United States Department of Agriculture
Natural Resources Conservation Service

Idaho Water Supply Outlook Report
May 1, 2002

Smiley Mountain SNOTEL site -- installed September 2002
at an elevation of 9,520 feet in the Big Lost River Mountains.

Standard sensors include: snow water, precipitation, and air temperature
Enhanced sensors include: soil moisture and temperature, wind, humidity, solar radiation, and snow depth

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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 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.

IDAHO WATER SUPPLY OUTLOOK REPORT

May 1, 2002

SUMMARY

April brought typical spring weather--snow in the high country and rain in the valleys. Precipitation was near normal across the state ranging from 85-110% of average. Below normal winter temperatures finally gave way to warmer temperatures and rapidly melted the low elevation snow. Rain boosted the snow melt rates resulting in rapid streamflow increases from the Weiser to Coeur d'Alene rivers. Flooding and mudslides closed or washed-out some roads. Luckily, rain subsided and cold temperatures quickly returned, freezing and stabilizing the remaining snow, otherwise damages would have been greater. Mid-elevation snow started melting in early April and then started accumulating with the return of colder temperatures and additional moisture. Most higher elevation SNOTEL sites continued accumulating snow water during April and are now just starting to melt.

The end result: Cool wet weather in April helped keep the snow in the mountains longer and delay initial demand for irrigation water, thus extending the limited water supply especially in central, southern and eastern Idaho. Overall, the water supply picture did not change much from a month ago. Irrigation water shortages are still expected in the Big Wood, Big Lost, Little Lost, upper Snake, Bear, Oakley and Salmon Falls basins. Boise, Payette and Owyhee irrigators will have adequate supplies. However, most reservoir storage water, if not all, will be used this year leaving little reservoir carryover for next year. There will be no shortage of water in the Panhandle and Clearwater basins this summer. They are not out of the woods yet in terms of high streamflows. An extended period of high streamflows will occur this spring and summer--magnitude and timing of snowmelt peak streamflows depends upon temperatures and precipitation during the critical snowmelt period.

Cool weather has kept soil temperatures below normal, delaying plant growth on rangeland this spring. Plant growth is now starting as a result of warmer temperatures and good valley April precipitation. Turnout of livestock on ranges has been delayed in several areas due to lack of plant growth.

The best we can hope for is for the cool wet weather to continue through May and into the summer. This will provide additional crop moisture, reduce irrigation demand, and extend the limited surface water supplies that life in the arid western regions depends upon each year. Ideally, more rain is needed across central and southern Idaho to rapidly melt the snow and get more water into the rivers and reservoirs for use this summer. Otherwise, the snowmelt water may infiltrate into the ground for use in future years. Spring rains are needed and need to occur in an orderly manner, unlike the rain-on-snow event in the Payette basin on April 14 that caused flooding and mudslides.

SNOWPACK

Snowpack percentages vary across Idaho with some low elevation basins such as Hayden Lake, Owyhee, Camas, Blackfoot, Willow and Malad basins melted or nearly melted out by May 1. Most high elevation sites continued accumulating snow water during April and just stated melting. Cold wet weather in early May will allow the higher elevations to pick up even more snow water before the season is over. The highest snowpacks in the state are in the North Fork Clearwater, St. Joe and Coeur d'Alene basins at 125-135% of average. The remaining snow across most basins in central and southern Idaho is 70-90% of average. Exceptions are Little Lost and Bear River at 58% of average.

PRECIPITATION

April mountain precipitation was near normal across the state ranging from 85% of average in central Idaho and the Bear River basin to 111% in the upper Snake River basin. Water year to date precipitation remains the highest in the Panhandle Region at 120% of average and almost systematically decreases from north to south with the smallest amounts in the Bear River basin at 81% of average. The 30-day (May) and 90-day (May-July) extended precipitation outlook for Idaho provided by the National Weather Service are for equal chances of above normal, normal, or below normal precipitation to occur (33 percent chance). The 30-day (May) extended temperature outlook is also for equal chances for normal temperatures across southern Idaho and above normal temperatures for northern Idaho. The 90-day (May-July) extended temperature outlook is for equal chance of above normal, normal, or below normal temperatures to occur.

RESERVOIRS

Reservoir storage varies across the state and is near average in the Boise, Payette, Clearwater and Panhandle areas. The lowest storage is in Salmon Falls, Oakley, Anderson Ranch, Magic, Blackfoot and Jackson Lake at about half of normal. Bear Lake storage is only 44% full, 65% of average and won’t increase much this year. Owyhee and Blackfoot reservoirs have already reached their peak storage levels for the season and drafting is occurring as demands exceed natural inflows. Drafting will also occur earlier than normal at other reservoirs across southern Idaho as a result of the below normal projected streamflow inflows. Dworshak, Coeur d'Alene, Priest, and Pend Oreille storage facilities will have ample storage through the summer due to abundant snowpacks.

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

Peak streamflows resulting from snowmelt have occurred in the Owyhee, Weiser, Camas (near Fairfield) and other low elevation drainages. Slight streamflow increases are still possible if hot temperatures and rain events suddenly occur. Flows will not exceed previous peaks unless an extended period of rain falls. Other streams more dependent upon mountainous snowpacks will

start increasing with the onset of warmer temperatures. During the latter half of April, valley high temperatures in the 60s and night mountainous temperatures below freezing allowed for only moderate snow melt rates (approximately 0.5 inches/day) with melt water basically dribbling out of the snowpack and into the ground. This melting of snow and lack of rises in streamflow was primarily noticed in the Bear River, parts of upper Snake basins, and central Idaho basins. The lack of streamflow increases is probably due to soil moisture deficit and accumulation of drought effects over several years. The lowest streamflow forecasts are in the Bear River at 25% of average. The highest streamflow forecasts are in the Panhandle Region and Clearwater basin at 100-135% of average. Elsewhere, most streams are forecast at 55-85% of average.

RECREATION

Peak snowmelt streamflows have occurred in the Owyhee, Weiser and Camas basins. The Bruneau River may still have enough snow to provide one more flush, but be ready to go if the river starts rising because it won't last long. Other streams will start increasing in flow with the return of warmer temperatures. River runners on the Lochsa, Selway, North Fork Clearwater, St Joe and Coeur d'Alene rivers can expect an extended season of high water. Instantaneous peaks will depend upon May's precipitation and temperatures, but with snowpacks in the 120-130% of average range on May 1, the potential is there for high peak flows. Reservoirs will be drafted early across southern Idaho as a result of the lack of snow to sustain streamflow levels, so get out early and enjoy them! A good return of salmon are expected this year. Higher flows on the Salmon and Clearwater River will make fishing these rivers more difficult than last year so be careful out there while enjoying Idaho's natural resources.

IDAHO SURFACE WATER SUPPLY INDEX (SWSI) As of May 1, 2002

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 +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

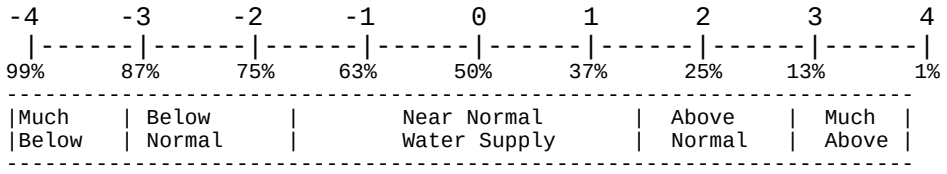
SWSI values are published January through May and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US National Weather Service
US Bureau of Reclamation
Idaho Water Users Association
US Army Corps of Engineers
Idaho Dept. of Water Resources
PacifiCorp

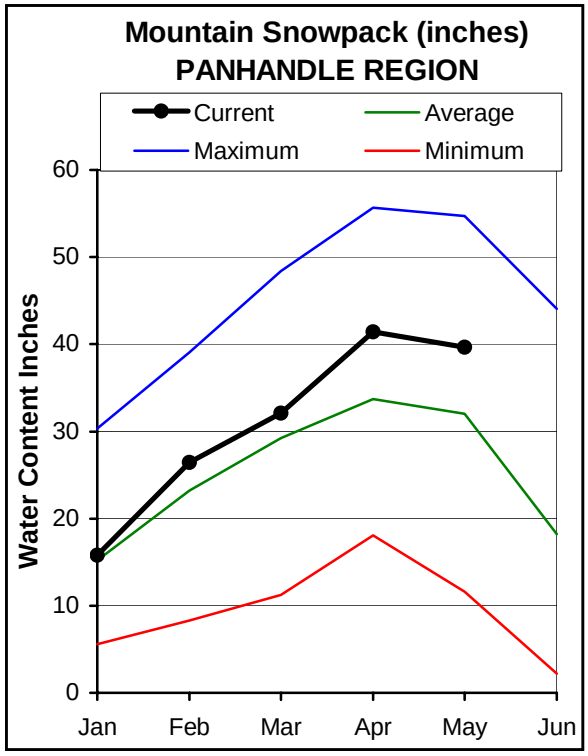
BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortage May Occur When SWSI is Less Than*
PANHANDLE	2.0	1982	NA
CLEARWATER	1.4	1993	NA
SALMON	-1.2	1985	NA
WEISER	0.1	1986	NA
PAYETTE	-1.2	1989	NA
BOISE	-1.5	2000	-2.6
BIG WOOD	-2.5	1987	-1.4
LITTLE WOOD	-0.9	1981	-2.6
BIG LOST	-1.7	1987	-0.8
LITTLE LOST	-0.6	1996	0.0
HENRYS FORK	-2.0	1990	-3.3
SNAKE (AMERICAN FALLS)	-2.5	1987/01	-2.0
OAKLEY	-1.6	1981	0.0
SALMON FALLS	-1.1	1988	0.0
BRUNEAU	-1.6	1986	NA
OWYHEE	0.1		NA
BEAR RIVER	-3.7	1986	-3.8

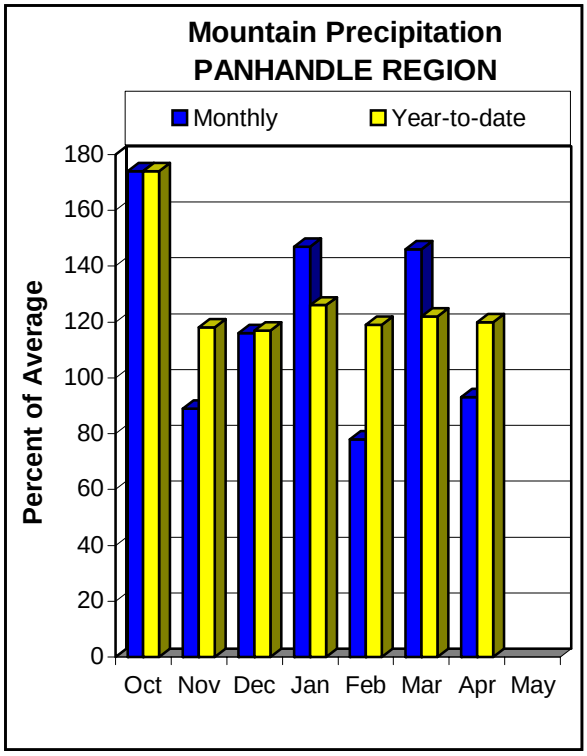
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION



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
MAY 1, 2002





WATER SUPPLY OUTLOOK

Precipitation in April was 93% of average and stands at 120% for the water year, the highest in the state. Snowpacks remain the highest in the state with most basins in the 110-130% of average range. The January thaw finally came in April with warm temperatures and rain melting the low elevation snow and sending a flush of water into the rivers and lakes. The Coeur d'Alene River near Cataldo exceeded 30,000 cfs on April 15, the highest flow since the record high flow of 70,000 cfs occurred on February 9, 1996. The flush of water sent an increase in Coeur d'Alene, Priest and Pend Oreille lakes; each one is now storing near or above average amounts. The snowpack in the St. Joe basin is 129% of average, the highest since May 1997. Streamflow forecasts increased from last month and now range from 110-135% of average. April weather melted low elevation snow, allowed melt to start occurring in the mid-elevation areas while higher elevation areas continued increasing in snow water content. Streams will increase when warm weather returns and remain above average for the rest of the spring and into the summer months. Snowpack levels are more than twice last year's values in the Spokane basin. Water supplies will be plentiful and water users should be prepared for an extended period of high flows with the potential for high peaks, especially if rain occurs during the critical snowmelt period.

PANHANDLE REGION
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	MAY-JUL	5335	5861	6100	102	6339	6865	6000
	MAY-SEP	6449	7034	7300	103	7566	8151	7090
MOYIE RIVER at Eastport	MAY-JUL	327	355	374	113	393	421	330
	MAY-SEP	340	370	390	113	410	440	345
SMITH CREEK	MAY-JUL	80	91	98	94	105	116	104
	MAY-SEP	82	95	103	93	111	124	111
BOUNDARY CREEK	MAY-JUL	88	97	104	102	111	120	102
	MAY-SEP	93	103	110	102	117	127	108
PEND OREILLE Lake Inflow (2)	MAY-JUL	9591	10489	11100	105	11711	12609	10600
	MAY-SEP	10525	11522	12200	103	12878	13875	11800
PRIEST near Priest River (1,2)	MAY-JUL	513	590	625	102	660	737	616
	MAY-SEP	546	638	680	102	722	814	670
COEUR D'ALENE at Enaville	MAY-JUL	446	517	565	129	613	684	439
	MAY-SEP	520	594	645	135	696	770	479
ST. JOE at Calder	MAY-JUL	1012	1094	1150	136	1206	1288	843
	MAY-SEP	1086	1172	1230	135	1288	1374	911
SPOKANE near Post Falls (2)	MAY-JUL	1908	2141	2300	138	2459	2692	1673
	MAY-SEP	2002	2245	2410	136	2575	2818	1771
SPOKANE at Long Lake (2)	MAY-JUL	2156	2423	2604	137	2785	3052	1905
	MAY-SEP	2395	2676	2867	135	3058	3339	2126

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	2472.0	2046.0	1954.8
FLATHEAD LAKE	1791.0	817.3	1000.0	931.9
NOXON RAPIDS	335.0	316.2	324.4	272.3
PEND OREILLE	1561.3	865.4	791.4	916.7
COEUR D'ALENE	238.5	273.5	209.5	249.7
PRIEST LAKE	119.3	96.0	69.0	102.5

PANHANDLE REGION
Watershed Snowpack Analysis - May 1, 2002

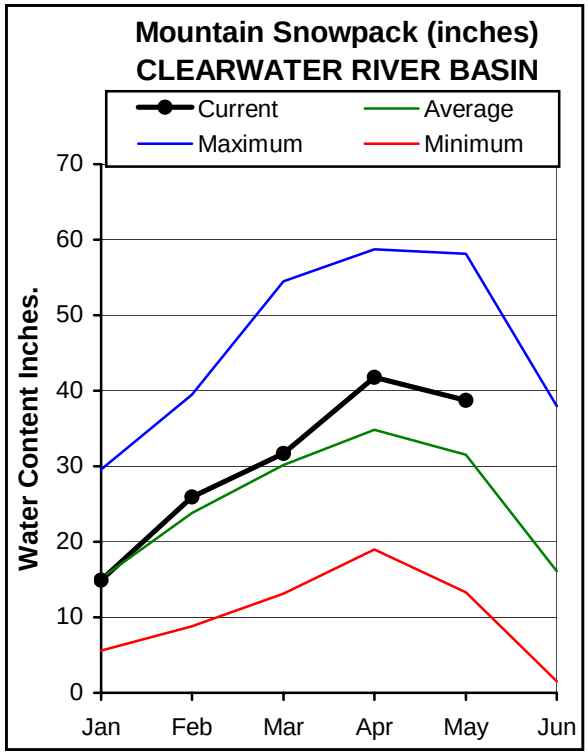
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	31	182	115
Moyie River	10	170	99
Priest River	5	178	100
Pend Oreille River	91	159	113
Rathdrum Creek	3	227	134
Hayden Lake	0	0	0
Coeur d'Alene River	6	211	136
St. Joe River	3	249	129
Spokane River	11	225	134
Palouse River	1	0	182

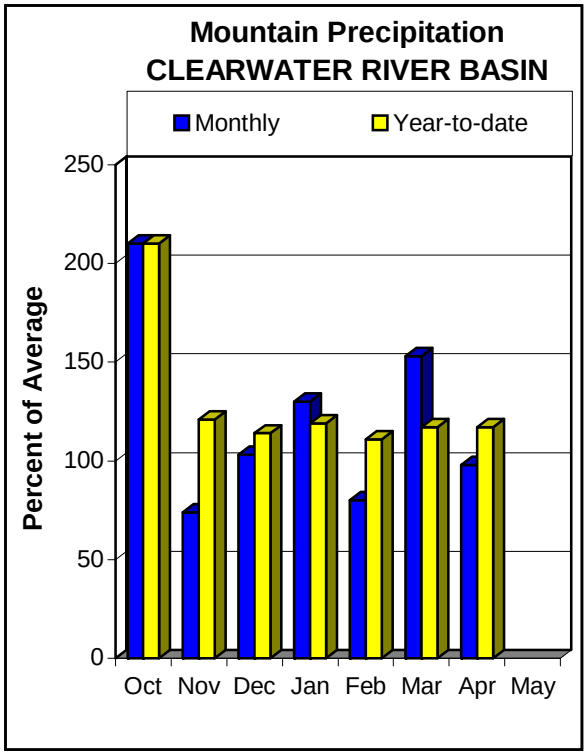
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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 flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN
MAY 1, 2002





WATER SUPPLY OUTLOOK

Low elevation snow measuring sites in the Clearwater basin melted while higher elevation sites continued increasing in snow water content. The net change in snow water content during April resulted in a 7 percent decrease. On average, the same 12 sites usually increase about 8 percent during April. Overall, the snowpack is 119% of average and is the highest since May 1999 when the snowpack was 131% of average. On May 1, 1997, one of the near record high years, the snowpack was 175% of average. The snowpack in the Clearwater tributaries range from 124% of average for the North Fork Clearwater to 101% for the Selway basin. Precipitation in April was 93% of average and is 115% of average since October 1. Warm temperatures and rain brought a rapid rise in streams; the Clearwater River near Spalding peaked at 65,000 cfs on April 14. With the high elevation snow just starting to melt, streams will return to above normal levels and remain there most of the summer. Residual streamflow forecasts increased from last month and now call for 110% of average for Dworshak Reservoir inflow. Dworshak Reservoir is 62% full and will fill with plenty of water to pass. With a near normal snowpack in the Selway basin, the forecast is for 110% of average. The Lochsa River is forecast at 111% of average. The Clearwater River at Spalding is forecast at 110% of average. There is still the potential for high streamflow peaks--streamflow peak magnitude and timing will depend upon May precipitation and temperatures.

CLEARWATER RIVER BASIN
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SELWAY near Lowell	MAY-JUL	1667	1803	1896	110	1989	2125	1723
	MAY-SEP	1762	1909	2009	110	2109	2256	1831
LOCHSA near Lowell	MAY-JUL	1249	1335	1393	111	1451	1537	1254
DWORSHAK RESV INFLOW (1,2)	MAY-JUL	1699	2023	2170	110	2317	2641	1968
	MAY-SEP	1857	2196	2350	110	2504	2843	2132
CLEARWATER at Orofino (1)	MAY-JUL	3509	3943	4140	111	4337	4771	3733
	MAY-SEP	3716	4193	4410	111	4627	5104	3987
CLEARWATER at Spalding (1,2)	MAY-JUL	5265	6011	6350	110	6689	7435	5773
	MAY-SEP	5619	6418	6780	110	7142	7941	6188

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	2156.2	2391.6	2421.3

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - May 1, 2002

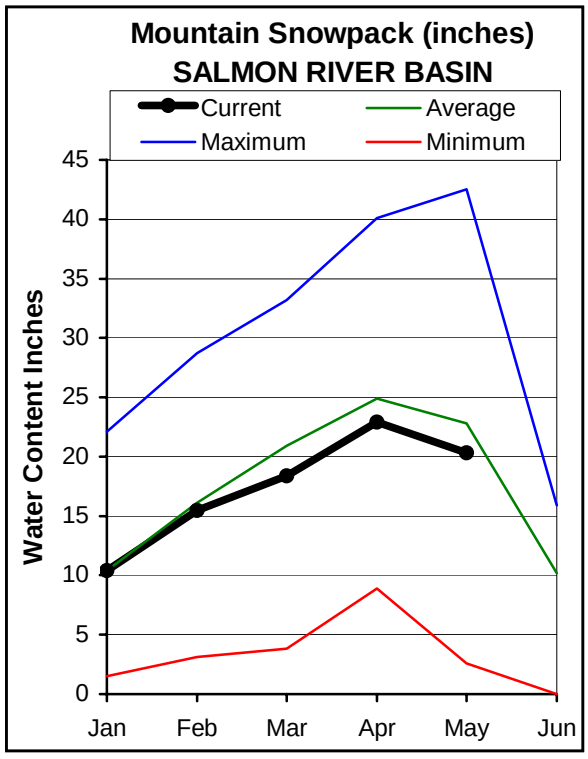
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	9	210	124
Lochsa River	3	197	112
Selway River	4	165	101
Clearwater Basin Total	16	202	119

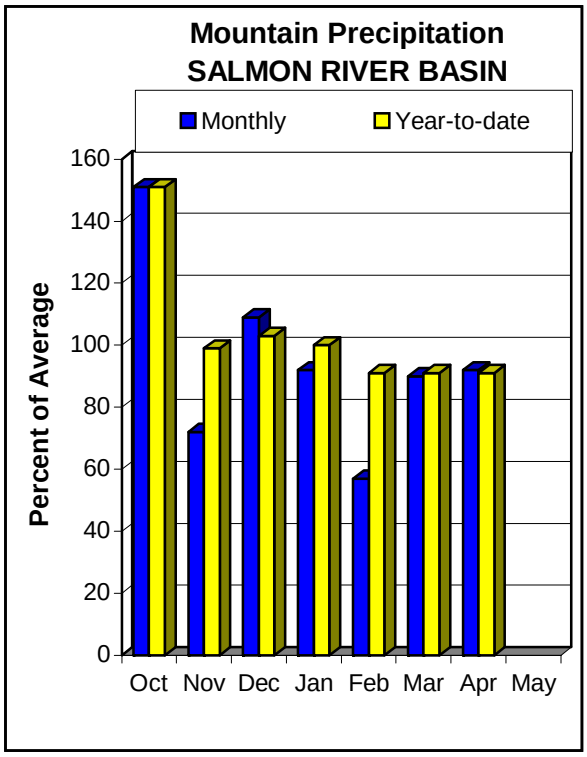
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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 flow - actual flow may be affected by upstream water management.

SALMON RIVER BASIN
MAY 1, 2002





WATER SUPPLY OUTLOOK

April precipitation was 92% of average and is 91% for the water year. Snowpack percentages decrease from west to east with the highest amounts in the Little Salmon basin at 107% of average. The South Fork Salmon basin is 87%, Middle Fork Salmon is 81%, Salmon above Salmon is 77%, and the Lemhi basin is only 70%. The Lemhi basin snowpack is about the same as a year ago. Overall, the Salmon River basin snowpack is 85% of average, more than 1.5 times the amount of snow water as last year. The May-September streamflow forecast for the Salmon River at Salmon is for 76% of average. The Salmon River at White Bird is forecast at 77% of average. Snowmelt streamflow peaks--magnitude and timing--depends upon May precipitation and temperatures. A cool wet May will delay the peak; a warm dry May will allow the remaining snow to melt and the peak to occur earlier than normal. The floating season on the Middle Fork Salmon River should be a little longer than last year, but river runners can expect to fly into Indian Creek Ranger Station by mid-July or plan for a low water float on the upper section.

SALMON RIVER BASIN
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	MAY-JUL	456	541	579	76	617	702	759
	MAY-SEP	558	653	696	77	739	834	902
SALMON at White Bird (1)	MAY-JUL	3171	3700	3941	77	4182	4711	5146
	MAY-SEP	3609	4208	4480	78	4752	5351	5778

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

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

SALMON RIVER BASIN
Watershed Snowpack Analysis - May 1, 2002

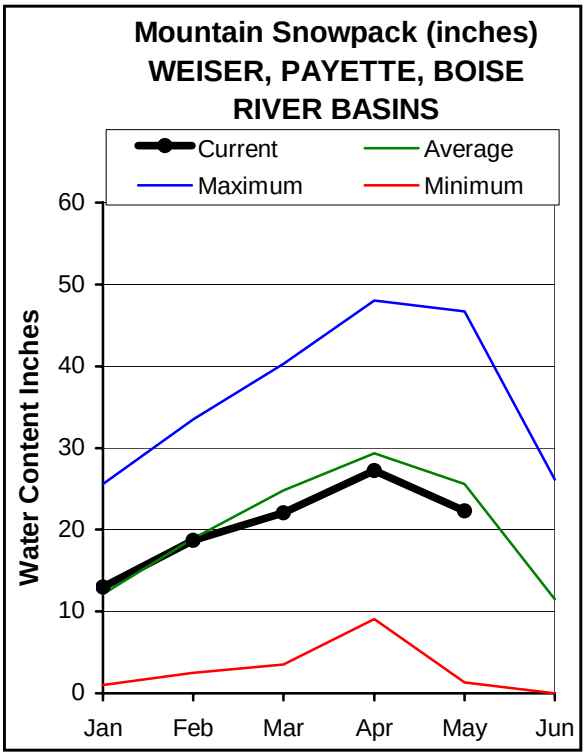
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	9	150	77
Lemhi River	7	105	70
Middle Fork Salmon River	3	184	81
South Fork Salmon River	3	214	87
Little Salmon River	4	275	107
Salmon Basin Total	25	164	85

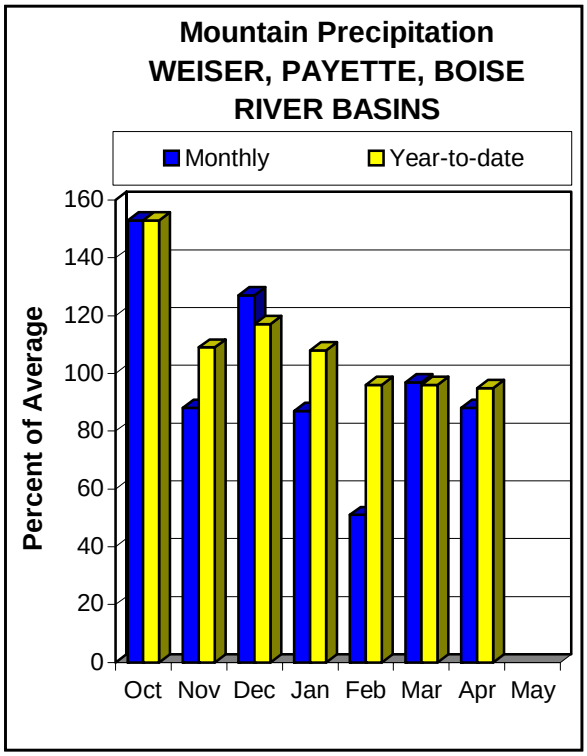
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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 flow - actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS
MAY 1, 2002





WATER SUPPLY OUTLOOK

April brought the right combination of factors in the Payette basin to send the Payette River at Horseshoe Bend from 3,000 cfs in early April to 11,700 cfs on April 15. This is the highest flow since the 1999 snowmelt runoff season. The right combination of factors led to this event: A ripe and melting snowpack and rain in the Long Valley area. The Long Valley SNOTEL site, located at 4,890 feet near Donnelly, lost 2 inches of snow water and received 1 inch of rain on April 14. Mud slides and high water closed or washed out several roads. Luckily, precipitation subsided and colder temperatures stabilized the remaining higher snow above the valley floor. This isolated event did little to change the water supply picture for the season. Overall, April mountainous precipitation was 88% of average in this region. Water year to date precipitation is 95% of average. Payette Reservoir system storage increased from 48% to 61% of capacity during April. Similarly, the Boise Reservoir system increased from 46% to 67% of capacity during April. Snow water content levels in the Boise and Payette basins are about twice last year's values ranging from 85-95% of average for most basins. The remaining snow in the Weiser basin is above average at 121%. The Boise River near Boise is forecast at 82% of average while the Payette River near Horseshoe Bend is forecast at 84%. Water supplies will be adequate in these basins.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER near Weiser (1)	MAY-JUL	145	216	248	97	280	351	256
	MAY-SEP	167	242	276	97	310	385	285
SF PAYETTE at Lowman	MAY-JUL	249	274	291	77	308	333	379
	MAY-SEP	294	321	339	78	357	384	435
DEADWOOD RESERVOIR Inflow (1,2)	MAY-JUL	70	85	92	79	99	114	116
	MAY-SEP	76	92	99	79	106	122	125
LAKE FORK PAYETTE near McCall	MAY-JUL	59	65	69	91	73	79	76
	MAY-SEP	62	68	72	91	76	83	79
NF PAYETTE at Cascade (1,2)	MAY-JUL	260	326	356	90	386	452	396
	MAY-SEP	287	358	390	89	422	493	436
NF PAYETTE nr Banks (2)	MAY-JUL	369	431	473	94	515	577	504
	MAY-SEP	399	466	512	93	558	625	551
PAYETTE nr Horseshoe Bend (1,2)	MAY-JUL	837	1004	1080	84	1156	1323	1286
	MAY-SEP	935	1117	1200	84	1283	1465	1429
BOISE near Twin Springs (1)	MAY-JUL	329	388	415	82	442	501	509
	MAY-SEP	367	431	460	82	489	553	563
SF BOISE at Anderson Ranch Dam (1,2)	MAY-JUL	255	320	350	82	380	445	428
	MAY-SEP	279	348	380	82	412	481	465
MORES CREEK near Arrowrock Dam	MAY-JUL	69	80	88	112	96	107	79
	MAY-SEP	74	86	94	110	101	113	85
BOISE near Boise (1,2)	MAY-JUL	682	824	888	82	952	1094	1082
	MAY-SEP	762	912	980	82	1048	1198	1194

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	11.2	8.0	10.5
CASCADE	693.2	457.9	468.0	462.5
DEADWOOD	164.0	68.7	101.0	103.4
ANDERSON RANCH	450.2	175.9	250.8	302.3
ARROWROCK	272.2	262.2	193.6	180.9
LUCKY PEAK	293.2	240.1	218.8	207.9
LAKE LOWELL (DEER FLAT)	165.2	108.4	94.2	141.5

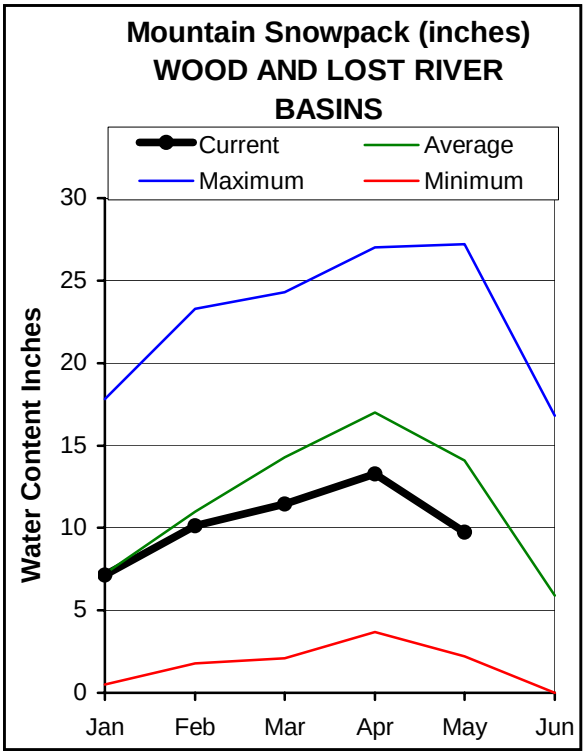
WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2002

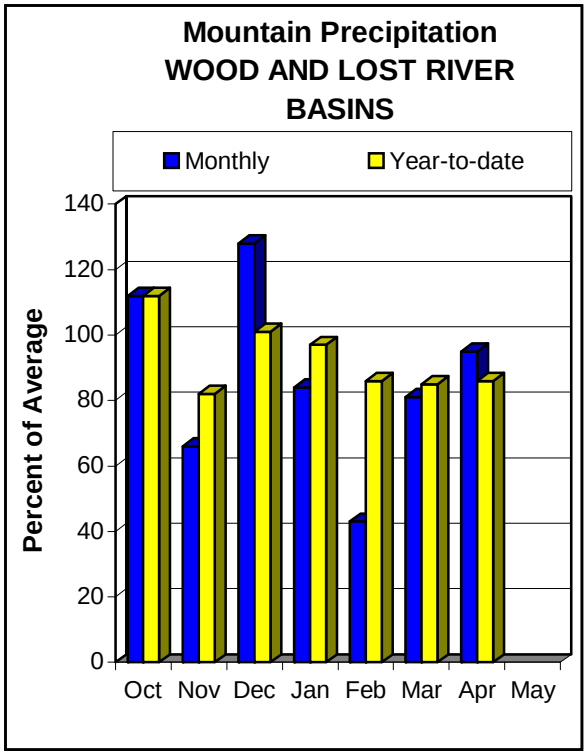
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	1	333	147
Weiser River	3	379	121
North Fork Payette	8	253	97
South Fork Payette	5	216	86
Payette Basin Total	14	231	94
Middle & North Fork Boise	6	184	84
South Fork Boise River	7	182	81
Mores Creek	4	225	96
Boise Basin Total	13	191	84
Canyon Creek	1	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow 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 flow - actual flow may be affected by upstream water management.

WOOD and LOST RIVER BASINS
MAY 1, 2002





WATER SUPPLY OUTLOOK

April precipitation was near normal at 95% of average and stands at 86% since the start of the water year. May 1 snowpacks are about 75% of average in these central Idaho mountains except for the Little Lost basin which is 58% and Camas Creek basin which is just about melted at only 30% of average. Camas Creek peaked at 1,500 cfs on April 7 and helped to increase Magic Reservoir from 14% to 42% of capacity during April. Little Wood Reservoir increased from half full a month ago to nearly full (91% of capacity) now. Stickney Mill, a mid-elevation SNOTEL site at 7,430 feet in the Big Lost basin, had almost twice as much snow as last year but melted about the same date as last year, April 25. The resulting streamflow did little to provide inflow to Mackay Reservoir. The reservoir only increased from 57% to 62% of capacity during April. May-July streamflow forecast for Big Lost River below Mackay Reservoir is for only 66% of average. Big Wood River below Magic Reservoir is forecast at 58% of average. Water users can expect shortages in the Big Wood, Big Lost and Little Lost basins. The Little Wood water users should have an adequate supply.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD at Hailey (1)	MAY-JUL	103	138	155	69	173	217	225
	MAY-SEP	121	159	179	69	200	249	258
BIG WOOD near Bellevue	MAY-JUL	47	71	89	55	110	144	163
	MAY-SEP	55	80	99	56	120	155	176
CAMAS CREEK near Blaine	MAY-JUL	14.0	23	30	70	38	52	43
	MAY-SEP	14.5	23	31	70	39	53	44
BIG WOOD below Magic Dam (2)	MAY-JUL	45	89	119	58	149	193	205
	MAY-SEP	51	97	128	58	159	205	220
LITTLE WOOD near Carey (2)	MAY-JUL	25	36	43	70	51	62	62
	MAY-SEP	30	41	49	70	57	68	70
BIG LOST at Howell Ranch	MAY-JUL	90	104	114	70	124	138	162
	MAY-SEP	105	122	133	72	144	161	186
BIG LOST below Mackay Reservoir (2)	MAY-JUL	62	76	86	66	96	110	130
	MAY-SEP	80	96	106	66	116	132	161
LITTLE LOST blw Wet Creek	MAY-JUL	16.6	21	24	87	26	30	27
	MAY-SEP	21	26	30	86	34	39	35

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	80.7	78.2	150.4
LITTLE WOOD	30.0	27.2	29.2	24.3
MACKAY	44.4	27.4	30.7	34.6

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - May 1, 2002

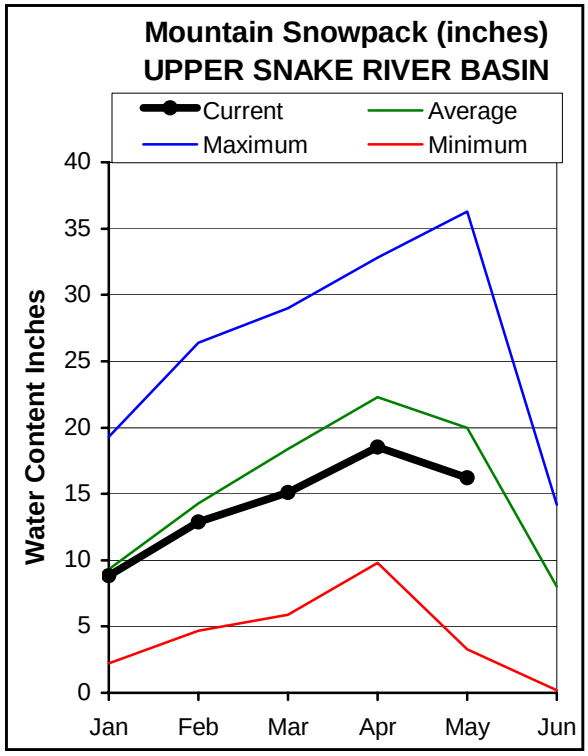
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Hailey	7	196	77
Camas Creek	3	0	30
Big Wood Basin Total	9	192	72
Little Wood River	4	150	77
Fish Creek	0	0	0
Big Lost River	5	139	71
Little Lost River	3	104	58
Birch-Medicine Lodge Cree	2	125	79
Camas-Beaver Creeks	2	209	79

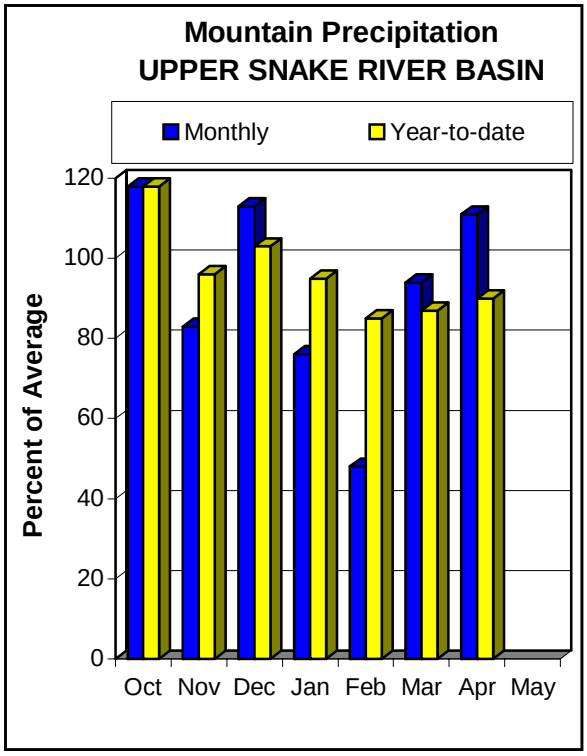
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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 flow - actual flow may be affected by upstream water management.

UPPER SNAKE RIVER BASIN
MAY 1, 2002





WATER SUPPLY OUTLOOK

April precipitation in the upper Snake basin was 111% of average, the best in the state, but still not enough to improve the water supply situation much. Cool wet April weather allowed high elevation sites to continue accumulating while lower elevations, such as Blackfoot basin, are melted out. Snowpack percentages range from 75-85% of average for most of these basins. The combined storage for the 8 major reservoirs increased from 53% to 61% of capacity during April. Storage remains below normal at only 83% of average. With the minimal inflows, Blackfoot Reservoir has already reached its peak storage level for the year, and drafting is occurring. Drafting will soon start at other reservoirs as demands exceed natural inflows. Streamflow forecasts range from 55-85% of average for most streams in this area. Water supplies will be inadequate to meet all uses this year. Irrigation shortages depend upon when the water right was filed and its source. Ideally, a cool wet spring and summer are needed to provide additional soil moisture, reduce irrigation demand and extend the limited water supply.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK near Ashton (2)	MAY-JUL	266	310	340	75	370	414	451
	MAY-SEP	399	453	490	76	527	581	643
HENRYS FORK near Rexburg (2)	MAY-JUL	637	740	810	61	880	983	1327
	MAY-SEP	880	999	1080	61	1161	1280	1781
FALLS near Squirrel (1,2)	MAY-JUL	194	239	260	77	281	326	339
	MAY-SEP	243	289	310	76	331	377	409
TETON near Driggs	MAY-JUL	88	103	113	79	123	138	143
	MAY-SEP	120	139	151	80	163	182	188
TETON near St. Anthony	MAY-JUL	224	254	275	78	296	326	355
	MAY-SEP	278	315	340	78	365	402	435
SNAKE near Moran (1,2)	MAY-SEP	548	635	675	80	715	802	842
PACIFIC CREEK at Moran	MAY-SEP	118	135	146	87	157	174	167
SNAKE above Palisades (2)	MAY-JUL	1707	1826	1906	88	1986	2105	2165
	MAY-SEP	1961	2102	2197	87	2292	2433	2530
GREYS above Palisades	MAY-JUL	192	213	228	77	243	264	298
	MAY-SEP	234	258	274	77	290	314	354
SALT near Etna	MAY-JUL	138	172	195	69	218	252	281
	MAY-SEP	197	235	260	73	285	323	358
PALISADES RESERVOIR INFLOW (1,2)	MAY-JUL	2000	2275	2400	81	2525	2800	2980
	MAY-SEP	2397	2715	2860	81	3005	3323	3524
SNAKE near Heise (2)	MAY-JUL	2204	2404	2540	80	2676	2876	3166
	MAY-SEP	2641	2872	3030	81	3188	3419	3764
BLACKFOOT RESV INFLOW	MAY-JUN	19.6	35	46	53	56	72	86
SNAKE nr Blackfoot (1,2)	MAY-JUL	2336	2999	3300	70	3601	4264	4708
	MAY-SEP	3109	3825	4150	69	4475	5191	5984
PORTNEUF at Topaz	MAY-JUL	24	31	36	55	41	48	65
	MAY-SEP	38	43	47	56	51	56	84
AMERICAN FALLS RESV INFLOW (1,2)	MAY-JUL	666	1336	1640	62	1944	2614	2643
	MAY-SEP	551	1410	1800	62	2190	3049	2906

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	60.9	89.5	87.4
ISLAND PARK	135.2	128.7	133.8	123.2
GRASSY LAKE	15.2	10.3	13.4	12.7
JACKSON LAKE	847.0	216.6	663.4	471.1
PALISADES	1400.0	749.1	858.8	862.6
RIRIE	80.5	41.9	52.8	56.2
BLACKFOOT	348.7	138.5	239.3	256.3
AMERICAN FALLS	1672.6	1454.1	1633.8	1493.8

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2002

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Henrys Fork-Falls River	10	187	85
Teton River	8	156	75
Henrys Fork above Rexburg	18	174	81
Snake above Jackson Lake	6	180	84
Gros Ventre River	3	142	89
Hoback River	6	147	78
Greys River	5	144	77
Salt River	5	166	62
Snake above Palisades	24	160	77
Willow Creek	7	248	49
Blackfoot River	3	0	6
Portneuf River	5	381	86
Snake abv American Falls	36	173	74

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table. The average is computed for the 1971-2000 base period.
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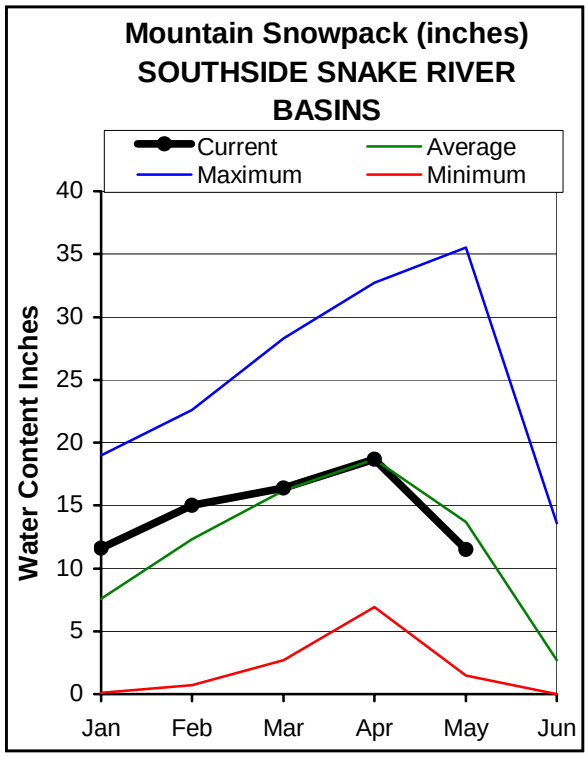
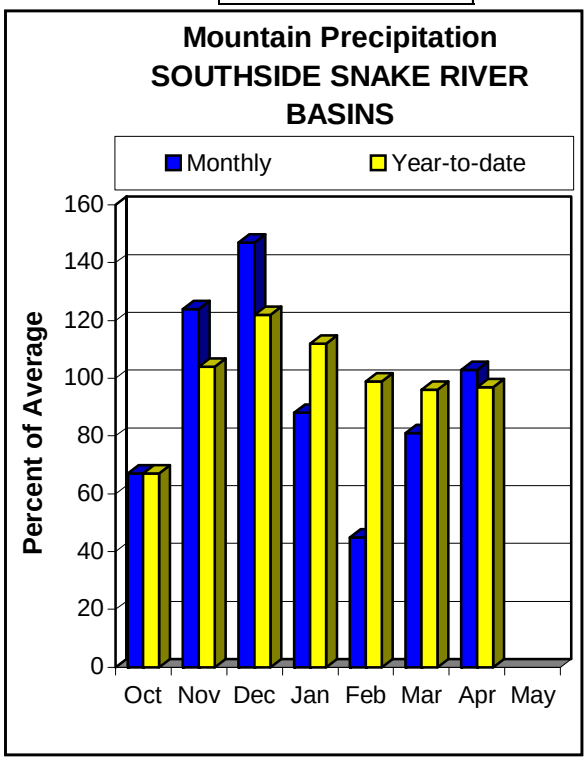
SOUTHSIDE SNAKE RIVER BASINS
MAY 1, 2002





WATER SUPPLY OUTLOOK

April precipitation ranged from 75-125% of average for most SNOTEL sites in this region. Overall, precipitation was near normal at 103% of average. Water year to date precipitation remains just below normal at 97% of average. May 1 snow water content levels vary with the melt occurring and range from half of normal for the Owyhee basin to near normal in the Raft basin. The Owyhee River near Rome peaked at about 8,000 cfs on April 2. There is still enough snow in the higher elevations to produce one more flush of short duration in the Bruneau, Salmon Falls and Oakley basins. Reservoirs increased some, but not enough. Salmon Falls Reservoir is 21% full, 43% of average; and Oakley Reservoir is 31% full, 57% of average. Owyhee Reservoir at 61% full, 71% of average, has reached it peak storage and is being drafted. Brownlee Reservoir is 86% full. Residual streamflow forecasts range from 67% in the Oakley basin to 88% in the Bruneau basin. Water supply shortages are expected in the Salmon Falls and Oakley basins. Snake River at Hells Canyon Dam is forecast at 57% of average and increases to 84% at the Snake River below Lower Granite Dam as a result of better flows in the Clearwater and Salmon rivers.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESV INFLOW	MAY-JUL	9.0	11.9	14.1	67	16.5	20	21
	MAY-SEP	10.7	13.8	16.1	67	18.6	23	24
SALMON FALLS CREEK nr San Jacinto	MAY-JUL	28	36	42	74	49	59	57
	MAY-SEP	31	40	46	74	53	64	62
BRUNEAU near Hot Spring	MAY-JUL	96	123	143	88	165	200	162
	MAY-SEP	102	130	151	88	174	210	172
OWYHEE near Gold Creek (2)	MAY-JUL	3.2	6.9	10.2	85	14.2	21	12.0
OWYHEE nr Owyhee (2)	MAY-JUL	17.1	33	43	86	54	69	50
OWYHEE near Rome	MAY-JUL	88	132	167	80	206	272	210
OWYHEE RESV INFLOW (2)	MAY-JUL	89	131	165	73	202	264	226
	MAY-SEP	108	153	188	73	226	290	256
SUCCOR CK nr Jordan Valley	MAY-JUL	3.81	6.42	8.20	116	9.98	12.59	7.10
SNAKE RIVER at King Hill (1,2)	MAY-JUL			1390	68			2038
SNAKE RIVER near Murphy (1,2)	MAY-JUL			1460	70			2077
SNAKE RIVER at Weiser (1,2)	MAY-JUL			2180	58			3793
SNAKE RIVER at Hells Canyon Dam (1,2	MAY-JUL			2430	57			4276
SNAKE blw Lower Granite Dam (1,2)	MAY-JUL	11010	13272	14300	84	15328	17590	16940
	MAY-SEP	12595	15212	16400	84	17588	20205	19650

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	74.5	23.3	31.1	41.0
SALMON FALLS	182.6	38.1	34.5	87.9
WILDHORSE RESERVOIR	71.5	38.1	43.1	55.8
OWYHEE	715.0	435.3	470.7	613.6
BROWNLEE	1419.3	1219.3	1400.2	1069.2

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2002

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	1	319	97
Goose-Trapper Creeks	4	319	87
Salmon Falls Creek	7	184	88
Bruneau River	5	154	83
Owyhee Basin Total	7	102	46

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

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

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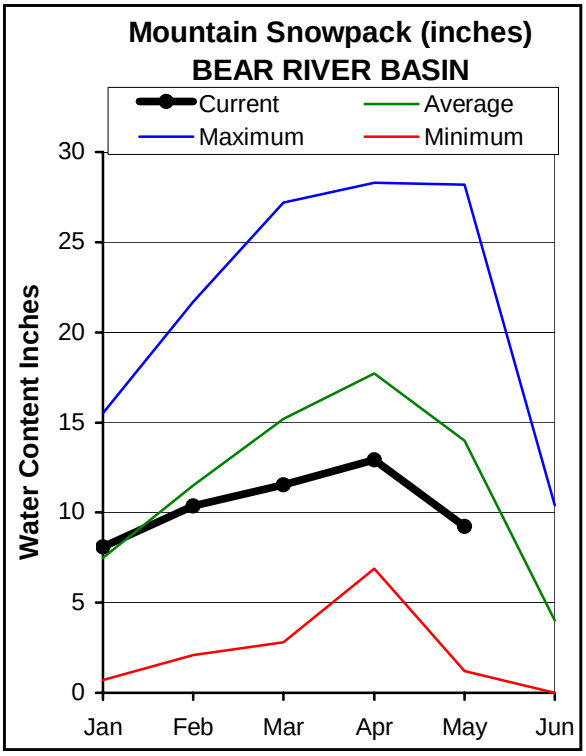
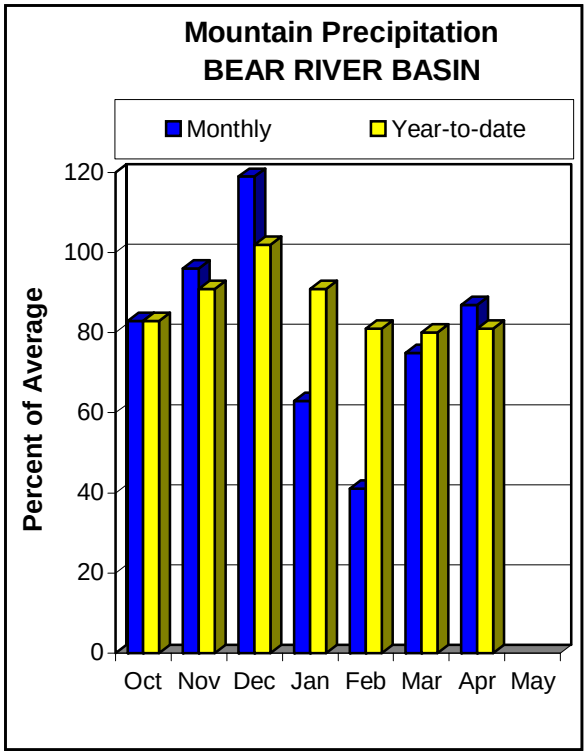
BEAR RIVER BASIN
MAY 1, 2002





WATER SUPPLY OUTLOOK

April precipitation in the Bear River was 87% of average, the lowest in the state for the fourth consecutive month. Precipitation for the water year is 81% of average, also the lowest in the state. The Bear River basin has lost about 1/3 of its total snowpack. April melt rates were above average, however, streams did not respond very much. Snowpacks now range from 50-65% of average in this region. The snowpack at Oxford Spring SNOTEL site, in the Malad basin, was depleted by April 10, the earliest melt out since 1994. Very little diversion or storage is taking place on the Bear River reservoir system. Normal Bear Lake storage increase during April is 48,000 acre-feet; this April, Bear Lake only increased 22,000 acre-feet. Much of the snowmelt went in the ground as a result of dry soil moisture conditions and accumulative drought effects. May-July streamflow forecasts are for only 25% of average for the Bear River below Stewart Dam. Last year's unregulated April-July flow was only 4% of average. There should still be one more flush of water coming with warmer temperatures; however, it will be low in magnitude and have a short duration. The mountainous snow will not last beyond the month of May. Water users should remain in contact with their local irrigation districts for more specific information, as water supplies will be similar to or worst than last year.

BEAR RIVER BASIN
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear R nr UT-WY State Line	APR-SEP	54	59	62	50	65	71	125
	MAY-SEP	46	50	53	45	56	61	119
BEAR R nr Woodruff, UT	APR-SEP	49	63	75	49	89	115	154
	MAY-SEP	36	47	57	44	69	91	131
BEAR R nr Randolph, UT	MAY-JUL	1.9	19.7	38	40	56	15.1	95
	MAY-SEP	2.0	20	41	39	62	93	104
SMITHS FK nr Border, WY	MAY-JUL	34	40	44	48	49	57	92
	MAY-SEP	39	45	50	46	55	63	109
THOMAS FK nr WY-ID State Line (Disc.	MAY-JUL	6.2	8.2	10.0	37	12.2	16.2	27
BEAR R blw Stewart Dam nr Montpelier	MAY-JUL	5.0	27	56	25	85	129	225
	MAY-SEP	5.0	27	61	23	95	146	264
MONTPELIER CK nr Montpelier (Disc)(2	APR-JUL	4.9	6.1	7.0	57	8.1	9.9	12.2
CUB R nr Preston	APR-JUL	7.2	11.9	15.0	32	18.1	23	47

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEAR LAKE	1421.0	627.1	937.1	971.0
MONTPELIER CREEK	4.0	1.7	2.2	2.5

BEAR RIVER BASIN
Watershed Snowpack Analysis - May 1, 2002

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	4	145	79
Bear River ab WY-ID line	13	128	60
Montpelier Creek	2	100	63
Mink Creek	1	145	51
Cub River	1	183	64
Bear River ab ID-UT line	20	137	58
Malad River	1	0	0

* 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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(2) - The value is natural flow - actual flow 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

Henrys Fork nr Ashton, ID
+ Henrys Lake (Storage Change)
+ Island Park Resv (Storage Change)

Henrys Fork nr Rexburg, ID
+ Henrys Lake (Storage Change)
+ Island Park Resv (Storage Change)
+ Grassy Lake (Storage Change)
+ Diversions from Henrys Fk btw Ashton to St. Anthony, ID
+ Diversions from Henrys 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 Resvervoir 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 volumes for each reservoir, and defines the storage volumes NRCS uses when reporting capacity and current storage. In most cases, NRCS reports usable storage, which includes active and inactive storage. **(Revised Dec. 2005)**

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	---	13.50	225.00	---	238.5	Inactive+Active
Priest Lake	20.00	28.00	71.30	---	119.3	Dead+Inactive+Active
Clearwater Basin						
Dworshak	---	1452.00	2016.00	---	3468.0	Inactive+Active
Weiser/Boise/Payette Basins						
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
Wood/Lost Basins						
Magic	Unknown	---	191.50	---	191.5	Active
Little Wood	---	---	30.00	---	30.0	Active
Mackay	0.13	---	44.37	---	44.4	Active
Upper Snake Basin						
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
Southside Snake Basins						
Oakley	---	---	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
Bear River Basin						
Bear Lake	5.0 MAF	119.00	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)	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

USDA Natural Resources Conservation Service
9173 West Barnes Drive, Suite C
Boise ID 83709-1574

OFFICIAL BUSINESS

Issued by
Bruce I. Knight, Chief
Natural Resources Conservation Service
Washington, DC

Released by
Richard Sims, State Conservationist
Natural Resources Conservation Service
Boise, Idaho

Prepared by
Snow Survey Staff
Ron Abramovich, Water Supply Specialist
Philip Morrisey, Hydrologist
Kelly Vick, Data Analyst
Bill Patterson, Electronics Technician
Jeff Graham, Electronics Technician

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