

Wyoming

Basin Outlook Report

May 1, 2003



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

For more water supply and resource management information, contact:

Dave Taylor
Water Supply Specialist
100 East "B" Street
Casper, WY 82601
(307) 261-6481

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 either above or below, the predicted 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 their operational decisions. 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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

Wyoming Water Supply Outlook Report

General

Generally, snow water equivalent (SWE) across the state is below normal for this time of the year. SWE averages for the State are about 83 percent of normal for this time of the year. Precipitation for the month was mixed, with some better than average and some well below average -- generally, the south and south central portion of the state fared better than the remaining. All basins, except the Shoshone, Clarks Fork, and upper North Platte River, report water year-to-date precipitation below average. Reservoir levels vary from below average to average -- average to above average in the northeast. Many of the larger reservoirs are below average. Forecast runoff varies from 38 to 88 percent of average, with the average for the state being about 68 percent. It is likely that some irrigated areas will be short of water. In some cases, reservoirs may not fill with the spring runoff, especially in the southern portion of the State.

Snowpack

Although conditions did improve slightly in the south central part of the State, SWE is generally below average. SWE in the northwestern portion of the State is now at 82 percent of average (105 percent of last year). Northeast Wyoming SWE is currently about 85 percent of average (120 percent of last year). The southeast portion is currently about 93 percent of average SWE (208 percent of last year). And the southwest is about 71 percent of average (121 percent of last year).

Precipitation

April precipitation was generally below average. Most of the State received well below average precipitation over the past month. The Upper North Platte and Little Snake were the only basins in the State with above average precipitation for the month. The southwest portion of Wyoming received less than 40 percent of normal for April. Year to date precipitation is generally below average across the State. Departures from normal for the year range from -32 percent, in the Upper Bear, to +07 percent in the Shoshone and Clarks Fork river basin.

Current month departures from normal

Basin	Departure from normal	Basin	Departure from normal
Snake River	-46%	Upper North Platte River	+12%
Yellowstone & Madison	-05%	Lower North Platte	-02%
Wind River	-63%	Little Snake River	+18%
Big Horn	-26%	Upper Green River	-64%
Shoshone & Clarks Fork	-32%	Lower Green River	-69%
Powder & Tongue River	-05%	Upper Bear River	-66%
Belle Fourche & Cheyenne	-15%		

Streams

Stream flow yield is expected to be below average to much below average across the State. Most probable yield for the State is forecast to be about 68 percent of average. The northwest part of the State is expected to yield about 70 percent of normal -- yield estimates vary from 39 to 88 percent of normal. Yield from the northeast portion of Wyoming will be below average (about 68 percent of average) -- yield estimates vary from 38 to 85

percent of average for the various forecast points. The southeast portion of the state is expected to be about 73 percent of normal -- yield estimates range from 49 to 87 percent of normal. Forecast for the southwest portion of Wyoming varies from 23 to 80 percent of average -- mean estimated yield for the forecast points in southwest Wyoming is about 60 percent of average.

Reservoirs

Reservoir storage varies from above average to well below average for this time of the year. See following table for further information about reservoir storage.

Major Reservoirs in Wyoming

B A S I N W I D E R E S E R V O I R S U M M A R Y

FOR THE END OF APRIL 2003

BASIN AREA RESERVOIR	CURRENT AS % CAPACITY	LAST YR AS % CAPACITY	AVERAGE AS % CAPACITY	CURRENT AS % AVERAGE	CURRENT AS % LAST YR		

WYOMING AND SURROUNDING STATES							
SHADEHILL	49	62	80	61	79		
ANGOSTURA	82	90	93	88	92		
DEERFIELD	100	101	89	112	99		
PACTOLA	93	99	87	106	93		
BELLE FOURCHE	80	95	82	98	84		
JACKSON LAKE	40	26	56	73	158		
GRASSY LAKE	88	68	84	105	129		
FONTENELLE	45	47	42	107	95		
BIG SANDY	23	20	65	35	114		
EDEN			NO REPORT				
PILOT BUTTE	73	79	81	90	92		
BULL LAKE	26	19	55	48	142		
BOYSEN	49	44	76	65	111		
BUFFALO BILL	55	40	54	102	139		
KEYHOLE	68	81	60	114	84		
SEMINOE	21	39	50	41	53		
PATHFINDER	31	51	73	42	61		
ALCOVA	97	96	97	99	100		
GLENDO	67	71	90	74	95		
GUERNSEY	63	47	73	86	132		
WHEATLAND #2	19	28	60	31	66		
PALISADES	54	54	62	88	101		
HEBGEN LAKE	77	77	67	115	100		
ENNIS LAKE	72	68	82	88	106		
BIGHORN LAKE	45	48	58	77	93		
TONGUE RIVER	71	43	40	176	162		
FLAMING GORGE	71	75	79	91	95		
WOODRUFF NARROWS	32	32	67	48	100		
TOTAL OF 27 RESERVOIRS	55	58	68	80	95		
Raw KAF Totals Current=	7240	Last Year=	7625	Average=	9022	Capacity=	13245

Basin Summary of Snow Course Data

BASIN SUMMARY OF SNOW COURSE DATA

MAY 2003

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00

WYOMING Snow Course and SNOTEL Stations						
ALBANY	9400	4/28/03	31	11.3	2.0	12.3
BALD MOUNTAIN SNOTEL	9380	5/01/03	---	18.9	18.5	23.6
BASE CAMP SNOTEL	7030	5/01/03	---	9.4	7.1	12.3
BATTLE MTN. SNOTEL	7440	5/01/03	---	.0	.0	4.6
BEARLODGE DIVIDE	4680	4/25/03	0	.0	.0	.4
BEARTOOTH LK. SNOTEL	9280	5/01/03	---	29.2	22.1	25.9
BEAR TRAP SNOTEL	8200	5/01/03	---	1.6	.1	2.5
BIG GOOSE	7760	4/28/03	21	6.9	4.5	7.7
BIG GOOSE SNOTEL	7760	5/01/03	36	10.8	8.3	11.6
BIG PARK	8620	4/25/03	39	15.7	14.6	19.6
BIG SANDY SNOTEL	9080	5/01/03	23	9.2	12.1	13.5
BLACKWATER SNOTEL	9780	5/01/03	---	28.7	25.5	28.8
BLIND BULL SNOTEL	8900	5/01/03	56	22.5	23.1	27.9
BLIND PARK SNOTEL	6870	5/01/03	---	.5	.1	4.0
BLUE RIDGE	9620	4/01/03	---	7.8E	6.9	12.5
BONE SPGS. SNOTEL	9350	5/01/03	---	17.6	16.1	18.3
BROOKLYN LK. SNOTEL	10220	5/01/03	---	18.9	13.0	28.2
BRYAN FLAT	6420	4/25/03	0	.0	.0	2.2
BUCK CREEK	7960	4/29/03	18	7.6	1.5	9.6
BURGESS JCT. SNOTEL	7880	5/01/03	---	13.1	10.2	13.3
BURROUGHS CRK SNOTEL	8750	5/01/03	---	16.9	15.6	13.6
CANYON SNOTEL	8090	5/01/03	---	12.3	12.1	11.3
CARTER MOUNTAIN	7950	4/29/03	10	2.8	.8	5.3
CASPER MTN. SNOTEL	7850	5/01/03	---	11.4	3.5	17.1
CASTLE CREEK	8400	4/28/03	1	.3	1.0	2.4
CCC CAMP	7000	4/30/03	3	.8	4.9	8.0
CHALK CK #1 SNOTEL	9100	5/01/03	45	15.7	17.0	25.3
CHALK CK #2 SNOTEL	8200	5/01/03	18	6.4	7.0	12.0
CLOUD PEAK SNOTEL	9850	5/01/03	---	16.1	15.5	16.2
COLE CANYON SNOTEL	5910	5/01/03	11	1.6	.0	--
COLD SPRINGS SNOTEL	9630	5/01/03	8	1.5	.0	4.8
COTTONWOOD CR SNOTEL	7700	5/01/03	---	15.1	15.0	19.8
DARBY CANYON	8250	4/30/03	53	22.0	19.8	24.6
DEER PARK SNOTEL	9700	5/01/03	40	14.0	13.6	18.6
DIVIDE PEAK SNOTEL	8860	5/01/03	---	19.4	9.0	19.3
DOMELAKE SNOTEL	8880	5/01/03	---	11.6	9.5	13.5
DU NOIR	8760	4/28/03	5	1.7	5.6	6.3
EAST RIM DIV SNOTEL	7930	5/01/03	---	7.7	10.4	13.1
ELBO RANCH	7100	5/01/03	15	4.6	7.5	9.5
ELKHART PARK SNOTEL	9400	5/01/03	---	10.7	11.4	12.8
EVENING STAR SNOTEL	9200	5/01/03	---	31.7	27.3	33.3
FOXPARK	9060	4/28/03	18	6.3	.0	5.3

GEYSER CREEK	8500	4/26/03	7	2.0	4.6	5.4
--------------	------	---------	---	-----	-----	-----

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
-------------	-----------	------	------------	---------------	-----------	---------------

GLADE CREEK	7040	4/29/03	29	12.2	14.3	20.1
GRANITE CRK SNOTEL	6770	5/01/03	---	5.7	6.2	12.8
GRANNIER MEADOWS	8860	4/28/03	23	7.1	9.4	14.6
GRASSY LAKE SNOTEL	7270	5/01/03	67	29.3	26.1	33.4
GRAVE SPRINGS SNOTEL	8550	5/01/03	---	4.8	6.3	11.1
GREYS BOUNDARY	5720	4/27/03	0	.0	.0	2.6
GROS VENTRE SNOTEL	8750	5/01/03	29	10.8	13.2	13.3
GROVER PARK DIVIDE	7000	4/29/03	0	.0	.0	6.4
HAIRPIN TURN	9480	4/28/03	30	10.2	4.5	15.6
HANSEN S.M. SNOTEL	8360	5/01/03	---	2.1	1.5	4.9
HAMS FORK SNOTEL	7840	5/01/03	---	.0	.3	6.0
HASKINS CREEK	8980	4/28/03	82	34.0	25.0	31.6
HOBBS PARK SNOTEL	10100	5/01/03	---	13.4	11.5	18.0
INDIAN CREEK SNOTEL	9430	5/01/03	---	21.4	22.1	28.3
JACKPINE CREEK	7350	4/30/03	39	16.1	15.3	19.2
KELLEY R.S. SNOTEL	8180	5/01/03	---	8.9	10.8	14.1
KENDALL R.S. SNOTEL	7740	5/01/03	---	4.0	3.6	10.0
KIRWIN SNOTEL	9550	5/01/03	48	13.9	11.4	13.0
LAKE CAMP	7780	5/02/03	22	6.6	7.8	7.5
LA PRELE SNOTEL	8380	5/01/03	---	6.5	.0	7.1
LARSEN CREEK	9020	4/25/03	14	4.2	6.4	10.9
LEWIS LAKE SNOTEL	7850	5/01/03	---	31.4	30.7	34.6
LEWIS LAKE DIVIDE	7850	4/29/03	81	37.8	38.6	42.3
LIBBY LODGE	8750	4/28/03	12	3.8	.0	8.3
LITTLE WARM SNOTEL	9370	5/01/03	---	6.4	9.0	11.1
LOOMIS PARK SNOTEL	8240	5/01/03	---	9.5	12.7	14.3
LUPINE CREEK	7380	4/30/03	0	.0	1.0	5.8
MARQUETTE SNOTEL	8760	5/01/03	---	13.7	6.4	11.3
MEDICINE LODGE LAKES	9340	4/28/03	34	11.6	9.2	11.9
MIDDLE FORK	7420	4/28/03	6	1.8	.0	4.7
MIDDLE POWDER SNOTEL	7760	5/01/03	---	7.6	6.4	14.3
MOSS LAKE	9800	4/28/03	64	25.0	10.1	25.8
NEW FORK SNOTEL	8340	5/01/03	---	5.4	6.9	8.4
NORTH BARRETT CREEK	9400	4/28/03	71	27.7	16.6	22.7
NORTH FRENCH SNOTEL	10130	5/01/03	---	35.4	16.3	34.5
NORTH RAPID CK SNTL	6130	5/01/03	---	.7	.1	3.8
NORTH TONGUE	8450	4/28/03	33	10.2	9.2	13.3
OLD BATTLE SNOTEL	9920	5/01/03	---	34.5	22.9	36.9
OLD FAITHFUL	7400	4/30/03	17	5.4	9.1	9.3
ONION GULCH	8780	4/27/03	17	5.2	4.2	8.4
OWL CREEK SNOTEL	8980	5/01/03	---	.7	.0	4.0
PARKERS PEAK SNOTEL	9400	5/01/03	57	27.9	23.5	24.5
PHILLIPS BENCH SNTL	8200	5/01/03	51	22.2	24.2	29.4
POCKET CREEK	9350	4/25/03	34	11.4	--	13.8
POLE MOUNTAIN	8700	4/28/03	24	7.8	.0	5.0
POWDER RVR.PASS SNTL	9480	5/01/03	---	8.7	9.2	10.7
PURGATORY GULCH	8970	4/28/03	34	12.5	5.1	11.2
RANGER CREEK	8120	4/28/03	16	5.4	5.5	7.6
RENO HILL SNOTEL	8500	5/01/03	---	14.0	5.6	14.7
REUTER CANYON	6280	4/25/03	0	.0	.0	3.6

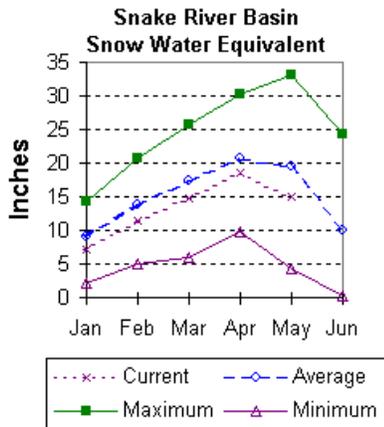
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
ROWDY CREEK	8300	4/28/03	44	17.2	15.6	21.1
RYAN PARK	8400	4/28/03	20	8.0	.0	7.2
SAGE CK BASIN SNTL	7850	5/01/03	---	.0	1.1	11.2
SALT RIVER SNOTEL	7600	5/01/03	---	4.2	6.8	10.6
SAND LAKE SNOTEL	10050	5/01/03	---	31.3	23.5	37.0
SANDSTONE RS SNOTEL	8150	5/01/03	---	6.4	.0	9.5
SAWMILL DIVIDE	9260	4/28/03	48	15.0	11.3	15.1
SHELL CREEK SNOTEL	9580	5/01/03	---	15.9	16.1	16.8
SHERIDAN R.S.	7750	4/28/03	3	.7	3.3	3.3
SNAKE RV STA SNOTEL	6920	5/01/03	---	5.4	7.2	12.2
SNIDER BASIN SNOTEL	8060	5/01/03	20	6.9	6.3	12.6
SOLDIER PARK	8780	4/27/03	17	4.4	3.6	6.3
SOUR DOUGH	8460	4/27/03	28	6.2	3.6	7.4
SOUTH BRUSH SNOTEL	8440	5/01/03	---	11.2	2.4	11.1
SOUTH PASS SNOTEL	9040	5/01/03	---	10.4	11.4	18.0
SPRING CRK. SNOTEL	9000	5/01/03	60	24.6	25.1	28.6
ST LAWRENCE ALT SNTL	8620	5/01/03	---	1.2	.0	6.1
SUCKER CREEK SNOTEL	8880	5/01/03	---	14.1	11.0	13.1
SYLVAN LAKE SNOTEL	8420	5/01/03	---	20.6	20.7	23.8
SYLVAN ROAD SNOTEL	7120	5/01/03	---	9.1	8.1	8.1
T CROSS RANCH	7900	4/28/03	6	1.6	.6	3.3
TETON PASS W.S.	7740	5/01/03	55	25.0	19.2	27.5
THUMB DIVIDE SNOTEL	7980	5/01/03	---	11.3	12.7	14.9
TIE CREEK SNOTEL	6870	5/01/03	15	3.3	2.2	3.9
TIMBER CREEK SNOTEL	7950	5/01/03	---	4.0	.4	4.8
TOGWOTEE PASS SNOTEL	9580	5/01/03	64	24.4	24.3	27.9
TOWNSEND CRK SNOTEL	8700	5/01/03	---	5.3	2.9	9.1
TRIPLE PEAK SNOTEL	8500	5/01/03	---	16.4	18.3	23.7
TWO OCEAN SNOTEL	9240	5/01/03	---	35.8	32.5	31.8
TYRELL RANGER STA.	8300	4/27/03	9	2.2	3.3	6.1
WEBBER SPRING SNOTEL	9250	5/01/03	---	17.8	10.3	25.1
WHISKEY PARK SNOTEL	8950	5/01/03	---	28.9	17.7	30.5
WILLOW CREEK SNOTEL	8450	5/01/03	---	23.3	20.3	30.6
WINDY PEAK SNOTEL	7900	5/01/03	---	8.5	.0	4.9
WOLVERINE SNOTEL	7650	5/01/03	11	4.7	.9	7.2
WOOD ROCK G.S.	8440	4/28/03	36	11.4	7.4	11.5
YOUNTS PEAK SNOTEL	8350	5/01/03	45	16.4	15.8	18.1

(d) denotes discontinued site.

Snake River Basin (1)

Snow

Snow started melting from the higher elevations about 2 weeks earlier than normal this year. The Snake River basin snow water equivalent (SWE) is near normal. Snake above Jackson Lake is 85 percent of average (102% of last year at this time). Pacific Creek is 102 percent of average (114% of last year at this time). Gros Ventre River is 79 percent of average (88% of last year at this time). Hoback River is 67 percent of average (86% of last year at this time), Greys River is 77 percent of average (100% of last year at this time). Salt River is 58 percent of average (92% of last year at this time). Snake River Basin above Palisades is 76 percent of average (98% of last year at this time). See the Basin Summary of Snow Courses at the beginning of this report for a detailed listing of snow course information.



Precipitation.

Precipitation across the basin was below average last month. Monthly precipitation, for the basin, was 54 percent of average for the 18 reporting stations (48% of last year). Last months percentages range from 23 to 112 percent of average. Water-year-to-date precipitation is 85 percent of normal for the Snake River basin (98% of last year at this time) Year-to-date percentages range from 70 to 98 percent of average.

Reservoir.

Grassy Lake Reservoir has a total capacity of 15,200-acre

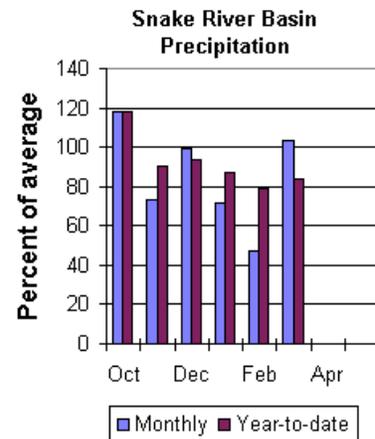
feet. Reservoir storage is currently 13,300 acre feet (105 percent of average). Grassy Lake Reservoir is currently storing 129 percent of last year's volume and 88 percent of capacity

Jackson Lake has a total capacity of 847,000-acre feet. Reservoir storage is currently 342,700-acre feet (73 percent of average). Jackson Lake is currently storing 158 percent of last year's volume and 40 percent of capacity

Palisades Reservoir has a total capacity of 1,400,000-acre feet. Reservoir storage is currently 759,400-acre feet (88 percent of average). Palisades Reservoir is currently storing 101 percent of last year's volume and 49 percent of capacity

Streamflow.

The most probable runoff, based on the 50 percent chance yield, for May through September runoff is forecast below average for the basin. The Snake near Moran is expected to yield 690,000 acre-feet (82 percent of normal). Yield from the Snake River above Palisades Reservoir is estimated to be 2,050,000 acre-feet (81 percent of normal). Palisades Reservoir inflow is estimated to be 2,710,000 acre feet (77 percent of average). The 50 percent chance yield near Heise is expected to be 2,870,000 acre-feet (76 percent of normal). Pacific Creek at Moran is expected to yield about 136,000 acre-feet (81 percent of average). Greys River above Palisades Reservoir is estimated to yield 230,000 acre-feet (65 percent of normal). Salt River near Etna is estimated to have a yield of 199,000 acre-feet (56 percent of normal).



=====

SNAKE RIVER BASIN
Streamflow Forecasts - May 1, 2003

=====

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)		
		90% (1000AF)		70% (1000AF)		50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF) 10% (1000AF)	
		565	650	690	82	730	815		842	
SNAKE near Moran (1,2)	MAY-SEP	565	650	690	82	730	815	842		
SNAKE above Palisades (2)	MAY-SEP	1810	1950	2050	81	2150	2290	2530		
PALISADES RESERVOIR INFLOW (1,2)	MAY-SEP	2250	2570	2710	77	2850	3170	3524		
SNAKE near Heise (2)	MAY-SEP	2480	2710	2870	76	3030	3260	3764		
PACIFIC CREEK at Moran	MAY-SEP	108	125	136	81	147	164	167		
GREYS above Palisades	MAY-SEP	190	215	230	65	245	270	354		
SALT near Etna	MAY-SEP	136	174	199	56	226	261	358		

SNAKE RIVER BASIN Reservoir Storage (1000 AF) - End of April					SNAKE RIVER BASIN Watershed Snowpack Analysis - May 1, 2003			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of =====	
		This Year	Last Year	Avg			Last Yr	Average
GRASSY LAKE	15.2	13.3	10.3	12.7	SNAKE above Jackson Lake	6	102	85
JACKSON LAKE	847.0	342.7	216.6	471.1	PACIFIC CREEK	2	114	102
PALISADES	1400.0	759.4	749.1	862.6	GROS VENTRE RIVER	3	86	79
					HOBACK RIVER	6	86	67
					GREYS RIVER	5	100	77
					SALT RIVER	5	92	58
					SNAKE above Palisades	24	97	76

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

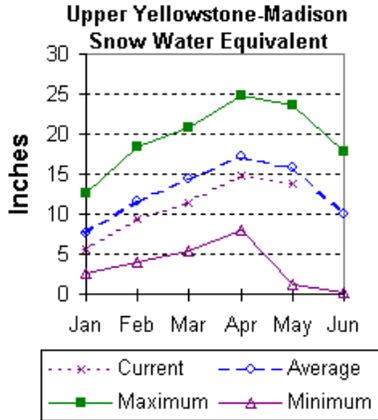
The average is computed for the 1971-2000 base period.

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

Upper Yellowstone and Madison River Basins (2)

Snow

Snow is melting from the upper elevations. Snowfall has been near average for this time of the year, but better than last year. Snow water equivalent (SWE) is about 80 percent of average (85 percent of last year) in the Madison drainage. SWE in the Yellowstone drainage is about 94 percent of average (104 percent of last year at this time). See the "Snow Course Basin Summary" at the beginning of this document for more details on specific sites.



storing about 291,700 acre-feet of water (77 percent of capacity) – 115 percent of average. Hebgen Lake is storing about 100 percent and Ennis Lake was storing about 106 percent of last year's volume.

Streamflow

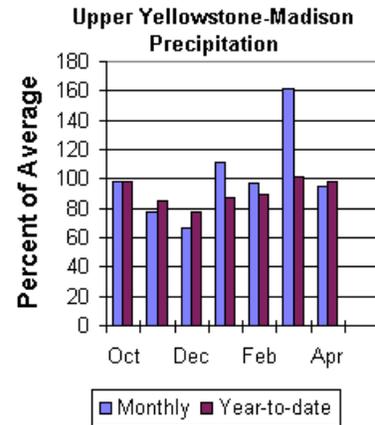
All the following forecasts are based on the 50 percent chance runoff for the May through September runoff period. Yellowstone at Lake Outlet is expected to yield about 645,000 acre feet (84 percent of normal). Yellowstone at Corwin Springs will yield about 1,640,000 acre-feet (88 percent of normal). Yellowstone near Livingston will yield about 1,880,000 acre feet (87 percent of normal). See the following page for detailed runoff volumes.

Precipitation

Last month's precipitation in the Madison and Yellowstone drainage was about 95 percent of average for the 6 reporting stations -- percentage range was from 64 to 180 percent of average. Water-year-to-date precipitation is about 98 percent of average (97 percent of last year's amount). Year to date percentage ranges from 84 to 118 percent

Reservoir

Current usable storage for Ennis Lake is about 29,600 acre-feet (72 percent of capacity) – 88 percent of average. Hebgen Lake is



=====

UPPER YELLOWSTONE & MADISON RIVER BASINS
Streamflow Forecasts - May 1, 2003

=====

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>				30-Yr Avg. (1000AF)
		Chance Of Exceeding *				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% 10% (1000AF) (1000AF)	
YELLOWSTONE at Lake Outlet	MAY-SEP	555	610	645 84	680 735	770
YELLOWSTONE RIVER at Corwin Springs	MAY-SEP	1400	1540	1640 88	1740 1880	1870
YELLOWSTONE RIVER near Livingston	MAY-SEP	1650	1790	1880 87	1970 2110	2150

UPPER YELLOWSTONE & MADISON RIVER BASINS Reservoir Storage (1000 AF) - End of April					UPPER YELLOWSTONE & MADISON RIVER BASINS Watershed Snowpack Analysis - May 1, 2003			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ENNIS LAKE	41.0	29.6	27.8	33.8	MADISON RIVER in WY	9	85	80
HEBGEN LAKE	377.5	291.7	290.9	254.6	YELLOWSTONE RIVER in WY	11	104	94

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

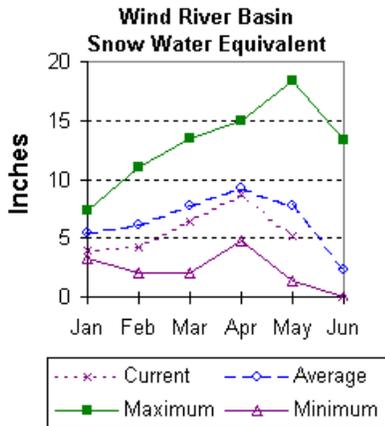
The average is computed for the 1971-2000 base period.

- (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.

Wind River Basin (3)

Snow

Snow has started melting out in the Wind River basin. Snow water equivalent (SWE) is below normal for this time of the year. SWE in the Wind River above Dubois is 76 percent of average (88 percent of last year). The Little Wind SWE is 61 percent of average water content (127 percent of last year), and the Popo Agie drainage SWE is about 63 percent of average (107 percent of last year). The Wind River basin, above Boysen Reservoir, SWE is about 66 percent of average (about 98 percent of last year). See the Basin Summary of Snow Course Data at the front of this report for details.



inactive and 40,084 acre feet dead storage. Reservoir storage above the dead pool is currently 263,900 acre feet (65 percent of average). Boysen Reservoir is currently storing 111 percent of last year's volume and 49 percent of capacity.

Bull Lake has a capacity of 152,459 acre feet, including 722 acre feet dead storage. Reservoir storage above the dead storage is currently 40,100 acre feet (48 percent of average). The reservoir is currently storing 142 percent of last year's volume and 26 percent of capacity.

Pilot Butte Reservoir has a capacity of 33,721 acre feet, including 3,138 acre feet dead storage. Reservoir storage above the dead storage is currently 23,200 acre feet (90 percent of average). Reservoir is currently storing 113 percent of last year's volume and 73 percent of capacity.

Streamflow

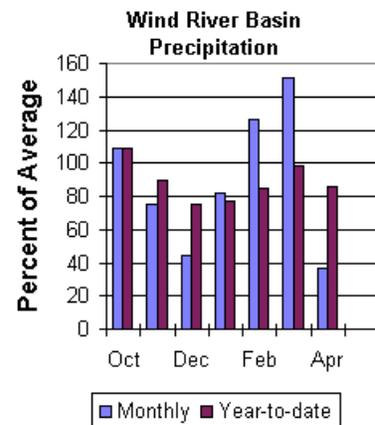
Water supply is estimated to be much below normal this year. The following values reflect the 50 percent chance yields for the May through September runoff period. The Wind River above Bull Lake Creek is expected to yield 370,000 acre feet (73 percent of average). Wind River at Riverton will yield about 370,000 acre feet (61 percent of average). Boysen Reservoir inflow will yield about 296,000 acre feet (39 percent of normal). Bull Lake Creek near Lenore is expected to yield about 124,000 acre feet (70 percent of average). Little Popo Agie River near Lander is expected to yield about 32,000 acre feet (65 percent of average). South Fork of Little Wind near Fort Washakie will yield about 43,000 acre feet (53 percent of average). Little Wind River near Riverton will yield about 210,000 acre feet (72 percent of average).

Precipitation

Last month's precipitation in the basin varied from 19 to 69 percent of average. Precipitation for the basin was about 37 percent of average (48% of last year) for the 8 reporting stations. Water year-to-date precipitation is 86 percent of normal. The current water-year-to-date average is about 110 percent of last year at this time. Year to date figures range from 56 to 107 percent of average.

Reservoirs

Boysen Reservoir has a total capacity of 741,594 acre feet at the top of the joint use pool, including 179,097 acre feet



WIND RIVER BASIN
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>					30-Yr Avg. (1000AF)	
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)		10% (1000AF)
DINWOODY CREEK nr Burris	MAY-SEP	51	59	64	69	69	77	93
WIND RIVER abv Bull Lake Cr (2)	MAY-SEP	270	330	370	73	410	470	510
BULL LAKE CR near Lenore (2)	MAY-SEP	92	111	124	70	137	156	178
WIND RIVER at Riverton (2)	MAY-SEP	192	300	370	61	440	550	610
LT POPO AGIE RIVER nr Lander	MAY-SEP	18.3	26	32	65	38	46	49
SF LT WIND nr Fort Washakie	MAY-SEP	23	35	43	53	51	63	81
LT WIND RIVER nr Riverton	MAY-SEP	92	162	210	72	260	330	290
BOYSEN RESERVOIR Inflow (2)	MAY-SEP	207	259	295	39	400	555	758

Reservoir	WIND RIVER BASIN Reservoir Storage (1000 AF) - End of April				Watershed	WIND RIVER BASIN Watershed Snowpack Analysis - May 1, 2003		
	Usable Capacity	*** Usable Storage ***				Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BULL LAKE	151.8	40.1	28.2	83.9	WIND RIVER above Dubios	7	86	76
BOYSEN	596.0	293.9	263.9	453.4	LITTLE WIND	2	127	61
PILOT BUTTE	31.6	23.2	25.1	25.7	POPO AGIE	7	107	63
					WIND above Boysen Resv	14	96	66

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

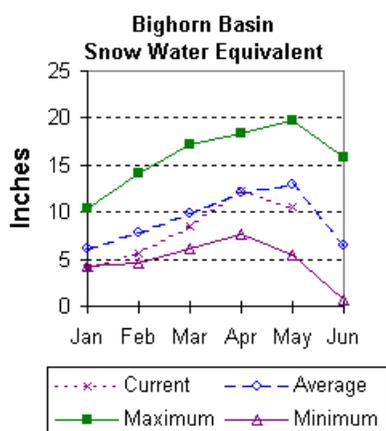
The average is computed for the 1971-2000 base period.

- (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.

Bighorn River Basin (4)

Snow

Snowpack in this basin is well below average for this time of year. The Nowood drainage SWE is 69 percent of average (109 percent of last year). Greybull River SWE is 101 percent of average (152 percent of last year). Shell Creek SWE is 87 percent of average (103 percent of last year). The basin SWE, as a whole, is currently 82 percent of average (111 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.



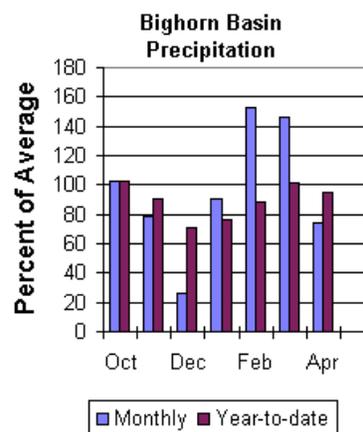
Precipitation

April precipitation was 74 percent of the monthly average (82 percent of last year). Sites ranged from 21 to 179 percent of average for the month. Year-to-date precipitation is 95 percent of normal; that is 112 percent of last year at this time. Year to date percentages, from the 13 reporting stations, range from 61 to 112.

Reservoir

Boysen Reservoir has a capacity of 741,594-acre feet at the top of the joint use pool, including 179,097-acre feet inactive and 40,084-acre feet

dead storage. Reservoir storage above the dead storage is currently 293,900-acre feet (65 percent of average). Boysen Reservoir is currently storing 111 percent of last year's volume. Bighorn Lake has a total capacity of 1,356,000-acre feet, including 16,008-acre feet of dead and 477,576-acre feet of inactive storage. Big Horn Lake is currently storing 608,000-acre feet (77 percent of average) above the dead storage pool. Big Horn Lake is currently storing 93 percent of last year's volume.



Streamflow

The 50 percent chance May through September runoff is anticipated to be below normal. The Boysen Reservoir inflow is forecast to yield 295,000 acre feet (39 percent of average); the Greybull River nr Meeteese should yield 130,000 acre feet (67 percent of average); Shell Creek near Shell should yield 53,000 acre feet (77 percent of average) and the Bighorn River at Kane should yield 410,000 acre feet (40 percent of average).

BIGHORN RIVER BASIN
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% (1000AF)	
BOYSEN RESERVOIR Inflow (2)	MAY-SEP	207	259	295 39	400 555	758
GREYBULL RIVER nr Meeteetse	MAY-SEP	90	114	130 67	146 170	194
SHELL CREEK nr Shell	MAY-SEP	43	49	53 77	57 63	69
BIGHORN RIVER at Kane (2)	MAY-SEP	143	300	410 40	520 675	1020

BIGHORN RIVER BASIN Reservoir Storage (1000 AF) - End of April					BIGHORN RIVER BASIN Watershed Snowpack Analysis - May 1, 2003			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BOYSEN	596.0	293.9	263.9	453.4	NOWOOD RIVER	5	109	69
BIGHORN LAKE	1356.0	608.0	656.8	791.9	GREYBULL RIVER	2	152	101
					SHELL CREEK	4	103	87
					BIGHORN (Boysen-Bighorn)	11	111	82

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

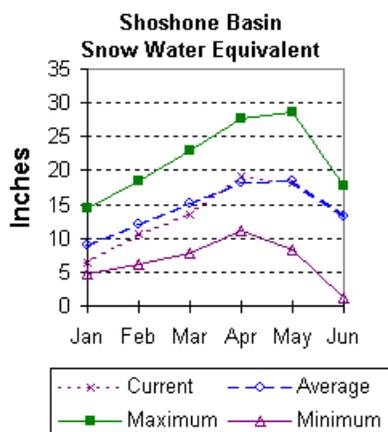
The average is computed for the 1971-2000 base period.

- (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.

Shoshone and Clarks Fork River Basin (5)

Snow

Snow started melting from the high elevations about 2 weeks earlier than normal this year. Snow Water Equivalent (SWE) is 96 percent of average (118 percent of last year) in the Shoshone River basin. The Clarks Fork River basin SWE is about 102 percent of average (123 percent of last year). For more information see the Basin Summary of Snow Course Data at the beginning of this report.



Precipitation

Precipitation for last month was 68 percent of normal (62% of last year's amount) for the 9 reporting stations. Monthly percentages range from 16 to 89 percent of average. The basin year-to-date precipitation is now 107 percent of average (115 percent of last year). Year-to-date percentages range from 91 to 121 percent of average.

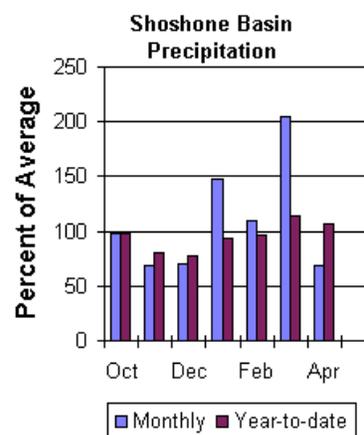
Reservoir

Buffalo Bill Reservoir has a total capacity of 646,565-acre feet, including 41,748 dead storage. Reservoir storage is currently 357,800-acre feet

(102 percent of average). Buffalo Bill Reservoir is currently storing 139 percent of last year's volume and 55 percent of capacity

Streamflow

The fifty percent yield (May through September period) for North Fork Shoshone River at Wapiti is expected to be 410,000 acre-feet (85 percent of average). South Fork of the Shoshone River near Valley is estimated to yield of 220,000 acre-feet (86 percent of average), and South Fork above Buffalo Bill Reservoir is expected to be 170,000 acre-feet (79 percent of average). At the Buffalo Bill Reservoir, the fifty percent chance yield for the Shoshone River is expected to be about 595,000 acre-feet (79 percent of average). The fifty-percent chance yield for the Clarks Fork of the Yellowstone near Belfry, Montana is expected to be about 450,000 acre-feet (79 percent of average).



SHOSHONE & CLARKS FORK RIVER BASINS
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% (1000AF)	
NF SHOSHONE RIVER at Wapiti	MAY-SEP	360	390	410 85	430 460	485
SF SHOSHONE RIVER nr Valley	MAY-SEP	184	205	220 86	235 255	255
SF SHOSHONE RIVER abv Buffalo Bill	MAY-SEP	113	147	170 79	193 228	215
BUFFALO BILL DAM Inflow (2)	MAY-SEP	460	540	595 79	650 730	755
CLARKS FORK RIVER nr Belfry	MAY-SEP	365	415	450 79	485 535	570

SHOSHONE & CLARKS FORK RIVER BASINS Reservoir Storage (1000 AF) - End of April					SHOSHONE & CLARKS FORK RIVER BASINS Watershed Snowpack Analysis - May 1, 2003			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BUFFALO BILL	646.6	357.8	258.0	352.2	SHOSHONE RIVER	7	118	96
					CLARKS FORK in WY	7	123	102

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

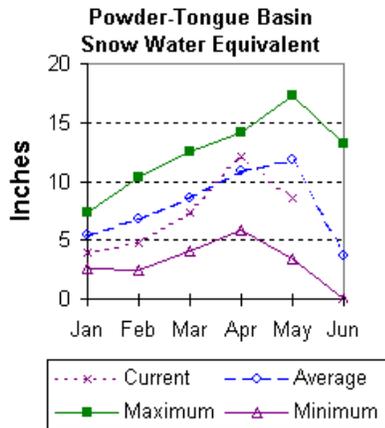
The average is computed for the 1971-2000 base period.

- (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.

Powder and Tongue River Basins (6)

Snow

Snow water equivalent (SWE) in the Upper Tongue River drainage is 94 percent of normal (121 percent of last year). The Goose Creek drainage SWE is 93 percent of average (129 percent of last year). Clear Creek drainage SWE is 83 percent of normal SWE (119 percent of last year). Crazy Woman Creek SWE is 76 percent of average (118 percent of last year). The Upper Powder River drainage SWE is 64 percent of average (116 percent of last year). The Powder River basin SWE, in Wyoming, is about 73 percent of average (118 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.



Precipitation

Monthly precipitation was 95 percent of average for the 12 reporting stations (105% of last year's amount). Monthly percentages range from 35 to 205 percent of average. Precipitation for the year ranges from 61 to 114 percent of average at the reporting stations. Year-to-date precipitation is about 99 percent of average in the basin; this is 115 percent of last year at this time.

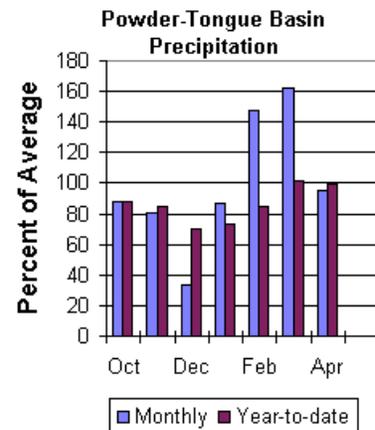
Reservoir

Tongue River Reservoir has a total capacity of 79,100-acre feet. Reservoir storage is currently 55,800-acre feet (176

percent of average). Tongue River Reservoir is currently storing 162 percent of last year's volume and 71 percent of capacity

Streamflow

The following runoff values are for the 50 percent probability during the May through September forecast period. The estimated yield for Tongue River near Dayton is 76,000-acre feet (74 percent of normal). Middle Fork of the Powder River near Barnum is estimated to yield 6,300-acre feet (38 percent of average). The North Fork of the Powder near Hazelton should yield about 6,600 acre-feet (67 percent of normal). The estimated yield for Clear Creek near Buffalo is 29,000 acre-feet (78 percent of average). Rock Creek near Buffalo will yield about 17,000 acre-feet (74 percent of normal), and Piney Creek at Kearny should yield about 34,000 acre-feet (71 percent of average).



POWDER & TONGUE RIVER BASINS
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)	30%	10%		
		(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		
TONGUE RIVER nr Dayton (2)	MAY-SEP	63	71	76	74	81	89	103
MIDDLE FORK POWDER nr Barnum	MAY-SEP	4.2	5.5	6.3	38	8.5	11.9	16.6
NORTH FORK POWDER nr Hazelton	MAY-SEP	4.10	5.60	6.60	67	7.60	9.10	9.80
CLEAR CREEK nr Buffalo	MAY-SEP	22	26	29	78	32	36	37
ROCK CREEK nr Buffalo	MAY-SEP	11.6	14.8	17.0	74	18.8	23	23
SEP 9.7 24		34	71	44	58	48		
							PINEY CREEK at Kearny	MAY-

POWDER & TONGUE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

POWDER & TONGUE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
		Year	Year	Avg			Last Yr	Average
TONGUE RIVER	79.1	55.8	34.4	31.7	UPPER TONGUE RIVER	10	121	94
					GOOSE CREEK	3	129	93
					CLEAR CREEK	4	119	83
					CRAZY WOMAN CREEK	3	118	76
					UPPER POWDER RIVER	4	116	64
					POWDER RIVER in WY	8	118	73

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

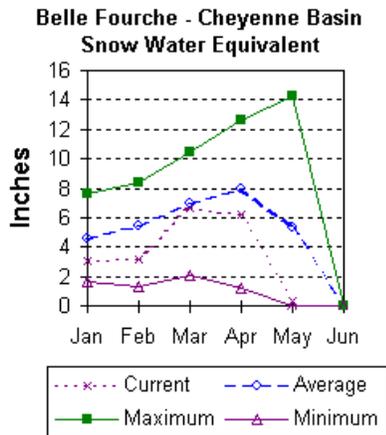
The average is computed for the 1971-2000 base period.

- (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.

Belle Fourche and Cheyenne River Basins (7)

Snow.

The Belle Fourche River Basin is melted out as of May 1st. See Basin summary of Snow Course Data at the beginning of this report for a detailed listing.

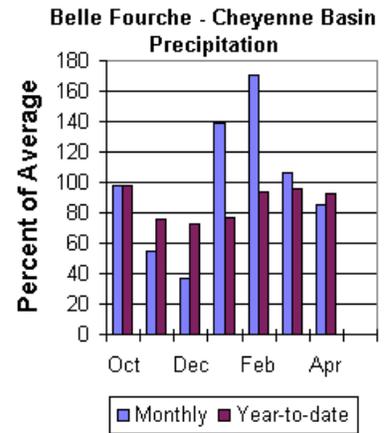


Precipitation.

Precipitation, for the month of April was 85 percent of average in the Black Hills. Monthly percentages range from 67 to 100 percent. Year-to-date precipitation is 93 percent of average and 123 percent of last year's amount.

Reservoir.

Usable reservoir storage varies from 61 to 114 percent of average -- usable reservoir storage is total reservoir storage minus dead storage.



Angostura is currently storing 82 percent of capacity (100,300-acre feet compared to 109,400-acre feet last year) – storage is 88 percent of average. Belle Fourche reservoir storage is about 80 percent of capacity (142,600-acre feet compared to 169,500-acre feet last year) – storage is about 98 percent of average. Deerfield reservoir storage is about 100 percent of capacity (15,200-acre feet compared to 15,300-acre feet last year) – storage is about 112 percent of average. Keyhole reservoir storage is about 68 percent of capacity (131,800-acre feet compared to 157,400-acre feet last year) – storage is about 114 percent of average. Pactola reservoir storage is about 93 percent of capacity (51,000-acre feet compared to 54,700-acre feet last year) – storage is about 106 percent of average. Shadehill reservoir storage is about 49 percent of capacity (39,900 acre feet compared to 50,200 acre feet last year – storage is about 61 percent of average.

Streamflow

Water supply is estimated to be below normal this year. The following values reflect the 50 percent chance yields for the May through July runoff period. Deerfield Reservoir inflow is forecast at 3,400 acre feet (85 percent of average). Pactola is forecast at 9,000 acre feet (60 percent of average).

BELLE FOURCHE & CHEYENNE RIVER BASINS
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				
		Chance Of Exceeding *				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% 10% (1000AF) (1000AF)	30-Yr Avg. (1000AF)
DEERFIELD RESERVOIR Inflow	MAY-JUL	0.45	2.20	3.40 85	4.60 6.30	3.99
PACTOLA RESERVOIR Inflow	MAY-JUL	2.4	5.4	9.0 60	15.0 24	15.1

BELLE FOURCHE & CHEYENNE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

BELLE FOURCHE & CHEYENNE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
		Year	Year					
ANGOSTURA	122.1	100.3	109.4	113.7	BELLE FOURCHE	3	500	6
BELLE FOURCHE	178.4	142.6	169.5	145.7				
DEERFIELD	15.2	15.2	15.3	13.6				
KEYHOLE	193.8	131.8	157.4	115.8				
PACTOLA	55.0	51.0	54.7	47.9				
SHADEHILL	81.4	39.9	50.2	65.2				

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

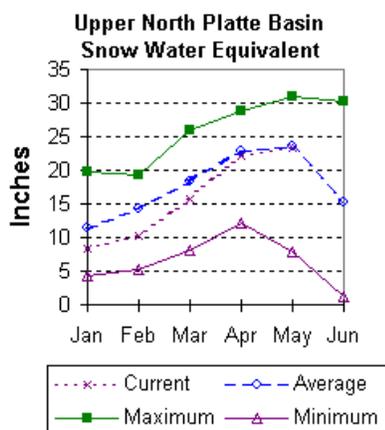
The average is computed for the 1971-2000 base period.

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

Upper North Platte River Basin (8)

Snow

Snow started melting from the upper elevations about 2 weeks earlier than normal. The snow courses above Seminoe Reservoir have about 99 percent of average snow water equivalent (SWE) recorded for this time of the year (205 percent of last year). SWE in the drainage area above Northgate is about 108 percent of average and 245 percent of last year at this time. SWE in the Encampment River drainage is about 90 percent of normal and 167 percent of last year. Brush Creek SWE for the year is about 106 percent of normal and 236 percent of last year's SWE. Medicine Bow and Rock Creek drainage SWE is about 83 percent of average and 161 percent of last year at this time. For more information see Basin Summary of Snow Courses at the beginning of this report.



usable reservoir storage is total reservoir storage minus dead storage. Seminoe Reservoir is currently storing 21 percent of capacity (211,700 acre feet compared to 397,300 acre feet last year)

Streamflow

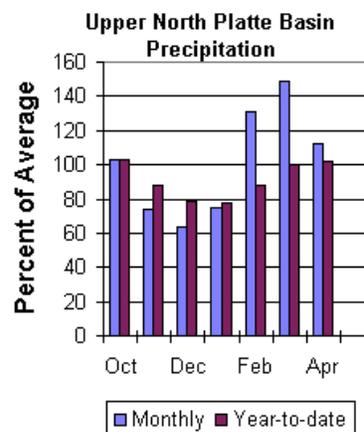
All the following yields are based on the fifty percent chance May through September yield. Yield for the North Platte River near Northgate is expected to be about 200,000 acre-feet (87 percent of average). Encampment River near Encampment is estimated to yield 120,000 acre-feet (77 percent of normal). Rock Creek near Arlington is estimated to yield 43,000 acre-feet (78 percent of average). Seminoe Reservoir inflow should be about (600,000 acre-feet (80 percent of normal). See the following table for more detailed information on projected runoff.

Precipitation

Twelve reporting stations indicate that last month's precipitation was 112 percent of average and about 170 percent of last year's amount. Precipitation varied from 15 to 90 percent of average. Total water-year-to-date precipitation is about 102 percent of average for the basin, which is about 139 percent of last year's amount. Year to date percentage ranges from 82 to 126 percent of average for the 9 reporting stations.

Reservoirs

Seminoe Reservoir has a total capacity of 1,016,700 acre feet. Usable reservoir storage is about 41 percent of average --



UPPER NORTH PLATTE RIVER BASIN
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>					30-Yr Avg. (1000AF)					
		90% (1000AF)		70% (1000AF)		50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)		10% (1000AF)		
NORTH PLATTE RIVER nr Northgate	MAY-SEP	139	175	200	87	225	260	230				
ENCAMPMENT RIVER nr Encampment	MAY-SEP	85	106	120	77	134	155	156				
ROCK CREEK nr Arlington	MAY-SEP	35	40	43	78	47	52	55				
SEMINOE RESERVOIR Inflow	MAY-JUL	365	475	550	80	625	735	690				
	MAY-SEP	480	550	600	80	650	720	750				

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

UPPER NORTH PLATTE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
SEMINOE	1016.7	211.7	397.3	510.4	N PLATTE above Northgate	7	245	108
					ENCAMPMENT RIVER	4	167	90
					BRUSH CREEK	5	236	106
					MEDICINE BOW & ROCK CREEK	3	161	83
					N PLATTE above Seminoe	19	205	99

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

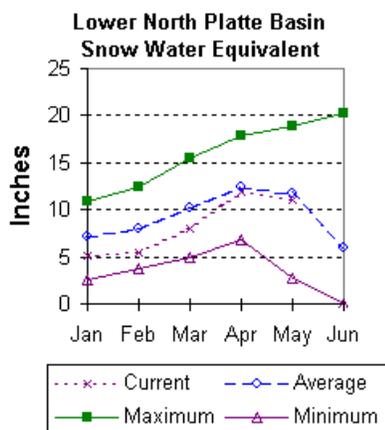
The average is computed for the 1971-2000 base period.

- (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.

Lower North Platte River Basin (9)

Snow

SWE for the North Platte River basin in Wyoming averages 94 percent of normal (210 % of last year). The Sweetwater drainage SWE is currently 57 percent of average (87 percent of last year). Deer and LaPrele Creek SWE is 89 percent of average (396 percent of last year). SWE for the North Platte above the Laramie River drainage is 94 percent of average (192 % of last year). SWE for the Laramie River above the mouth is 96 percent of average (261 % of last year). SWE for the Laramie River above Laramie is 109 percent of average (286 % of last year). SWE for the Little Laramie River is 69 percent of average (227 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.

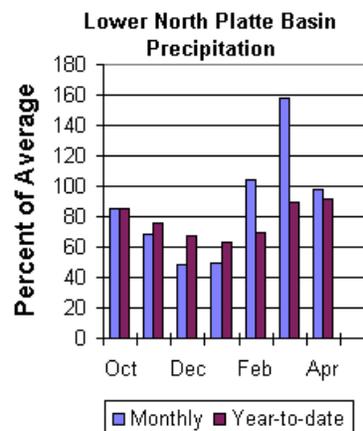


Precipitation

Of the 15 reporting stations, percentages for the month range from 23 to 224. April precipitation for the basin was 98 percent of average (246 percent of last year). The water year-to-date precipitation for the basin is currently 92 percent of average (145 percent of last year). Year to date percentages range from 65 to 141.

Reservoir

Usable reservoir storage varies from 31 to 99 percent of average -- usable reservoir storage is total reservoir storage minus dead storage.



Alcova Reservoir is currently storing 97 percent of capacity (177,900 compared to 177,800-acre feet last year) – storage is 99 percent of average. Glendo Reservoir is currently storing 67 percent of capacity (338,300 compared to 357,300-acre feet last year) – storage is 74 percent of average. Guernsey Reservoir is currently storing 63 percent of capacity (28,500 compared to 21,600-acre feet last year) – storage is 86 percent of average. Pathfinder Reservoir is currently storing 31 percent of capacity (314,400 compared to 517,100-acre feet last year) – storage is 42 percent of average. Seminoe Reservoir is currently storing 21 percent of capacity (211,700 compared to 397,300-acre feet last year) – storage is 41 percent of average. Wheatland No. 2 Reservoir is currently storing 19 percent of capacity (18,400 compared to 28,000-acre feet last year) – storage is 31 percent of average.

Streamflow

Yields from 49 to 87 percent are expected in the basin during the forecast period. The following yields are based on the fifty percent chance probability runoff for the May through September forecast period. The Sweetwater near Alcova is forecast to yield about 32,000 acre-feet (49 percent of average). LaPrele Creek above the reservoir is estimated to yield 66 percent of average (12,500 acre-feet). The Alcova to Orin gain is expected to yield about 53 percent of average (65,000 acre-feet). North Platte River below Guernsey Reservoir is expected to yield about 74 percent of normal (635,000 acre-feet), and below Glendo Reservoir is anticipated to yield about 72 percent of average (600,000 acre-feet). Laramie River near Woods should yield about 87 percent of average (110,000 acre-feet). The Little Laramie near Filmore should produce about 49,000 acre-feet (80 percent of average).

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		90% 70%		50% (Most Probable) 30% 10%		30-Yr Avg. (1000AF)		
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)		(1000AF)	(1000AF)
SWEETWATER RIVER nr Alcova	MAY-JUL	5.1	18.7	28	46	37	51	61
	MAY-SEP	7.3	22	32	49	42	57	66
LaPRELE CREEK abv Reservoir	MAY-SEP	4.9	9.4	12.5	66	15.5	21	18.9
NORTH PLATTE - Alcova to Orin Gain	MAY-JUL	41	52	60	53	82	115	113
	MAY-SEP	45	57	65	53	89	123	122
NORTH PLATTE RIVER blw Glendo	MAY-JUL	340	485	585	73	685	830	800
	MAY-SEP	350	500	600	72	700	850	830
NORTH PLATTE RIVER blw Guernsey	MAY-JUL	315	490	610	75	730	905	815
	MAY-SEP	330	510	635	74	760	940	860
LARAMIE RIVER nr Woods	MAY-SEP	65	92	110	87	128	155	127
LITTLE LARAMIE RIVER nr Filmore	MAY-SEP	39	45	49	80	53	59	61

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ALCOVA	184.3	177.9	177.8	178.8	SWEETWATER	4	87	57
GLENDO	506.4	338.3	357.3	458.2	DEER & LaPRELE CREEKS	3	396	89
GUERNSEY	45.6	28.5	21.6	33.3	N PLATTE abv Laramie R.	26	192	94
PATHFINDER	1016.5	314.4	517.1	747.1	LARAMIE RIVER abv Laramie	9	286	109
SEMINOE	1016.7	211.7	397.3	510.4	LITTLE LARAMIE RIVER	4	227	69
WHEATLAND #2	98.9	18.4	28.0	59.7	LARAMIE RIVER above mouth	12	261	96
					NORTH PLATTE	33	210	94

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

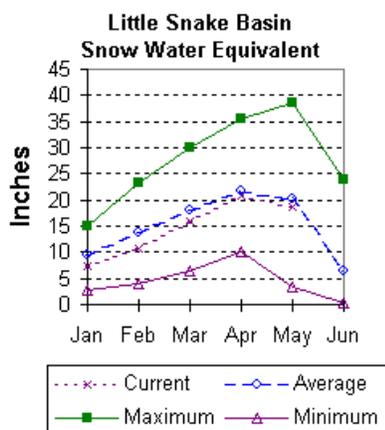
The average is computed for the 1971-2000 base period.

- (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.

Little Snake River Basin (10)

Snow

Snowfall has been below average across the basin this year. Currently, snow water equivalent (SWE) in the Little Snake River drainage is 93 percent of average (185 percent of last year at this time). For more information see Basin Summary of Snow Courses at beginning of this report.



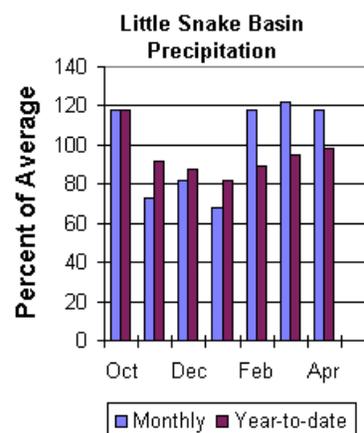
Stream yield is based on the 50 percent probability for the April through July forecast period. The Little Snake River near Slater should yield about 126,000 acre-feet (79 percent of normal). Little Snake River near Dixon is estimated to yield 260,000 acre-feet (79 percent of normal).

Precipitation

Precipitation across the basin was above average this past month. April precipitation was 118 percent of average (161 percent of last year) for the 5 reporting stations. Monthly precipitation ranged from 106 to 137 percent of average. The Little Snake River basin water-year-to-date precipitation is currently 98 percent of average (133 percent of last year). Year-to-date percentages range from 94 to 103 percent of average.

Streamflow

Runoff yield in the Little Snake River drainage is expected to be below normal this year.



LITTLE SNAKE RIVER BASIN
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>				30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% 10% (1000AF) (1000AF)	
Little Snake River nr Slater	APR-JUL	87	109	126 79	144 173	159
LITTLE SNAKE R nr Dixon	APR-JUL	154	215	260 79	305 365	330

LITTLE SNAKE RIVER BASIN Reservoir Storage (1000 AF) - End of April				LITTLE SNAKE RIVER BASIN Watershed Snowpack Analysis - May 1, 2003				
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					LITTLE SNAKE RIVER	8	185	93

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

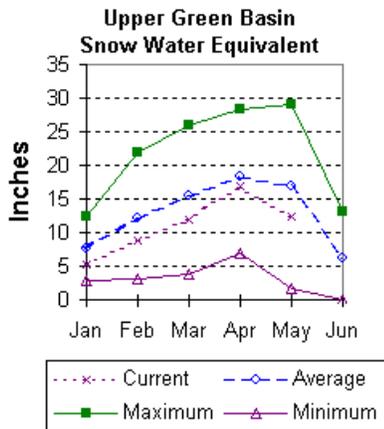
The average is computed for the 1971-2000 base period.

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

Upper Green River Basin (11)

Snow

High elevation snow started melting about 2 weeks earlier than normal this year. The Upper Green River Basin snow water equivalent (SWE), above Fontenelle Reservoir, is 74 percent of average (94 percent of last year). The Green River basin SWE above Warren Bridge is 63 percent of normal (80 percent of last year). SWE on the west side of the Upper Green River basin is about 77 percent of normal, 100 percent of this time last year. Newfork River SWE is now about 76 percent of normal (72 percent of last year). Big Sandy-Eden Valley SWE is about 55 percent of average (72 percent of last year). For more information see the Basin Summary of Snow Courses at the beginning of this report.



8,800 acre feet (35 percent of average). Big Sandy Reservoir is currently storing 114 percent of last year's volume and 23 percent of capacity.

Eden Reservoir has a capacity of 38,300 acre feet. The water level in Eden Reservoir is below the gage used to measure the amount of water being stored.

Flaming Gorge Reservoir has a capacity of 3,749,000 acre feet. Reservoir storage is currently 2,673,00 acre feet (91 percent of average). Reservoir is currently storing 95 percent of last year's volume and 71 percent of capacity.

Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

Streamflow

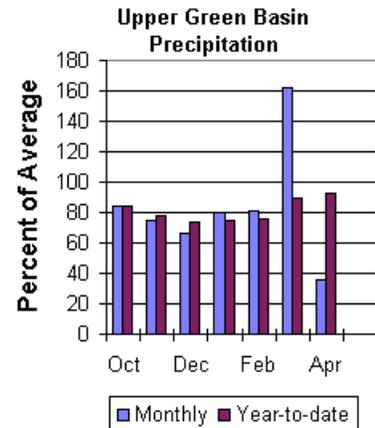
The following forecast is based on the fifty-percent chance April through July runoff in the Upper Green River basin. Green River at Warren Bridge is expected to yield about 200,000 acre-feet (76 percent of normal). Pine Creek above Fremont Lake is expected to yield 83,000 acre-feet (80 percent of normal). New Fork River near Big Piney is expected to yield about 260,000 acre-feet (66 percent of normal). Fontenelle Reservoir Inflow is estimated to be 510,000 acre-feet (59 percent of average), and Big Sandy near Farson is expected to be about 38,000 acre-feet (66 percent of normal).

Precipitation

The 11 reporting precipitation sites in the basin were 36 percent of average (36 percent of last year's amount). Precipitation varied from 18 to 57 percent of average. Water year-to-date precipitation is about 83 percent of average (100 percent of last year). Year to date percentage of average ranges from 73 to 101 percent for the reporting stations.

Reservoir

Big Sandy Reservoir has a total capacity of 11,800 acre feet, including 730 acre feet dead storage. Reservoir storage above the dead pool is currently



UPPER GREEN RIVER BASIN
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)				
		90% (1000AF)		70% (1000AF)			50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF) 10% (1000AF)	
		90%	70%	50%	30%		10%	30%	10%	
Green River at Warren Bridge	APR-JUL	165	185	200	76	215	235	265		
Pine Creek abv Fremont Lake	APR-JUL	70	78	83	80	88	96	104		
	MAY-JUL	66	74	79	79	84	92	100		
New Fork River nr Big Piney	APR-JUL	175	225	260	66	295	345	395		
Fontenelle Reservoir Inflow	APR-JUL	399	463	510	59	559	635	860		
Big Sandy River nr Farson	APR-JUL	24	32	38	66	44	52	58		

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

UPPER GREEN RIVER BASIN
Watershed Snowpack Analysis - May 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BIG SANDY	38.3	8.8	7.7	24.8	GREEN above Warren Bridge	4	80	63
EDEN		NO REPORT			UPPER GREEN (West Side)	7	100	77
FONTENELLE	344.8	153.9	162.4	143.5	NEWFORK RIVER	3	88	79
					BIG SANDY/EDEN VALLEY	2	72	55
					GREEN above Fontenelle	14	94	74

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

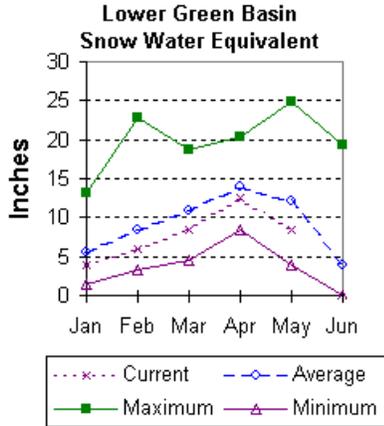
The average is computed for the 1971-2000 base period.

- (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.

Lower Green River Basin (12)

Snow

SWE in the Hams Fork is currently 68 percent of average (96% of last year). Blacks Fork SWE is currently 71 percent of average (167 percent of last year). The Henry's Fork is now at 54 percent of average (255 percent of last year). The basin, as a whole, is 69 percent of average (103 percent of last year). For more information see Basin Summary of Snow Courses at beginning of this report.



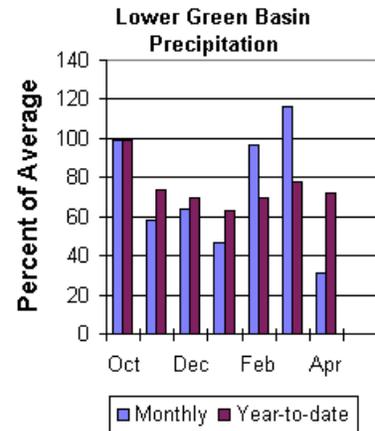
Precipitation

Precipitation was below average for the month (31 percent) for the 3 reporting stations. Precipitation ranged from 10 to 33 percent of average for the month. The basin year-to-date precipitation is currently 72 percent of average (98 percent of last year). Year to date percentages range from 67 to 93.

Reservoir

Usable reservoir storage varies from 91 to 110 percent of average -- usable reservoir storage is total reservoir storage minus dead storage.

Fontenelle is currently storing 45 percent of capacity (153,900-acre feet compared to 162,400-acre feet last year) – storage is 107 percent of average. Flaming Gorge is currently storing 71 percent of capacity (2,673,000-acre feet compared to 2,820,000-acre feet last year) – storage is 91 percent of average. Viva Naughton is currently storing 74 percent of capacity (31,400-acre feet compared to 32,400-acre feet last year) – storage is 110 percent of average.



Streamflow

Expected yields vary from 52 to 59 percent of average across the basin. The following forecast values are based on a 50 percent chance probability for the April through July forecast period. Green River near Green River is forecast to yield about 515,000-acre feet (59 percent of average). Blacks Fork near Robertson is forecast to yield 56,000-acre feet (59 percent of average). East Fork of Smiths Fork near Robertson is estimated to yield 17,200 acre-feet (56 percent of average). The estimated yield for Hams Fork near Frontier is 37,000-acre feet (57 percent of average). Viva Naughton Reservoir inflow will be about 46,000-acre feet (52 percent of average). Flaming Gorge Reservoir inflow will be about 620,000-acre feet (52 percent of average).

LOWER GREEN RIVER BASIN
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)				
		90% (1000AF)		70% (1000AF)			50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF) 10% (1000AF)	
		330	440	515	59		590	700	875	
Green River nr Green River, WY	APR-JUL	330	440	515	59	590	700	875		
Blacks Fork nr Robertson	APR-JUL	40	50	56	59	62	72	95		
EF of Smiths Fork nr Robertson	APR-JUL	14.6	16.1	17.2	56	18.4	20	31		
Hams Fk blw Pole Ck nr Frontier	APR-JUL	27	33	37	57	42	49	65		
Hams Fk Inflow to Viva Naughton Res	APR-JUL	27	38	46	52	54	65	89		
Flaming Gorge Reservoir Inflow	APR-JUL	365	515	620	52	725	880	1190		

LOWER GREEN RIVER BASIN Reservoir Storage (1000 AF) - End of April					LOWER GREEN RIVER BASIN Watershed Snowpack Analysis - May 1, 2003			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
FONTENELLE	344.8	153.9	162.4	143.5	HAMS FORK RIVER	4	96	68
FLAMING GORGE	3749.0	2673.0	2820.0	2952.0	BLACKS FORK	5	167	71
VIVA NAUGHTON RES	42.4	31.4	32.4	28.6	HENRYS FORK	3	255	54
					GREEN above Flaming Gorge	26	103	70

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

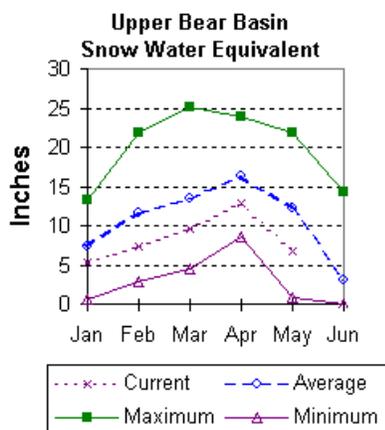
The average is computed for the 1971-2000 base period.

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

Upper Bear River Basin (13)

Snow

Snow water equivalent (SWE), at snow courses in the Bear River above the Idaho State line, is 56 percent of average (92 percent of last year). SWE for the Bear River in Utah is estimated to be 44 percent of average; that is about 104 percent of last year at this time. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is estimated at 69 percent of average (92 percent of last year at this time.). See the Basin Summary of Snow Course Data at the beginning of this report for more detailed information.

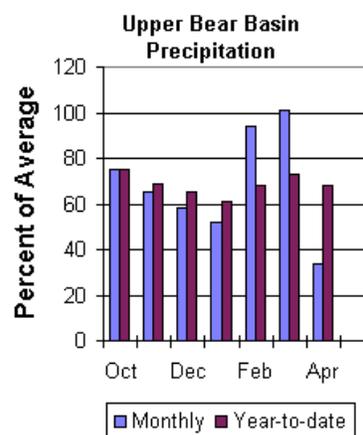


Precipitation

Precipitation for last month was 34 percent of average for the 2 reporting stations, 37 percent of last year's amount. The year-to-date precipitation, for the basin, is 68 percent of average; this is 93 percent of last year's amount.

Reservoir

Woodruff Narrows Reservoir has a total capacity of 57,300-acre feet. Reservoir storage is currently 18,500 acre feet (48 percent of average). Woodruff Narrows Reservoir is currently storing 100 percent of last



year's volume and 32 percent of capacity.

Streamflow

The following is based on the 50 percent chance stream flow yields are for the May through September period. Smiths Fork near Border is estimated to yield 44,000 acre-feet (40 percent of normal). Bear River above the Utah-Wyoming State Line is expected to yield about 58,000 acre feet (49 percent of average). Woodruff Narrows Reservoir inflow is expected to be about 28,000 acre-feet (about 23 percent of normal).

=====

UPPER BEAR RIVER BASIN
Streamflow Forecasts - May 1, 2003

=====

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)				
		90%		70%		50% (Most Probable)			30%		10%	
		(1000AF)	(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)		(1000AF)	(1000AF)	(1000AF)	(1000AF)
Smiths Fork nr Border	MAY-SEP	35	40	44	40	48	56	109				
Bear R nr UT-WY State Line	APR-SEP	56	63	66	53	70	75	125				
	MAY-SEP	51	55	58	49	61	66	119				
Woodruff Narrows Res inflow	APR-SEP	17.0	26	34	24	43	58	142				
	MAY-SEP	12.0	21	28	23	37	51	122				

UPPER BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of April					UPPER BEAR RIVER BASIN Watershed Snowpack Analysis - May 1, 2003			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
WOODRUFF NARROWS	57.3	18.5	18.5	38.5	UPPER BEAR RIVER in Utah	7	104	44
					SMITHS & THOMAS FORKS	4	92	69
					BEAR RIVER abv ID line	9	92	56

* 90%, 70%, 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.