most basins across the state, summer water supplies are looking encouraging for those who grow our crops and those who recreate on or in the water. It may be hard to top last year's excellent whitewater rafting season, but the winter season is still young and conditions can still improve. The streamflow forecasts for Idaho's permit rivers are: Selway River forecast at 83% of average, Middle Fork Salmon River forecast at 97%, and Salmon River at White Bird forecast at 99%. The snowpack for the Snake River above Hells Canyon is 75-100% of average. The Owyhee basin snowpack is 73% of average and streams are forecast at 55-75% of average. The Bruneau basin snowpack is 84% and the river is forecasted at 70%. Let's hope this year's winter season is as long

as last year's floating season and the snow from each passing storm continues accumulating in Idaho's mountains.

WHAT'S NEW IN THE IDAHO SNOW SURVEY PROGRAM?

Lots! A busy 2006 field season finished off a massive four year electronics upgrade to all of our SNOTEL sites. New radios, solar panels and dataloggers will improve the reliability and functionality of the network. Along with the upgrade our staff installed two new SNOTEL sites. Grand Targhee SNOTEL, located at Grand Targhee Resort near Driggs, Idaho, fills a high elevation data gap on the west slope of the Tetons. There's excitement for this site among a wide variety of users including: the Grand Targhee Ski Area, skiers and snowboarders, avalanche and water supply forecasters, dam operators, scientists and school kids at Teton Valley Community School who wrote a letter to the editor explaining why the site was needed. Grand Targhee SNOTEL was funded by Grand Targhee Resort, as well as, the Bureau of Reclamation, Teton Conservation District, Trout Unlimited, Fall River Electric and would not have been possible without the staff time provided by the US Forest Service Teton Ranger District, Friends of the Teton River and NRCS. Ragged Mountain SNOTEL, located along the Idaho-Washington border northwest of Coeur d'Alene, is our second new site. This site was funded by the Twin Lakes-Rathdrum Creek Flood Control District No. 17 and will help managers regulate the level of Twin Lakes and the downstream flows into Rathdrum Creek. Both these sites measure precipitation, snow water, air temperature, snow depth, soil moisture and soil temperature. In addition, Grand Targhee SNOTEL has an adjustable snowfall recording board mentioned on the cover of this report. Last summer soil moisture and soil temperature sensors were also added to Lookout (North Idaho), Sheep Mountain (Southeast Idaho), and South Mountain (Southwest Idaho) SNOTEL sites. SNOTEL sites that received new snow depth sensors include: Bostetter Ranger Station (South Central Idaho), Kendall Ranger Station and New Fork Lake (both near Pinedale, Wyoming). With the new additions to our network we updated our Idaho data sites location map last printed in 1994. If you would like a copy of this map mailed to you please contact us. Alternatively, the Adobe version is available on our "site information" webpage at: <http://www.id.nrcs.usda.gov/snow/siteinfo/>

Over the past year colleagues at the NRCS Water and Climate Center in Portland, Oregon developed the tools needed to produce daily guidance streamflow forecasts using SNOTEL data. This is a giant step forward in terms of converting automated SNOTEL measurements into timely streamflow predictions. These products allow users to check how forecasts change with changing weather conditions. Guidance forecasts use a streamlined process with less human scrutiny, but 2006 results show they agree well with the full-blown forecasts published in Water Supply Outlook Reports that incorporate additional manual snow courses, streamflow, and Southern Oscillation Index (El Nino) measurements and are developed using a more hands-on approach. Guidance products will be useful for interpolating how forecasts are changing during the middle of the month; no more surprises. Idaho guidance forecasts are currently available for: Dworshak Reservoir inflow, Boise River, Little Wood River, Big Lost River, Snake River near Heise, Salmon Falls Creek, Oakley Reservoir inflow, and Bear River below Stewart Dam. These guidance forecasts are at the Idaho "Water Supply" webpage: <http://www.id.nrcs.usda.gov/snow/watersupply/>. We will be developing more, so if you have a request or need in your basin, let us or your local NRCS Field Office know.

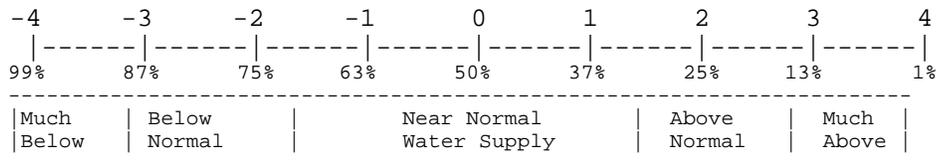
These partnerships created through the two new SNOTEL sites and with the Water Climate Center are nothing new. The Idaho NRCS Snow Survey Program is a cooperative effort supported by a number of federal, state and private groups which contribute over \$50,000 per year to our budget and provide MANY HOURS of in-kind support helping to make the program a success. We can not overstate the importance or express enough thanks to our many cooperators and partners!

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.

<i>BASIN or REGION</i>	<i>SWSI Value</i>	<i>Most Recent Year With Similar SWSI Value</i>	<i>Agricultural Water Supply Shortage May Occur When SWSI is Less Than</i>
PANHANDLE	-1.1	1981	NA
CLEARWATER	-1.3	2003	NA
SALMON	0.2	1998	NA
WEISER	0.2	2002	NA
PAYETTE	0.0	1980/1981	NA
BOISE	0.2	1993	-2.1
BIG WOOD	-0.2	2000	-0.5
LITTLE WOOD	0.5	1996	-2.0
BIG LOST	0.0	1993	-0.5
LITTLE LOST	0.5	1980/1981	0.0
HENRYS FORK	-0.1	1989	-3.3
SNAKE (HEISE)	0.0	1995	-1.8
OAKLEY	1.1	1997	-1.0
SALMON FALLS	0.9	1999	-1.0
BRUNEAU	-1.1	2004	NA
BEAR RIVER	-1.7	2002	-2.9

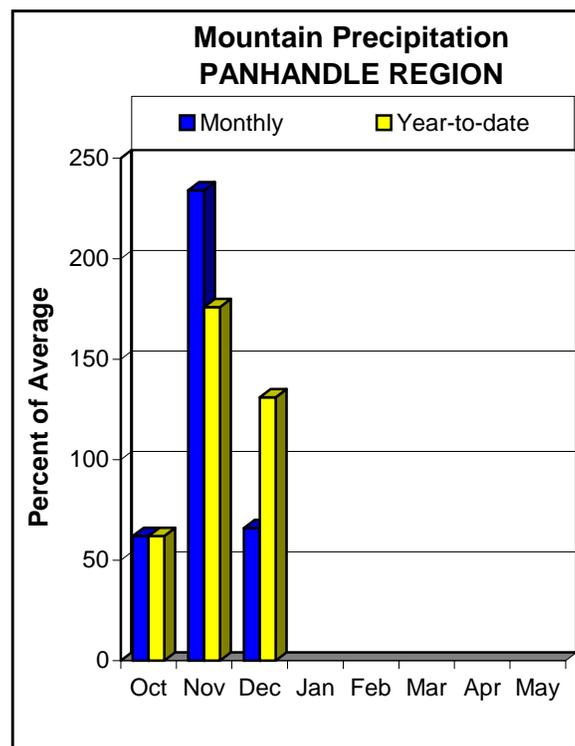
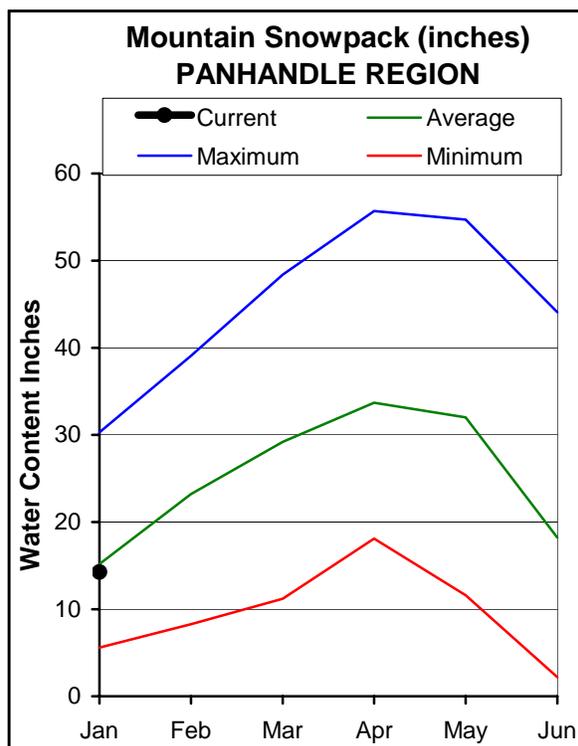
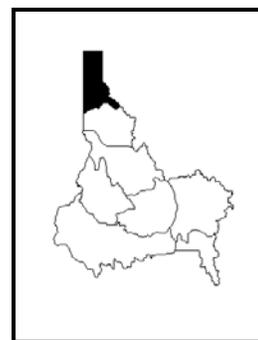
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION



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 JANUARY 1, 2007



WATER SUPPLY OUTLOOK

The new water year started off with October precipitation at only 62% of average in the Panhandle Region. However, that quickly changed in November when record high nighttime temperatures brought warm rains into Washington, Oregon, Idaho and Montana and melted the meager snowpack. El Nino conditions were predicted, but this was not a typical El Nino pattern. The Panhandle Region received copious amounts of precipitation from a vigorous Pacific storm system. Just one week into November had many SNOTEL sites already surpassing their normal monthly precipitation allotment for the month. In fact, Bear Mountain SNOTEL site, located north of Pend Oreille Lake received 9.4 inches of precipitation and set a new 24 hour precipitation record for Idaho. Bear Mountain received 37.7 inches in November; the 30-year average November amount is 8.9 inches. Overall, precipitation in the Panhandle in November was 234% of average. December was also an active weather month as some of our sites were damaged by strong winds. Precipitation in December was 66% of average and stands at 131% of average since the water year started October 1. Current snowpacks range from 85-105% of average in these Panhandle basins. As of December 31, Coeur d'Alene, Pend Oreille and Priest lakes were storing their average winter amounts. The fall rains primed the soils and increased baseflows leading into winter. Streamflow forecasts range from 85-120% of average as a result of the abundant moisture, primed soils and good base flows.

PANHANDLE REGION
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
KOOTENAI at Leonia (1,2)	APR-JUL	5210	6510	7100	101	7690	8990	7040
	APR-SEP	5510	7380	8230	101	9080	10950	8120
MOYIE RIVER at Eastport	APR-JUL	385	445	485	120	525	585	405
	APR-SEP	400	465	505	120	545	610	420
SMITH CREEK	APR-JUL	99	117	129	105	141	159	123
	APR-SEP	102	122	135	105	148	168	129
BOUNDARY CREEK	APR-JUL	108	125	136	111	147	164	123
	APR-SEP	113	130	142	110	154	171	129
CLARK FK at Whitehorse Rpds (1,2)	APR-JUL	5570	8960	10500	93	12040	15430	11300
	APR-SEP	6270	10010	11700	94	13390	17130	12500
PEND OREILLE Lake Inflow (2)	APR-JUL	7640	10120	11800	93	13480	15960	12700
	APR-SEP	8460	11160	13000	94	14840	17540	13900
PRIEST near Priest River (1,2)	APR-JUL	650	790	855	105	920	1060	815
	APR-SEP	580	805	910	105	1015	1235	870
NF COEUR D'ALENE RIVER AT ENAVILLE	APR-JUL	370	495	580	78	665	790	740
	APR-SEP	400	530	620	80	710	840	780
ST. JOE at Calder	APR-JUL	650	835	960	84	1080	1270	1140
	APR-SEP	705	895	1020	85	1150	1340	1200
SPOKANE near Post Falls (2)	APR-JUL	1290	1780	2120	83	2460	2950	2550
	APR-SEP	1350	1850	2200	83	2550	3050	2650
SPOKANE at Long Lake (2)	APR-JUL	1360	2000	2430	85	2860	3500	2850
	APR-SEP	1500	2170	2630	86	3090	3760	3070

PANHANDLE REGION Reservoir Storage (1000 AF) - End of December					PANHANDLE REGION Watershed Snowpack Analysis - January 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNGRY HORSE		NO REPORT			Kootenai ab Bonners Ferry	17	155	104
FLATHEAD LAKE		NO REPORT			Moyie River	2	137	106
NOXON RAPIDS		NO REPORT			Priest River	4	134	98
PEND OREILLE	1561.3	649.6	853.7	673.4	Pend Oreille River	63	101	84
COEUR D'ALENE	238.5	116.3	129.1	110.1	Rathdrum Creek	1	148	106
PRIEST LAKE	119.3	52.7	56.6	55.7	Hayden Lake	0	0	0
					Coeur d'Alene River	6	166	93
					St. Joe River	4	125	86
					Spokane River	9	152	91
					Palouse River	1	171	80

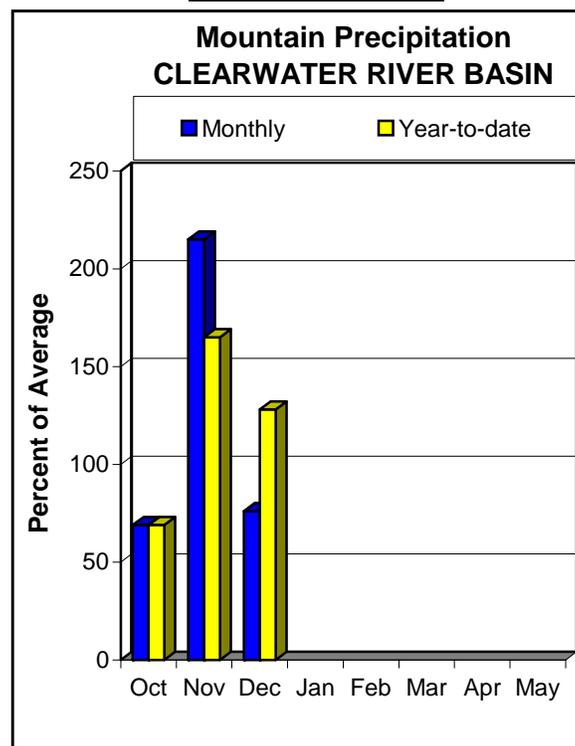
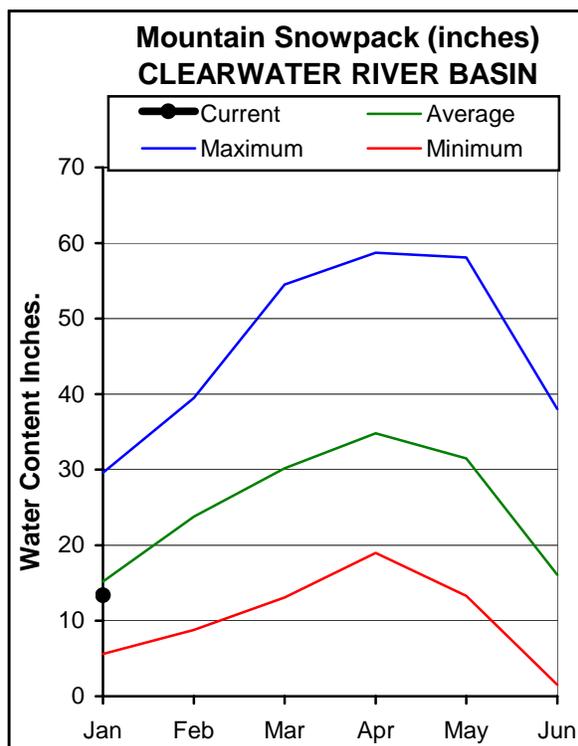
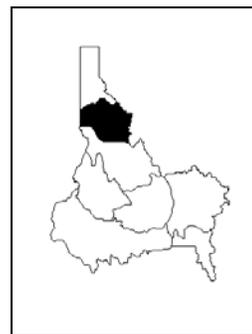
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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

JANUARY 1, 2007



WATER SUPPLY OUTLOOK

October brought monthly precipitation that was only 69% of average; November quickly made up the difference with amounts ranging from 144% of average at Mountain Meadows SNOTEL site along the Clearwater-Salmon basin divide to 268% at Lost Lake SNOTEL site along the North Fork Clearwater and St. Joe basin divide. Precipitation in December was 76% of average and is 128% of average since the water year started October 1. The fall rains not only sent the Selway River near Lowell to 16,000 cfs, a new record for early November, but also primed the soils for spring runoff. The Lochsa River near Lowell also set a new record high for early November at 9,000 cfs. There is a large variability in this year's snowpack. Only Crater Meadows SNOTEL site, located in the North Fork of the Clearwater drainage, is above average at 104%. The lowest snowpack is Pierce Ranger Station at 68% of average. Current snowpacks in the Clearwater basin range from a high of 89% of average in the North Fork Clearwater River to 83% in the Selway River. Overall, the Clearwater River basin is 87% of average. Dworshak Reservoir is currently 117% of average, slightly better than last year at this time. Streams are forecast at 85% of average for the Clearwater River and its tributaries. With primed soils and a decent snowpack, the spring runoff is looking promising as long as more storms continue to track across the Bitterroot Mountains.

CLEARWATER RIVER BASIN
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
SELWAY near Lowell	APR-JUL	1170	1490	1700	83	1910	2230	2060
	APR-SEP	1240	1570	1800	83	2030	2360	2170
LOCHSA near Lowell	APR-JUL	895	1130	1290	84	1450	1690	1530
	APR-SEP	960	1200	1360	85	1520	1760	1610
DWORSHAK RESV INFLOW (1,2)	APR-JUL	1000	1860	2250	85	2640	3500	2640
	APR-SEP	1160	2020	2410	86	2800	3660	2800
CLEARWATER at Orofino (1)	APR-JUL	1670	3190	3880	83	4570	6090	4650
	APR-SEP	1900	3420	4110	84	4800	6320	4900
CLEARWATER at Spalding (1,2)	APR-JUL	2500	5070	6240	84	7410	9980	7430
	APR-SEP	2890	5460	6630	85	7800	10370	7850

CLEARWATER RIVER BASIN Reservoir Storage (1000 AF) - End of December					CLEARWATER RIVER BASIN Watershed Snowpack Analysis - January 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DWORSHAK	3468.0	2604.8	2292.6	2228.2	North Fork Clearwater	9	123	89
					Lochsa River	3	107	86
					Selway River	4	79	83
					Clearwater Basin Total	17	113	87

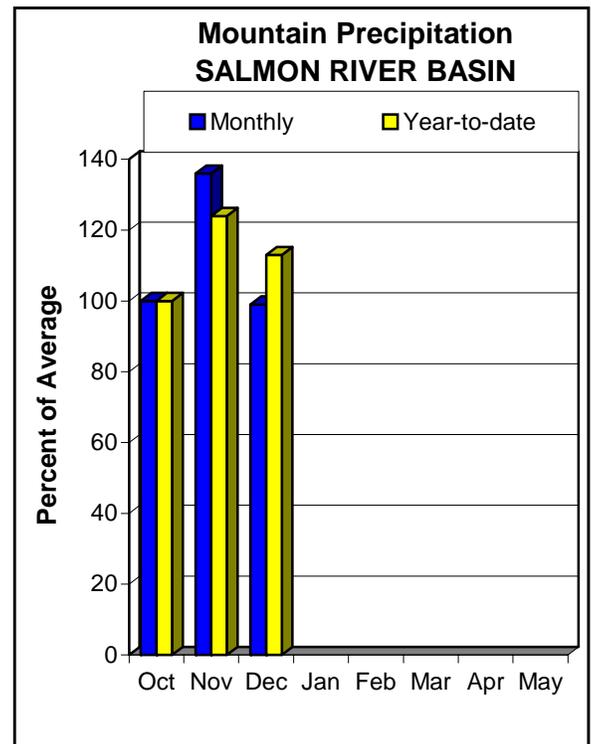
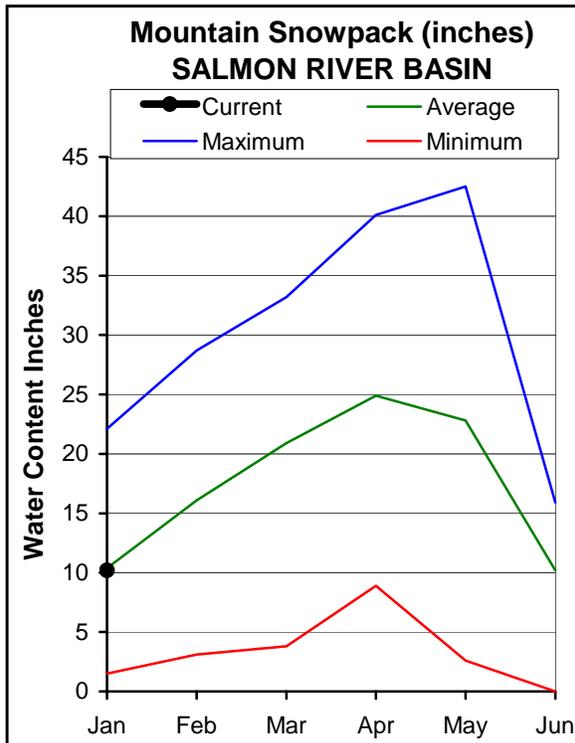
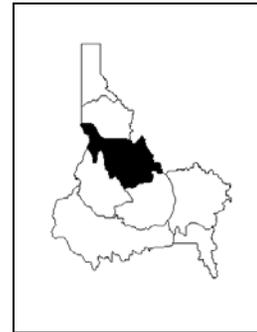
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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

JANUARY 1, 2007



WATER SUPPLY OUTLOOK

The Salmon River basin received average precipitation amounts in October and again in December. November precipitation was 136% of average. Water year-to-date amounts stand at 115% of average, better than last year. The Lemhi basin hosts the lowest snowpack at 86% of average with some sites along the Idaho-Montana border at 75% of average. As a result the Lemhi River is forecast at only 78% of average. The central mountains captured the colder air and were able to build an average or slightly above average snowpack by January 1. The South Fork Salmon River snowpack is 107% of average, while the Middle Fork Salmon River 104%. Overall, the Salmon basin snowpack is 97% of average. The Middle Fork Salmon River is forecast at 97% of average and Salmon River at White Bird at 99%. Get those river permits if you can, the whitewater rafting season is shaping up to be another good year as long as Mother Nature doesn't have a trick play in store for us in the second half of winter.

SALMON RIVER BASIN
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
SALMON at Salmon (1)	APR-JUL	345	645	785	92	925	1230	855
	APR-SEP	480	780	920	92	1060	1360	1000
Lemhi River nr Lemhi	APR-JUL	33	52	67	78	84	112	86
	APR-SEP	43	65	82	78	101	134	105
MF Salmon at MF Lodge	APR-JUL	487	642	760	97	887	1093	785
	APR-SEP	547	717	845	97	984	1207	875
SALMON at White Bird (1)	APR-JUL	3420	5040	5770	99	6500	8120	5850
	APR-SEP	4050	5670	6400	99	7130	8750	6480

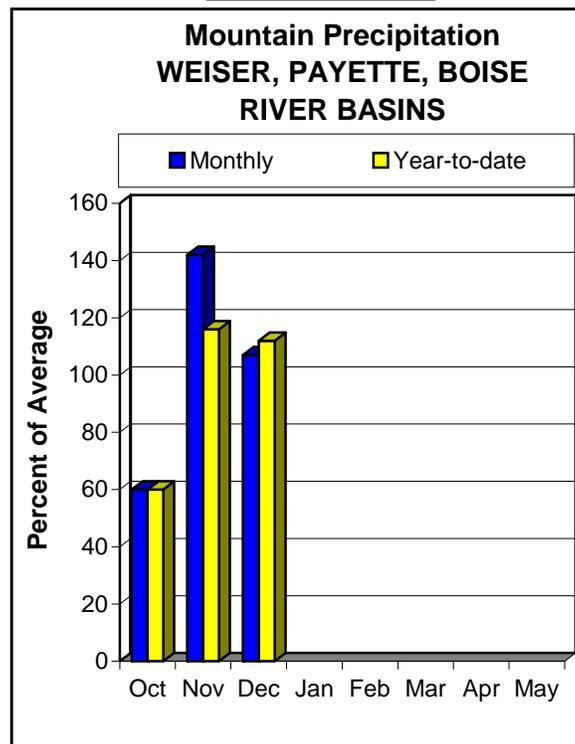
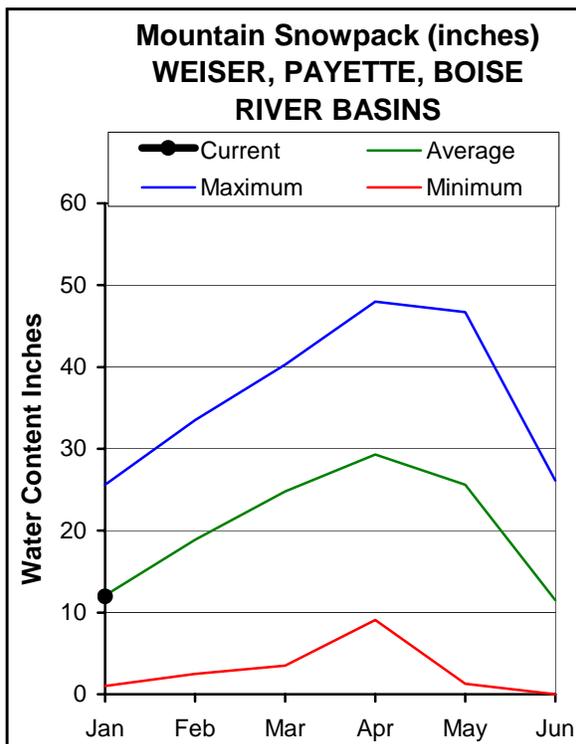
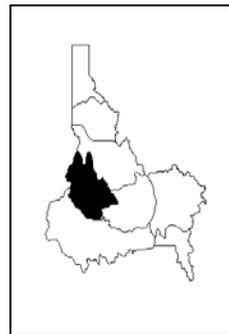
SALMON RIVER BASIN Reservoir Storage (1000 AF) - End of December					SALMON RIVER BASIN Watershed Snowpack Analysis - January 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Salmon River ab Salmon	9	76	100
					Lemhi River	6	79	86
					Middle Fork Salmon River	3	76	104
					South Fork Salmon River	3	76	107
					Little Salmon River	4	85	99
					Salmon Basin Total	24	79	97

* 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 JANUARY 1, 2007



WATER SUPPLY OUTLOOK

Slightly above average precipitation in the west-central mountains since October puts the Payette Basin at 116% of average for the water year, followed by the Boise and Weiser basins at 110% and 106% respectively. Snowpacks are near average in all three basins, being bolstered by holiday storms which deposited two feet of snow in many areas. This was the gift winter recreationists were hoping for after mid-December storms brought rain to elevations above 7,500 feet and left the snowpack gleaming with an ice crust. Snow totals this year are lagging behind the start of 2006 when snowpacks were 120-140% of average in early January. November and December rains wetted soils which will help snowmelt runoff efficiently in the spring instead of that water having to first fill the soil profile. Streams are forecast at 90-105% of average in these basins. Reservoirs in the Boise River system are at 105% of average, well ahead of last year. Similar conditions exist in the Payette River basin where Cascade and Deadwood reservoirs are 108% of average. Water supplies should be adequate due to good reservoir carryover from 2006, even if the forecasted El Nino pattern brings drier weather in the months ahead.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
WEISER near Weiser (1)	APR-SEP	189	350	425	101	500	660	420
SF PAYETTE at Lowman	APR-JUL	295	380	435	99	490	575	440
	APR-SEP	340	430	490	99	550	640	495
DEADWOOD RESERVOIR Inflow (1,2)	APR-JUL	83	119	135	101	151	186	134
	APR-SEP	93	129	145	102	161	198	142
LAKE FORK PAYETTE near McCall	APR-JUL	69	81	89	105	97	109	85
	APR-SEP	72	84	92	103	100	112	89
NF PAYETTE at Cascade (1,2)	APR-JUL	340	475	540	104	605	740	520
	APR-SEP	360	495	560	104	625	760	540
NF PAYETTE nr Banks (2)	APR-JUL	480	615	705	109	795	930	645
	APR-SEP	485	630	725	105	820	965	690
PAYETTE nr Horseshoe Bend (1,2)	APR-JUL	1020	1490	1700	106	1910	2380	1610
	APR-SEP	1110	1590	1810	103	2030	2510	1750
BOISE near Twin Springs (1)	APR-JUL	415	545	605	95	665	795	635
	APR-SEP	405	580	660	96	740	915	690
SF BOISE at Anderson Ranch Dam (1,2)	APR-JUL	350	450	495	92	540	640	540
	APR-SEP	285	455	530	91	605	775	580
MORES CREEK near Arrowrock Dam	APR-JUL	67	96	115	88	134	163	131
	APR-SEP	71	100	120	88	140	169	137
BOISE near Boise (1,2)	APR-JUN	670	1010	1160	92	1310	1650	1260
	APR-JUL	705	1120	1310	93	1500	1910	1410
	APR-SEP	810	1230	1420	93	1610	2030	1530

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

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - January 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MANN CREEK	11.1	2.5	3.9	3.3	Mann Creek	1	73	105
CASCADE	693.2	480.7	451.2	456.4	Weiser River	3	78	103
DEADWOOD	161.9	100.8	71.2	82.5	North Fork Payette	8	86	103
ANDERSON RANCH	450.2	307.7	234.3	296.8	South Fork Payette	5	78	103
ARROWROCK	272.2	199.3	160.7	173.1	Payette Basin Total	14	82	102
LUCKY PEAK	293.2	86.9	74.1	95.5	Middle & North Fork Boise	5	69	97
LAKE LOWELL (DEER FLAT)	165.2	97.4	86.4	98.4	South Fork Boise River	9	67	95
					Mores Creek	5	86	97
					Boise Basin Total	16	73	96
					Canyon Creek	2	79	106

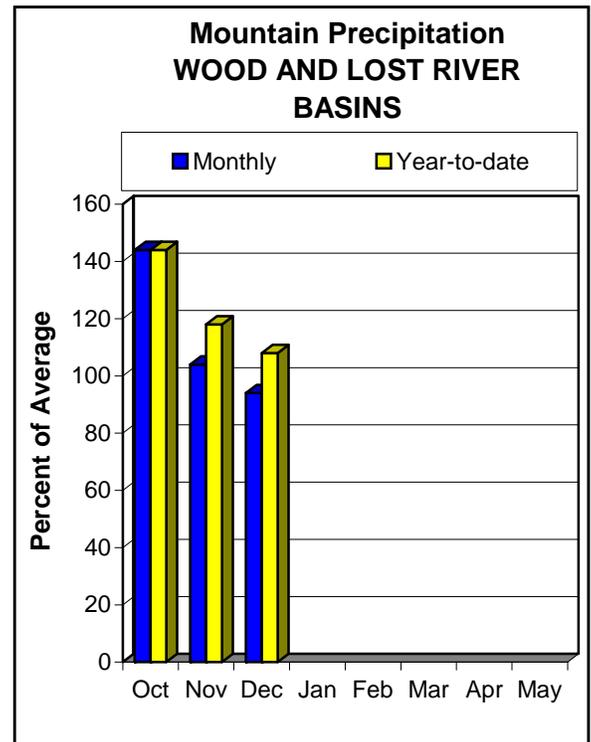
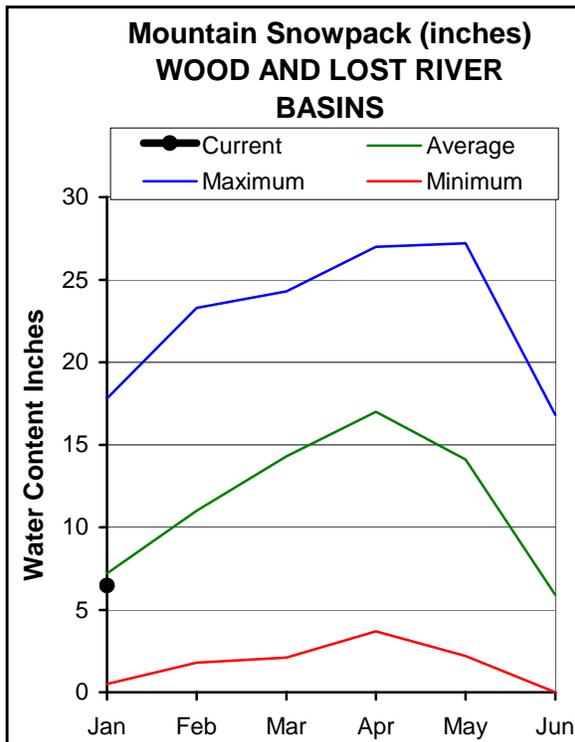
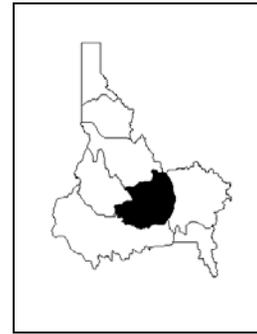
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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 JANUARY 1, 2007



WATER SUPPLY OUTLOOK

The water year got a solid start in the Wood and Lost river basins with October precipitation at 125–170% of average. November and December were drier and water year-to-date precipitation is now hovering around 110% of average in the Big Wood, Little Wood, Little Lost and Birch basins; the Big Lost Basin is close to average. Autumn storms were not cold enough to lock moisture in the snowpack, so all basins are below average as of January 1. Snow water in the Big Lost, Little Lost, and Little Wood basins are a just over 80% of average, while Big Wood basin is fairing better at 95% of average. Last year January 1 snowpacks ranged from 107% to an impressive 154% of average, this abundance remains evident in reservoir and groundwater levels. Little Wood Reservoir is 151% of average, 71% of capacity; Magic is 138% of average, 58% of capacity and Mackay 92% of average, 49% of capacity. Groundwater levels in the Big Lost basin rose over 30 feet in some areas since last year offering another level of insurance should surface water supplies run short this spring. Soil moisture sensors indicate that the fall rains wetted the ground to a depth of 20 inches which will increase the efficiency of spring runoff. Currently streamflows are forecasted at 75-95% of average, but this could decrease if El Nino predictions come true.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<----- Drier ----->>		----->>		----->>		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
BIG WOOD at Hailey (1)	APR-JUL	119	195	235	92	279	390	255
	APR-SEP	137	221	265	91	313	434	290
BIG WOOD ab Magic Reservoir	APR-JUL	52	98	142	75	197	302	190
	APR-SEP	22	100	153	75	205	285	204
CAMAS CREEK near Blaine	APR-JUL	27	53	75	75	101	146	100
	APR-SEP	28	54	76	75	102	147	101
BIG WOOD below Magic Dam (2)	APR-JUL	25	138	215	74	290	405	290
	APR-SEP	34	151	230	75	310	425	305
LITTLE WOOD R ab High Five Ck	MAR-JUL	33	53	70	82	89	122	85
	MAR-SEP	36	58	76	83	96	131	92
	APR-JUL	27	47	63	81	82	113	78
	APR-SEP	31	52	69	81	89	122	85
LITTLE WOOD near Carey (2)	MAR-JUL	25	58	80	83	102	135	96
	MAR-SEP	28	63	86	83	109	144	104
	APR-JUL	20	51	72	83	93	124	87
	APR-SEP	23	56	78	83	100	133	94
BIG LOST at Howell Ranch	APR-JUL	79	133	170	98	208	263	173
	APR-SEP	91	153	195	99	235	300	197
BIG LOST bl Mackay Reservoir	APR-JUL	62	106	136	97	166	209	141
	APR-SEP	75	129	166	97	204	259	172
LITTLE LOST bl Wet Creek	APR-JUL	17.0	24	28	90	32	39	31
	APR-SEP	20	28	34	87	40	48	39

WOOD AND LOST RIVER BASINS Reservoir Storage (1000 AF) - End of December					WOOD AND LOST RIVER BASINS Watershed Snowpack Analysis - January 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MAGIC	191.5	110.3	49.9	79.7	Big Wood ab Hailey	8	63	91
LITTLE WOOD	30.0	21.3	15.5	14.1	Camas Creek	5	75	106
MACKAY	44.4	21.9	23.5	23.7	Big Wood Basin Total	13	66	95
					Fish Creek	0	0	0
					Little Wood River	5	57	88
					Big Lost River	5	53	79
					Little Lost River	3	78	83
					Birch-Medicine Lodge Cree	2	80	81
					Camas-Beaver Creeks	4	75	79

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

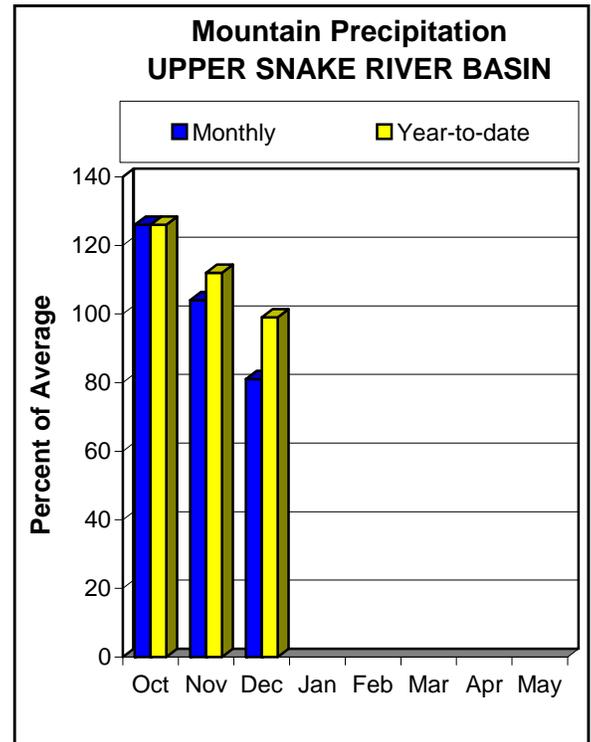
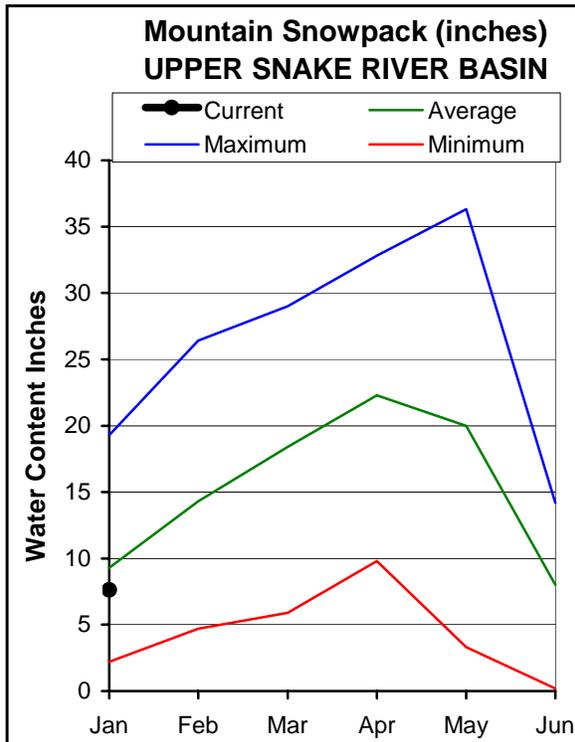
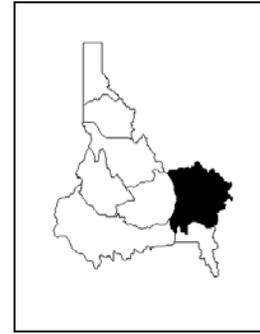
The average is computed for the 1971-2000 base period.

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(2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER SNAKE BASINS

JANUARY 1, 2007



WATER SUPPLY OUTLOOK

The new water year started in October with 126% of average precipitation and decreased to 104% in November and to 81% in December. Not the best trend, but water year-to-date precipitation remains normal for the basin as a whole. The snowpack varies ranging from 75% of average in the Hoback drainage in Wyoming to 96% in Willow Creek. The snowpack above Palisades Reservoir is 79% of average. The Upper Snake missed out on a couple of Pacific, moisture laden systems that hit other parts of Idaho. A good snowpack is needed in the Upper Snake basin; last April the snow was 110% of average and produced only average runoff. If snowpack conditions are similar again this year, look for a similar relationship between the snow and streamflow. As it does not appear the soils and baseflows are as primed in the Upper Snake basin as elsewhere in the state. Reservoir storage is better than last year with American Falls Reservoir at 108% of average, 64% of capacity, and Blackfoot Reservoir at 75% of average, 46% of capacity. Combined storage in Palisades and Jackson Lake is 103% of average, 70% of capacity. Streamflow forecasts range from 75-95% of average.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
HENRYS FORK near Ashton (2)	APR-JUL	425	480	520	91	560	615	570
	APR-SEP	590	655	700	92	745	810	765
HENRYS FORK near Rexburg (2)	APR-JUL	1140	1310	1430	92	1550	1720	1560
	APR-SEP	1550	1740	1870	93	2000	2190	2010
FALLS RIVER nr Ashton (2)	APR-JUL	240	295	330	87	365	420	380
	APR-SEP	285	345	390	87	435	495	450
TETON RIVER NEAR DRIGGS	APR-JUL	94	124	145	88	166	198	165
	APR-SEP	123	160	185	88	212	247	210
TETON near St. Anthony	APR-JUL	240	305	350	86	395	460	405
	APR-SEP	305	380	430	90	480	555	480
SNAKE at Flagg Ranch	APR-JUL	295	380	440	94	500	585	470
	APR-SEP	320	415	480	93	545	640	515
SNAKE nr Moran (1,2)	APR-JUL	515	655	720	88	785	925	815
	APR-SEP	565	725	800	88	875	1035	905
PACIFIC CREEK at Moran	APR-JUL	107	133	150	88	167	193	171
	APR-SEP	116	142	160	90	178	205	178
SNAKE ab resv nr Alpine (1,2)	APR-JUL	1390	1840	2050	87	2260	2710	2370
	APR-SEP	1630	2140	2370	87	2600	3110	2730
GREYS above Palisades	APR-JUL	210	270	310	91	350	410	340
	APR-SEP	250	315	360	91	405	470	395
SALT near Etna	APR-JUL	185	255	300	88	345	415	340
	APR-SEP	240	320	375	89	430	510	420
SNAKE nr Irwin (1,2)	APR-JUL	1910	2570	2870	86	3170	3830	3330
	APR-SEP	2270	3010	3350	87	3690	4430	3870
SNAKE near Heise (2)	APR-JUL	2270	2750	3070	86	3390	3870	3560
	APR-SEP	2690	3230	3600	87	3970	4510	4160
WILLOW CREEK nr Ririe	MAR-JUL	30	52	70	80	91	127	88
BLACKFOOT RESV INFLOW	APR-JUN	41	74	97	81	120	153	120
SNAKE nr Blackfoot (1,2)	APR-JUL	2490	3460	3900	85	4340	5310	4600
	APR-SEP	3390	4360	4800	85	5240	6210	5620
PORTNEUF at Topaz	MAR-JUL	46	59	68	76	77	90	89
	MAR-SEP	59	75	85	78	95	111	109
AMERICAN FALLS RESV INFLOW (1,2)	APR-JUL	920	2110	2650	82	3190	4380	3240
	APR-SEP	1060	2250	2790	80	3330	4520	3510

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

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - January 1, 2007

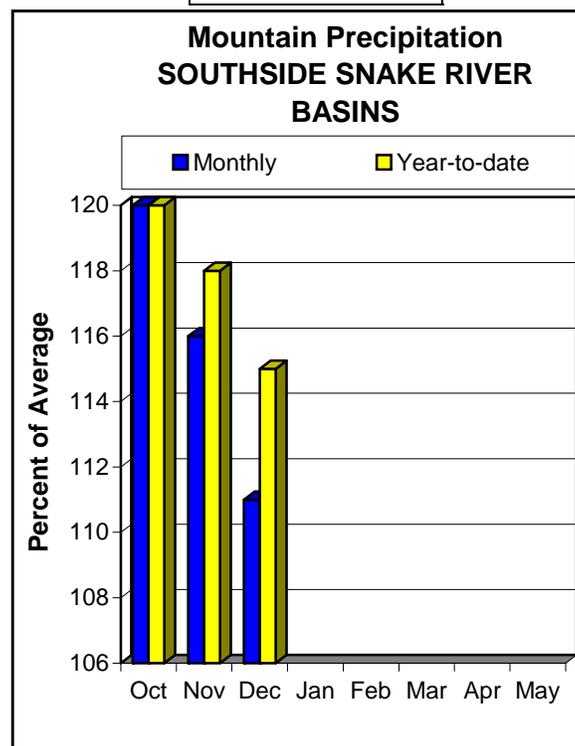
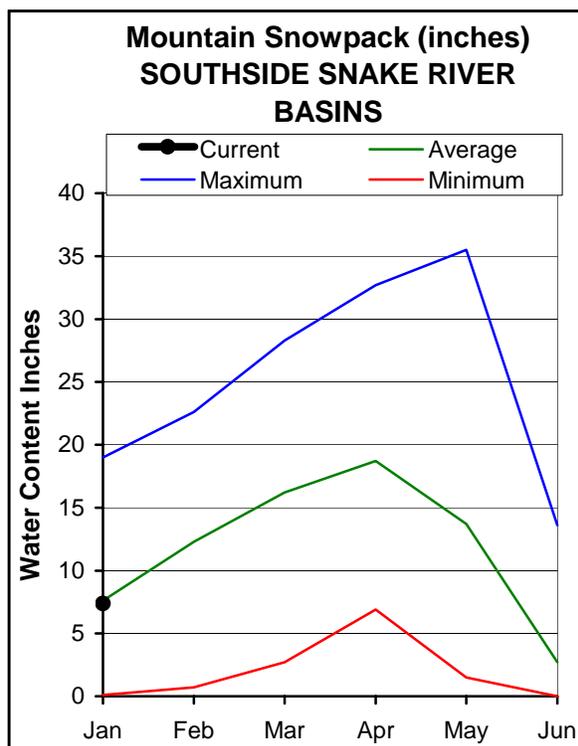
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HENRYS LAKE	90.4	84.5	86.1	82.5	Henrys Fork-Falls River	10	64	81
ISLAND PARK	135.2	108.7	83.5	96.1	Teton River	3	72	81
GRASSY LAKE	15.2	11.8	7.6	11.6	Henrys Fork above Rexburg	13	66	81
JACKSON LAKE	847.0	635.7	381.8	481.7	Snake above Jackson Lake	9	58	79
PALISADES	1400.0	933.7	779.3	1036.5	Gros Ventre River	2	75	81
RIRIE	80.5	38.6	38.1	34.5	Hoback River	5	68	75
BLACKFOOT	348.7	162.0	79.3	215.3	Greys River	4	70	78
AMERICAN FALLS	1672.6	1066.9	852.1	986.6	Salt River	3	72	86
					Snake above Palisades	21	64	79
					Willow Creek	2	82	96
					Blackfoot River	2	74	91
					Portneuf River	3	67	77
					Snake abv American Falls	32	66	81

* 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.

SOUTHSIDE SNAKE RIVER BASINS JANUARY 1, 2007



WATER SUPPLY OUTLOOK

The Southside Snake basins received 115% of average precipitation since October. The Oakley area received over 200% of average precipitation in October and continues to lead the pack with 141% of average since the water year started October 1. Salmon Falls basin received 166% of its average precipitation for October with Magic Mountain SNOTEL recording 1.6 inches on the 26th which is only 0.2 of an inch short of its October average. Owyhee Basin received the least precipitation south of the Snake River, but is still near average for the water year. Snow water content is about three quarters of last January's amounts, with Oakley basin's snowpack sitting at 115% of average and Salmon Falls, Bruneau and Owyhee basins at 91%, 84%, and 73% of average respectively. Although neither Oakley nor Salmon Falls reservoirs filled in 2006 each contains good carryover storage with Oakley at 150% of average, 51% of capacity and Salmon Falls at 138% of average, 40% of capacity. Inflow for Oakley Reservoir is forecast at 91% of average and Salmon Falls Creek is forecast at 88%. The Bruneau River is forecast at 71% of average. Along the Owyhee River, Wildhorse Reservoir is 127% of average, 67% of capacity and downstream Owyhee Reservoir is 113% of average, 63% of capacity. The Owyhee River near Rome is forecast at 59% of average. Brownlee Reservoir is 97% of average, 89% of capacity. Because of the best reservoir storage in years, water supplies should be adequate for water users utilizing Oakley, Salmon Falls and Owyhee reservoir water.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
OAKLEY RESERVOIR INFLOW	MAR-JUL	17.8	25	31	91	37	48	34
	MAR-SEP	20	28	34	92	41	52	37
OAKLEY RESV STORAGE	FEB-28	39	41	43	137	45	47	31
	MAR-31	44	47	49	136	51	54	36
	APR-30	49	53	56	137	59	63	41
SALMON FALLS CREEK nr San Jacinto	MAR-JUN	46	65	78	88	91	110	89
	MAR-JUL	47	68	82	88	96	117	93
	MAR-SEP	50	71	86	88	101	122	98
SALMON FALLS RESV STORAGE	FEB-28	73	76	79	132	82	85	60
	MAR-31	77	84	89	127	94	101	70
	APR-30	95	105	111	126	117	127	88
BRUNEAU near Hot Spring	MAR-JUL	95	134	165	70	199	255	235
	MAR-SEP	101	143	175	70	211	269	250
OWYHEE near Gold Creek (2)	MAR-JUL	8.5	17.1	23	72	29	38	32
	MAR-SEP	7.7	16.2	22	71	28	36	31
OWYHEE nr Owyhee (2)	APR-JUL	10.0	41	62	76	83	114	82
OWYHEE near Rome	FEB-JUL	141	272	385	59	518	748	655
	FEB-SEP	152	285	400	59	534	767	675
OWYHEE RESV INFLOW (2)	FEB-JUL	152	283	395	56	526	753	700
	FEB-SEP	167	301	415	57	547	774	730
	APR-SEP	97	182	255	59	340	488	430
SUCCOR CK nr Jordan Valley	FEB-JUL	2.4	9.5	14.3	74	19.5	27	19.3
Reynolds Creek nr Tollgate	MAR-JUL	4.2	6.5	8.3	86	10.4	13.9	9.7

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

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - January 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
OAKLEY	75.6	38.5	27.4	25.7	Raft River	1	77	134
SALMON FALLS	182.6	72.8	36.4	52.6	Goose-Trapper Creeks	3	76	115
WILDHORSE RESERVOIR	71.5	48.0	37.5	37.8	Salmon Falls Creek	6	69	91
OWYHEE	715.0	448.1	473.9	398.1	Bruneau River	5	63	84
BROWNLEE	1420.0	1261.4	1420.7	1303.0	Reynolds Creek	6	72	93
					Owyhee Basin Total	8	72	73

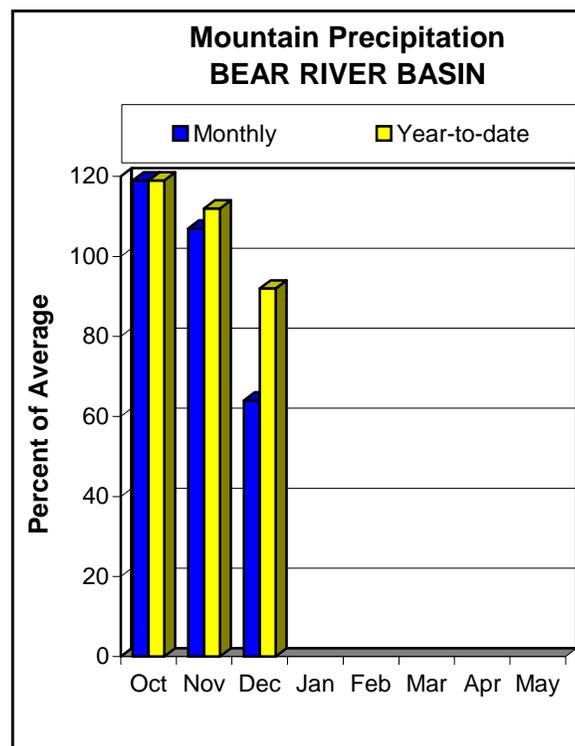
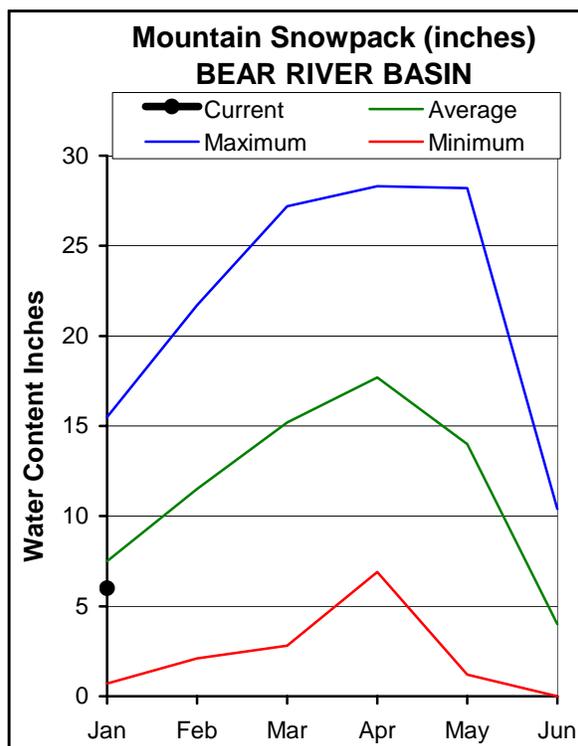
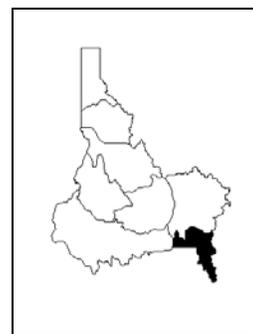
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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

JANUARY 1, 2007



WATER SUPPLY OUTLOOK

Precipitation has decreased every month since the water year began with October receiving 119% of average, November 107% and December 64%. Water year-to-date precipitation stands at 92% of average but if the decreasing trend continues it could be much lower in February. The snowpack is 78% of average for the Bear River basin, 30% of the April 1 seasonal peak and well behind last season. Snowpacks are variable ranging from 55-102% of average between Trial Lake and Lily Lake SNOTEL sites; these sites are both located above 9,000 feet in Summit County, Utah and are separated by less than 15 miles. Bear Lake carryover storage keeps improving each year and is currently 37% of capacity at 523,200 acre-feet up from 7% of capacity in January 2005. The Bear River at Stewart Dam is forecast at 72% of average for the April-September period. Montpelier Reservoir is 58% of average, 37% of capacity. Based on the five exceedance forecasts for Bear River at Stewart Dam and Bear Lake storage, the Surface Water Supply Index indicates water supplies should be similar or better than in 2002 when the lake had 574,300 acre-feet and runoff was only 5% of average.

BEAR RIVER BASIN
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Bear River nr UT-WY State Line	APR-JUL	84	107	100	89	139	162	113
	APR-SEP	93	119	110	88	154	180	125
Bear River ab Reservoir nr Woodruff	APR-JUL	89	126	110	81	176	213	136
	APR-SEP	98	135	115	81	186	224	142
Big Creek nr Randolph	APR-JUL	0.5	1.9	3.3	67	5.0	8.4	4.9
Smiths Fork nr Border	APR-JUL	51	71	85	83	103	131	103
	APR-SEP	62	84	100	83	120	151	121
Bear River at Stewart Dam	APR-JUL	71	116	165	71	195	265	234
	APR-SEP	86	137	188	72	223	301	262
Little Bear River at Paradise	APR-JUL	16.2	27	30	65	46	64	46
Blacksmith Fk Abv Up&L Dam Nr Hyrum	APR-JUL	22	33	38	79	52	69	48

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of December					BEAR RIVER BASIN Watershed Snowpack Analysis - January 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1421.0	523.2	370.8	907.5	Smiths & Thomas Forks	3	65	81
MONTPELIER CREEK	4.0	2.0	2.7	1.7	Bear River ab WY-ID line	10	59	77
					Montpelier Creek	1	54	78
					Mink Creek	1	58	84
					Cub River	1	50	79
					Bear River ab ID-UT line	15	59	78
					Malad River	1	50	69

* 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. 2005).**

Panhandle River Basins

Kootenai R at Leonia, ID
+ Lake Koocanusa (Storage Change)
Boundary Ck nr Porthill, ID – No Corrections
Moyie R at Eastport, ID – No Corrections
Smith Creek nr Porthill, ID – No Corrections
Clark Fork R at Whitehorse Rapids, ID
+ Hungry Horse (Storage Change)
+ Flathead Lake (Storage Change)
+ Noxon Rapids Resv (Storage Change)
Pend Oreille Lake Inflow, ID
+ 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, ID
+ Priest Lake (Storage Change)
NF Coeur d'Alene R at Enaville, ID - No Corrections
St. Joe R at Calder, ID - No Corrections
Spokane R nr Post Falls, ID
+ 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 Resv Inflow, ID
+ Clearwater R nr Peck, ID
- Clearwater R at Orofino, ID
+ Dworshak Resv (Storage Change)
Clearwater R at Orofino, ID - No Corrections
Clearwater R at Spalding, ID
+ Dworshak Resv (Storage Change)

Salmon River Basin

Salmon R at Salmon, ID - No Corrections
Lemhi R nr Lemhi, ID – No Corrections
MF Salmon R at MF Lodge, ID – No Corrections
Salmon R at White Bird, ID - No Corrections

Weiser, Payette, Boise River Basins

Weiser R nr Weiser, ID - No Corrections
SF Payette R at Lowman, ID - No Corrections
Deadwood Resv Inflow, ID
+ Deadwood R blw Deadwood Resv nr Lowman
+ Deadwood Resv (Storage Change)
Lake Fork Payette R nr Mccall, ID – No Corrections
NF Payette R at Cascade, ID
+ Cascade Resv (Storage Change)
+ Payette Lake (Storage Change)

NF Payette R nr Banks, ID
+ Cascade Resv (Storage Change)
+ Payette Lake (Storage Change)
Payette R nr Horseshoe Bend, ID
+ Cascade Resv (Storage Change)
+ Deadwood Resv (Storage Change)
+ Payette Lake (Storage Change)
Boise R nr Twin Springs, ID - No Corrections
SF Boise R at Anderson Ranch Dam, ID
+ Anderson Ranch Resv (Storage Change)
Boise R nr Boise, ID
+ Anderson Ranch Resv (Storage Change)
+ Arrowrock Resv (Storage Change)
+ Lucky Peak Resv (Storage Change)

Wood and Lost River Basins

Big Wood R at Hailey, ID - No Corrections
Big Wood R abv Magic Resv, ID
+ Big Wood R nr Bellevue, ID
+ Willow Ck
Camas Ck nr Blaine – No Corrections
Big Wood R blw Magic Dam nr Richfield, ID
+ Magic Resv (Storage Change)
Little Wood R abv High Five Ck, ID – No Corrections
Little Wood R nr Carey, ID
+ Little Wood Resv (Storage Change)
Big Lost R at Howell Ranch, ID - No Corrections
Big Lost R blw Mackay Resv nr Mackay, ID
+ Mackay Resv (Storage Change)
Little Lost R blw Wet Ck nr Howe, ID - No Corrections
Upper Snake River Basin
Henry's Fork nr Ashton, ID
+ Henry's Lake (Storage Change)
+ Island Park Resv (Storage Change)
Henry's Fork nr Rexburg, ID
+ Henry's Lake (Storage Change)
+ Island Park Resv (Storage Change)
+ Grassy Lake (Storage Change)
+ Diversions from Henry's Fk btw Ashton to St. Anthony, ID
+ Diversions from Henry's Fk btw St. Anthony to Rexburg, ID
+ Diversions from Falls R abv nr Ashton, ID
+ Diversions from Falls R nr Ashton to Chester, ID
Falls R nr Ashton, ID
+ Grassy Lake (Storage Change)
+ Diversions from Falls R abv nr Ashton, ID
Teton R nr Driggs, ID - No Corrections
Teton R nr St. Anthony, ID
- Cross Cut Canal into Teton R
+ Sum of Diversions for Teton R abv St. Anthony, ID
Snake R nr Moran, WY
+ Jackson Lake (Storage Change)
Pacific Ck at Moran, WY – No Corrections
Snake R abv Palisades, WY
+ Jackson Lake (Storage Change)

Greys R abv Palisades, WY – No Corrections

Salt R abv Palisades, WY – No Corrections

Snake R nr Irwin, ID

+ Jackson Lake (Storage Change)

+ Palisades Resv (Storage Change)

Snake R nr Heise, ID

+ Jackson Lake (Storage Change)

+ Palisades Resv (Storage Change)

Willow Ck nr Ririe, ID

+ Ririe Resv (Storage Change)

Blackfoot Reservoir Inflow, ID

+ Blackfoot Reservoir releases

+ Blackfoot Resv (Storage Change)

Snake R nr Blackfoot, ID

+ Palisades Resv (Storage Change)

+ Jackson Lake (Storage Change)

+ Diversions from Snake R btw Heise and Shelly

+ Diversions from Snake R btw Shelly and Blackfoot

Portneuf R at Topaz, ID - No Corrections

American Falls Resv Inflow, ID

+ Snake River at Neeley

+ All Corrections made for Henrys Fk nr Rexburg, ID

+ Jackson Lake (Storage Change)

+ Palisades Resv (Storage Change)

+ Diversions from Snake R btw Heise and Shelly

+ Diversions from Snake R btw Shelly and Blackfoot

Southside Snake River Basins

Oakley Resv Inflow, ID

+ Goose Ck abv Trapper Ck

+ Trapper Ck nr Oakley

Salmon Falls Ck nr San Jacinto, NV - No Corrections

Bruneau R nr Hot Springs, ID - No Corrections

Owyhee R nr Gold Ck, NV

+ Wildhorse Resv (Storage Change)

Owyhee R nr Owyhee, NV

+ Wildhorse Resv (Storage Change)

Owyhee R nr Rome, OR – No Corrections

Owyhee Resv Inflow, OR

+ Owyhee R blw Owyhee Dam, OR

+ Owyhee Resv (Storage Change)

+ Diversions to North and South Canals

Succor Ck nr Jordan Valley, OR - No Corrections

Snake R at King Hill, ID - No Corrections

Snake R nr Murphy, ID - No Corrections

Snake R at Weiser, ID - No Corrections

Snake R at Hells Canyon Dam, ID

+ Brownlee Resv (Storage Change)

Bear River Basin

Bear R nr UT-WY Stateline, UT – No Corrections

Bear R abv Resv nr Woodruff, UT – No Corrections

Smiths Fork nr Border, WY - No Corrections

Bear R blw Stewart Dam nr Montpelier, ID

+ Bear R blw Stewart Dam

+ Rainbow Inlet Canal

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. 2005)

<u>Basin/ Reservoir</u>	<u>Dead Storage</u>	<u>Inactive Storage</u>	<u>Active Storage</u>	<u>Surcharge Storage</u>	<u>NRCS Capacity</u>	<u>NRCS Capacity Includes</u>
<u>Panhandle Region</u>						
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	--	13.50	225.00	--	238.5	Inactive+Active
Priest Lake	20.00	28.00	71.30	--	119.3	Dead+Inactive+Active
<u>Clearwater Basin</u>						
Dworshak	--	1452.00	2016.00	--	3468.0	Inactive+Active
<u>Weiser/Boise/Pavette Basins</u>						
Mann Creek	1.61	0.24	11.10	--	11.1	Active
Cascade	--	46.70	646.50	--	693.2	Inactive+Active
Deadwood	--	--	161.90	--	161.9	Active
Anderson Ranch	24.90	37.00	413.10	--	450.1	Inactive+Active
Arrowrock	--	--	272.20	--	272.2	Active
Lucky Peak	--	28.80	264.40	13.80	293.2	Inactive+Active
Lake Lowell	7.90	5.80	159.40	--	165.2	Inactive+Active
<u>Wood/Lost Basins</u>						
Magic	Unknown	--	191.50	--	191.5	Active
Little Wood	--	--	30.00	--	30.0	Active
Mackay	0.13	--	44.37	--	44.4	Active
<u>Upper Snake Basin</u>						
Henrys Lake	--	--	90.40	--	90.4	Active
Island Park	0.40	--	127.30	7.90	135.2	Active+Surcharge
Grassy Lake	--	--	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	--	--	348.73	--	348.7	Active
American Falls	--	--	1672.60	--	1672.6	Active
<u>Southside Snake Basins</u>						
Oakley	0	--	75.60	--	75.6	Active
Salmon Falls	48.00	5.00	182.65	--	182.6	Active+Inactive
Wildhorse	--	--	71.50	--	71.5	Active
Owyhee	406.83	--	715.00	--	715.0	Active
Brownlee	0.45	444.70	975.30	--	1420.0	Inactive+Active
<u>Bear River Basin</u>						
Bear Lake	5.0 MAF	119.0	1302.00	--	1421.0	Active+Inactive: includes 119 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)	(% 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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