USDA United States Department of Agriculture

Natural Resources Conservation Service

Wyoming Basin Outlook Report April 1, 2004

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

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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 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.

Wyoming Water Supply Outlook Report

General

Generally, snow water equivalent (SWE) across the state is much below normal for this time of the year. Snow stated melting from the SNOTEL sites about one month early. Many sites that normally peak about the middle of April actually reached their peak the first to middle of March. SWE average for the State is about 69 percent of normal for this time of the year. SWE in the Northwest portion of the State is 74 of percent normal. SWE in Northeast Wyoming is 64 of percent normal, and in the southeast part of the State is 67 percent of average. SWE in Southwestern Wyoming is 69 percent of average for this time of the year.

Precipitation for March varied from 66 percent below to 17 percent above average for the State. Year-to-date precipitation is also well below average for the year (varied from 8 to 28 percent below average). Reservoir levels vary from well above average to well below average. Reservoirs in the North Platte River basin are generally well below average. Reservoirs in the northeast have near average storage. Forecast runoff varies from 13 to 100 percent of average across the State.

Snowpack

Snow water equivalent (SWE), across the State, is below average for this time of year. SWE in the northwestern portion of the State is now about 74 percent of average (78 percent of last year). Northeast Wyoming SWE is currently about 64 percent of average (61 percent of last year). The southeast portion is currently about 67 percent of average SWE (69 percent of last year). And the southwest snowpack is about 69 percent of average (77 percent of last year).

Precipitation

Last month's precipitation was below normal across most of the State. The Lower Green was the lowest in percentage at 66 percent of average. The Belle Fourche and Cheyenne was the only basin to receive above average precipitation during the month at 117 percent. The following table displays the major river basins and their departure from normal for this month.

Basin	Departure from normal	Basin	Departure from normal
Snake River	-60%	Upper North Platte River	-47%
Yellowstone & Madison	-62%	Lower North Platte	-61%
Wind River	-71%	Little Snake River	-51%
Big Horn	-47%	Upper Green River	-60%
Shoshone & Clarks Fork	-50%	Lower Green River	-66%
Powder & Tongue River	-49%	Upper Bear River	-56%
Belle Fourche & Cheyenne	+17%		

Streams

Stream flow yield is expected to be well below average across the State. Most probable yield for the State is forecast to be about 65 percent of average (varies from 13 to 100 percent of average). The northwest part of the State is expected to yield about 75 percent of normal -- yield estimates vary from 13 to 100 percent of normal. Yield from the northeast portion of Wyoming is expected to yield about 78 percent of average -- yield estimates vary from 57 to 89 percent of average for the various forecast points. Yield in the southeast portion of the state

will be about 50 percent of normal -- yield estimates range from 13 to 84 percent of normal. Yield in the southwest portion of Wyoming varies from 13 to 100 percent of average -- mean estimated yield for the forecast points in southwest Wyoming is about 65 percent of average.

Reservoirs

Only one reservoir did not report (Eden Reservoir), and Eden Reservoir water level is below the staff gage. Reservoir storage, for those reporting, is generally below average for this time of the year, however reservoir storage is improved from last year. See following table for further information about reservoir storage.

Major Reservoirs in Wyoming

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	83	49	78	107	170
ANGOSTURA	72	79	90	80	91
DEERFIELD	00	101	89	113	99
PACTOLA	88	88	85	104	100
BELLE FOURCHE	66	73	73	90	90
JACKSON LAKE	22	35	57	38	63
GRASSY LAKE	66	85	81	81	78
FONTENELLE	48	53	41	117	91
BIG SANDY	19	20	54	36	96
EDEN			NO REPORT		
PILOT BUTTE	75	77	69	109	98
BULL LAKE	38	29	56	67	131
BOYSEN	64	48	80	80	134
BUFFALO BILL	68	53	60	113	129
KEYHOLE	59	68	59	101	88
SEMINOE	26	18	49	53	144
PATHFINDER	30	33	73	41	92
ALCOVA	85	86	87	98	99
GLENDO	58	51	84	69	115
GUERNSEY	44	37	45	98	120
WHEATLAND #2	28	0	55	50	0
PALISADES	43	45	67	65	97
HEBGEN LAKE	68	74	69	99	92
ENNIS LAKE	69	73	76	90	94
BIGHORN LAKE	49	45	60	82	109
TONGUE RIVER	62	61	38	164	103
FLAMING GORGE	70	70	78	90	100
WOODRUFF NARROWS	33	28	57	58	119
VIVA NAUGHTON RES	73	55	66	112	132

Basin Summary of Snow Course Data

B A S I N S U M M A R Y O F
S N O W C O U R S E D A T A

APRIL 2004

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
WYOMING Snow Course and SNOTEL Stations						
ALBANY	9400	3/29/04	22	6.2	13.6	13.7
ASTER CREEK	7750	3/31/04	54	24.2	26.0	30.5
BALD MOUNTAIN SNOTEL	9380	4/01/04	59	17.1	19.4	19.9
BASE CAMP SNOTEL	7030	4/01/04	---	14.3	20.6	18.1
BATTLE MTN. SNOTEL	7440	4/01/04	---	6.0	11.8	11.0
BEARLODGE DIVIDE	4680	4/01/04	0	.0	.0	1.3
BEARTOOTH LK. SNOTEL	9280	4/01/04	61	18.7	26.5	23.6
BEAR TRAP SNOTEL	8200	4/01/04	8	2.5	7.4	5.2
BIG GOOSE	7760	3/27/04	16	1.6	9.8	7.1
BIG GOOSE SNOTEL	7760	4/01/04	20	7.0	12.5	10.7
BIG PARK	8620	3/29/04	45	15.2	16.3	19.4
BIG SANDY SNOTEL	9080	4/01/04	41	12.0	11.9	14.7
BLACKWATER SNOTEL	9780	4/01/04	---	17.4	26.1	24.8
BLIND BULL SNOTEL	8900	4/01/04	55	20.1	23.9	28.3
BLIND PARK SNOTEL	6870	4/01/04	13	3.3	8.2	8.7
BLUE RIDGE	9620	3/30/04	27	9.1	11.0	11.7
BONE SPGS. SNOTEL	9350	4/01/04	47	14.4	17.3	16.4
BROOKLYN LK. SNOTEL	10220	4/01/04	---	14.4	18.0	23.9
BUCK CREEK	7960	3/30/04	22	6.8	10.3	10.6
BURGESS JCT. SNOTEL	7880	4/01/04	---	9.4	12.5	11.7
BURROUGHS CRK SNOTEL	8750	4/01/04	35	10.7	18.2	14.8
CANYON SNOTEL	8090	4/01/04	31	10.8	13.4	13.9
CARTER MOUNTAIN	7950	3/29/04	6	1.4	6.2	4.9
CASPER MTN. SNOTEL	7850	4/01/04	---	10.1	14.7	14.6
CASTLE CREEK	8400	3/29/04	1	.3	4.8	4.8
CCC CAMP	7000	3/30/04	28	10.0	11.1	12.7
CHALK CK #1 SNOTEL	9100	4/01/04	42	16.1	18.7	24.9
CHALK CK #2 SNOTEL	8200	4/01/04	34	11.3	15.1	16.2
CINNABAR PARK SNOTEL	9690	4/01/04	---	13.4	--	14.1
CLOUD PEAK SNOTEL	9850	4/01/04	37	12.1	16.5	13.5
COLE CANYON SNOTEL	5910	4/01/04	6	1.9	4.9	6.2
COLD SPRINGS SNOTEL	9630	4/01/04	6	1.8	8.8	9.0
COTTONWOOD CR SNOTEL	7700	4/01/04	---	17.6	23.2	24.2
CROW CREEK SNOTEL	8830	4/01/04	---	.1	--	9.0
DARBY CANYON	8250	3/31/04	53	22.4	22.7	24.5
DEER PARK SNOTEL	9700	4/01/04	36	14.1	15.1	17.1
DITCH CREEK	6870	4/01/04	2	.8	3.5	4.1
DIVIDE PEAK SNOTEL	8860	4/01/04	---	16.6	21.7	20.0
DOME LAKE SNOTEL	8880	4/01/04	26	9.7	14.6	12.6
DU NOIR	8760	3/29/04	14	3.0	5.4	8.3
EAST RIM DIV SNOTEL	7930	4/01/04	---	9.7	10.9	13.3
ELBO RANCH	7100	3/27/04	30	8.8	10.1	11.6
ELKHART PARK SNOTEL	9400	4/01/04	---	10.9	13.6	13.6

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
EVENING STAR SNOTEL	9200	4/01/04	52	19.3	30.4	30.1
FOUR MILE MEADOWS	7860	3/30/04	21	7.5	12.2	12.8
FOXPARK	9060	3/29/04	6	1.5	8.1	7.6
GEYSER CREEK	8500	3/29/04	11	2.7	4.8	7.1
GLADE CREEK	7040	4/01/04	43	19.4	18.7	24.3
GRANITE CRK SNOTEL	6770	4/01/04	---	13.9	14.9	18.6
GRANNIER MEADOWS	8860	3/30/04	34	10.9	10.8	14.1
GRASSY LAKE SNOTEL	7270	4/01/04	70	34.3	32.8	36.1
GRAVE SPRINGS SNOTEL	8550	4/01/04	28	8.7	7.0	9.4
GREYS BOUNDARY	5720	3/30/04	22	9.3	7.9	11.3
GROS VENTRE SNOTEL	8750	4/01/04	29	9.8	13.2	14.4
GROVER PARK DIVIDE	7000	3/30/04	15	5.9	8.7	11.2
HAIRPIN TURN	9480	3/29/04	25	8.1	13.0	16.3
HANSEN S.M. SNOTEL	8360	4/01/04	11	3.8	9.7	6.5
HAMS FORK SNOTEL	7840	4/01/04	---	6.2	11.9	12.0
HASKINS CREEK	8980	3/30/04	66	26.4	31.4	30.0
HOBBS PARK SNOTEL	10100	4/01/04	---	10.8	14.7	15.1
HUCKLEBERRY DIVIDE	7300	3/31/04	39	17.1	18.8	21.3
INDIAN CREEK SNOTEL	9430	4/01/04	---	21.3	24.0	28.2
JACKPINE CREEK	7350	3/31/04	43	18.7	20.2	22.2
KELLEY R.S. SNOTEL	8180	4/01/04	---	12.7	13.8	17.1
KENDALL R.S. SNOTEL	7740	4/01/04	---	10.1	13.1	14.6
KIRWIN SNOTEL	9550	4/01/04	21	5.8	12.5	11.5
LAKE CAMP	7780	4/04/04	17	5.9	8.8	10.4
LA PRELE SNOTEL	8380	4/01/04	---	5.5	8.8	11.0
LARSEN CREEK	9020	3/29/04	27	9.4	9.6	12.7
LEWIS LAKE SNOTEL	7850	4/01/04	---	29.0	34.6	35.8
LEWIS LAKE DIVIDE	7850	3/31/04	82	37.4	40.3	42.4
LIBBY LODGE	8750	3/29/04	14	3.7	10.3	10.9
LITTLE BEAR RUN	6240	4/01/04	0	.0	2.4	2.4
LITTLE WARM SNOTEL	9370	4/01/04	20	6.5	10.2	12.0
LOOMIS PARK SNOTEL	8240	4/01/04	---	12.9	18.5	17.5
LUPINE CREEK	7380	3/27/04	18	5.5	7.2	9.9
MALLO	6420	3/30/04	12	3.5	5.9	6.5
MARQUETTE SNOTEL	8760	4/01/04	22	7.2	13.2	9.0
MEDICINE LODGE LAKES	9340	3/28/04	34	10.0	12.0	11.1
MIDDLE FORK	7420	3/30/04	18	5.0	7.3	6.0
MIDDLE POWDER SNOTEL	7760	4/01/04	---	9.5	8.8	11.8
MORAN	6750	3/30/04	17	7.0	8.8	12.4
MOSS LAKE	9800	3/31/04	37	12.8	21.5	23.6
NEW FORK SNOTEL	8340	4/01/04	---	9.0	10.9	11.3
NORRIS BASIN	7500	4/01/04	13	5.3	7.6	10.8
NORTH BARRETT CREEK	9400	3/31/04	42	15.0	24.6	21.5
NORTH FRENCH SNOTEL	10130	4/01/04	---	20.4	31.1	29.5
NORTH RAPID CK SNTL	6130	4/01/04	11	3.1	5.6	8.3
NORTH TONGUE	8450	3/28/04	36	6.4	13.7	13.0
OLD BATTLE SNOTEL	9920	4/01/04	---	27.2	29.3	32.4
OLD FAITHFUL	7400	3/31/04	28	11.4	10.7	13.9
ONION GULCH	8780	3/28/04	21	4.4	8.0	8.3
OWL CREEK SNOTEL	8980	4/01/04	12	3.5	7.2	5.6

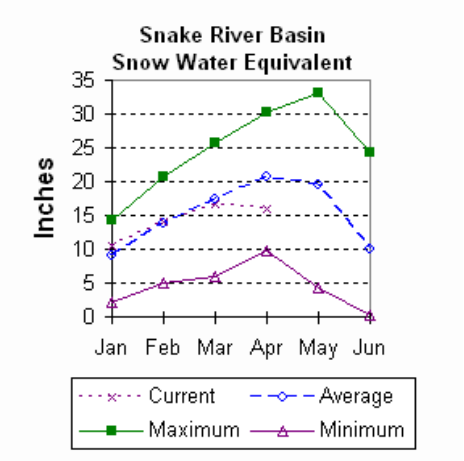
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
PARKERS PEAK SNOTEL	9400	4/01/04	42	16.0	25.0	21.9
PHILLIPS BENCH SNTL	8200	4/01/04	56	23.6	25.2	29.2
POCKET CREEK	9350	3/30/04	34	10.6	11.7	13.2
POLE MOUNTAIN	8700	3/30/04	13	3.9	9.5	8.4
POWDER RVR.PASS SNTL	9480	4/01/04	25	8.4	10.9	10.9
PURGATORY GULCH	8970	3/30/04	29	10.5	12.8	11.8
RANGER CREEK	8120	3/28/04	24	6.1	10.0	8.9
RENO HILL SNOTEL	8500	4/01/04	---	11.2	12.8	14.3
REUTER CANYON	6280	4/01/04	0	.0	3.4	8.6
ROWDY CREEK	8300	3/30/04	44	16.9	20.8	21.6
RYAN PARK	8400	3/31/04	10	3.8	12.6	10.8
SAGE CK BASIN SNTL	7850	4/01/04	---	6.9	11.3	11.6
SALT RIVER SNOTEL	7600	4/01/04	---	11.3	12.0	14.6
SAND LAKE SNOTEL	10050	4/01/04	---	20.7	25.3	32.7
SANDSTONE RS SNOTEL	8150	4/01/04	---	9.2	13.6	14.8
SAWMILL DIVIDE	9260	3/27/04	35	7.3	15.1	13.0
SHELL CREEK SNOTEL	9580	4/01/04	50	13.4	15.9	14.9
SHERIDAN R.S.	7750	3/29/04	10	2.8	5.0	5.8
SNAKE RIVER STATION	6920	3/31/04	37	16.3	--	20.9
SNAKE RV STA SNOTEL	6920	4/01/04	---	15.8	16.5	19.2
SNIDER BASIN SNOTEL	8060	4/01/04	31	11.2	13.7	14.7
SOLDIER PARK	8780	3/28/04	19	3.6	5.2	5.9
SOUR DOUGH	8460	3/28/04	21	4.3	8.4	7.1
SOUTH BRUSH SNOTEL	8440	4/01/04	---	6.4	13.9	13.2
SOUTH PASS SNOTEL	9040	4/01/04	40	15.0	14.5	16.7
SPRING CRK. SNOTEL	9000	4/01/04	62	21.2	25.9	26.9
ST LAWRENCE ALT SNTL	8620	4/01/04	---	3.7	8.0	7.4
SUCKER CREEK SNOTEL	8880	4/01/04	34	10.6	15.2	11.8
SYLVAN LAKE SNOTEL	8420	4/01/04	35	14.3	21.0	22.8
SYLVAN ROAD SNOTEL	7120	4/01/04	24	7.9	14.1	12.9
TETON PASS W.S.	7740	4/01/04	47	21.4	26.0	27.6
THUMB DIVIDE SNOTEL	7980	4/01/04	---	14.5	15.7	19.2
THUMB DIVIDE	7980	3/31/04	33	13.6	13.9	19.1
TIE CREEK SNOTEL	6870	4/01/04	15	4.8	8.7	6.1
TIMBER CREEK SNOTEL	7950	4/01/04	10	3.1	6.5	5.8
TOGWOTEE PASS SNOTEL	9580	4/01/04	51	18.1	24.4	25.2
TOWNSEND CRK SNOTEL	8700	4/01/04	26	8.7	10.6	8.8
TRIPLE PEAK SNOTEL	8500	4/01/04	---	17.3	25.2	25.2
TURPIN MEADOWS	6900	3/30/04	17	6.3	10.5	10.2
TWO OCEAN SNOTEL	9240	4/01/04	---	24.6	32.3	28.4
TYRELL RANGER STA.	8300	3/28/04	16	3.2	5.8	7.6
UPPER SPEARFISH	6500	3/31/04	13	4.4	5.8	6.7
WEBBER SPRING SNOTEL	9250	4/01/04	---	18.7	22.1	26.4
WHISKEY PARK SNOTEL	8950	4/01/04	---	23.3	27.3	30.4
WILLOW CREEK SNOTEL	8450	4/01/04	---	23.3	29.8	30.6
WINDY PEAK SNOTEL	7900	4/01/04	---	3.4	10.1	8.1
WOLVERINE SNOTEL	7650	4/01/04	7	2.1	12.7	11.6
WOOD ROCK G.S.	8440	3/27/04	27	5.0	12.0	10.2
YOUNTS PEAK SNOTEL	8350	4/01/04	30	8.2	17.3	17.3

(d) denotes discontinued site.

Snake River Basin (1)

Snow

The Snake River basin snow water equivalent (SWE) is below normal. Snake above Jackson Lake is 82 percent (91% of last year at this time). Pacific Creek SWE is 78 percent of average (74% of last year at this time). Gros Ventre River SWE is 72 percent of average (77% of last year at this time). SWE in the Hoback River drainage is 72 percent of average (82% of last year at this time), SWE in the Greys River drainage is 75 percent of average (81% of last year at this time). In the Salt River area, SWE is 73 percent of average (80% of last year at this time). SWE in the Snake River Basin above Palisades is 77 percent of average (85% 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.

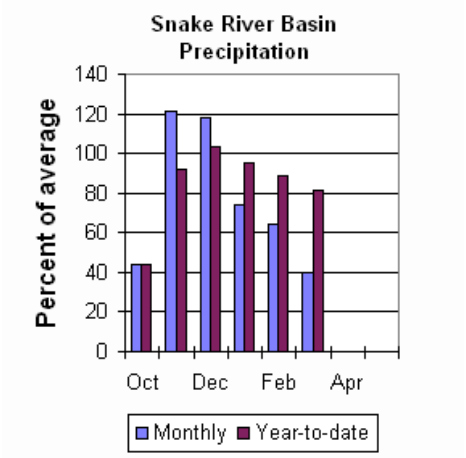


Precipitation.

Precipitation across the basin was below average last month. Monthly precipitation, for the basin, was 40 percent of average (29 percent of last year). Last months percentages range from 25 to 63 percent of average. Water-year-to-date precipitation is 81 percent of normal for the Snake River basin (91 percent of last year at this time) Year-to-date percentages range from 74 to 91 percent of average.

Reservoir.

Currently, usable reservoir storage, compared to average for the three storage reservoirs in the basin, is below average. Grassy Lake storage is about 81 percent of average (10,000 acre feet compared to 12,900 last year). Jackson Lake storage is 38 percent of average (185,300 acre feet compared to 294,800 acre feet last year). Palisades Reservoir storage is about 65 percent of average (608,000 acre feet compared to 628,600 acre feet last year).



Streamflow.

The most probable, 50 percent chance, April through September runoff yield forecast is below average for the basin. The Snake near Moran is expected to yield 695,000 acre-feet (77% of normal). Yield from the Snake River above Palisades Reservoir is estimated to be 2,090,000 acre-feet (77% of normal). Palisades reservoir inflow is expected to be about 2,780,000 acre feet (72% of average). The 50 percent chance yield near Heise is expected to be 2,980,000 acre-feet (72% of normal). Pacific Creek at Moran is expected to yield about 133,000 acre-feet (75% of average). Greys River above Palisades Reservoir is estimated to yield 240,000 acre-feet (61% of normal). Salt River near Etna is estimated to have a yield of 245,000 acre-feet (58% of normal).

SNAKE RIVER BASIN
Streamflow Forecasts - April 1, 2004

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)
SNAKE near Moran (1,2)	APR-JUL	505	585	625	77	665	745	815
	APR-SEP	555	650	695	77	740	835	905
SNAKE above Palisades (2)	APR-JUL	1600	1730	1820	77	1910	2040	2370
	APR-SEP	1820	1980	2090	77	2200	2360	2730
PALISADES RESERVOIR INFLOW (1,2)	APR-JUL	1920	2240	2390	72	2540	2860	3330
	APR-SEP	2240	2610	2780	72	2950	3320	3870
SNAKE near Heise (2)	APR-JUL	2150	2390	2550	72	2710	2950	3560
	APR-SEP	2510	2790	2980	72	3170	3450	4160
PACIFIC CREEK at Moran	APR-JUL	99	116	128	75	140	157	171
	APR-SEP	103	121	133	75	145	163	178
GREYS above Palisades	APR-JUL	157	186	205	60	224	251	340
	APR-SEP	186	218	240	61	260	295	395
SALT near Etna	APR-JUL	131	173	198	58	223	263	340
	APR-SEP	165	215	245	58	275	325	420

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
GRASSY LAKE	15.2	10.0	12.9	12.3
JACKSON LAKE	847.0	185.3	294.8	486.6
PALISADES	1400.0	608.0	628.6	941.5

SNAKE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SNAKE above Jackson Lake	9	91	82
PACIFIC CREEK	3	74	78
GROS VENTRE RIVER	3	77	72
HOBACK RIVER	5	82	72
GREYS RIVER	5	81	75
SALT RIVER	5	80	73
SNAKE above Palisades	28	84	77

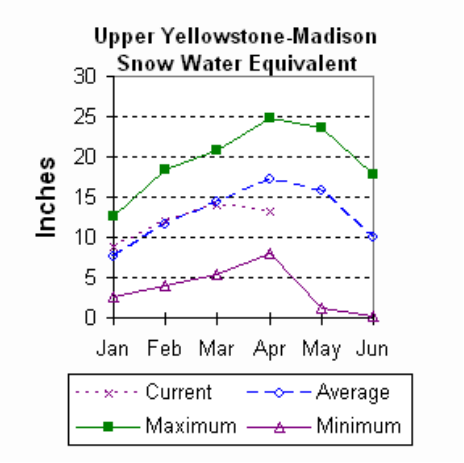
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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

Snowfall in these basins has been mixed this year, however, SWE, in both basins, is below average this month. Snow water equivalent (SWE) is about 85 percent of average (114 percent of last year) in the Madison drainage. SWE in the Yellowstone drainage is about 68 percent of average (70 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.

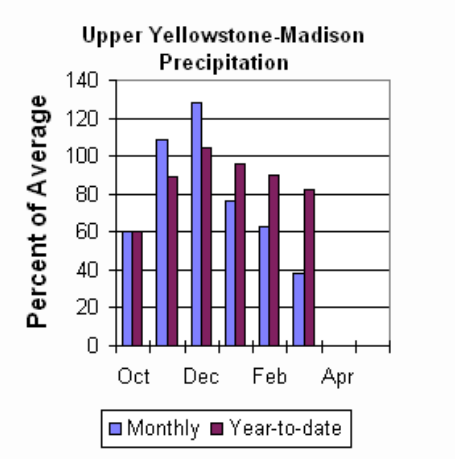


Precipitation

Last month precipitation in the Madison and Yellowstone drainage was about 38 percent of average (23 percent of previous year) for the 5 reporting stations -- percentage range was from 23 to 56 percent of average. Water-year-to-date precipitation is about 82 percent of average (81 percent of last year's amount). Year to date percentage ranges from 79 to 86 percent.

Reservoir

Usable storage in Ennis Lake is estimated to be 29,200 acre-feet (69 percent of capacity) – 90 percent of average. Hebgen Lake is storing about 283,900 acre-feet of water (68 percent of capacity) – 99 percent of average. Hebgen Lake is storing about 92 percent and Ennis Lake is storing about 94 percent of last year's volume.



Streamflow

All the following forecasts are the 50 percent chance runoff for the April through September runoff period. Yellowstone at Lake Outlet is expected to yield about 645,000 acre feet (80 percent of normal). Yellowstone at Corwin Springs will yield about 1,430,000 acre-feet (87 percent of normal). Yellowstone near Livingston will yield about 1,980,000 acre feet (87 percent of normal). Hebgen lake inflow is estimated to be 500,000 acre feet (100 percent of normal). See the following page for detailed runoff volumes.

UPPER YELLOWSTONE & MADISON RIVER BASINS
Streamflow Forecasts - April 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== 90% (1000AF)	70% (1000AF)	Future Conditions 50% (Most Probable) (1000AF)	(% AVG.)	======= Wetter =====>> 30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
YELLOWSTONE at Lake Outlet	APR-JUL	390	450	490	83	530	590	590
	APR-SEP	520	595	645	80	695	770	805
YELLOWSTONE RIVER at Corwin Springs	APR-JUL	1190	1330	1430	87	1530	1670	1650
	APR-SEP	1430	1590	1710	87	1830	1990	1970
YELLOWSTONE RIVER near Livingston	APR-JUL	1440	1560	1640	86	1720	1840	1900
	APR-SEP	1740	1880	1980	87	2080	2220	2280
HEBGEN Reservoir Inflow	APR-JUL	325	365	390	100	415	455	390
	APR-SEP	425	470	500	100	530	575	500

Chance Of Exceeding *

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

UPPER YELLOWSTONE & MADISON RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ENNIS LAKE	41.0	28.2	29.9	31.2
HEBGEN LAKE	377.5	258.3	280.4	259.6

UPPER YELLOWSTONE & MADISON RIVER BASINS
Watershed Snowpack Analysis - April 1, 2004

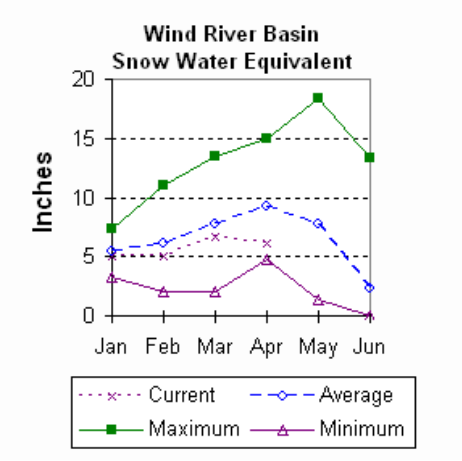
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
MADISON RIVER in WY	9	114	85
YELLOWSTONE RIVER in WY	12	70	68

(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

The Wind River basin has much below average snow water equivalent (SWE) for this time of the year. SWE in the Wind River above Dubois is 57 percent of average (61 percent of last year). The Little Wind SWE is 64 percent of average water content (64 percent of last year), and the Popo Agie drainage SWE is about 82percent of average (88 percent of last year). The Wind River basin, above Boysen Reservoir, SWE is about 67 percent of average (about 71 percent of last year). See the Basin Summary of Snow Course Data at the front of this report for details.

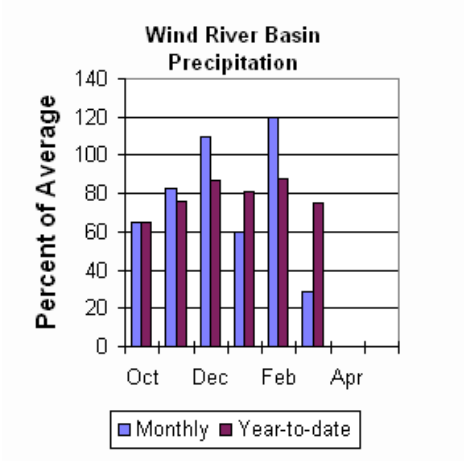


Precipitation

Last months precipitation in the basin varied from 0 to 48 percent of average at Diversion Dam. Precipitation, for the basin, was about 29 percent of average for the 7 reporting stations; that is about 19 percent of last year's amount. Water year-to-date precipitation is 75 percent of normal and about 76 percent of last year at this time. Year to date percentages range from 63 to 82 percent of average.

Reservoirs

Current storage varies from 67 to 109 percent of average. Usable storage in Bull Lake is currently about 57,400 acre feet (38 percent of capacity) -- normally the reservoir is at 56 percent of capacity at this time of the year. Boysen Reservoir is storing about 64 percent of capacity 382,200 acre feet) -- normally the reservoir is at 80 percent of capacity at this time of the year. Pilot Butte is storing 75 percent of capacity (23,800 acre feet) -- normally the reservoir is at 69 percent of capacity at this time of the year.



Streamflow

Water supply is estimated to be well below normal this year. The following values reflect the 50 percent chance yields for the April through September runoff period. Dinwoody Creek near Burris is estimated to yield 73,000 acre feet (78% of average). The Wind River above Bull Lake Creek is expected to yield 425,000 acre feet (79 percent of average). Bull Lake Creek near Lenore is expected to yield about 111,000 acre feet (61 percent of average). Wind River at Riverton will yield about 390,000 acre feet (61 percent of average). Little Popo Agie River near Lander is expected to yield about 36,000 acre feet (68 percent of average). South Fork of Little Wind near Fort Washakie will yield about 54,000 acre feet (64 percent of average). Little Wind River near Riverton will yield about 270,000 acre feet (86 percent of average). Boysen Reservoir inflow will yield about 520,000 acre feet (64 percent of normal).

WIND RIVER BASIN
Streamflow Forecasts - April 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== 90% (1000AF)	70% (1000AF)	Future Conditions ======= 50% (Most Probable) (1000AF)	(% AVG.)	Wetter =====>> 30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DINWOODY CREEK nr Burris	APR-JUL	32	42	49	74	56	66	67
	APR-SEP	52	64	73	78	82	94	94
WIND RIVER abv Bull Lake Cr (2)	APR-JUL	235	295	335	77	375	435	435
	APR-SEP	315	380	425	79	470	535	535
BULL LAKE CR near Lenore (2)	APR-JUL	48	73	89	60	105	130	148
	APR-SEP	59	90	111	61	132	165	182
WIND RIVER at Riverton (2)	APR-JUL	130	245	325	60	405	520	545
	APR-SEP	185	305	390	61	475	595	640
LT POPO AGIE RIVER nr Lander	APR-JUL	14.8	24	31	67	38	47	46
	APR-SEP	19.0	29	36	68	43	53	53
SF LT WIND nr Fort Washakie	APR-JUL	24	38	47	64	56	70	73
	APR-SEP	28	43	54	64	65	80	84
LT WIND RIVER nr Riverton	APR-JUL	100	185	240	86	295	380	280
	APR-SEP	122	210	270	86	330	420	315
BOYSEN RESERVOIR Inflow (2)	APR-JUL	195	355	465	65	575	735	717
	APR-SEP	225	400	520	64	640	815	809

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

(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
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BULL LAKE	151.8	57.4	43.8	85.3
BOYSEN	596.0	382.2	285.9	475.6
PILOT BUTTE	31.6	23.8	24.3	21.9

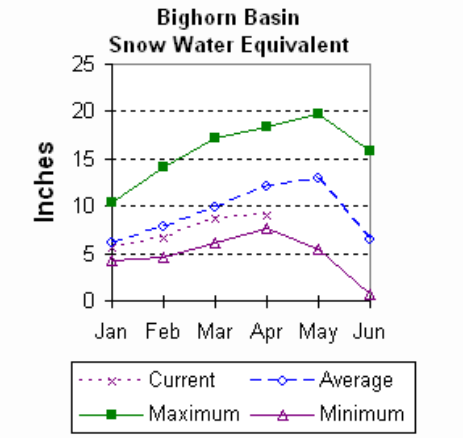
WIND RIVER BASIN
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WIND RIVER above Dubios	6	64	57
LITTLE WIND	2	64	64
POPO AGIE	7	88	82
WIND above Boysen Resv	13	71	67

Bighorn River Basin (4)

Snow

Snowpack in this basin is below average for this time of year. The Nowood drainage SWE is 71 percent of average (78 percent of last year). Greybull River SWE is 51 percent of average (47 percent of last year). Shell Creek SWE is 85 percent of average (81 percent of last year). The basin SWE, as a whole, is currently 75 percent of average (75 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.

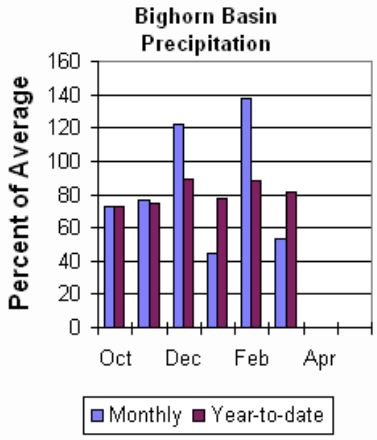


Precipitation

Last month's precipitation was 53 percent of the monthly average (37 percent of last year). Sites ranged from 3 to 84 percent of average for the month. Year-to-date precipitation is 81 percent of normal; that is 80 percent of last year at this time. Year to date percentages, from the 10 reporting stations, range from 60 to 103.

Reservoir

Boysen Reservoir is currently storing 382,200-acre feet (80 percent of average). Bighorn Lake is now at 82 percent of average (666,300-acre feet). Boysen is currently storing 134 percent of last year at this time and Big Horn Lake is storing 109 percent of last year's volume.



Streamflow

The 50 percent chance April through September runoff is anticipated to be below normal. The Boysen Reservoir inflow is forecast to yield 520,000 acre feet (64 percent of average); the Greybull River nr Meeteese should yield 148,000 acre feet (74 percent of average); Shell Creek near Shell should yield 70,000 acre feet (97 percent of average) and the Bighorn River at Kane should yield 725,000 acre feet (65 percent of average).

BIGHORN RIVER BASIN
Streamflow Forecasts - April 1, 2004

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)
BOYSEN RESERVOIR Inflow (2)	APR-JUL	195	355	465	65	575	735	717
	APR-SEP	225	400	520	64	640	815	809
GREYBULL RIVER nr Meeteetse	APR-JUL	75	93	105	71	117	135	148
	APR-SEP	107	132	148	74	164	187	200
SHELL CREEK nr Shell	APR-JUL	49	55	59	98	63	69	60
	APR-SEP	59	66	70	97	74	81	72
BIGHORN RIVER at Kane (2)	APR-JUL	410	565	670	67	775	930	1000
	APR-SEP	435	605	725	65	845	1015	1110

BIGHORN RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BOYSEN	596.0	382.2	285.9	475.6
BIGHORN LAKE	1356.0	666.3	610.9	809.9

BIGHORN RIVER BASIN
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
NOWOOD RIVER	5	78	71
GREYBULL RIVER	2	47	51
SHELL CREEK	4	81	85
BIGHORN (Boysen-Bighorn)	11	75	75

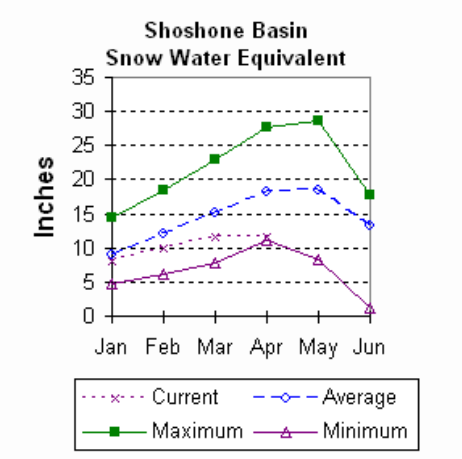
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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)

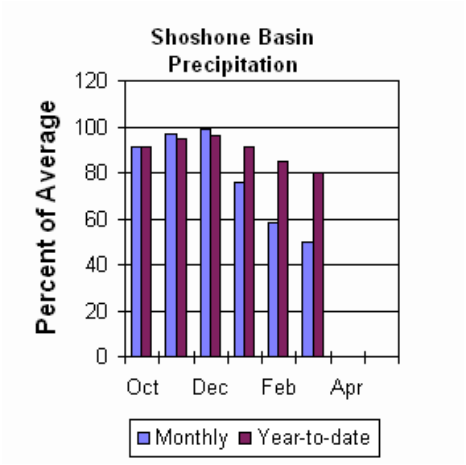
Snow.

Snow Water Equivalent (SWE) is 62 percent of average (59 percent of last year) in the Shoshone River basin. The Clarks Fork River basin SWE is 67 percent of average (63 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 50 percent of normal (25 percent of last year). Monthly percentages range from 0 to 81 percent of average. The basin year-to-date precipitation is now 80 percent of average (70 percent of last year). Year-to-date percentages range from 66 to 91 percent of average.



Reservoir.

Current usable storage in Buffalo Bill Reservoir is about 113 percent of average (129 percent of last year's storage) – the reservoir is about 68 percent of capacity. Currently, about 441,800 acre-feet are stored in the reservoir compared to 342,300 acre feet last year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

Streamflow

The fifty percent yield (April through September period) for the North Fork Shoshone River at Wapiti is expected to be 460,000 acre-feet (89 percent of average). South Fork of the Shoshone River near Valley is estimated to yield of 176,000 acre-feet (66 percent of average), and South Fork above Buffalo Bill Reservoir is expected to be 111,000 acre-feet (49 percent of average). At the Buffalo Bill Reservoir, the fifty percent chance yield for the Shoshone River is expected to be about 560,000 acre-feet (70 percent of average). The fifty-percent chance yield for the Clarks Fork of the Yellowstone near Belfry, Montana is expected to be about 530,000 acre-feet (89 percent of average).

SHOSHONE & CLARKS FORK RIVER BASINS
Streamflow Forecasts - April 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== 90% (1000AF)	70% (1000AF)	Future Conditions ======= 50% (Most Probable) (1000AF)	(% AVG.)	Wetter =====>> 30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
NF SHOSHONE RIVER at Wapiti	APR-JUL	355	390	415	90	440	475	460
	APR-SEP	395	435	460	89	485	525	520
SF SHOSHONE RIVER nr Valley	APR-JUL	117	140	155	69	170	193	225
	APR-SEP	130	157	176	66	195	221	265
SF SHOSHONE RIVER abv Buffalo Bill	APR-JUL	39	81	110	51	139	181	215
	APR-SEP	34	80	111	49	142	188	225
BUFFALO BILL DAM Inflow (2)	APR-JUL	365	450	505	70	560	645	720
	APR-SEP	410	500	560	70	620	710	805
CLARKS FORK RIVER nr Belfry	APR-JUL	400	450	485	90	520	570	540
	APR-SEP	440	495	530	89	565	620	595

SHOSHONE & CLARKS FORK RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BUFFALO BILL	646.6	441.8	342.3	390.9

SHOSHONE & CLARKS FORK RIVER BASINS
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SHOSHONE RIVER	7	59	62
CLARKS FORK in WY	7	63	67

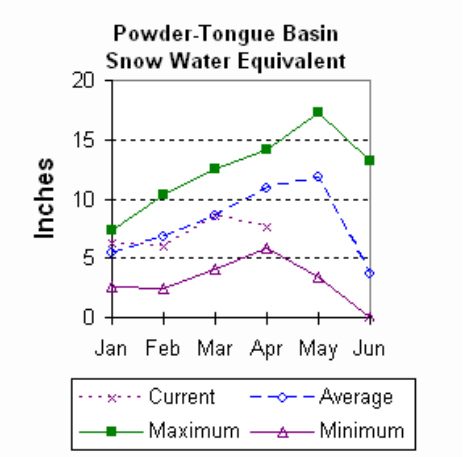
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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 73 percent of normal (64 percent of last year). The Goose Creek drainage SWE is 66 percent of average (57 percent of last year). SWE in the Clear Creek drainage is 72 percent of normal SWE (60 percent of last year). Crazy Woman Creek drainage SWE is 65 percent of average (63 percent of last year). The Upper Powder River drainage SWE is 69 percent of average (71 percent of last year). The Powder River basin SWE, in Wyoming, is about 70 percent of average (65 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.

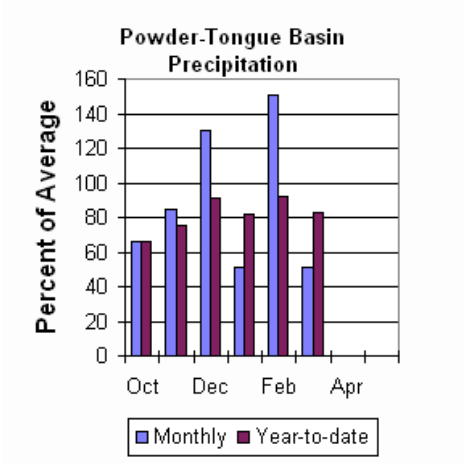


Precipitation

Last month's precipitation was 51 percent of average for the 9 reporting stations (31 percent of last year). Monthly percentages range from 6 to 208 percent of average. Year-to-date precipitation is about 83 percent of average in the basin; this is 80 percent of last year at this time. Precipitation for the year ranges from 60 to 103 percent of average at the reporting stations.

Reservoir

Tongue River Reservoir has a total capacity of 79,100 acre feet and is currently storing 49,400 acre feet. Current reservoir storage is 164 percent of average. The current reservoir is about 62 percent of capacity. Last year at this time the reservoir was storing about 47,900 acre feet – average storage is about 30,100 acre feet for this time of the year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



Streamflow

The following runoff values are for the 50 percent probability during the April through September forecast period. The estimated yield for Tongue River near Dayton is 77,000-acre feet (71 percent of normal). Big Goose Creek near Sheridan is expected to yield about 38,000 acre feet (63 percent of average), while Little Goose Creek nr Big Horn is expected to yield about 29,000 acre feet (69 percent of average). Middle Fork of the Powder River near Barnum is estimated to yield 11,000 acre feet (59 percent of average). The North Fork of the Powder near Hazelton should yield about 8,300 acre-feet (80 percent of normal). The estimated yield for Clear Creek near Buffalo is 32,000 acre-feet (82 percent of average). Rock Creek near Buffalo will yield about 17,800 acre-feet (74 percent of normal), and Piney Creek at Kearny should yield about 39,000 acre-feet (75 percent of average).

POWDER & TONGUE RIVER BASINS
Streamflow Forecasts - April 1, 2004

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)
TONGUE RIVER nr Dayton (2)	APR-JUL	38	55	66	69	77	94	96
	APR-SEP	46	64	77	71	90	108	109
BIG GOOSE CREEK nr Sheridan	APR-JUL	9.0	22	31	60	40	53	52
	APR-SEP	15.0	29	38	63	47	61	60
LITTLE GOOSE CREEK nr Big Horn	APR-JUL	10.3	17.0	22	65	27	34	34
	APR-SEP	16.0	24	29	69	34	42	42
TONGUE RIVER RESERVOIR Inflow (2)	APR-JUL	43	99	137	62	177	232	220
	APR-SEP	57	118	159	64	199	259	250
MIDDLE FORK POWDER nr Barnum	APR-JUL	3.3	7.4	10.2	57	13.0	17.1	17.8
	APR-SEP	3.9	8.1	11.0	59	13.9	17.8	18.7
NORTH FORK POWDER nr Hazelton	APR-JUL	5.20	6.60	7.60	79	8.60	10.00	9.60
	APR-SEP	5.7	7.2	8.3	80	9.4	10.9	10.4
CLEAR CREEK nr Buffalo	APR-JUL	19.0	24	27	79	30	35	34
	APR-SEP	23	28	32	82	36	41	39
ROCK CREEK nr Buffalo	APR-JUL	7.7	11.7	14.4	72	17.4	21	19.9
	APR-SEP	11.0	14.8	17.8	74	21	25	24
PINEY CREEK at Kearny	APR-JUL	11.1	26	36	74	46	61	49
	APR-SEP	13.0	29	39	75	49	65	52

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
TONGUE RIVER	79.1	49.4	47.9	30.1

POWDER & TONGUE RIVER BASINS
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER TONGUE RIVER	10	64	73
GOOSE CREEK	3	57	66
CLEAR CREEK	4	60	72
CRAZY WOMAN CREEK	3	63	65
UPPER POWDER RIVER	4	71	69
POWDER RIVER in WY	8	65	70

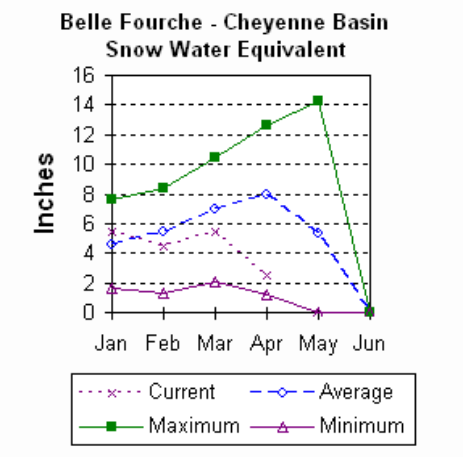
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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)

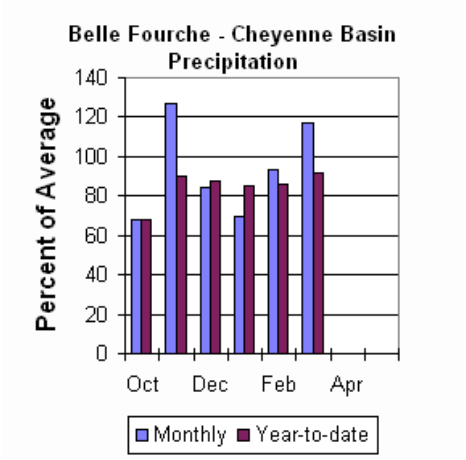
Snow.

The Belle Fourche River Basin snow water equivalent (SWE) is below average. SWE is currently 31 percent of average snow pack; 41 percent of last years amount at this time. See Basin summary of Snow Course Data at the beginning of this report for a detailed listing.



Precipitation.

Precipitation, for last month was 117 percent of average in the Black Hills. Monthly percentages range from 35 to 145 percent. Year-to-date precipitation is 83 percent of average and 83 percent of last year's amount.



Reservoir.

Usable reservoir storage is generally near average in the basin. Angostura is currently storing 80 percent of average (87,700-acre feet), about 72 percent of capacity. Belle Fourche reservoir is storing 90 percent of average (117,600-acre feet), about 66 percent of capacity. Deerfield reservoir is storing 113 percent of average (15,200-acre feet), about 100 percent of capacity. Keyhole reservoir is storing 101 percent of average (114,700-acre feet), 59 percent of capacity. Pactola reservoir is storing 104 percent of average (48,600-acre feet), 88 percent of capacity. Shadehill reservoir is storing 107 percent of average (67,700-acre feet), 83 percent of capacity.

Streamflow

Water supply is estimated to be near normal this year. The following values reflect the 50 percent chance yields for the April through July runoff period. Deerfield Reservoir inflow is forecast at 4,500 acre feet (85 percent of average). Pactola is forecast at 16,800 acre feet (89 percent of average).

BELLE FOURCHE & CHEYENNE RIVER BASINS
Streamflow Forecasts - April 1, 2004

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)
DEERFIELD RESERVOIR Inflow	APR-JUL	1.60	3.30	4.50	85	5.70	7.40	5.32
PACTOLA RESERVOIR Inflow	APR-JUL	1.4	10.6	16.8	89	23	32	18.9

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ANGOSTURA	122.1	87.7	96.8	110.1
BELLE FOURCHE	178.4	117.6	130.6	130.9
DEERFIELD	15.2	15.2	15.3	13.5
KEYHOLE	193.8	114.7	131.0	113.5
PACTOLA	55.0	48.6	48.5	46.8
SHADEHILL	81.4	67.7	39.8	63.1

BELLE FOURCHE & CHEYENNE RIVER BASINS
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
BELLE FOURCHE	8	41	31

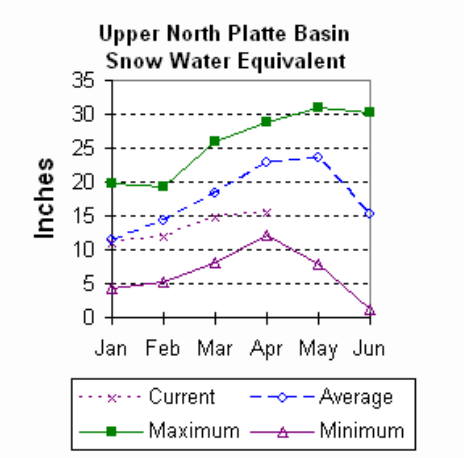
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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)

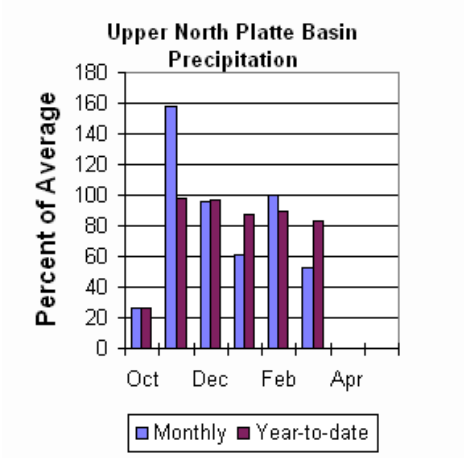
Snow

The snow courses above Seminoe Reservoir have about 68 percent of average snow water equivalent (SWE) recorded for this time of the year (70 percent of last year). SWE in the drainage area above Northgate is about 68 percent of average and 66 percent of last year at this time. SWE in the Encampment River drainage is about 79 percent of normal and 87 percent of last year. Brush Creek SWE for the year is about 56 percent of normal and 59 percent of last year's SWE. Medicine Bow and Rock Creek drainage SWE is about 60 percent of average and 74 percent of last year at this time. For more information see Basin Summary of Snow Courses at the beginning of this report.



Precipitation

Eight reporting stations indicate last month's precipitation was 53 percent of average and about 35 percent of last year's amount. Precipitation varied from 42 to 75 percent of average last month. Total water-year-to-date precipitation is about 83 percent of average for the basin, which is about 83 percent of last year's amount. Year to date percentage ranges from 67 to 87 percent of average.



Reservoirs

Seminoe Reservoir is currently storing about 53 percent of average for this time of the year. Currently, the reservoir is storing 144 percent of last year's amount. Seminoe Reservoir is estimated to be storing 261,500 acre-feet (26 percent of capacity). Last year, at this time, the reservoir had 181,000 acre-feet in storage.

Streamflow

All the following yields are based on the fifty percent chance April through September yield. Yield for the North Platte River near Northgate is expected to be about 107,000 acre-feet (40 percent of average). Encampment River near Encampment is estimated to yield 138,000 acre-feet (84 percent of normal). Rock Creek near Arlington is estimated to yield 29,000 acre-feet (51 percent of average). Seminoe Reservoir inflow should be about (445,000 acre-feet (52 percent of normal). See the following table for more detailed information on projected runoff.

UPPER NORTH PLATTE RIVER BASIN
Streamflow Forecasts - April 1, 2004

Forecast Point	Forecast Period	<<====== Drier ====== 90% (1000AF)	70% (1000AF)	Future Conditions 50% (Most Probable) (1000AF)	(% AVG.)	======= Wetter =====>> 30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
NORTH PLATTE RIVER nr Northgate	APR-JUL	45	72	94	38	119	160	245
	APR-SEP	9.0	67	107	40	147	205	270
ENCAMPMENT RIVER nr Encampment	APR-JUL	94	115	129	83	143	164	156
	APR-SEP	100	123	138	84	153	176	165
ROCK CREEK nr Arlington	APR-JUL	17.8	23	27	51	31	38	53
	APR-SEP	19.5	25	29	51	33	40	57
SWEETWATER RIVER nr Alcova	APR-JUL	12.5	36	52	70	68	91	74
	APR-SEP	15.0	39	56	70	73	97	80
SEMINOE RESERVOIR Inflow	APR-JUL	152	305	410	51	515	670	800
	APR-SEP	193	345	445	52	545	695	860

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
SEMINOE	1016.7	261.5	181.0	495.9

UPPER NORTH PLATTE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
N PLATTE above Northgate	7	66	68
ENCAMPMENT RIVER	4	87	79
BRUSH CREEK	5	56	59
MEDICINE BOW & ROCK CREEK	3	74	60
N PLATTE above Seminoe	19	70	68

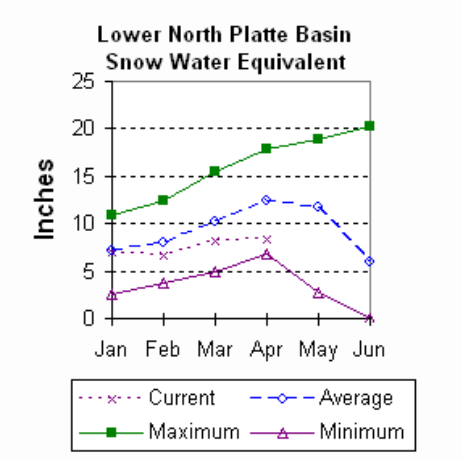
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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 66 percent of normal (69 % of last year). The Sweetwater drainage SWE is currently 82 percent (99 percent of last year). Deer and LaPrele Creek SWE is 65 percent of average (74 percent of last year. SWE for the North Platte above the Laramie River drainage is 70 percent of average (73 % of last year). SWE for the Laramie River above Laramie is 56 percent of average (53 % of last year). SWE for the Little Laramie River is 50 percent of average (59 percent of last year). For the entire Laramie River drainage, Laramie River above mouth, SWE is 54 percent of average (56% of last year). For more information see Basin Summary of Snow Courses at beginning of report.

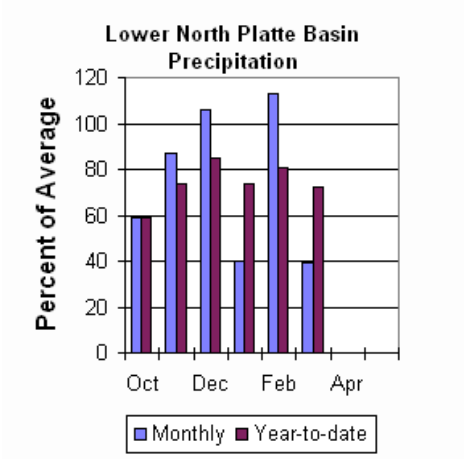


Precipitation

Of the 6 reporting stations, percentages for the month range from 6 to 132. Last month's precipitation for the basin was 39 percent of average (24 percent of last year). The water year-to-date precipitation for the basin is currently 72 percent of average (81 percent of last year). Year to date percentages range from 63 to 82.

Reservoir

The Lower North Platte River basin reservoir storage is well below average, except for Alcova and Guernsey reservoirs. Reservoir storage is as follows: Alcova 156,500 acre feet (98 percent of average); Glendo 293,500 acre feet (69 percent of average); Guernsey 20,100 acre feet (98 percent of average); Pathfinder 306,900 acre feet (41 percent of average); Seminoe 261,500 acre feet (53 percent of average), and Wheatland No.2 27,400 acre feet (50 percent of average).



Streamflow

Yields from 13 to 70 percent are expected in the basin during the forecast period. The following yields are based on the fifty percent chance probability runoff for the April through September forecast period. The Sweetwater near Alcova is forecast to yield about 56,000 acre-feet (70% of average). Deer Creek at Glenrock is expected to yield about 8,000 acre feet (20% of average). LaPrele Creek above the reservoir is estimated to yield 3,100 acre-feet (13% of average). North Platte River below Guernsey Reservoir is expected to yield about 460,000 acre-feet (47% of normal), and below Glendo Reservoir is anticipated to yield about 470,000 acre-feet (47% of average). Laramie River near Woods Landing should yield about 81,000 acre-feet (60% of average). The Little Laramie near Filmore should produce about 25,000 acre-feet (39 percent of average).

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS
Streamflow Forecasts - April 1, 2004

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)
SWEETWATER RIVER nr Alcova	APR-JUL	12.5	36	52	70	68	91	74
	APR-SEP	15.0	39	56	70	73	97	80
DEER CREEK at Glenrock	APR-JUL	0.7	3.0	8.0	21	13.0	20	38
	APR-SEP	0.8	2.9	8.0	20	13.1	21	41
LaPRELE CREEK abv Reservoir	APR-JUL	1.4	3.3	3.1	13	8.9	17.5	24
	APR-SEP	1.4	3.3	3.1	13	8.9	17.5	24
NORTH PLATTE - Alcova to Orin Gain	APR-JUL	5.0	18.0	38	25	69	116	152
	APR-SEP	5.0	19.0	40	25	72	119	161
NORTH PLATTE RIVER blw Glendo Res	APR-JUL	192	350	455	47	560	720	960
	APR-SEP	182	350	460	47	570	740	990
NORTH PLATTE RIVER blw Guernsey Res	APR-JUL	122	315	450	46	585	780	970
	APR-SEP	130	330	470	47	610	810	1010
LARAMIE RIVER nr Woods	APR-JUL	16.0	50	73	59	96	130	123
	APR-SEP	18.0	55	81	60	107	144	135
LITTLE LARAMIE RIVER nr Filmore	APR-JUL	12.2	21	27	46	33	42	59
	APR-SEP	7.9	18.1	25	39	32	42	64

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ALCOVA	184.3	156.5	158.1	160.1
GLENDO	506.4	293.5	256.2	427.8
GUERNSEY	45.6	20.1	16.8	20.6
PATHFINDER	1016.5	306.9	334.3	743.7
SEMINOE	1016.7	261.5	181.0	495.9
WHEATLAND #2	98.9	27.4	---	54.3

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
SWEETWATER	4	99	82
DEER & LaPRELE CREEKS	3	74	65
N PLATTE abv Laramie R.	26	73	70
LARAMIE RIVER abv Laramie	11	53	56
LITTLE LARAMIE RIVER	5	59	58
LARAMIE RIVER above mouth	14	56	55
NORTH PLATTE	33	69	66

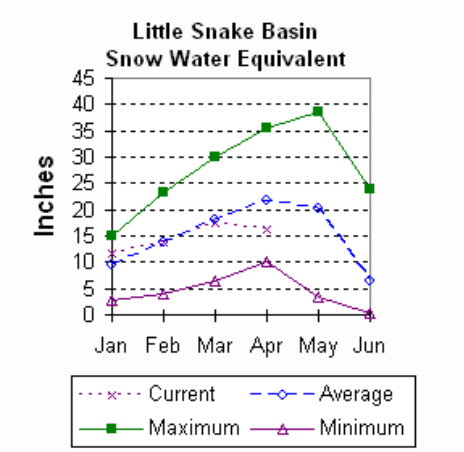
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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

Currently, snow water equivalent (SWE) in the Little Snake River drainage is 75 percent of average (78 percent of last year at this time). For more information see Basin Summary of Snow Courses at beginning of this report.



Precipitation

Precipitation across the basin was below average this past month. Last Month's precipitation was 49 percent of average (40 percent of last year) for the 5 reporting stations. Last month's precipitation ranged from 37 to 65 percent of average. The Little Snake River basin water-year-to-date precipitation is currently 87 percent of average (91 percent of last year). Year-to-date percentages range from 83 to 93 percent of average.

Streamflow

Runoff yield in the Little Snake River drainage is expected to be below normal this year. 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 110,000 acre-feet (69 percent of normal). Little Snake River near Dixon is estimated to yield 230,000 acre-feet (70 percent of normal).

LITTLE SNAKE RIVER BASIN
Streamflow Forecasts - April 1, 2004

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)
Little Snake River nr Slater	APR-JUL	72	94	110	69	128	156	159
LITTLE SNAKE R nr Dixon	APR-JUL	120	186	230	70	275	340	330

LITTLE SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of March

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

LITTLE SNAKE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
LITTLE SNAKE RIVER	8	78	75

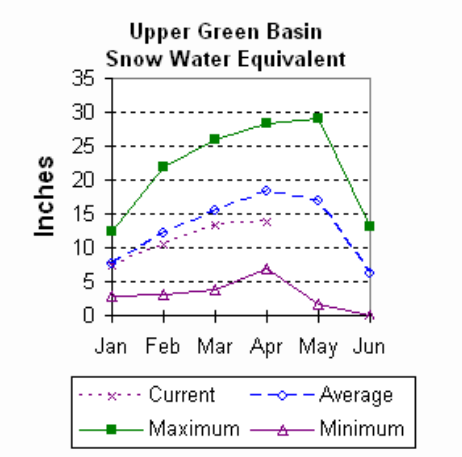
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

Snow water equivalent (SWE) is below normal in the upper Green River drainage this year. The Green River basin SWE above Warren Bridge is 71 percent of normal (76 percent of last year). SWE on the west side of the Upper Green River basin is about 75 percent of normal, 82 percent of this time last year. Newfork River SWE is now about 80 percent of normal (84 percent of last year). Big Sandy-Eden Valley SWE is about 78 percent of average (100 percent of last year). SWE in the Green River above Fontenelle Reservoir is about 75 percent of average (81 percent of last year). For more information see the Basin Summary of Snow Courses at the beginning of this report.

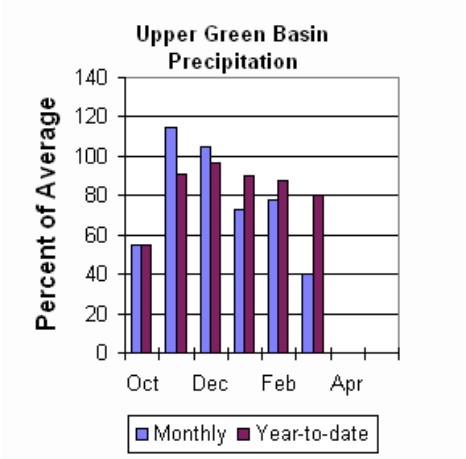


Precipitation.

The 11 reporting precipitation sites in the basin were 40 percent of average last month (25 percent of last year at this time). Last month's precipitation varied from 0 to 52 percent of average. Water year-to-date precipitation is about 80 percent of average (88 percent of last year). Year to date percentage of average ranges from 72 to 87 percent for the reporting stations.

Reservoir.

Usable storage in Big Sandy Reservoir is currently about 7,400 acre feet (36 percent of average) -- 96 percent of last year and 19 percent of capacity. Eden Reservoir is too low to measure. Fontenelle Reservoir is storing 166,800 acre-feet (117 percent of average and 48 percent of the total capacity). Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



Streamflow

The fifty-percent chance April through July runoff in the Upper Green River basin is forecast below average. Green River at Warren Bridge is expected to yield about 175,000 acre-feet (66 percent of normal). Pine Creek above Fremont Lake is expected to yield 73,000 acre-feet (70 percent of normal). New Fork River near Big Piney is expected to yield about 250,000 acre-feet (63 percent of normal). Fontenelle Reservoir Inflow is estimated to be 500,000 acre-feet (58 percent of average), and Big Sandy near Farson is expected to be about 40,000 acre-feet (69 percent of normal).

UPPER GREEN RIVER BASIN
Streamflow Forecasts - April 1, 2004

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)
Green River at Warren Bridge	APR-JUL	132	158	175	66	193	218	265
Pine Creek abv Fremont Lake	APR-JUL	58	67	73	70	79	88	104
New Fork River nr Big Piney	APR-JUL	145	205	250	63	295	355	395
Fontenelle Reservoir Inflow	APR-JUL	378	449	500	58	554	639	860
Big Sandy River nr Farson	APR-JUL	23	33	40	69	47	57	58

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BIG SANDY	38.3	7.4	7.7	20.7
EDEN		NO REPORT		
FONTENELLE	344.8	166.8	183.9	143.0

UPPER GREEN RIVER BASIN
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
GREEN above Warren Bridge	4	77	71
UPPER GREEN (West Side)	7	82	75
NEWFORK RIVER	3	84	80
BIG SANDY/EDEN VALLEY	2	100	78
GREEN above Fontenelle	14	81	75

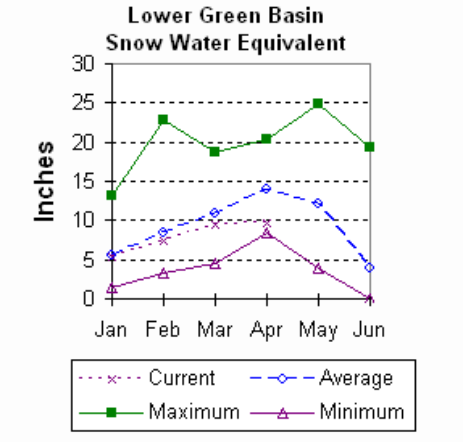
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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)

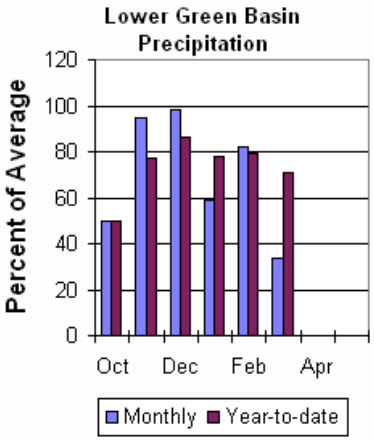
Snow

The Henrys Fork drainage is currently 37 percent of average (42% of last year). SWE in the Hams Fork is 72 percent of average (84% of last year). Blacks Fork SWE is currently 65 percent of average (74 percent of last year). The basin, as a whole, is 70 percent of average (78 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 3 reporting stations during last month (34 percent of average). Precipitation ranged from 13 to 39 percent of average for the month. The basin year-to-date precipitation is currently 71 percent of average (92 percent of last year). Year to date percentages range from 71 to 72.



Reservoir

Fontenelle Reservoir is currently storing 166,800 acre feet; this is 117 percent of average (91 percent of last year). Flaming Gorge is currently storing 2,631,000 acre feet, this is 90 percent of average (100 percent of last year). Viva Naughton is currently storing 31,100 acre feet, this is 112 percent of average (132 percent of last year).

Streamflow

Expected yields vary from 52 to 63 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 505,000-acre feet (58 percent of average). Blacks Fork near Robertson is forecast to yield 60,000-acre feet (63 percent of average). East Fork of Smiths Fork near Robertson is estimated to yield 18,000 acre-feet (58 percent of average). The estimated yield for Hams Fork near Frontier is 38,000-acre feet (59 percent of average). Flaming Gorge Reservoir inflow will be about 620,000-acre feet (52 percent of average).

LOWER GREEN RIVER BASIN
Streamflow Forecasts - April 1, 2004

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)
Green River nr Green River, WY	APR-JUL	290	420	505	58	590	720	875
Blacks Fork nr Robertson	APR-JUL	37	51	60	63	69	83	95
EF of Smiths Fork nr Robertson	APR-JUL	14.3	16.4	18.0	58	19.8	23	31
Hams Fk blw Pole Ck nr Frontier	APR-JUL	25	32	38	59	44	54	65
Hams Fk Inflow to Viva Naughton Res	APR-JUL	21	36	47	53	58	73	89
Flaming Gorge Reservoir Inflow	APR-JUL	320	500	620	52	740	920	1190

LOWER GREEN RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
FONTENELLE	344.8	166.8	183.9	143.0
VIVA NAUGHTON RES	42.4	31.1	23.5	27.8

LOWER GREEN RIVER BASIN
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
HAMS FORK RIVER	4	84	72
BLACKS FORK	5	74	65
HENRYS FORK	3	42	37
GREEN above Flaming Gorge	26	78	70

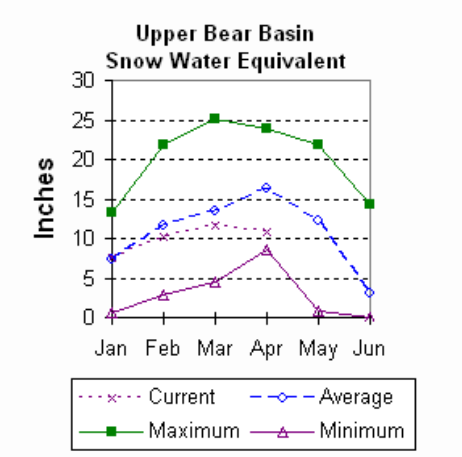
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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) in the Bear River basin in Utah is estimated to be 53 percent of average; that is about 68 percent of last year at this time. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is estimated at 76 percent of average (92 percent of last year at this time.). Bear River basin SWE, above the Idaho State line, is 66 percent of average (83 percent of last year). See the Basin Summary of Snow Course Data at the beginning of this report for more detailed information.

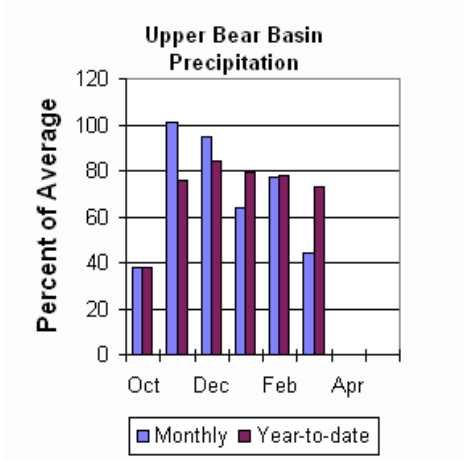


Precipitation

Precipitation for last month was 44 percent of average for the 2 reporting stations; this is 44 percent of the precipitation received last year. The year-to-date precipitation, for the basin, is 73 percent of average; this is 100 percent of last year's amount.

Reservoir

Usable storage in Woodruff Narrows reservoir is about 9,000 acre feet (58 percent of average). Current reservoir storage is about 33 percent of capacity. The reservoir is storage last year was 16,000 acre feet at this time.



Streamflow

The following 50 percent chance stream flow yields are for the April through September period. Smiths Fork near Border is estimated to yield 70,000 acre-feet (58 percent of normal. Bear River above the Utah-Wyoming State Line is expected to yield about 58,000 acre feet (46 percent of average), The Bear River near Woodruff is expected to yield about 34,000 acre-feet (24 percent of normal).

UPPER BEAR RIVER BASIN
Streamflow Forecasts - April 1, 2004

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)
Smiths Fork nr Border	APR-JUL	41	52	60	58	68	79	103
	APR-SEP	48	61	70	58	79	92	121
Bear River nr UT-WY State Line	APR-JUL	30	44	53	47	62	76	113
	APR-SEP	31	47	58	46	69	85	125
Bear River ab Reservoir nr Woodruff	APR-JUL	23	29	33	24	50	75	136
	APR-SEP	24	30	34	24	51	77	142

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

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

UPPER BEAR RIVER BASIN
Watershed Snowpack Analysis - April 1, 2004

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER BEAR RIVER in Utah	7	68	53
SMITHS & THOMAS FORKS	4	92	76
BEAR RIVER abv ID line	9	83	66
NORTHWEST	75	78	74
NORTHEST	23	61	64
SOUTHEAST	36	69	67
SOUTHWEST	35	77	69

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

(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.