



United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

# Wyoming

# Basin Outlook Report

## May 1, 2008



# 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 is. 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.

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# Wyoming Water Supply Outlook Report

## General

The snow water equivalent (SWE) across Wyoming is slightly above average for May 8<sup>th</sup> at 109% of average. Precipitation for last month in the basins varied from 48% of average to 109% of average for the State. Year-to-date precipitation is above average for the year and varies from 87-128% of average in the basins. Forecasted runoff varies from 62-141% of average across Wyoming for an overall average of 101%. Basin reservoir levels for Wyoming vary from 29-129% of average for an overall average of 85%.

## Snowpack

Snow water equivalent (SWE), across Wyoming is slightly above average for this time of year at 109%. SWE in the NW portion of Wyoming is now about 112% of average (201% of last year). NE Wyoming SWE is currently about 108% of average (139% of last year). The SE portion of Wyoming SWE is currently about 108% of average (189% of last year). The SW portion of Wyoming SWE is about 108% of average (239% of last year).

## Precipitation

Last month's precipitation was below average across most of Wyoming. The Lower Green River Basin had the lowest precipitation for the month at 48% of average. The Little Snake River Basin had the highest precipitation amount at 109% of average. The following table displays the major river basins and their departure from average for this month.

Basin	Departure from average	Basin	Departure from average
Snake River	-35%	Upper North Platte River	+01%
Yellowstone & Madison	-28%	Lower North Platte	-26%
Wind River	-49%	Little Snake River	+09%
Big Horn	-34%	Upper Green River	-49%
Shoshone & Clarks Fork	-44%	Lower Green River	-52%
Powder & Tongue River	-25%	Upper Bear River	-45%
Belle Fourche & Cheyenne	-14%		

## Streams

Stream flow yield is expected to be about average across Wyoming. Most probable yield for the entire State of Wyoming is forecast to be 101% (varying from 62-141% of average). The Snake River and Upper Yellowstone & Madison River Basins are expected to yield about 104 and 117% of average, respectively; 101-121% of average for the various forecast points in the basins: Yields from the Wind and Bighorn River Basins are expected to be about 77 and 80% of average, respectively; varying from 72-103% of average in the basins: Yields from the Shoshone and Clarks Fork River Basins of Wyoming are expected to yield about 115% of average; varying from 110-116% of average: Yields from the Powder & Tongue River Basins are expected to be about 107% of average; varying from 98-110% of average: Yields for the Belle Fourche & Cheyenne River Basins are expected to be about 180% of average. Yields for the Upper and Lower North Platte River of Wyoming are expected to be about 109 and 107% of average, respectively; varying from 62-124% of average: Yields for the Little Snake, Green River, and Little Bear of Wyoming are expected to be

140, 72 and 91% of average respectively; yield estimates vary from 72-141% of average:

## Reservoirs

Reservoir storage varies widely across the state however reservoir storage is at 85% of average for the entire state. Reservoirs on the North Platte River are well below average at 52% of average. Most of the reservoirs in the northeast are below average in storage at 57%. Reservoirs in the Wind River Basin are below average at 76%. Reservoirs on the Big Horn are below average at 90%. The Buffalo Bill Reservoir on the Shoshone is above average at 124%. Reservoirs on the Green River are above average at 101%. 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
ALCOVA	98	98	97	101	99
ANGOSTURA	42	38	93	45	110
BELLE FOURCHE	61	62	82	75	99
BIG SANDY	41	47	65	64	88
BIGHORN LAKE	57	59	58	98	98
BOYSEN	68	71	88	77	96
BUFFALO BILL	68	77	54	124	89
BULL LAKE	35	35	55	63	100
DEERFIELD	78	81	89	88	97
EDEN			NO REPORT		
ENNIS LAKE	72	78	82	88	92
FLAMING GORGE	81	85	79	103	96
FONTENELLE	32	38	42	77	85
GLENDO	76	88	90	84	87
GRASSY LAKE	91	88	84	109	104
GUERNSEY	50	54	73	68	93
HEBGEN LAKE	73	75	67	109	97
JACKSON LAKE	43	80	56	77	53
KEYHOLE	33	31	60	56	107
PACTOLA	52	61	87	59	86
PALISADES	52	93	62	84	56
PATHFINDER	19	24	73	26	78
PILOT BUTTE	78	78	81	95	100
SEMINOE	22	32	50	43	69
SHADEHILL	23	38	80	29	61
TONGUE RIVER	52	75	40	129	69
VIVA NAUGHTON RES	72	107	67	106	67
WHEATLAND #2	43	42	60	71	103
WOODRUFF NARROWS	71	100	67	106	71
<b>TOTAL 28 RESERVOIRS</b>	<b>58</b>	<b>69</b>	<b>69</b>	<b>85</b>	<b>84</b>
Raw KAF Totals	Current=7718	Last Year=9145	Average=9123	Capacity=13288	

# BASIN SUMMARY OF SNOW COURSE DATA

MAY 2008

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
-----						
WYOMING Snow Course and SNOTEL Stations						
ALBANY	9400	4/29/08	32	12.3	9.3	12.3
BALD MOUNTAIN SNOTEL	9380	5/01/08	61	18.8	22.1	23.6
BASE CAMP SNOTEL	7030	5/01/08	---	18.3	.0	12.3
BATTLE MTN. SNOTEL	7440	5/01/08	19	7.9	.0	4.6
BEARLODGE DIVIDE	4680	4/25/08	0	.0	.0	.4
BEARTOOTH LK. SNOTEL	9280	5/01/08	81	28.0	21.3	25.9
BEAR TRAP SNOTEL	8200	5/01/08	27	7.4	1.4	2.5
BIG GOOSE	7760	4/29/08	22	6.1	--	7.7
BIG GOOSE SNOTEL	7760	5/01/08	31	10.1	7.9	11.6
BIG PARK	8620	5/01/08	52	20.0	15.8	19.6
BIG SANDY SNOTEL	9080	5/01/08	33	13.1	5.4	13.5
BLACKWATER SNOTEL	9780	5/01/08	81	29.3	21.9	28.8
BLIND BULL SNOTEL	8900	5/01/08	72	27.4	22.7	27.9
BLIND PARK SNOTEL	6870	5/01/08	20	4.8	.0	4.0
BLUE RIDGE	9620	4/29/08	36	11.5	5.0	12.5
BONE SPGS. SNOTEL	9350	5/01/08	62	21.1	18.2	18.3
BROOKLYN LK. SNOTEL	10220	5/01/08	65	22.9	20.1	28.2
BUCK CREEK	7960	4/28/08	387	12.1	6.7	9.6
BURGESS JCT. SNOTEL	7880	5/01/08	50	15.1	12.1	13.3
BURROUGHS CRK SNOTEL	8750	5/01/08	51	16.6	11.0	13.6
CANYON SNOTEL	8090	5/01/08	53	18.3	7.7	11.3
CASPER MTN. SNOTEL	7850	5/01/08	43	14.7	7.3	17.1
CASTLE CREEK	8400	4/28/08	8	2.7	.0	2.4
CCC CAMP	7000	4/25/08	40	14.9	.0	8.0
CHALK CK #1 SNOTEL	9100	5/01/08	68	28.7	11.7	25.3
CHALK CK #2 SNOTEL	8200	5/01/08	41	17.4	3.4	12.0
CINNABAR PARK SNOTEL	9690	5/01/08	50	20.4	17.6	16.0
CLOUD PEAK SNOTEL	9850	5/01/08	56	18.0	14.9	16.2
COLE CANYON SNOTEL	5910	5/01/08	15	5.0	.0	5.0
COLD SPRINGS SNOTEL	9630	5/01/08	13	4.2	.0	4.8
COTTONWOOD CR SNOTEL	7700	5/01/08	---	25.3	11.7	19.8
CROW CREEK SNOTEL	8830	5/01/08	0	.0	.0	5.4
DARBY CANYON	8250	4/28/08	68	28.0	12.4	24.6
DEER PARK SNOTEL	9700	5/01/08	42	15.9	9.7	18.6
DITCH CREEK	6870	4/25/08	7	1.4	.0	1.5
DIVIDE PEAK SNOTEL	8860	5/01/08	54	23.3	10.8	19.3
DOMELAKE SNOTEL	8880	5/01/08	45	12.4	10.9	13.5
DU NOIR	8760	4/28/08	24	7.4	.7	6.3
EAST RIM DIV SNOTEL	7930	5/01/08	---	8.6	.0	13.1
ELBO RANCH	7100	5/02/08	36	12.7	.0	9.5
ELKHART PARK SNOTEL	9400	5/01/08	---	11.4	9.2	12.8
EVENING STAR SNOTEL	9200	5/01/08	91	33.6	21.2	33.3
FOXPARK	9060	4/29/08	18	7.4	1.4	5.3
GEYSER CREEK	8500	4/28/08	23	6.7	1.4	5.4
GLADE CREEK	7040	5/01/08	58	25.0	.0	20.1
GRAND TARGHEE SNOTEL	9260	5/01/08	129	54.6	41.9	--
GRANITE CRK SNOTEL	6770	5/01/08	---	16.6	2.0	12.8
GRANNIER MEADOWS	8860	4/29/08	40	12.5	6.4	14.6

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
GRASSY LAKE SNOTEL	7270	5/01/08	97	39.4	18.5	33.4
GRAVE SPRINGS SNOTEL	8550	5/01/08	35	11.2	5.9	11.1
GREYS BOUNDARY	5720	4/30/08	14	5.9	.0	2.6
GROS VENTRE SNOTEL	8750	5/01/08	45	13.8	8.1	13.3
GROVER PARK DIVIDE	7000	4/25/08	32	9.6	.0	6.4
HAIRPIN TURN	9480	4/30/08	42	15.9	10.8	15.6
HANSEN S.M. SNOTEL	8360	5/01/08	16	4.9	1.3	4.9
HAMS FORK SNOTEL	7840	5/01/08	---	9.6	.0	6.0
HASKINS CREEK	8980	4/29/08	89	36.4	20.4	31.6
HOBACK GS	6640	4/30/08	16	8.3	.0	--
HOBBS PARK SNOTEL	10100	5/01/08	45	15.2	12.0	18.0
INDIAN CREEK SNOTEL	9430	5/01/08	---	26.7	15.5	28.3
JACKPINE CREEK	7350	4/28/08	63	26.2	6.4	19.2
KELLEY R.S. SNOTEL	8180	5/01/08	---	14.9	6.8	14.1
KENDALL R.S. SNOTEL	7740	5/01/08	27	9.8	.0	10.0
KIRWIN SNOTEL	9550	5/01/08	45	13.5	10.6	13.0
LA PRELE SNOTEL	8380	5/01/08	18	6.5	.9	7.1
LARSEN CREEK	9020	4/26/08	24	8.9	2.5	10.9
LEWIS LAKE SNOTEL	7850	5/01/08	93	39.8	18.0	34.6
LEWIS LAKE DIVIDE	7850	5/01/08	106	46.1	25.3	42.3
LIBBY LODGE	8750	4/30/08	22	7.3	.6	8.3
LITTLE WARM SNOTEL	9370	5/01/08	33	10.0	4.9	11.1
LOOMIS PARK SNOTEL	8240	5/01/08	---	14.0	1.7	14.3
LUPINE CREEK	7380	5/01/08	12	1.5	.0	5.3
MALLO	6420	4/28/08	14	3.8	.0	--
MARQUETTE SNOTEL	8760	5/01/08	27	8.8	1.9	11.3
MEDICINE LODGE LAKES	9340	4/28/08	42	12.7	5.0	11.9
MIDDLE FORK	7420	5/01/08	---	4.6E	.0	4.7
MIDDLE POWDER SNOTEL	7760	5/01/08	45	14.4	10.6	14.3
MOSS LAKE	9800	4/30/08	57	22.6	18.4	25.8
NEW FORK SNOTEL	8340	5/01/08	19	7.8	2.5	8.4
NORTH BARRETT CREEK	9400	4/30/08	60	24.6	17.4	22.7
NORTH FRENCH SNOTEL	10130	5/01/08	84	33.7	25.3	34.5
NORTH RAPID CK SNTL	6130	5/01/08	26	8.1	.0	3.8
NORTH TONGUE	8450	4/28/08	44	13.7	12.5	13.3
OLD BATTLE SNOTEL	9920	5/01/08	98	37.8	25.5	36.9
ONION GULCH	8780	4/30/08	31	8.6	6.9	8.4
OWL CREEK SNOTEL	8980	5/01/08	7	1.3	.0	4.0
PARKERS PEAK SNOTEL	9400	5/01/08	79	31.1	18.9	24.5
PHILLIPS BNCH SNOTEL	8200	5/01/08	79	35.5	14.0	29.4
POCKET CREEK	9350	4/30/08	32	7.0	8.9	13.8
POLE MOUNTAIN	8700	4/29/08	18	6.4	3.7	5.0
POWDER RVR.PASS SNTL	9480	5/01/08	40	13.0	7.9	10.7
PURGATORY GULCH	8970	4/29/08	43	16.6	8.4	11.2
RANGER CREEK	8120	4/28/08	39	11.0	4.1	7.6
RENO HILL SNOTEL	8500	5/01/08	44	15.2	10.6	14.7
REUTER CANYON	6280	4/28/08	19	6.7	.0	3.6
ROWDY CREEK	8300	4/29/08	55	22.8	14.5	21.1
RYAN PARK	8400	4/30/08	25	9.2	.0	7.2
SAGE CK BASIN SNTL	7850	5/01/08	34	14.0	.0	11.2
SALT RIVER SNOTEL	7600	5/01/08	---	12.7	2.6	10.6
SAND LAKE SNOTEL	10050	5/01/08	86	32.7	28.1	37.0
SANDSTONE RS SNOTEL	8150	5/01/08	44	15.5	.0	9.5
SAWMILL DIVIDE	9260	4/29/08	52	16.4	14.1	15.1
SHELL CREEK SNOTEL	9580	5/01/08	67	18.5	16.4	16.8
SHERIDAN R.S.	7750	4/28/08	14	4.5	.5	3.3

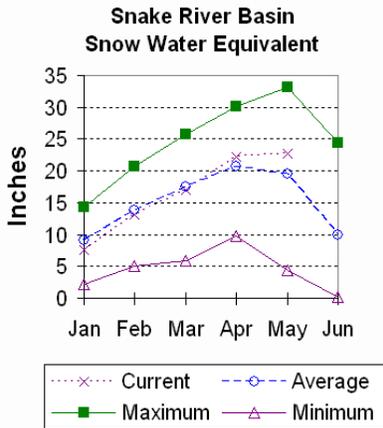
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
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SNAKE RV STA SNOTEL	6920	5/01/08	49	18.5	.0	12.2
SNIDER BASIN SNOTEL	8060	5/01/08	33	12.5	5.2	12.6
SOLDIER PARK	8780	5/01/08	22	5.5	4.7	6.3
SOUR DOUGH	8460	4/30/08	27	6.7	6.8	7.4
SOUTH BRUSH SNOTEL	8440	5/01/08	28	10.4	.0	11.1
SOUTH PASS SNOTEL	9040	5/01/08	41	14.3	8.0	18.0
SPRING CRK. SNOTEL	9000	5/01/08	70	24.0	20.0	28.6
ST LAWRENCE ALT SNTL	8620	5/01/08	17	5.2	.0	6.1
SUCKER CREEK SNOTEL	8880	5/01/08	52	16.2	12.5	13.1
SYLVAN LAKE SNOTEL	8420	5/01/08	58	22.2	14.2	23.8
SYLVAN ROAD SNOTEL	7120	5/01/08	33	10.5	.0	8.1
T CROSS RANCH	7900	4/28/08	14	4.4	.0	3.3
TETON PASS W.S.	7740	4/30/08	72	29.4	13.0	27.5
THUMB DIVIDE SNOTEL	7980	5/01/08	50	17.7	3.7	14.9
TIE CREEK SNOTEL	6870	5/01/08	20	6.6	.0	3.9
TIMBER CREEK SNOTEL	7950	5/01/08	19	4.7	.9	4.8
TOGWOTEE PASS SNOTEL	9580	5/01/08	85	30.2	18.5	27.9
TOWNSEND CRK SNOTEL	8700	5/01/08	23	8.1	2.8	9.1
TRIPLE PEAK SNOTEL	8500	5/01/08	62	24.4	13.5	23.7
TWO OCEAN SNOTEL	9240	5/01/08	93	41.2	26.6	31.8
TYRELL RANGER STA.	8300	4/30/08	27	7.5	4.6	6.1
UPPER SPEARFISH	6500	4/28/08	24	7.8	.0	--
WEBBER SPRING SNOTEL	9250	5/01/08	66	27.6	12.2	25.1
WHISKEY PARK SNOTEL	8950	5/01/08	76	38.3	16.0	30.5
WILLOW CREEK SNOTEL	8450	5/01/08	---	33.1	16.3	30.6
WINDY PEAK SNOTEL	7900	5/01/08	16	6.8	1.2	4.9
WOLVERINE SNOTEL	7650	5/01/08	25	9.2	.0	7.2
WOOD ROCK G.S.	8440	4/29/08	38	11.2	9.2	11.5
YOUNTS PEAK SNOTEL	8350	5/01/08	52	18.7	10.0	18.1

# Snake River Basin

## Snow

The Snake River Basin snow water equivalent (SWE) is above average at 116%. SWE in the Snake River Basin above Jackson Lake is 124% of average (272% of last year). Pacific Creek Basin SWE is 135% of average (224% of last year). Gros Ventre River Basin SWE is 112% of average (213% of last year). SWE in the Hoback River drainage is 99% of average (233% of last year). SWE in the Greys River drainage is 101% of average (158% of last year). In the Salt River area SWE is 127% of average (312% of last year). SWE in the Snake River Basin above Palisades is 116% of average (260% of last year). See the Basin Summary of Snow Courses at the

beginning of this report for a detailed listing of snow course information.



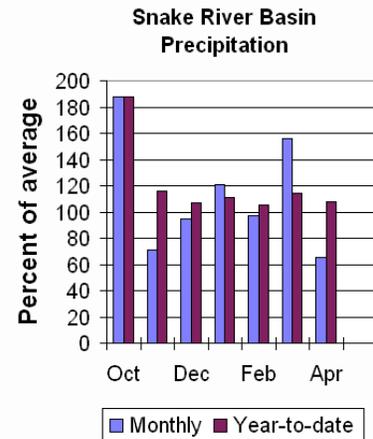
## Precipitation

Precipitation across the basin was below average last month. Monthly precipitation for the basin was 65% of average (73% of last year). Last month's percentages range from 33-86% of average. Water-year-to-date precipitation is 108% of average for the Snake River Basin (130% of last year). Year-to-date percentages range from 78-210% of average.

## Reservoir

Current reservoir storage is 82% of

average for the three storage reservoirs in the basin. Grassy Lake storage is about 109% of average (13,900 ac-ft compared to 13,400 last year). Jackson Lake storage is 77% of average (361,100 ac-ft compared to 681,200 ac-ft last year). Palisades Reservoir storage is about 84% of average (725,900 ac-ft compared to 1,297,700 ac-ft 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 50% exceedance forecasts for May through September are above average for the basin. The Snake near Moran is 945,000 ac-ft (113% of average). Snake above reservoir near Alpine is 2,720,000 ac-ft (108% of average). The Snake near Irwin is 3,650,000 ac-ft (104% of average). The Snake near Heise is 3,890,000 ac-ft (104% of average). Pacific Creek at Moran is 200,000 ac-ft (120% of average). Greys River above Palisades Reservoir is 360,000 ac-ft (101% of average). Salt River near Etna is 375,000 ac-ft (104% of average). See the following page for detailed runoff volumes.

**SNAKE RIVER BASIN**

Streamflow Forecasts - May 1, 2008

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=====
<=== Drier === Future Conditions === Wetter ===>
Forecast Pt  |=====| Chance of Exceeding * |=====|
Forecast     | 90%   70%   | 50%   | 30%   10%   | 30 Yr Avg
Period       |(1000AF) (1000AF) |(1000AF) (% AVG.) |(1000AF) (1000AF) |(1000AF)
=====
Snake R Nr Moran
MAY-JUL      720    820    865    115    910    1010    750
MAY-SEP      780    895    945    113    995    1110    840
Snake R Nr Alpine
MAY-JUL      2050   2290   2400   111    2510   2750   2160
MAY-SEP      2290   2590   2720   108    2850   3150   2530
Snake R nr Irwin
MAY-JUL      2760   3030   3160   106    3290   3560   2980
MAY-SEP      3190   3510   3650   104    3790   4110   3520
Snake R nr Heise
MAY-JUL      3030   3230   3370   106    3510   3710   3170
MAY-SEP      3500   3730   3890   104    4050   4280   3760
Pacific Ck At Moran
MAY-JUL      151    177    194    121    210    235    160
MAY-SEP      158    184    200    120    220    245    167
Greys R Nr Alpine
MAY-JUL      255    280    300    100    320    345    300
MAY-SEP      305    340    360    101    380    415    355
Salt R Nr Etna
MAY-JUL      220    270    300    107    330    380    280
MAY-SEP      280    335    375    104    415    470    360
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\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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

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

**SNAKE RIVER BASIN**

Reservoir Storage (1000AF) End of April

```

=====
Usable ***** Usable Storage *****
Capacity This Year Last Year Average
=====
Reservoir
GRASSY LAKE      15.2    13.9    13.4    12.7
JACKSON LAKE    847.0   361.1   681.2   471.1
PALISADES      1400.0  725.9  1297.7  862.6
=====

```

**SNAKE RIVER BASIN**

Watershed Snowpack Analysis - May 1, 2008

```

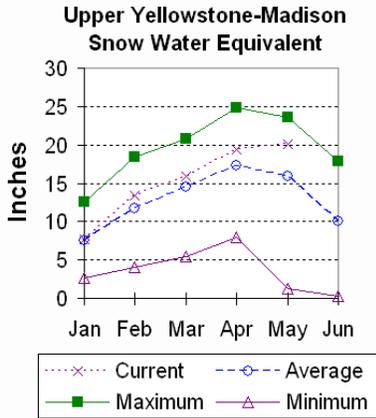
=====
Number of This Year as Percent of
Data Sites Last Year Average
=====
Watershed
SNAKE above Jackson Lake      6      272      124
PACIFIC CREEK                 2      224      135
GROS VENTRE RIVER             3      200      112
HOBACK RIVER                  5      233      99
GREYS RIVER                   5      164      106
SALT RIVER                    5      312      127
SNAKE above Palisades        23      256      116
=====

```

# Upper Yellowstone & Madison River Basins

## Snow

Snowfall in these basins has been good so far this year and the SWE in both basins is above average for this month. Snow water equivalent (SWE) is about 135% of average (272% of last year) in the Madison drainage. SWE in the Yellowstone drainage is about 117% of average (180% 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

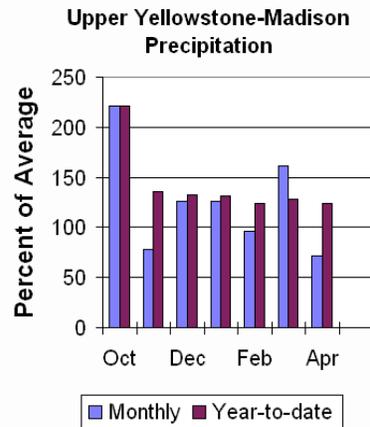
Last month precipitation in the Madison and Yellowstone drainage was about 72% of average (64% of last year) for the 7 reporting stations -- percentages range from 51-86% of average. Water-year-to-date precipitation is about 124% of average (134% of last year's amount). Year to date percentage ranges from 78-210%.

## Reservoir

Ennis Lake is storing about 29,600 ac-ft of water (72% of capacity, 88% of average or 92% of last year's volume). Hebgen Lake is storing about 276,700 ac-ft of water (73% of capacity, 109% of average or 97% of last year's volume). Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The 50% exceedance forecasts for May through September are above average for the basin. Yellowstone at Lake Outlet is 915,000 ac-ft (119% of average). Yellowstone at Corwin Springs will yield around 2,170,000 ac-ft (116% of average). Yellowstone near Livingston will yield around 2,490,000 ac-ft (116% of average). Hebgen Reservoir inflow is 520,000 ac-ft (118% of average). See the following page for detailed runoff volumes.



**UPPER YELLOWSTONE & MADISON RIVER BASINS**

Streamflow Forecasts - May 1, 2008

```

=====
<=== Drier === Future Conditions === Wetter ===>
Forecast Pt  ===== Chance of Exceeding * =====
Forecast     90%      70%      50%      30%      10%      30 Yr Avg
Period       (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF) (1000AF)
=====
YELLOWSTONE at Lake Outlet
MAY-JUL      570      625      660      119      695      750      555
MAY-SEP      825      880      915      119      950      1010     770
YELLOWSTONE RIVER at Corwin Springs
MAY-JUL      1590     1720     1800     116     1880     2010     1550
MAY-SEP      1930     2070     2170     116     2270     2410     1870
YELLOWSTONE RIVER near Livingston
MAY-JUL      1860     1970     2050     116     2130     2240     1770
MAY-SEP      2260     2400     2490     116     2580     2720     2150
HEBGEN Reservoir Inflow
MAY-JUL      340      370      395      120     420      450      330
MAY-SEP      455      495      520      118     545      585      440
=====

```

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

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

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

**UPPER YELLOWSTONE & MADISON RIVER BASINS**

Reservoir Storage (1000AF) End of April

```

=====
Usable ***** Usable Storage *****
Capacity This Year Last Year Average
=====
Reservoir
ENNIS LAKE      41.0      29.6      32.1      33.8
HEBGEN LAKE    377.5     276.7     284.7     254.6
=====

```

**UPPER YELLOWSTONE & MADISON RIVER BASINS**

Watershed Snowpack Analysis - May 1, 2008

```

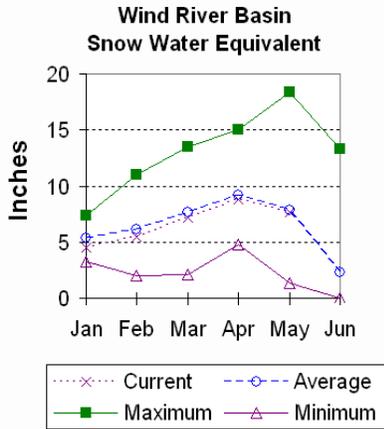
=====
Number of This Year as Percent of
Data Sites Last Year Average
=====
Watershed
MADISON RIVER in WY      6      259      138
YELLOWSTONE RIVER in WY  9      180      117
=====

```

# Wind River Basin

## Snow

The Wind River Basin has slightly below average snow water equivalent (SWE 98%) for this time of the year. SWE in the Wind River above Dubois is 111% of average (214% of last year at this time). The Little Wind SWE is 85% of average (126% of last year), and the Popo Agie drainage SWE is about 86% of average (187% of last year). The Wind River Basin, above Boysen Reservoir SWE is about 98% of average (210% of last year). See the Basin Summary of Snow Course Data at the front of this report for details.



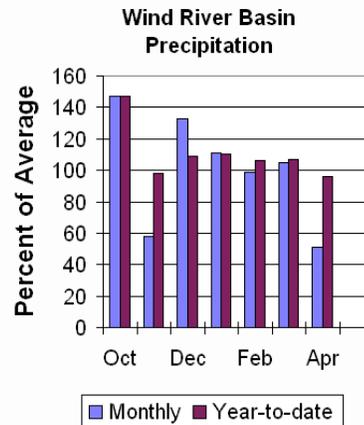
## Precipitation

Last months precipitation in the basin varied from 7-81% of average. Precipitation, for the basin, was about 51% of average from the 13 reporting stations; that is about 116% of last year's amount. Water year-to-date precipitation is 96% of average and about 126% of last year at this time. Year-to-date percentages range from 62-115% of average.

## Reservoirs

Current storage varies from 63-95% of average.

Usable storage in Bull Lake is currently about 52,800 ac-ft (63% of average) - the reservoir is about 100% of last year. Boysen Reservoir is storing about 77% of average (405,700 ac-ft) - the reservoir is about 96% of last year. Pilot Butte is at 95% of average (24,500 ac-ft) - the reservoir is about 100% of 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 50% exceedance forecasts for the May through September runoff period for the basin are slightly below average. Dinwoody Creek near Burris is 86,000 ac-ft (93% of average). The Wind River above Bull Lake Creek is 450,000 ac-ft (88% of average). Bull Lake Creek near Lenore is 155,000 ac-ft (87% of average). Wind River at Riverton will yield around 525,000 ac-ft (86% of average). Little Popo Agie River near Lander is around 45,000 ac-ft (92% of average). South Fork of Little Wind near Fort Washakie will yield around 75,000 ac-ft (93% of average). Little Wind River near Riverton will yield around 210,000 ac-ft (72% of average). Boysen Reservoir inflow will yield around 585,000 ac-ft (77% of average). See the following page for detailed runoff volumes.

**WIND RIVER BASIN**

Streamflow Forecasts - May 1, 2008

```

=====
<=== Drier === Future Conditions === Wetter ===>
Forecast Pt  ===== Chance of Exceeding * =====
Forecast     90%      70%      50%      30%      10%      30 Yr Avg
Period       (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF) (1000AF)
=====
DINWOODY CREEK nr Burris
MAY-JUL      51       56       60       92       64       69       65
MAY-SEP      73       81       86       93       91       99       93
WIND RIVER abv Bull Lake Cr (2)
MAY-JUL      270      325      360      88       395      450      410
MAY-SEP      350      410      450      88       490      550      510
BULL LAKE CR near Lenore (2)
MAY-JUL      98       114      125      87       136      152      144
MAY-SEP     123      142      155      87       168      187      178
WIND RIVER at Riverton (2)
MAY-JUL      270      370      440      86       510      610      510
MAY-SEP     345      455      525      86       595      705      610
LT POPO AGIE RIVER nr Lander
MAY-JUL      26       34       39       91       44       52       43
MAY-SEP      31       39       45       92       51       59       49
SF LT WIND nr Fort Washakie
MAY-JUL      46       57       65       93       73       84       70
MAY-SEP      55       67       75       93       83       95       81
LT WIND RIVER nr Riverton
MAY-JUL      72      139      184      72       230      295      255
MAY-SEP      92      162      210      72       260      330      290
BOYSEN RESERVOIR Inflow (2)
MAY-JUL      280      420      515      77       610      750      665
MAY-SEP     325      480      585      77       690      845      758
=====

```

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

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

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

**WIND RIVER BASIN**

Reservoir Storage (1000AF) End of April

```

=====
Usable ***** Usable Storage *****
Capacity This Year Last Year Average
=====
BULL LAKE      151.8      52.8      53.0      83.9
BOYSEN         596.0     405.7     422.3     526.1
PILOT BUTTE    31.6       24.5      24.5      25.7
=====

```

**WIND RIVER BASIN**

Watershed Snowpack Analysis - May 1, 2008

```

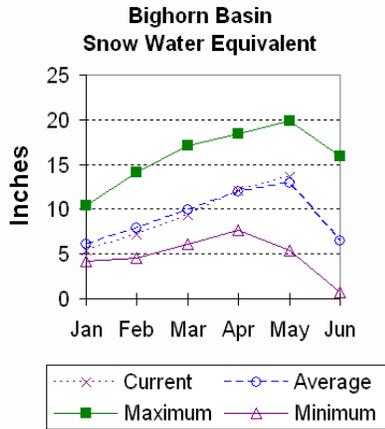
=====
Number of This Year as Percent of
Data Sites Last Year Average
=====
WIND RIVER above Dubois      7      204      111
LITTLE WIND                   2      170       85
POPO AGIE                      7      187       86
WIND above Boysen Resv       14     205       98
=====

```

# Bighorn River Basin

## Snow

Snowpack in this basin is about average for this time of year. The Nowood River is at 109% of average (161% of last year). The Greybull River SWE is at 102% of average (158% of last year). Shell Creek SWE is 105% of average (114% of last year). The Bighorn River Basin SWE, as a whole, is currently 106% of average (134% of last year). For more information see Basin Summary of Snow Courses at beginning of report.



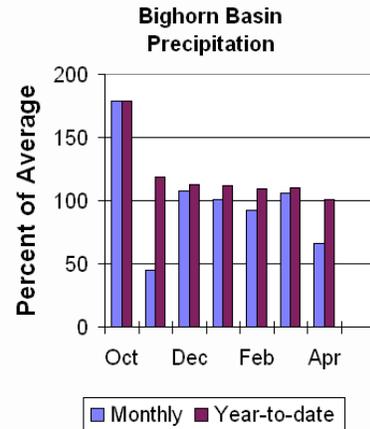
## Precipitation

Last month's precipitation was 66% of average (81% of last year). Sites ranged from 10-91% of average for the month. Year-to-date precipitation is 101% of average; that is 107% of last year at this time. Year-to-date percentages, from the 14 reporting stations, range from 75-143%.

## Reservoir

Boysen Reservoir is currently storing 405,700 ac-ft (77% of average).

Bighorn Lake is now at 98% of average (779,600 ac-ft). Boysen is currently storing 96% of last year volume at this time and Big Horn Lake is storing 98% of last year's volume. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



## Streamflow

The 50% exceedance forecasts for the May through September runoffs are anticipated to be below average. Boysen Reservoir inflow is 585,000 ac-ft (77% of average); the Greybull River near Meeteetse should yield around 161,000 ac-ft (83% of average); Shell Creek near Shell should yield around 71,000 ac-ft (103% of average) and the Bighorn River at Kane should yield around 820,000 ac-ft (80% of average). See the following page for detailed runoff volumes.

**BIGHORN RIVER BASIN**

Streamflow Forecasts - May 1, 2008

```

=====
<=== Drier === Future Conditions === Wetter ===>
Forecast Pt  |===== Chance of Exceeding * =====|
Forecast     | 90%   70%   | 50%   | 30%   10%   | 30 Yr Avg
Period       |(1000AF) (1000AF) |(1000AF) (% AVG.) |(1000AF) (1000AF) |(1000AF)
=====
BOYSEN RESERVOIR Inflow (2)
MAY-JUL      280   420   515   77   610   750   665
MAY-SEP      325   480   585   77   690   845   758

GREYBULL RIVER nr Meeteetse
MAY-JUL      85    104   117   83   130   149   141
MAY-SEP     121   145   161   83   177   200   194

SHELL CREEK nr Shell
MAY-JUL      49    55    59   104   63    69    57
MAY-SEP      61    67    71   103   75    81    69

BIGHORN RIVER at Kane (2)
MAY-JUL      490   635   730   80   825   970   915
MAY-SEP      550   710   820   80   930  1090  1020
=====

```

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

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

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

**BIGHORN RIVER BASIN**

Reservoir Storage (1000AF) End of April

```

=====
Usable ***** Usable Storage *****
Capacity This Year Last Year Average
=====
Reservoir
BOYSEN          596.0      405.7      422.3      526.1
BIGHORN LAKE   1356.0      779.6      797.8      791.9
=====

```

**BIGHORN RIVER BASIN**

Watershed Snowpack Analysis - May 1, 2008

```

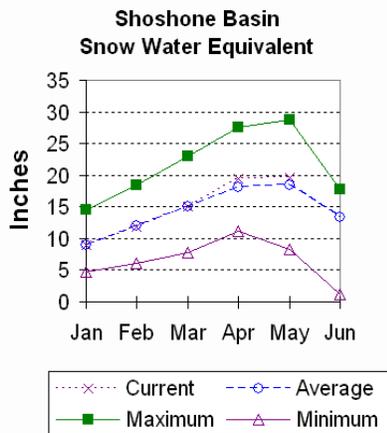
=====
Number of This Year as Percent of
Data Sites Last Year Average
=====
Watershed
NOWOOD RIVER          5          161          109
GREYBULL RIVER        2          158          102
SHELL CREEK           4          114          105
BIGHORN (Boysen-Bighorn) 11          134          106
=====

```

# Shoshone and Clarks Fork River Basin

## Snow

Snowpack in these basins are above average for this time of year. Snow Water Equivalent (SWE) is 100% of average (178% of last year) in the Shoshone River Basin. The Clarks Fork River Basin SWE is 115% of average (164% of last year). For more information see the Basin Summary of Snow Course Data at the beginning of this report.



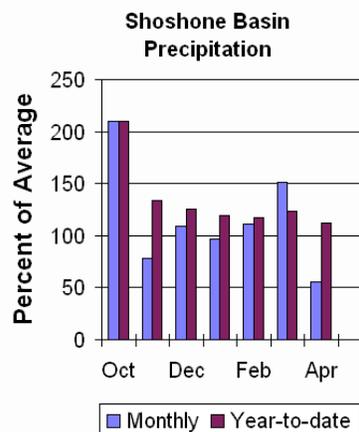
## Precipitation

Precipitation for last month was 56% of average (49% of last year). Monthly percentages range from 7-77% of average. The basin year-to-date precipitation is now 112% of average (117% of last year). Year-to-date percentages range from 73-139% of average for the 13 reporting stations.

## Reservoir

Current storage in Buffalo Bill Reservoir is about 124% of average (89% of last year's storage) - the

reservoir is at about 68% of capacity. Currently, about 438,300 ac-ft are stored in the reservoir compared to 494,800 ac-ft 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 50% exceedance forecasts for the May through September period are expected to be above average for the basin. The North Fork Shoshone River at Wapiti is 560,000 ac-ft (116% of average). The South Fork of the Shoshone River near Valley is 280,000 ac-ft (110% of average), and the South Fork above Buffalo Bill Reservoir runoff is 250,000 ac-ft (116% of average). The Buffalo Bill Reservoir inflow is expected to yield around 830,000 ac-ft (110% of average). The yield for the Clarks Fork of the Yellowstone near Belfry, Montana is expected to be around 650,000 ac-ft (114% of average). See the following page for detailed runoff volumes.

**SHOSHONE & CLARKS FORK RIVER BASINS**

Streamflow Forecasts - May 1, 2008

```

=====
<=== Drier === Future Conditions === Wetter ===>
Forecast Pt  ===== Chance of Exceeding * =====
Forecast     90%      70%      50%      30%      10%      30 Yr Avg
Period       (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF) (1000AF)
=====
NF SHOSHONE RIVER at Wapiti
MAY-JUL      440      470      490      115      510      540      425
MAY-SEP      510      540      560      116      580      610      485

SF SHOSHONE RIVER nr Valley
MAY-JUL      205      225      235      109      245      265      215
MAY-SEP      240      265      280      110      295      320      255

SF SHOSHONE RIVER abv Buffalo Bill
MAY-JUL      176      210      230      115      250      285      200
MAY-SEP      192      225      250      116      275      310      215

BUFFALO BILL DAM Inflow (2)
MAY-JUL      610      690      740      110      790      870      675
MAY-SEP      695      775      830      110      885      965      755

CLARKS FORK RIVER nr Belfry
MAY-JUL      505      555      585      114      615      665      515
MAY-SEP      565      615      650      114      685      735      570
=====

```

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

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

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

**SHOSHONE & CLARKS FORK RIVER BASINS**

Reservoir Storage (1000AF) End of April

```

=====
Usable ***** Usable Storage *****
Capacity This Year Last Year Average
=====
Reservoir
=====
BUFFALO BILL      646.6      438.3      494.8      352.2
=====

```

**SHOSHONE & CLARKS FORK RIVER BASINS**

Watershed Snowpack Analysis - May 1, 2008

```

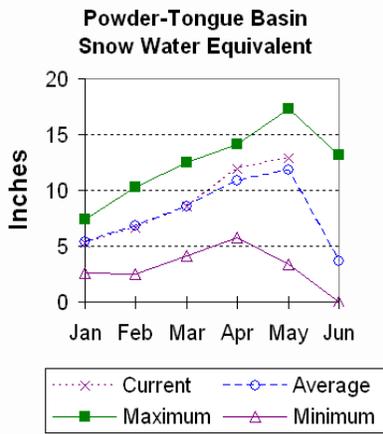
=====
Number of This Year as Percent of
Data Sites Last Year Average
=====
Watershed
=====
SHOSHONE RIVER      6      178      100
CLARKS FORK in WY   7      164      115
=====

```

# Powder and Tongue River Basins

## Snow

Snow water equivalent (SWE) in the Upper Tongue River drainage is 108% of average (124% of last year). The Goose Creek drainage is 97% of average and 118% of last year. SWE in the Clear Creek drainage is 101% of average and 127% of last year. Crazy Woman Creek drainage is 107% of average and 131% of last year. Upper Powder River drainage SWE is 121% of average and 162% of last year. Powder River basin SWE, in Wyoming is 111% of average and 144% of last year. For more information see Basin Summary of Snow Courses at beginning of report.



last year at 40,900 ac-ft.

## Streamflow

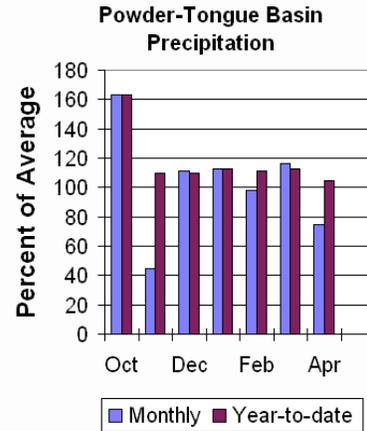
The 50% exceedance forecasts for the May through September period are expected to be above average for the basin. The yield for Tongue River near Dayton is 109,000 ac-ft (106% of average). Big Goose Creek near Sheridan is 59,000 ac-ft (102% of average). Little Goose Creek near Bighorn is 41,000 ac-ft (103% of average). The Tongue River Reservoir Inflow is 235,000 ac-ft (104% of average). The Middle Fork of the Powder River near Barnum is 16,300 ac-ft (98% of average). The North Fork of the Powder River near Hazelton should yield around 10,600 ac-ft (108% of average). Rock Creek near Buffalo will yield about 24,000 ac-ft (104% of average), and Piney Creek at Kearny should yield about 49,000 ac-ft (102% of average). The Powder River at Moorehead is 220,000 ac-ft (110% of average). The Powder River near Locate is 240,000 ac-ft (109% of average). See the following page for detailed runoff volumes.

## Precipitation

Last month's precipitation was 75% of average for the 11 reporting stations (95% of last year). Monthly percentages range from 29-97% of average. Year-to-date precipitation is 105% of average in the basin; this is 109% of last year at this time. Precipitation for the year ranges from 75-116% of average.

## Reservoir

The Tongue River Reservoir is at 52% of capacity; 129% of average; and 69% of



**POWDER & TONGUE RIVER BASINS**

Streamflow Forecasts - May 1, 2008

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	Chance of Exceeding * 50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
TONGUE RIVER nr Dayton (2)							
MAY-JUL	70	85	95	106	105	120	90
MAY-SEP	82	98	109	106	120	136	103
BIG GOOSE CREEK nr Sheridan							
MAY-JUL	29	42	50	102	58	71	49
MAY-SEP	38	50	59	102	68	80	58
LITTLE GOOSE CREEK nr Big Horn							
MAY-JUL	24	29	33	103	37	42	32
MAY-SEP	31	37	41	103	45	51	40
TONGUE RIVER RESERVOIR Inflow (2)							
MAY-JUL	128	177	210	106	245	290	199
MAY-SEP	147	199	235	104	270	325	225
MIDDLE FORK POWDER nr Barnum							
MAY-JUL	9.9	13.1	15.3	98	17.5	21	15.6
MAY-SEP	10.7	14.0	16.3	98	18.6	22	16.6
NORTH FORK POWDER nr Hazelton							
MAY-JUL	7.4	8.8	9.7	108	10.6	12.0	9.0
MAY-SEP	8.1	9.6	10.6	108	11.6	13.1	9.8
ROCK CREEK nr Buffalo							
MAY-JUL	14.3	17.4	19.5	103	22	25	18.9
MAY-SEP	18.6	22	24	104	26	29	23
PINEY CREEK at Kearny							
MAY-JUL	21	35	45	102	55	69	44
MAY-SEP	25	39	49	102	59	73	48
POWDER RIVER at Moorehead							
MAY-JUL	93	155	197	111	240	300	178
MAY-SEP	114	177	220	110	265	325	200
POWDER RIVER near Locate							
MAY-JUL	159	189	210	108	230	260	195
MAY-SEP	180	215	240	109	265	300	220

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

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

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

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

**POWDER & TONGUE RIVER BASINS**

Reservoir Storage (1000AF) End of April

Reservoir	Usable ***** Usable Storage *****			
	Capacity	This Year	Last Year	Average
TONGUE RIVER	79.1	40.9	59.7	31.7

**POWDER & TONGUE RIVER BASINS**

Watershed Snowpack Analysis - May 1, 2008

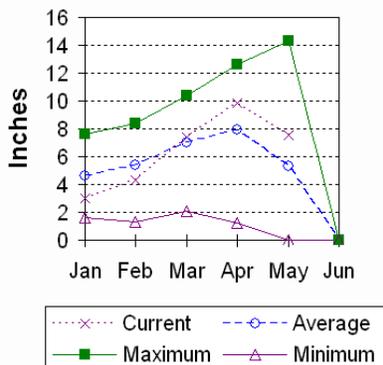
Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
UPPER TONGUE RIVER	10	124	108
GOOSE CREEK	3	118	97
CLEAR CREEK	4	127	101
CRAZY WOMAN CREEK	3	131	107
UPPER POWDER RIVER	4	162	121
POWDER RIVER in WY	8	144	111

## Belle Fourche and Cheyenne River Basins

### Snow

The Belle Fourche River Basin is currently at 142% of average or 1000+% of last year at this time. See the Basin summary of Snow Course Data at the beginning of this report for a detailed listing.

**Belle Fourche - Cheyenne Basin  
Snow Water Equivalent**



### Precipitation

Precipitation for last month was 86% of average or 163% of last year in the Black Hills. There were 3 reporting stations. Monthly percentages range from 73-111%. Year-to-date precipitation is 96% of average and 119% of last year's amount. Yearly percentages range from 112-123% of average.

### Reservoir

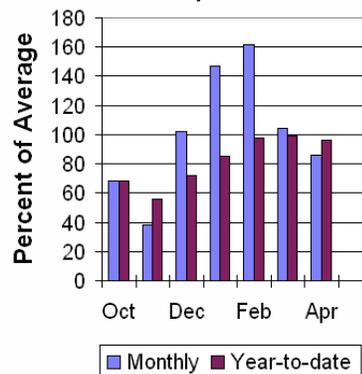
Current reservoir storage is around 57% of average in the basin. Angostura is currently storing 45% of average (51,300 ac-ft), about 42% of capacity. Belle Fourche reservoir is storing 75% of

average (109,100 ac-ft), about 61% of capacity. Deerfield reservoir is storing 88% of average (11,900 ac-ft), about 78% of capacity. Keyhole reservoir is storing 56% of average (64,600 ac-ft), about 33% of capacity. Pactola reservoir is storing 59% of average (28,500 ac-ft), about 52% of capacity. Shadehill reservoir is storing 29% of average (19,000 ac-ft), about 23% 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 runoff values are the 50% exceedance forecasts for the May through July period. The Deerfield Reservoir Inflow is 6,900 ac-ft (182% of average). Pactola Reservoir Inflow is expected to yield around 32,000 ac-ft (176% of average). See the following page for detailed runoff volumes.

**Belle Fourche - Cheyenne Basin  
Precipitation**



**BELLE FOURCHE & CHEYENNE RIVER BASINS**

Streamflow Forecasts - May 1, 2008

```

=====
<=== Drier === Future Conditions === Wetter ===>
Forecast Pt  |===== Chance of Exceeding * =====|
Forecast     | 90%    70%    | 50%    | 30%    10%    | 30 Yr Avg
Period       |(1000AF) (1000AF) |(1000AF) (% AVG.) |(1000AF) (1000AF) |(1000AF)
=====
DEERFIELD RESERVOIR Inflow
MAY-JUL      4.0    5.7    6.9    182    8.1    9.8    3.8

PACTOLA RESERVOIR Inflow
MAY-JUL     17.0    26     32     176    38     47     18.2
    
```

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

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

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

**BELLE FOURCHE & CHEYENNE RIVER BASINS**

Reservoir Storage (1000AF) End of April

```

=====
Reservoir      Usable      ***** Usable Storage *****
                Capacity   This Year  Last Year  Average
=====
ANGOSTURA      122.1      51.3      46.8      113.7
BELLE FOURCHE  178.4      109.1     110.1     145.7
DEERFIELD      15.2       11.9      12.3      13.6
KEYHOLE        193.8      64.6      60.1      115.8
PACTOLA        55.0       28.5      33.3      47.9
SHADEHILL     81.4       19.0      31.2      65.2
=====
    
```

**BELLE FOURCHE & CHEYENNE RIVER BASINS**

Watershed Snowpack Analysis - May 1, 2008

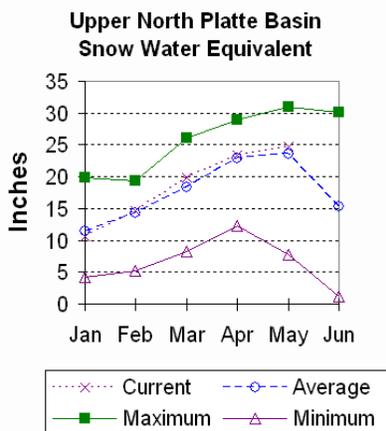
```

=====
Watershed      Number of      This Year as Percent of
                Data Sites    Last Year      Average
=====
BELLE FOURCHE      5              0              158
=====
    
```

# Upper North Platte River Basin

## Snow

The SNOTELs above Seminoe Reservoir are showing about 105% of average (SWE) for this time of the year (157% of last year). SWE in the drainage area above Northgate is about 109% of average and 146% of last year at this time. SWE in the Encampment River drainage is about 116% of average and 194% of last year. Brush Creek SWE for the year is about 99% of average and 164% of last year's SWE. Medicine Bow and Rock Creek drainages SWE are about 86% of average and 117% of last year at this time. For more information see Basin Summary of Snow Courses at the beginning of this report.



Reservoir is also storing about 43% of average for this time of the year and 69% of last year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

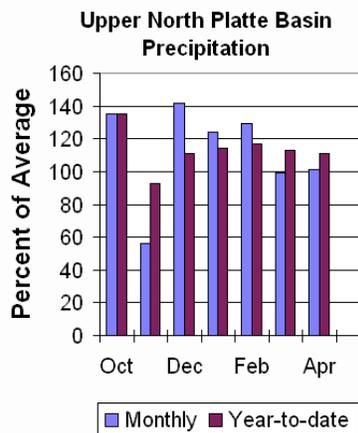
The following yields are the 50% exceedance forecasts for the May through September period and are expected to be above average for the Upper North Platte River Basin. Yield for the North Platte River near Northgate will be around 260,000 ac-ft (113% of average). The Encampment River near Encampment is 193,000 ac-ft (124% of average). Rock Creek near Arlington is 51,000 ac-ft (93% of average). Sweetwater River near Alcova runoff is 46,000 ac-ft (70% of average). Seminoe Reservoir inflow should be around 820,000 ac-ft (109% of average). See the following table for more detailed information on projected runoff.

## Precipitation

Eleven reporting stations show last month's precipitation at 101% of average or 172% of last year's amount. Precipitation varied from 35-134% of average last month. Total water-year-to-date precipitation is about 111% of average for the basin, which is about 128% of last year's amount. Year to date percentage ranges from 73-131% of average.

## Reservoirs

Seminoe Reservoir is estimated to be storing 220,000 ac-ft or 22% of capacity. Seminoe



**UPPER NORTH PLATTE RIVER BASIN**

Streamflow Forecasts - May 1, 2008

```

=====
<=== Drier === Future Conditions === Wetter ===>
Forecast Pt  |===== Chance of Exceeding * =====|
Forecast     | 90%   70%   | 50%   | 30%   10%   | 30 Yr Avg
Period       |(1000AF) (1000AF) |(1000AF) (% AVG.) |(1000AF) (1000AF) |(1000AF)
=====
NORTH PLATTE RIVER nr Northgate
MAY-JUL      178   210   235   115   260   300   205
MAY-SEP      199   235   260   113   285   320   230

ENCAMPMENT RIVER nr Encampment
MAY-JUL      148   168   181   123   194   215   147
MAY-SEP      158   179   193   124   205   230   156

ROCK CREEK nr Arlington
MAY-JUL       39    44    48    92    52    58    52
MAY-SEP       42    47    51    93    55    61    55

SWEETWATER RIVER nr Alcova
MAY-JUL      19.1   33    42    69    51    65    61
MAY-SEP       21    36    46    70    56    71    66

SEMINOE RESERVOIR Inflow (2)
MAY-JUL      570   680   755   109   830   940   690
MAY-SEP      620   740   820   109   900  1020  750
=====

```

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

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

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

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

```

=====
Usable ***** Usable Storage *****
Reservoir   Capacity  This Year  Last Year  Average
=====
SEMINOE     1016.7    220.0     321.1     510.4
=====

```

**UPPER NORTH PLATTE RIVER BASIN**  
Watershed Snowpack Analysis - May 1, 2008

```

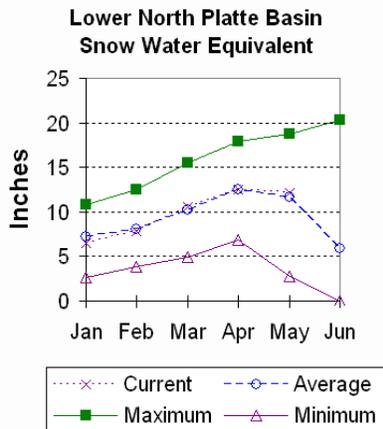
=====
Number of          This Year as Percent of
Watershed         Data Sites        Last Year          Average
=====
N PLATTE above Northgate      7          146          109
ENCAMPMENT RIVER              4          194          116
BRUSH CREEK                   5          164           99
MEDICINE BOW & ROCK CREEKS    3          117           86
N PLATTE above Seminoe       19          157          105
=====

```

# Lower North Platte River Basin

## Snow

SWE for the North Platte River Basin is at 104% of average (163% of last year). The Sweetwater drainage SWE is currently at 83% of average (194% of last year). Deer and LaPrele Creek SWE are at 108% of average (186% of last year). SWE for the North Platte above the Laramie River drainage is 103% of average (161% of last year). SWE for the Laramie River above Laramie is 108% of average (133% of last year). SWE for the Little Laramie River is 98% of average (135% of last year). The Laramie River above mouth, SWE is 103% of average (136% of last year). For more information see Basin Summary of Snow Courses at the beginning of this report.



## Precipitation

Last month's precipitation was 74% of average or 126% of last year's amount. Of the 14 reporting stations, percentages for the month range from 29-93%. The water year-to-date precipitation for the basin is currently 96% of average (104% of last year). Year-to-date percentages range from 59-145% of average.

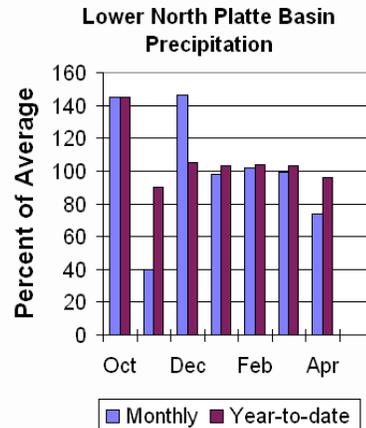
## Reservoir

The Lower North Platte River basin reservoir storage is below average at 52%. Reservoir storage is as follows: Alcova 179,700 ac-ft (101% of average); Glendo

386,800 ac-ft (84% of average); Guernsey 22,700 ac-ft (68% of average); Pathfinder 191,300 ac-ft (26% of average); Seminoe 220,000 ac-ft (43% of average); and Wheatland #2 42,500 ac-ft (71% of average).

## Streamflow

The following yields are based on the 50% exceedance forecasts for the May through September period. The Sweetwater near Alcova is forecast to yield about 46,000 ac-ft (70% of average). Deer Creek at Glenrock is forecast to yield 20,000 ac-ft (71% of average). LaPrele Creek above the reservoir is forecast to yield 11,700 ac-ft (62% of average). North Platte - Alcova to Orin Gain is forecast to yield 81,000 ac-ft (66% of average). North Platte River below Glendo Reservoir is 885,000 ac-ft (107% of average), and below Guernsey Reservoir is anticipated to yield around 930,000 ac-ft (108% of average). Laramie River near Woods Landing should yield around 122,000 ac-ft (96% of average). The Little Laramie near Filmore should produce about 65,000 ac-ft (107% of average). See the following table for more detailed information on projected runoff.



**LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS**

Streamflow Forecasts - May 1, 2008

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	Chance of Exceeding * (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
<b>SWEETWATER RIVER nr Alcova</b>							
MAY-JUL	19.1	33	42	69	51	65	61
MAY-SEP	21	36	46	70	56	71	66
<b>DEER CREEK at Glenrock</b>							
MAY-JUL	5.2	12.6	19.4	72	28	43	27
MAY-SEP	5.5	13.0	20	71	28	44	28
<b>LaPRELE CREEK abv Reservoir</b>							
MAY-JUL	3.9	8.4	11.5	62	14.6	19.1	18.6
MAY-SEP	4.1	8.6	11.7	62	14.8	19.3	18.9
<b>NORTH PLATTE - Alcova to Orin Gain</b>							
MAY-JUL	17.0	50	72	64	94	127	113
MAY-SEP	23	57	81	66	105	139	122
<b>NORTH PLATTE RIVER blw Glendo Res (2)</b>							
MAY-JUL	615	760	860	108	960	1100	800
MAY-SEP	635	785	885	107	985	1140	830
<b>NORTH PLATTE RIVER blw Guernsey Res (2)</b>							
MAY-JUL	600	775	895	110	1010	1190	815
MAY-SEP	625	805	930	108	1050	1240	860
<b>LARAMIE RIVER nr Woods</b>							
MAY-JUL	70	94	110	96	126	150	115
MAY-SEP	77	104	122	96	140	167	127
<b>LITTLE LARAMIE RIVER nr Filmore</b>							
MAY-JUL	51	56	59	105	62	67	56
MAY-SEP	55	61	65	107	69	75	61

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

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

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

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

**LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS**

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
ALCOVA	184.3	179.7	180.8	178.8
GLENDO	506.4	386.8	444.2	458.2
GUERNSEY	45.6	22.7	24.4	33.3
PATHFINDER	1016.5	191.3	243.7	747.1
SEMINOE	1016.7	220.0	321.1	510.4
WHEATLAND #2	98.9	42.5	41.1	59.7

**LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS**

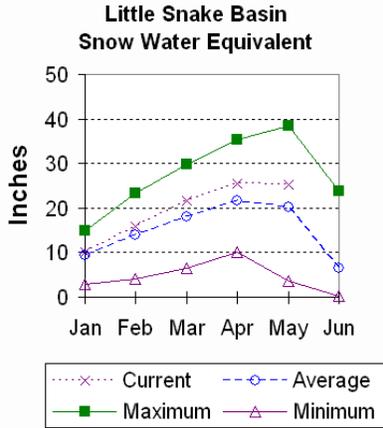
Watershed Snowpack Analysis - May 1, 2008

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SWEETWATER	4	194	83
DEER & LaPRELE CREEKS	3	186	108
N PLATTE abv Laramie R.	26	161	103
LARAMIE RIVER abv Laramie	11	133	108
LITTLE LARAMIE RIVER	5	135	98
LARAMIE RIVER above mouth	14	136	103
NORTH PLATTE	33	163	104

# Little Snake River Basin

## Snow

Currently, snow water equivalent (SWE) in the Little Snake River drainage is 125% of average (254% of last year). For more information see Basin Summary of Snow Courses at beginning of this report.



High Savery Dam -Pending

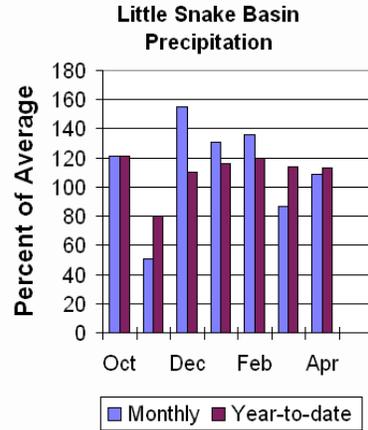
## Streamflow

The 50% exceedance forecast for the Little Snake River drainage is expected to be well above average this year. Stream yields are based on the 50% exceedance forecast for the May through July period. The Little Snake River near Slater should yield around 195,000 ac-ft (138% of average). The Little Snake River near Dixon is estimated to yield around 410,000 ac-ft (141% of average). See the following table for more detailed information on projected runoff.

## Precipitation

Precipitation across the basin was above average this past month. Last Month's precipitation was 109% of average (203% of last year) for the 5 reporting stations. Last month's precipitation ranged from 70-150% of average. The Little Snake River basin water-year-to-date precipitation is currently 113% of average (142% of last year). Year-to-date percentages range from 102-124% of average.

## Reservoir



**LITTLE SNAKE RIVER BASIN**  
Streamflow Forecasts - May 1, 2008

```

=====
<=== Drier === Future Conditions === Wetter ===>
Forecast Pt  |=====| Chance of Exceeding * |=====|
Forecast     | 90%   70%   | 50%   | 30%   10%   | 30 Yr Avg
Period       |(1000AF) (1000AF) |(1000AF) (% AVG.) |(1000AF) (1000AF) |(1000AF)
=====
Little Snake River nr Slater
APR-JUL      165   188   205   129   220   250   159
MAY-JUL      155   178   195   138   210   240   141

Little Snake River nr Dixon
APR-JUL      325   390   440   133   490   570   330
MAY-JUL      295   360   410   141   460   540   290
=====

```

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

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

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

**LITTLE SNAKE RIVER BASIN**  
Watershed Snowpack Analysis - May 1, 2008

```

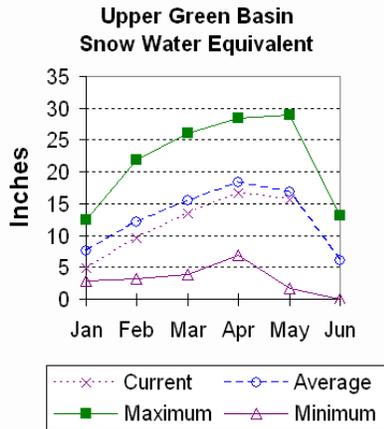
=====
Watershed          Number of          This Year as Percent of
                   Data Sites        Last Year          Average
=====
LITTLE SNAKE RIVER      8                254                125
=====

```

# Upper Green River Basin

## Snow

Snow water equivalent (SWE) is below average in the Upper Green River drainage this year. The Green River Basin SWE above Warren Bridge is at 91% (471% of last year). SWE on the west side of the Upper Green River Basin is about 98% of average (147% of last year). Newfork River Basin SWE is now about 75% of average (127% of last year). Big Sandy-Eden Valley Basin is at 90% or 278% of last year. SWE in the Green River Basin above Fontenelle Reservoir is about 93% of average (167% of last year). For more information see the Basin Summary of Snow Courses at the beginning of this report.



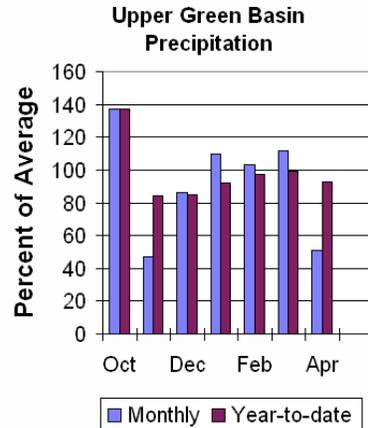
## Precipitation

The 13 reporting precipitation sites in the basin were 51% of average last month (54% of last year). Last month's precipitation varied from 31-67% of average. Water year-to-date precipitation is about 93% of average (117% of last year). Year to date percentage of average ranges from 69-112% for the reporting stations.

## Reservoir

Storage in Big Sandy Reservoir is 15,800 ac-ft or 41% of capacity. This is 64% of average. Eden

Reservoir - No Report. Fontenelle Reservoir is 110,100 ac-ft or 32% of capacity; 77% of average. This is 75% of average for the Upper Green River basin. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



## Streamflow

The 50% exceedance forecasts for the May through July runoff period in the Upper Green River Basin are forecast below average. The yield on the Green River at Warren Bridge is around 225,000 ac-ft (92% of average). Pine Creek above Fremont Lake is 90,000 ac-ft (88% of average). New Fork River near Big Piney is 300,000 ac-ft (82% of average). Fontenelle Reservoir Inflow is estimated to be 600,000 ac-ft (78% of average), and Big Sandy near Farson is expected to be around 45,000 ac-ft (83% of average). See the following table for more detailed information on projected runoff.

**UPPER GREEN RIVER BASIN**  
Streamflow Forecasts - May 1, 2008

Forecast Pt Forecast Period	<=== Drier ===		Future Conditions		=== Wetter ===>		30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Green River at Warren Bridge							
APR-JUL	193	215	235	89	250	275	265
MAY-JUL	185	210	225	92	240	270	246
Pine Creek abv Fremont Lake							
APR-JUL	77	86	92	89	98	108	104
MAY-JUL	75	84	90	88	96	106	102
New Fork River nr Big Piney							
APR-JUL	240	285	315	80	350	400	395
MAY-JUL	225	270	300	82	335	385	368
Fontenelle Reservoir Inflow							
APR-JUL	480	580	655	76	730	855	860
MAY-JUL	429	527	600	78	678	800	765
Big Sandy River nr Farson							
APR-JUL	34	41	46	79	51	60	58
MAY-JUL	33	40	45	83	50	59	54

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

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

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

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

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
BIG SANDY	38.3	15.8	18.0	24.8
EDEN		NO REPORT		
FONTENELLE	344.8	110.1	130.0	143.5

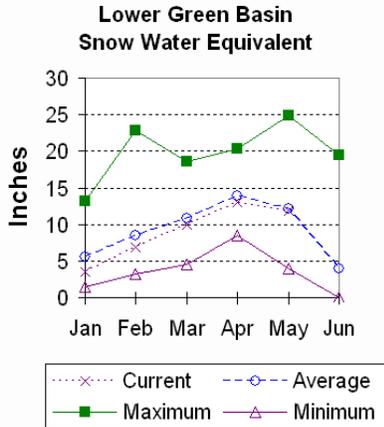
**UPPER GREEN RIVER BASIN**  
Watershed Snowpack Analysis - May 1, 2008

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
GREEN above Warren Bridge	4	327	91
UPPER GREEN (West Side)	7	147	98
NEWFORK RIVER	3	127	75
BIG SANDY/EDEN VALLEY	2	271	88
GREEN above Fontenelle	14	167	93

# Lower Green River Basin

## Snow

SWE in the Hams Fork Basin is 105% of average (187% of last year). Blacks Fork Basin SWE is currently 114% of average (294% of last year). The Henrys Fork drainage is at 85% of average (230% of last year). SWE in the Green River Basin above Flaming Gorge is 97% of average (198% of last year). For more information see Basin Summary of Snow Courses at beginning of this report.



ac-ft; this is 103% of average (96% of last year). Viva Naughton is storing 30,400 ac-ft or 106% of average; this is 67% of last year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

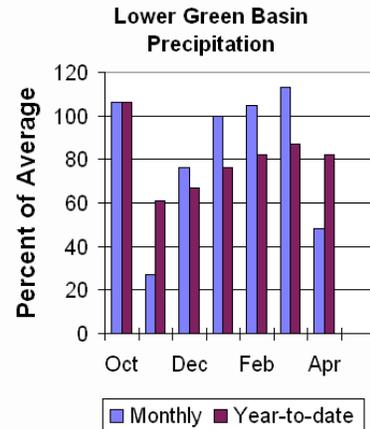
The 50% exceedance forecasts for the May through July runoff period in the Lower Green River Basin are forecast below average. The Green River near Green River is forecast to yield about 610,000 ac-ft (78% of average). The Blacks Fork near Robertson is forecast to yield 85,000 ac-ft (92% of average). East Fork of Smiths Fork near Robertson is forecast to yield 25,000 ac-ft (89% of average). Hams Fork below Pole Creek near Frontier is 53,000 ac-ft (82% of average). The Hams Fork Inflow to Viva Naughton Reservoir is 67,000 ac-ft (88% of average). The Flaming Gorge Reservoir inflow will be about 740,000 ac-ft (72% of average). See the following table for more detailed information on projected runoff.

## Precipitation

Precipitation was above average for the 4 reporting stations during last month at 48% of average or 101% of last year. Precipitation ranged from 19-50% of average for the month. The basin year-to-date precipitation is currently 82% of average (116% of last year). Year-to-date percentages range from 60-85% of average.

## Reservoirs

Fontenelle Reservoir is currently storing 110,100 ac-ft; this is 77% of average (85% of last year). Flaming Gorge is currently storing 3,045,000



**LOWER GREEN RIVER BASIN**  
Streamflow Forecasts - May 1, 2008

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	Chance of Exceeding * (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Green River nr Green River, WY (2)							
APR-JUL	495	595	675	77	755	885	875
MAY-JUL	430	535	610	78	690	825	780
Blacks Fork nr Robertson							
APR-JUL	64	77	86	91	96	111	95
MAY-JUL	63	76	85	92	95	110	92
EF of Smiths Fork nr Robertson							
APR-JUL	17.4	22	25	86	29	34	29
MAY-JUL	17.1	22	25	89	29	34	28
Hams Fk blw Pole Ck nr Frontier							
APR-JUL	39	47	53	82	59	69	65
MAY-JUL	38	46	52	87	58	68	60
Hams Fork Inf to Viva Naughton Res							
APR-JUL	48	61	70	79	80	96	89
MAY-JUL	45	58	67	88	77	93	76
Flaming Gorge Reservoir Inflow (2)							
APR-JUL	530	695	820	69	960	1190	1190
MAY-JUL	445	615	740	72	880	1110	1035

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

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

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

**LOWER GREEN RIVER BASIN**  
Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	***** This Year *****	Usable Storage Last Year	***** Average *****
FONTENELLE	344.8	110.1	130.0	143.5
FLAMING GORGE	3749.0	3184.0	3033.0	2952.0
VIVA NAUGHTON RES	42.4	30.4	45.2	28.6

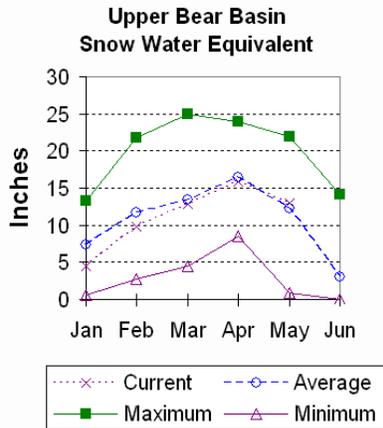
**LOWER GREEN RIVER BASIN**  
Watershed Snowpack Analysis - May 1, 2008

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
HAMS FORK RIVER	4	188	105
BLACKS FORK	5	47	39
HENRYS FORK	3	79	37
GREEN above Flaming Gorge	26	145	82

# Upper Bear River Basin

## Snow

Snow water equivalent (SWE) in the Upper Bear River Basin in Utah is estimated to be 120% of average; that is about 443% of last year at this time. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is estimated at 102% of average (183% of last year). Bear River Basin SWE, above the Idaho State line, is 106% of average and 245% of last year. See the Basin Summary of Snow Course Data at the beginning of this report for more detailed information.



## Precipitation

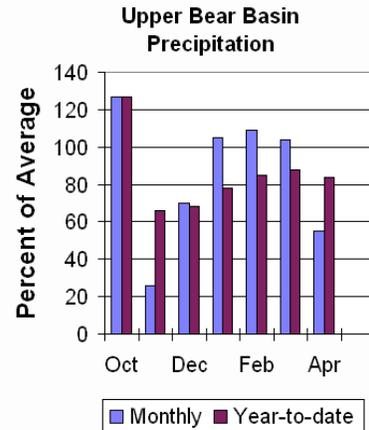
Precipitation for last month was 55% of average for the 2 reporting stations; this is 86% of the precipitation received last year. The year-to-date precipitation, for the basin, is 84% of average; this is 115% of last year's amount.

## Reservoir

Storage, in Woodruff Narrows reservoir, is about 40,800 ac-ft (106% of average). Current reservoir storage is about 71% of capacity. Reservoir storage last year at this time was 57,300 ac-ft at this time.

## Streamflow

The following 50% exceedance forecasts are for the May through September period. The Bear River near the Utah-Wyoming State Line is 122,000 ac-ft (103% of average). The Bear River above Reservoir near Woodruff is 122,000 ac-ft (100% of average). The Smiths Fork River near Border is 88,000 ac-ft (79% of average). See the following table for more detailed information on projected runoff.



**UPPER BEAR RIVER BASIN**  
Streamflow Forecasts - May 1, 2008

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
<b>Bear River nr UT-WY State Line</b>							
APR-JUL	99	107	113	100	119	127	113
APR-SEP	112	121	128	102	135	144	125
MAY-JUL	93	101	107	100	113	121	107
MAY-SEP	106	115	122	103	129	138	119
<b>Bear River ab Reservoir nr Woodruff</b>							
APR-JUL	88	106	119	88	132	150	136
APR-SEP	99	117	130	92	143	161	142
MAY-JUL	82	99	111	96	123	140	116
MAY-SEP	93	110	122	100	134	151	122
<b>Smiths Fork nr Border</b>							
APR-JUL	76	81	84	82	87	92	103
APR-SEP	82	88	92	76	96	102	121
MAY-JUL	72	77	80	84	83	88	95
MAY-SEP	78	84	88	79	92	98	112

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

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

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

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

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
WOODRUFF NARROWS	57.3	57.3	57.3	38.5

**UPPER BEAR RIVER BASIN**  
Watershed Snowpack Analysis - May 1, 2008

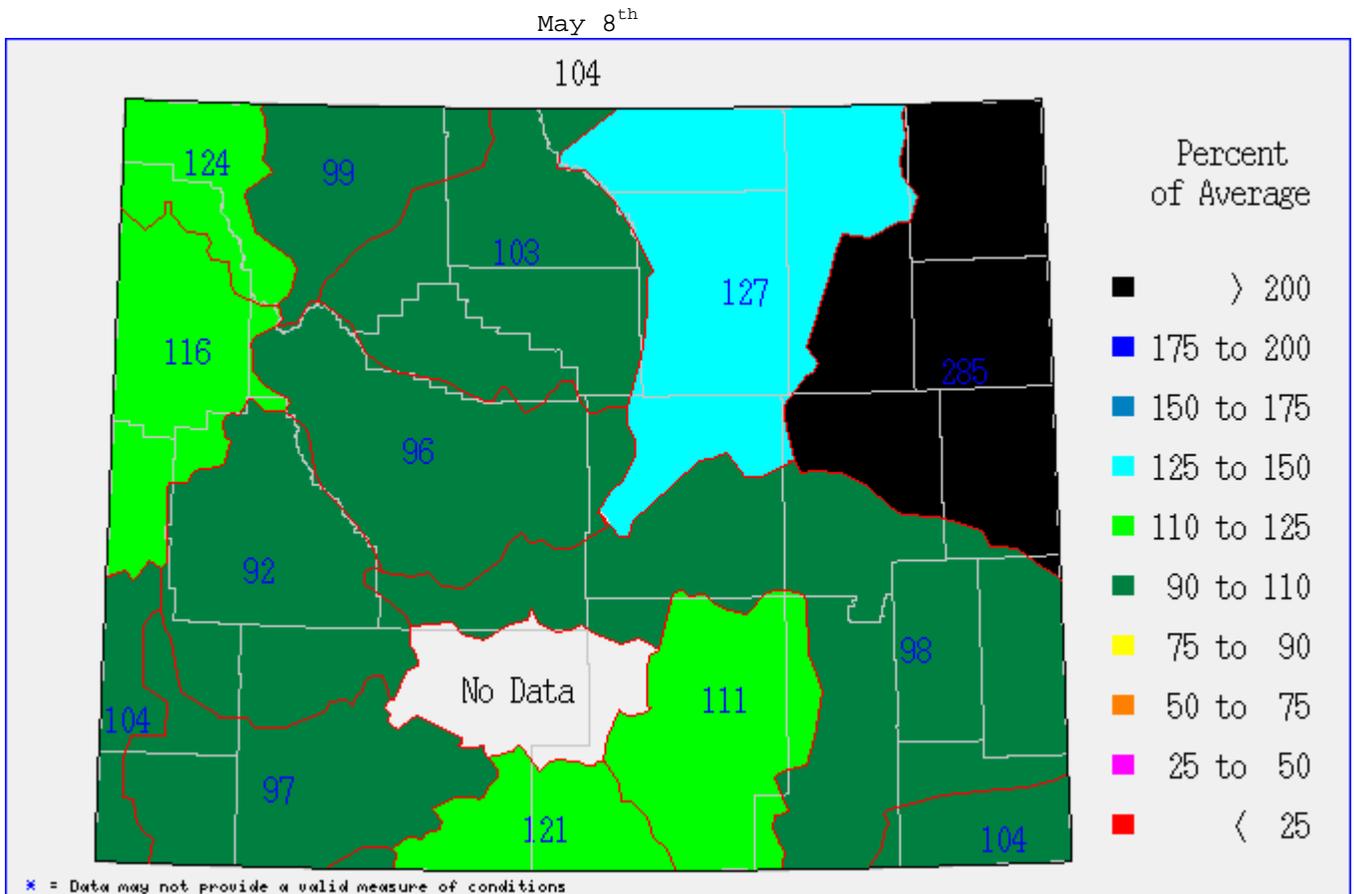
Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER BEAR RIVER in Utah	7	27	27
SMITHS & THOMAS FORKS	4	183	103
BEAR RIVER abv ID line	9	88	68
NORTHWEST	66	201	112
NORTHEAST	20	139	108
SOUTHEAST	36	189	108
SOUTHWEST	35	171	93

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**The Following Agencies and Organizations Cooperate with the Natural Resources Conservation Service on the Snow Survey Work.**

**FEDERAL:**

United States Department of the Interior (National Park Service)

United States Department of Agriculture (Forest Service)

United States Department of the Interior (Bureau of Reclamation)

United States Department of Commerce NOAA (National Weather Service)

**State:**

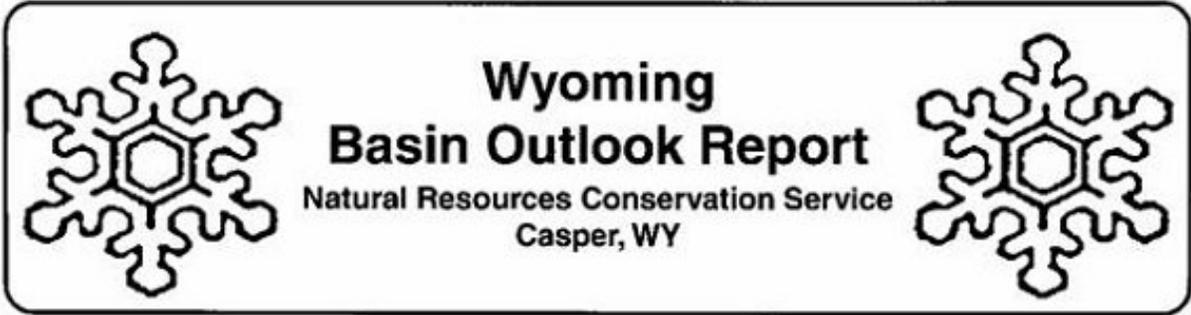
The Wyoming State Engineers Office

The University of Wyoming

**Local:**

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