



United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

# Wyoming Basin Outlook Report

## June 1, 2010



# 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 the 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 the 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 their 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 above average for June 1<sup>st</sup> at 124%. April precipitation for the basins varied from 107-178% of average. Year-to-date precipitation for Wyoming basins varied from 73-121% of average. Forecasted runoff varies from 51-131% of average across the Wyoming basins for an overall average of 80%. Basin reservoir levels for Wyoming vary from 64-170% of average for an overall average of 109%.

## Snowpack

Snow water equivalent (SWE), across Wyoming is above average for this time of year at 124%. SWE in the NW portion of Wyoming is now about 100% of average (142% of last year). NE Wyoming SWE is currently about 172% of average (458% of last year). The SE Wyoming SWE is currently about 121% of average (214% of last year). The SW Wyoming SWE is about 105% of average (185% of last year).

## Precipitation

Last month's precipitation was above average across Wyoming. The Yellowstone and Madison River Basins had the lowest precipitation for the month at 107% of average. The Wind River Basin had the highest precipitation amount at 178% 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	+19%	Upper North Platte River	+34%
Yellowstone & Madison	+07%	Lower North Platte	+20%
Wind River	+78%	Little Snake River	+48%
Big Horn	+62%	Upper Green River	+22%
Shoshone & Clarks Fork	+11%	Lower Green River	+69%
Powder & Tongue River	+72%	Upper Bear River	+32%
Belle Fourche & Cheyenne	+70%		

## Streams

Stream flow yield for June to September is expected to be below average across Wyoming. Most probable yield for the entire State of Wyoming is forecast to be about 80% (varying from 51-131% of average). The Snake River and Upper Yellowstone & Madison River Basins are expected to yield about 63 and 67% of average, respectively; 51-92% of average for the various forecast points in the basins: Yields from the Wind and Bighorn River Basins are expected to be about 114% and 109% of average, respectively; varying from 88-153% of average in the basins: Yields from the Shoshone and Clarks Fork River Basins of Wyoming are expected to yield about 73% of average; varying from 67-85% of average: Yields from the Powder & Tongue River Basins are expected to be about 121 and 122% of average, respectively; varying from 112-121% of average: Yields for the Belle Fourche & Cheyenne River Basins are expected to be about 131% of average. Yields for the Upper and Lower North Platte River of Wyoming are expected to be about 111 and 118% of average, respectively; varying from 103-208% of average: Yields for the Little Snake, Green River, and Little Bear of Wyoming are expected to be 114, 55, and 99% of average respectively; yield estimates vary from 54-114% of average:

## Reservoirs

Reservoir storage for April varies widely across the state however reservoir storage is at 109% of average for the entire state. Reservoirs on the North Platte River are above average at 115% of average. Reservoirs in the northeast are above average in storage at 106%. Reservoirs in the Wind River Basin are below average at 97%. Reservoirs on the Big Horn are above average at 105%. The Buffalo Bill Reservoir on the Shoshone is about average at 98%. Reservoirs on the Green River are slightly above average at 103%. 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					
ALCOVA	98	98	97	101	100
ANGOSTURA	92	70	96	96	131
BELLE FOURCHE	95	96	85	111	99
BIG SANDY	69	71	77	90	97
BIGHORN LAKE	71	66	64	111	108
BOYSEN	90	97	95	95	93
BUFFALO BILL	60	83	61	98	72
BULL LAKE	63	76	63	101	84
DEERFIELD	102	101	89	114	101
EDEN			NO REPORT		
ENNIS LAKE	89	83	86	104	108
FLAMING GORGE	85	80	81	105	107
FONTENELLE	34	67	53	64	50
GLENDO	108	86	99	108	125
GRASSY LAKE	101	100	95	106	101
GUERNSEY	60	60	79	75	99
HEBGEN LAKE	91	87	83	110	106
JACKSON LAKE	87	88	68	129	100
KEYHOLE	58	55	61	95	106
PACTOLA	104	100	88	117	104
PALISADES	81	67	74	110	120
PATHFINDER	90	46	76	118	195
PILOT BUTTE	90	90	77	117	100
SEMINOE	79	70	65	122	113
SHADEHILL	100	91	84	119	110
TONGUE RIVER	103	88	61	170	118
VIVA NAUGHTON RES	107	106	92	116	101
WHEATLAND #2	76	84	60	127	90
WOODRUFF NARROWS	100	100	70	142	100
<b>TOTAL 28 RESERVOIRS</b>	<b>82</b>	<b>76</b>	<b>75</b>	<b>109</b>	<b>108</b>
Raw KAF Tot Current=10900 Last Year=10052 Average=10028 Capacity=13288					

# BASIN SUMMARY OF SNOW COURSE DATA

JUNE 2010

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
-----						
WYOMING Snow Course and SNOTEL Stations						
BALD MOUNTAIN SNOTEL	9380	6/01/10	50	18.3	11.3	16.7
BASE CAMP SNOTEL	7030	6/01/10	---	.0	.0	.0
BATTLE MTN. SNOTEL	7440	6/01/10	0	.0	.0	.0
BEARTOOTH LK. SNOTEL	9280	6/01/10	45	16.4	18.8	20.1
BEAR TRAP SNOTEL	8200	6/01/10	0	.0	.0	.0
BIG GOOSE SNOTEL	7760	6/01/10	15	5.6	.0	2.7
BIG SANDY SNOTEL	9080	6/01/10	0	.0	.0	1.4
BLACKWATER SNOTEL	9780	6/01/10	56	21.7	20.8	24.7
BLIND BULL SNOTEL	8900	6/01/10	44	17.3	18.6	17.8
BLIND PARK SNOTEL	6870	6/01/10	0	.0	.0	.0
BONE SPGS. SNOTEL	9350	6/01/10	35	12.2	1.4	8.2
BROOKLYN LK. SNOTEL	10220	6/01/10	41	15.3	3.8	11.6
BURGESS JCT. SNOTEL	7880	6/01/10	23	7.6	.0	2.6
BURROUGHS CRK SNOTEL	8750	6/01/10	20	5.5	1.9	3.4
CANYON SNOTEL	8090	6/01/10	0	.0	.0	1.3
CASPER MTN. SNOTEL	7850	6/01/10	8	3.9	.0	4.2
CHALK CK #1 SNOTEL	9100	6/01/10	38	15.6	.0	12.0
CHALK CK #2 SNOTEL	8200	6/01/10	0	.0	.0	.8
CINNABAR PARK SNOTEL	9690	6/01/10	29	13.4	4.4	1.5
CLOUD PEAK SNOTEL	9850	6/01/10	38	15.0	5.0	7.7
COLE CANYON SNOTEL	5910	6/01/10	0	.0	.0	.0
COLD SPRINGS SNOTEL	9630	6/01/10	8	1.8	.0	1.1
COTTONWOOD CR SNOTEL	7700	6/01/10	---	6.9	.0	5.1
CROW CREEK SNOTEL	8830	6/01/10	0	.0	.0	.0
DEER PARK SNOTEL	9700	6/01/10	46	17.9	3.6	8.0
DIVIDE PEAK SNOTEL	8860	6/01/10	---	3.9	.0	3.7
DOME LAKE SNOTEL	8880	6/01/10	16	6.1	.0	3.2
EAST RIM DIV SNOTEL	7930	6/01/10	---	.0	.0	1.5
ELKHART PARK SNOTEL	9400	6/01/10	---	.0	.0	3.3
EVENING STAR SNOTEL	9200	6/01/10	49	18.0	19.7	26.7
GRAND TARGHEE SNOTEL	9260	6/01/10	108	46.8	39.2	--
GRANITE CRK SNOTEL	6770	6/01/10	---	.0	.0	.8
GRASSY LAKE SNOTEL	7270	6/01/10	28	11.5	.6	14.0
GRAVE SPRINGS SNOTEL	8550	6/01/10	13	4.1	.0	1.8
GROS VENTRE SNOTEL	8750	6/01/10	1	.3	.0	3.7
HANSEN S.M. SNOTEL	8360	6/01/10	0	.0	.0	.2
HAMS FORK SNOTEL	7840	6/01/10	---	.0	.0	.0
HOBBS PARK SNOTEL	10100	6/01/10	59	23.3	5.6	10.1
INDIAN CREEK SNOTEL	9430	6/01/10	---	17.7	8.2	14.7
KELLEY R.S. SNOTEL	8180	6/01/10	---	1.3	.0	1.4
KENDALL R.S. SNOTEL	7740	6/01/10	0	.0	.0	.0
KIRWIN SNOTEL	9550	6/01/10	21	7.4	.0	5.5
LA PRELE SNOTEL	8380	6/01/10	0	.0	.0	.8
LEWIS LAKE SNOTEL	7850	6/01/10	27	11.8	10.8	17.9
LEWIS LAKE DIVIDE	7850	6/02/10	32	15.5	15.1	--
LITTLE WARM SNOTEL	9370	6/01/10	10	3.5	.0	1.9
LOOMIS PARK SNOTEL	8240	6/01/10	---	.0	.0	2.3
MARQUETTE SNOTEL	8760	6/01/10	20	9.1	.0	4.2
MIDDLE POWDER SNOTEL	7760	6/01/10	11	3.6	.0	2.6
NEW FORK SNOTEL	8340	6/01/10	0	.0	.0	.0

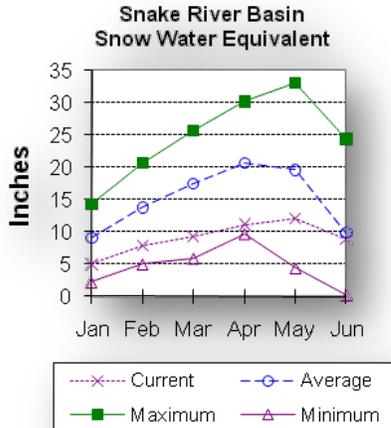
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
NORTH FRENCH SNOTEL	10130	6/01/10	84	37.3	22.4	23.9
NORTH RAPID CK SNTL	6130	6/01/10	0	.0	.0	.0
OLD BATTLE SNOTEL	9920	6/01/10	87	37.4	27.6	25.6
OWL CREEK SNOTEL	8980	6/01/10	0	.0	.0	.5
PARKERS PEAK SNOTEL	9400	6/01/10	48	16.1	11.9	18.5
PHILLIPS BNCH SNOTEL	8200	6/01/10	22	9.3	9.7	14.0
POCKET CREEK SNOTEL	9350	6/01/10	19	3.8	--	--
POWDER RVR.PASS SNTL	9480	6/01/10	11	3.9	.0	2.3
RENO HILL SNOTEL	8500	6/01/10	11	6.4	.0	3.4
SAGE CK BASIN SNTL	7850	6/01/10	0	.0	.0	2.1
SALT RIVER SNOTEL	7600	6/01/10	---	.0	.0	.0
SAND LAKE SNOTEL	10050	6/01/10	81	34.7	25.4	25.8
SANDSTONE RS SNOTEL	8150	6/01/10	0	.0	.0	.0
SHELL CREEK SNOTEL	9580	6/01/10	41	14.2	6.7	10.4
SNAKE RV STA SNOTEL	6920	6/01/10	0	.0	.0	.0
SNIDER BASIN SNOTEL	8060	6/01/10	0	.0	.0	.0
SOUTH BRUSH SNOTEL	8440	6/01/10	0	.0	.0	1.7
SOUTH PASS SNOTEL	9040	6/01/10	36	11.7	.0	6.3
SPRING CRK. SNOTEL	9000	6/01/10	46	18.8	12.8	15.0
ST LAWRENCE ALT SNTL	8620	6/01/10	0	.0	.0	.7
SUCKER CREEK SNOTEL	8880	6/01/10	37	12.3	.0	3.6
SYLVAN LAKE SNOTEL	8420	6/01/10	24	10.0	4.8	11.4
SYLVAN ROAD SNOTEL	7120	6/01/10	0	.0	.0	.0
THUMB DIVIDE SNOTEL	7980	6/01/10	0	.0	.0	1.9
TIE CREEK SNOTEL	6870	6/01/10	0	.0	.0	.0
TIMBER CREEK SNOTEL	7950	6/01/10	0	.0	.0	.5
TOGWOTEE PASS SNOTEL	9580	6/01/10	60	22.3	20.1	21.9
TOWNSEND CRK SNOTEL	8700	6/01/10	20	7.4	.0	1.7
TRIPLE PEAK SNOTEL	8500	6/01/10	21	8.7	.0	4.8
TWO OCEAN SNOTEL	9240	6/01/10	57	24.6	32.0	25.2
WEBBER SPRING SNOTEL	9250	6/01/10	30	13.5	1.1	6.5
WHISKEY PARK SNOTEL	8950	6/01/10	33	17.9	4.6	13.6
WILLOW CREEK SNOTEL	8450	6/01/10	---	17.5	9.6	14.3
WINDY PEAK SNOTEL	7900	6/01/10	0	.0	.0	.1
WOLVERINE SNOTEL	7650	6/01/10	0	.0	.0	.0
YOUNTS PEAK SNOTEL	8350	6/01/10	18	5.5	4.0	7.0



# Snake River Basin

## Snow

The Snake River Basin snow water equivalent (SWE) is below average at 90%. SWE in the Snake River Basin above Jackson Lake is 81% of average. Pacific Creek Basin SWE is 98% of average. Gros Ventre River Basin SWE is 88% of average. SWE in the Hoback River drainage is 67% of average. SWE in the Greys River drainage is 116% of average. In the Salt River area SWE is 126% of average. SWE in the Snake River Basin above Palisades is 90% of average. See the "Basin Summary of Snow Course Data" at the beginning of this report for a detailed listing of snow course information.



## Precipitation

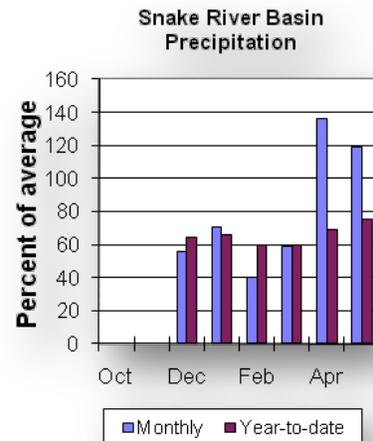
Precipitation across the basin was above average last month. Monthly precipitation for the basin was 119% of average (142% of last year). Last month's percentages range from 112-218% of average for the 16 reporting stations. Water-year-to-date precipitation is 75% of average for the Snake River Basin (73% of last year). Year-to-date percentages range from 63-92% of average.

## Reservoir

Current reservoir storage is 117% of average for the 3 storage reservoirs in the basin. Grassy Lake storage is about 106% of average (15,300 ac-ft compared to 15,200 last year). Jackson Lake storage is 129% of average (741,100 ac-ft compared to 742,100 ac-ft last year). Palisades Reservoir storage is about 110% of average 1,137,900 ac-ft compared to 944,800 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 June through September are below average for the basin. The Snake near Moran is 375,000 ac-ft (65% of average). Snake above reservoir near Alpine is 1,020,000 ac-ft (55% of average). The Snake near Irwin is 1,560,000 ac-ft (62% of average). The Snake near Heise is 1,670,000 ac-ft (63% of average). Pacific Creek near Moran is 54,000 ac-ft (51% of average). Buffalo Fork above Lava near Moran is 185,000 ac-ft (69% of average). Gros Ventre River at Kelly is 100,000 ac-ft (61% of average). Greys River above Palisades Reservoir is 200,000 ac-ft (82% of average). Salt River near Etna is 220,000 ac-ft (92% of average). See the following page for detailed runoff volumes.



**SNAKE RIVER BASIN**  
Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	
Snake R nr Moran						
JUN-JUL	220	265	300	61	335	490
JUN-SEP	275	335	375	65	415	580
SNAKE abv Resv nr Alpine (1,2)						
JUN-JUL	590	710	790	54	870	1470
JUN-SEP	755	915	1020	55	1130	1840
SNAKE nr Irwin (1,2)						
JUN-JUL	790	1060	1180	61	1300	1950
JUN-SEP	1120	1420	1560	62	1700	2500
SNAKE near Heise (2)						
JUN-JUL	925	1120	1250	61	1380	2050
JUN-SEP	1290	1520	1670	63	1820	2650
Pacific Ck at Moran						
JUN-JUL	18.0	37	50	50	63	100
JUN-SEP	21	40	54	51	68	106
Buffalo Fork ab Lava nr Moran, WY						
JUN-JUL	111	137	155	69	173	225
JUN-SEP	132	164	185	69	205	268
Gros Ventre R at Kelly, WY						
JUN-JUL	23	57	80	67	103	119
JUN-SEP	33	73	100	61	127	164
Greys R nr Alpine						
JUN-JUL	127	141	150	80	159	188
JUN-SEP	167	187	200	82	215	245
Salt R nr Etna						
JUN-JUL	83	117	140	86	163	162
JUN-SEP	134	179	210	88	240	240

\* 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.
- (3) - Median value used in place of average.

**SNAKE RIVER BASIN**  
Reservoir Storage (1000AF) End of May

Reservoir	Usable	***** Usable Storage *****		Average
	Capacity	This Year	Last Year	
GRASSY LAKE	15.2	15.3	15.2	14.4
JACKSON LAKE	847.0	741.1	742.1	572.6
PALISADES	1400.0	1137.9	944.8	1033.6

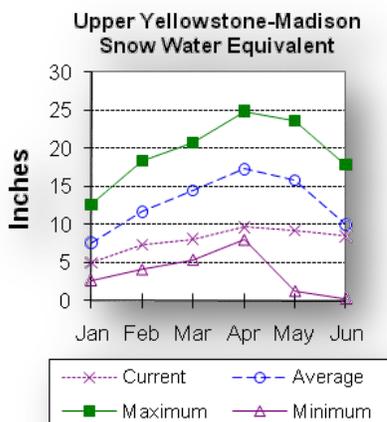
**SNAKE RIVER BASIN**  
Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of	This Year as Percent of	
	Data Sites	Last Year	Average
SNAKE above Jackson Lake	5	110	81
PACIFIC CREEK	2	77	98
GROS VENTRE RIVER	2	119	88
HOBACK RIVER	5	95	67
GREYS RIVER	4	148	116
SALT RIVER	3	254	126
SNAKE above Palisades	17	124	90

# Upper Yellowstone & Madison River Basins

## Snow

Snowfall in these basins has been below average so far this year. Snow water equivalent (SWE) is at 87% of average in the Madison drainage. SWE in the Yellowstone drainage is at 88% of average. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

Last month precipitation in the Madison and Yellowstone drainage was about 107% of average (146% of last year). The 5 reporting stations percentages range from 96-116% of average. Water-year-to-date precipitation is about 78% of average (74% of last year's amount). Year to date percentage ranges from 68-88%.

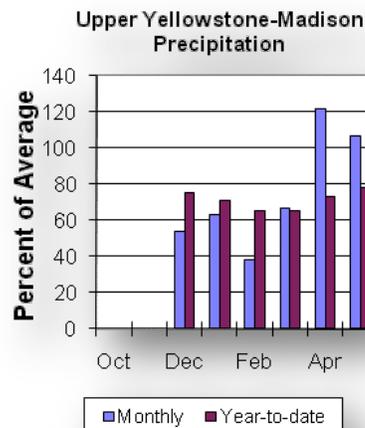
## Reservoir

Ennis Lake is storing about 36,600 ac-ft of water (89% of capacity, 104% of average or 108% of

last year's volume). Hebgen Lake is storing about 345,000 ac-ft of water (91% of capacity, 110% of average or 106% 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 June through September are below average for the basins. Yellowstone at Lake Outlet is 520,000 ac-ft (75% of average). Yellowstone at Corwin Springs will yield around 1,010,000 ac-ft (69% of average). Yellowstone near Livingston will yield around 1,170,000 ac-ft (69 of average). Hebgen Reservoir inflow is 200,000 ac-ft (65% of average). See the following page for detailed runoff volumes.



UPPER YELLOWSTONE & MADISON RIVER BASINS

Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
YELLOWSTONE at Lake Outlet							
JUN-JUL	295	340	370	76	400	445	485
JUN-SEP	410	475	520	75	565	630	695
YELLOWSTONE RIVER at Corwin Springs							
JUN-JUL	575	695	780	68	865	985	1140
JUN-SEP	735	900	1010	69	1120	1280	1460
YELLOWSTONE RIVER near Livingston							
JUN-JUL	645	795	895	68	995	1150	1310
JUN-SEP	845	1040	1170	69	1300	1500	1700
HEBGEN Reservoir Inflow							
JUN-JUL	85	111	128	64	145	171	200
JUN-SEP	148	179	200	65	220	250	310

\* 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.
- (3) - Median value used in place of average.

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

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
ENNIS LAKE	41.0	36.6	34.0	35.3
HEBGEN LAKE	377.5	345.0	327.0	314.7

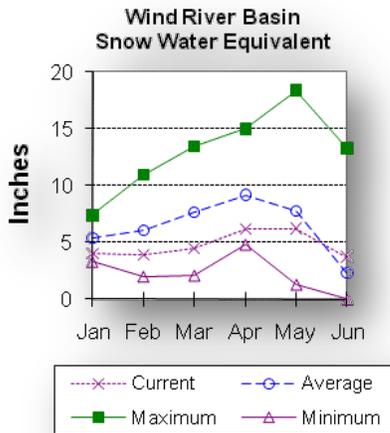
UPPER YELLOWSTONE & MADISON RIVER BASINS  
Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MADISON RIVER in WY	5	103	87
YELLOWSTONE RIVER in WY	8	107	88

# Wind River Basin

## Snow

The Wind River Basin above Boysen Reservoir has above average snow water equivalent (SWE 163%) for this time of the year. SWE in the Wind River above Dubois is 115% of average. The Little Wind SWE is 216% of average, and the Popo Agie drainage SWE is about 231% of average. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

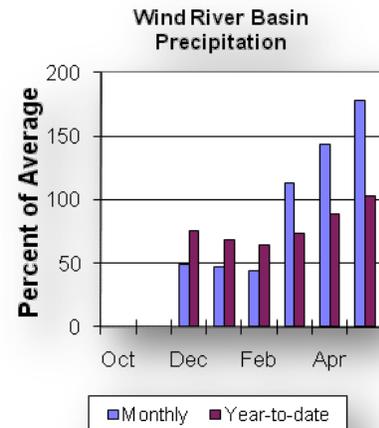
Last month's precipitation in the basin varied from 148-207% of average. Precipitation, for the basin, was about 178% of average from the 8 reporting stations; that is about 347% of last year's amount. Water year-to-date precipitation is 93% of average and about 101% of last year at this time. Year-to-date percentages range from 77-119% of average.

## Reservoirs

Current storage varies from 95-117% of average. Usable storage in Bull Lake is currently about 96,200 ac-ft (101% of average) - the reservoir is at 84% of last year. Boysen Reservoir is storing about 95% of average (538,500 ac-ft) - the reservoir is about 93% of last year. Pilot Butte is at 117% of average (28,300 ac-ft) - the reservoir is at 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 June through September runoff period for the basin are above average. Dinwoody Creek near Burris is 95,000 ac-ft (119% of average). The Wind River above Bull Lake Creek is 395,000 ac-ft (95% of average). Bull Lake Creek near Lenore is 198,000 ac-ft (130% of average). Wind River at Riverton will yield around 545,000 ac-ft (109% of average). Little Popo Agie River near Lander is around 52,000 ac-ft (144% of average). South Fork of Little Wind near Fort Washakie will yield around 90,000 ac-ft (139% of average). Little Wind River near Riverton will yield around 345,000 ac-ft (153% of average). Boysen Reservoir inflow will yield around 695,000 ac-ft (114% of average). See the following page for detailed runoff volumes.



## WIND RIVER BASIN

Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	Chance of Exceeding * =====						
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
=====							
DINWOODY CREEK nr Burris							
JUN-JUL	54	59	63	119	67	72	53
JUN-SEP	82	90	95	119	100	108	80
WIND RIVER abv Bull Lake Cr (2)							
JUN-JUL	205	260	300	95	340	395	315
JUN-SEP	285	350	395	95	440	505	415
BULL LAKE CR near Lenore							
JUN-JUL	128	142	152	129	162	176	118
JUN-SEP	166	185	198	130	210	230	152
WIND RIVER at Riverton (2)							
JUN-JUL	345	400	440	110	480	535	400
JUN-SEP	430	500	545	109	590	660	500
LT POPO AGIE RIVER nr Lander							
JUN-JUL	38	41	44	152	47	50	29
JUN-SEP	45	49	52	144	55	59	36
SF LT WIND nr Fort Washakie							
JUN-JUL	61	71	78	144	85	95	54
JUN-SEP	71	82	90	139	98	109	65
LT WIND RIVER nr Riverton							
JUN-JUL	215	270	305	162	340	395	188
JUN-SEP	240	305	345	153	385	450	225
BOYSEN RESERVOIR Inflow (2)							
JUN-JUL	420	530	605	117	680	790	516
JUN-SEP	465	600	695	114	790	925	609

\* 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.
- (3) - Median value used in place of average.

### WIND RIVER BASIN Reservoir Storage (1000AF) End of May

Reservoir	Usable	***** Usable Storage *****		*****
	Capacity	This Year	Last Year	Average
BULL LAKE	151.8	96.2	114.8	95.3
BOYSEN	596.0	538.5	577.7	566.0
PILOT BUTTE	31.6	28.3	28.3	24.2

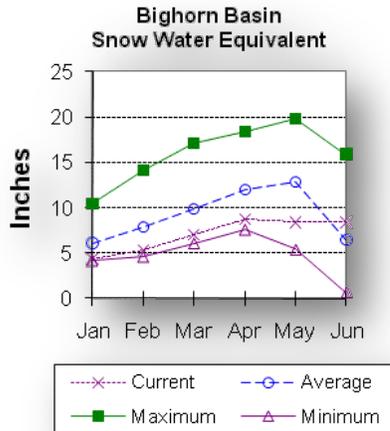
### WIND RIVER BASIN Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of	This Year as Percent of	
	Data Sites	Last Year	Average
WIND RIVER above Dubios	3	141	115
LITTLE WIND	2	416	216
POPO AGIE	4	655	231
WIND above Boyesen Resv	7	246	163

# Bighorn River Basin

## Snow

The Bighorn River Basin SWE above Bighorn Reservoir is above average at 129%. The Nowood River is at 153% of average. The Greybull River SWE is at 123% of average. Shell Creek SWE is 127% of average. See the "Basin Summary of Snow Course Data" at the front of this report for details.



time and Big Horn Lake is storing 108% 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

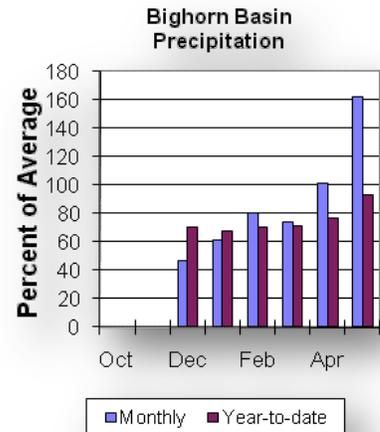
The 50% exceedance forecasts for the June through September runoffs are anticipated to be above average. Boysen Reservoir inflow should yield 695,000 ac-ft (114% of average); the Greybull River near Meeteetse should yield around 144,000 ac-ft (88% of average); Shell Creek near Shell should yield around 55,000 ac-ft (106% of average) and the Bighorn River at Kane should yield around 855,000 ac-ft (109% of average). See the following page for detailed runoff volumes.

## Precipitation

Last month's precipitation was 162% of average (304% of last year). Sites ranged from 150-207% of average for the month. Year-to-date precipitation is 93% of average; that is 101% of last year at this time. Year-to-date percentages, from the 9 reporting stations, range from 82-119%.

## Reservoir

Boysen Reservoir is currently storing 538,500 ac-ft (95% of average). Bighorn Lake is now at 111% of average (962,300 ac-ft). Boysen is currently storing 93% of last year volume at this



**BIGHORN RIVER BASIN**  
Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
<b>BOYSEN RESERVOIR Inflow (2)</b>							
JUN-JUL	420	530	605	117	680	790	516
JUN-SEP	465	600	695	114	790	925	609
<b>GREYBULL RIVER nr Meeteetse</b>							
JUN-JUL	71	86	96	87	106	121	110
JUN-SEP	111	131	144	88	157	177	163
<b>SHELL CREEK nr Shell</b>							
JUN-JUL	33	39	43	108	47	53	40
JUN-SEP	44	50	55	106	60	66	52
<b>BIGHORN RIVER at Kane (2)</b>							
JUN-JUL	510	655	750	111	845	990	675
JUN-SEP	555	735	855	109	975	1160	785

\* 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.
- (3) - Median value used in place of average.

**BIGHORN RIVER BASIN**  
Reservoir Storage (1000AF) End of May

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
BOYSEN	596.0	538.5	577.7	566.0
BIGHORN LAKE	1356.0	962.3	891.7	867.1

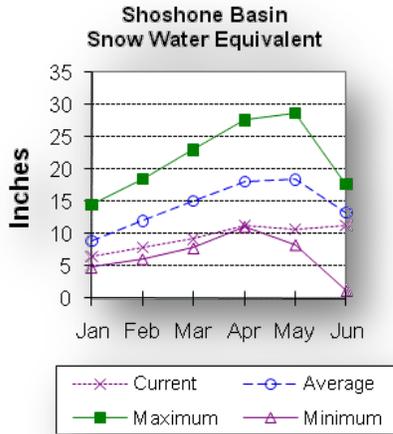
**BIGHORN RIVER BASIN**  
Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
NOWOOD RIVER	2	0	153
GREYBULL RIVER	2	0	123
SHELL CREEK	3	230	127
BIGHORN (Boysen-Bighorn)	7	307	129

# Shoshone and Clarks Fork River Basin

## Snow

Snowpack in these basins is below average for this time of year. Snow Water Equivalent (SWE) is 87% of average in the Shoshone River Basin. The Clarks Fork River Basin SWE is 83% of average. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

Precipitation for last month was 111% of average (146% of last year). Monthly percentages range from 58-160% of average. The basin year-to-date precipitation is now 78% of average (76% of last year). Year-to-date percentages range from 57-103% of average for the 8 reporting stations.

## Reservoir

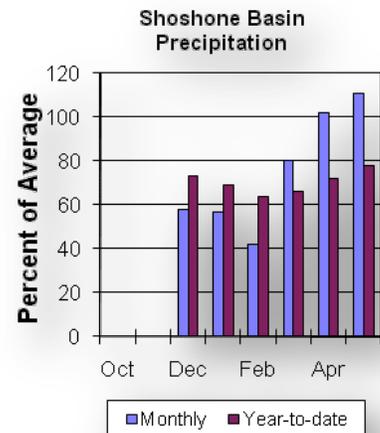
Current storage in Buffalo Bill Reservoir is about 98% of average (72% of last year's storage) - the reservoir is at about 60% of capacity.

Currently, about

387,300 ac-ft are stored in the reservoir compared to 536,000 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 June through September period are expected to be below average for the basin. The North Fork Shoshone River at Wapiti is 310,000 ac-ft (85% of average). The South Fork of the Shoshone River near Valley is 170,000 ac-ft (81% of average), and the South Fork above Buffalo Bill Reservoir runoff is 130,000 ac-ft (75% of average). The Buffalo Bill Reservoir inflow is expected to yield around 475,000 ac-ft (80% of average). The yield for the Clarks Fork of the Yellowstone near Belfry, Montana is expected to be around 300,000 ac-ft (67% of average). See the following page for detailed runoff volumes.



SHOSHONE & CLARKS FORK RIVER BASINS  
Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
NF SHOSHONE RIVER at Wapiti							
JUN-JUL	200	235	260	85	285	320	305
JUN-SEP	240	280	310	85	340	380	365
SF SHOSHONE RIVER nr Valley							
JUN-JUL	114	130	140	81	150	166	172
JUN-SEP	136	156	170	81	184	205	210
SF SHOSHONE RIVER abv Buffalo Bill							
JUN-JUL	81	107	124	76	141	167	163
JUN-SEP	80	110	130	75	150	180	174
BUFFALO BILL DAM Inflow (2)							
JUN-JUL	305	370	410	80	450	515	515
JUN-SEP	345	420	475	80	530	605	595
CLARKS FORK RIVER nr Belfry							
JUN-JUL	205	245	270	69	295	335	390
JUN-SEP	215	265	300	67	335	385	445

\* 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.
- (3) - Median value used in place of average.

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

Reservoir	Usable Capacity	***** This Year *****	***** Usable Storage ***** Last Year	***** Average *****
BUFFALO BILL	646.6	387.3	536.0	395.7

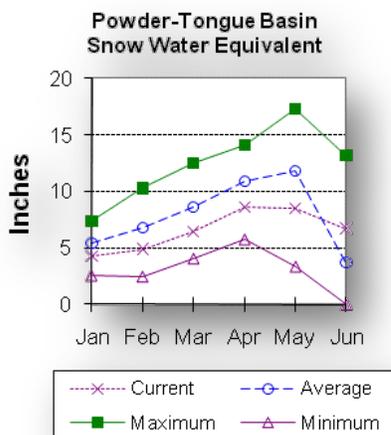
SHOSHONE & CLARKS FORK RIVER BASINS  
Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SHOSHONE RIVER	6	130	87
CLARKS FORK in WY	7	104	83

## Powder and Tongue River Basins

### Snow

Snow water equivalent (SWE) in the Upper Tongue River drainage is 189% of average. The Goose Creek drainage is 198% of average. SWE in the Clear Creek drainage is 190% of average. Crazy Woman Creek drainage is 170% of average. Upper Powder River drainage SWE is 153% of average. Powder River Basin SWE in Wyoming is 176% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



### Precipitation

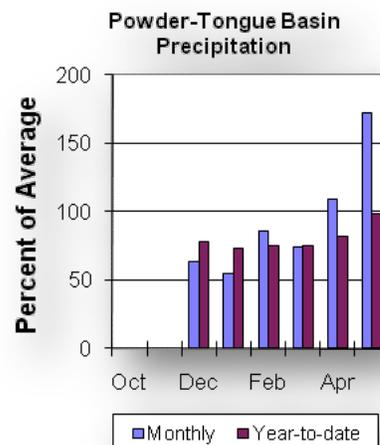
Last month's precipitation was 172% of average for the 9 reporting stations (374% of last year). Monthly percentages range from 145-226% of average. Year-to-date precipitation is 99% of average in the basin; this is 106% of last year at this time. Precipitation for the year ranges from 82-114% of average.

### Reservoir

The Tongue River Reservoir is at 103% of capacity; 170% of average; and 118% of last year at 81,800 ac-ft.

### Streamflow

The 50% exceedance forecasts for the June through September period are expected to be above average for the basins. The yield for Tongue River near Dayton is 82,000 ac-ft (116% of average). Big Goose Creek near Sheridan is 51,000 ac-ft (116% of average). Little Goose Creek near Bighorn is 34,000 ac-ft (117% of average). The Tongue River Reservoir Inflow is 186,000 ac-ft (122% of average). The Middle Fork of the Powder River near Barnum is 8,200 ac-ft (119% of average). The North Fork of the Powder River near Hazelton should yield around 6,600 ac-ft (112% of average). Rock Creek near Buffalo will yield about 18,000 ac-ft (113% of average), and Piney Creek at Kearny should yield about 39,000 ac-ft (122% of average). The Powder River at Moorehead is 152,000 ac-ft (119% of average). The Powder River near Locate is 171,000 ac-ft (121% of average). See the following page for detailed runoff volumes.



**POWDER & TONGUE RIVER BASINS**  
Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	Chance of Exceeding * =====						
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
TONGUE RIVER nr Dayton (2)							
JUN-JUL	52	62	68	117	74	84	58
JUN-SEP	63	74	82	116	90	101	71
BIG GOOSE CREEK nr Sheridan							
JUN-JUL	34	39	43	123	47	52	35
JUN-SEP	41	47	51	116	55	61	44
LITTLE GOOSE CREEK nr Big Horn							
JUN-JUL	21	24	26	124	28	31	21
JUN-SEP	28	31	34	117	37	40	29
TONGUE RIVER RESERVOIR Inflow (2)							
JUN-JUL	116	143	161	128	179	205	126
JUN-SEP	130	164	186	122	210	240	153
MIDDLE FORK POWDER nr Barnum							
JUN-JUL	2.8	5.4	7.1	120	8.8	11.4	5.9
JUN-SEP	3.8	6.4	8.2	119	10.0	12.6	6.9
NORTH FORK POWDER nr Hazelton							
JUN-JUL	3.6	4.9	5.8	114	6.7	8.0	5.1
JUN-SEP	4.2	5.6	6.6	112	7.6	9.0	5.9
ROCK CREEK nr Buffalo							
JUN-JUL	9.8	12.4	14.1	118	15.8	18.4	12.0
JUN-SEP	12.8	15.9	18.0	113	20	23	15.9
PINEY CREEK at Kearny							
JUN-JUL	24	30	35	121	40	46	29
JUN-SEP	26	34	39	122	44	52	32
POWDER RIVER at Moorehead							
JUN-JUL	72	104	126	120	148	180	105
JUN-SEP	86	125	152	119	179	220	128
POWDER RIVER nr Locate							
JUN-JUL	69	112	141	122	170	215	116
JUN-SEP	80	134	171	121	210	260	141

\* 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.
- (3) - Median value used in place of average.

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

Reservoir	Usable	***** Usable Storage *****		
	Capacity	This Year	Last Year	Average
TONGUE RIVER	79.1	81.8	69.5	48.0

POWDER & TONGUE RIVER BASINS  
Watershed Snowpack Analysis - June 1, 2010

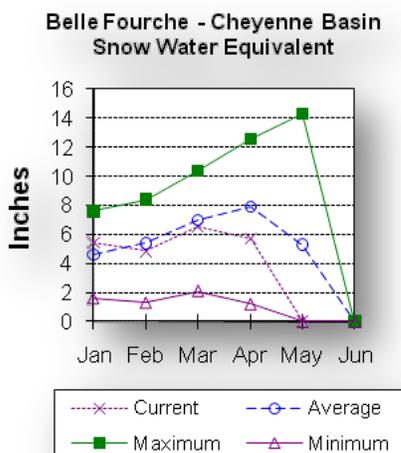
Watershed	Number of	This Year as Percent of	
	Data Sites	Last Year	Average
UPPER TONGUE RIVER	7	716	189
GOOSE CREEK	2	0	198
CLEAR CREEK	2	300	190
CRAZY WOMAN CREEK	1	0	170
UPPER POWDER RIVER	3	0	153
POWDER RIVER in WY	5	450	176

# Belle Fourche and Cheyenne River Basins

## Snow

The Belle Fourche River Basin SWE is melted out at this time of year.

For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Precipitation for last month was 170% of average or 340% of last year in the Black Hills. There were 2 reporting stations. Monthly percentages range from 145-212%. Year-to-date precipitation is 121% of average and 112% of last year's amount. Yearly percentages range from 112-132% of average.

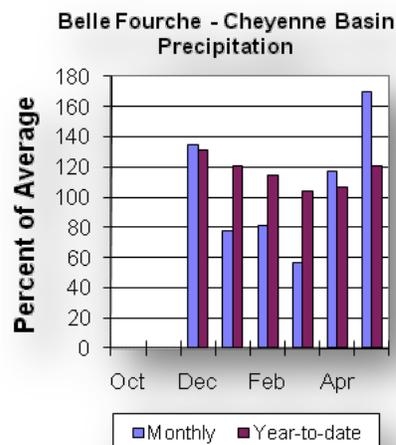
## Reservoir

Current reservoir storage is about 106% of average in the basin. Angostura is currently storing 96% of average (112,800 ac-ft), about 92% of capacity. Belle

Fourche reservoir is storing 111% of average (169,700 ac-ft), about 95% of capacity. Deerfield reservoir is storing 114% of average (15,500 ac-ft), about 102% of capacity. Keyhole reservoir is storing 95% of average (112,700 ac-ft), about 58% of capacity. Pactola reservoir is storing 119% of average (57,100 ac-ft), about 104% of capacity. Shadehill reservoir is storing 119% of average (81,600 ac-ft), about 100% 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 June through July period. The Deerfield Reservoir Inflow is 3,200 ac-ft (139% of average). Pactola Reservoir Inflow is expected to yield around 13,300 ac-ft (123% of average). See the following page for detailed runoff volumes.



**BELLE FOURCHE & CHEYENNE RIVER BASINS**

Streamflow Forecasts - June 1, 2010

```

=====
Forecast Pt | <=== Drier === Future Conditions === Wetter ===> |
Forecast | ===== Chance of Exceeding * ===== |
Period | (1000AF) (1000AF) | (1000AF) (% AVG.) | (1000AF) (1000AF) | (1000AF)
=====
DEERFIELD RESERVOIR Inflow
JUN-JUL 1.3 1.9 3.2 139 4.5 6.4 2.3

PACTOLA RESERVOIR Inflow
JUN-JUL 5.3 6.7 13.3 123 19.9 30 10.8
    
```

\* 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.
- (3) - Median value used in place of average.

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

```

=====
Reservoir          Usable          ***** Usable Storage *****
                   Capacity          This Year          Last Year          Average
=====
ANGOSTURA          122.1           112.8             86.0             117.2
BELLE FOURCHE      178.4           169.7             171.6            152.3
DEERFIELD          15.2            15.5              15.3             13.6
KEYHOLE            193.8           112.7             106.8            118.9
PACTOLA            55.0            57.1              54.8             48.6
SHADEHILL          81.4            81.6              74.3             68.7
=====
    
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BELLE FOURCHE & CHEYENNE RIVER BASINS  
Watershed Snowpack Analysis - June 1, 2010

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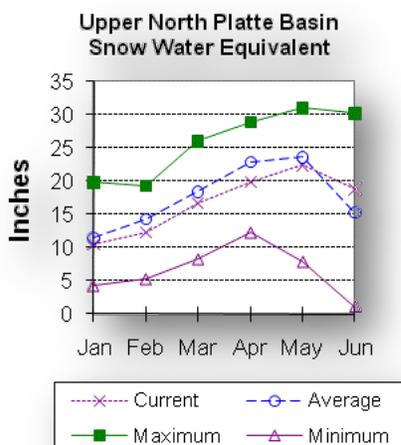
=====
Watershed          Number of          This Year as Percent of
                   Data Sites          Last Year          Average
=====
BELLE FOURCHE          2                   0                   0
=====
    
```

# Upper North Platte River Basin

## Snow

The SNOTELS and snow courses above Seminoe Reservoir are showing about 123% of average (SWE) for this time of the year. SWE in the drainage area above Northgate is 93% of average at this time. SWE in the Encampment River drainage is about 151% of average. Brush Creek SWE for the year is about 146% of average.

Medicine Bow and Rock Creek drainages SWE are about 134% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

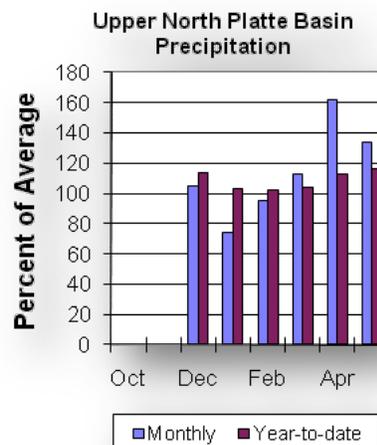
Eight reporting stations show last month's precipitation at 134% of average or 197% of last year's amount. Precipitation varied from 104-163% of average last month. Total water-year-to-date precipitation is about 116% of average for the basin, which is about 106% of last year's amount. Year to date percentage ranges from 97-134% of average.

## Reservoirs

Seminoe Reservoir is estimated to be storing 805,100 ac-ft or 79% of capacity. Seminoe Reservoir is also storing about 122% of average for this time of the year and 113% 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 June 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 164,000 ac-ft (103% of average). The Encampment River near Encampment is 126,000 ac-ft (117% of average). Rock Creek near Arlington is 51,000 ac-ft (124% of average). The Sweetwater River near Alcova forecast is for 49,000 ac-ft (126% of average). Seminoe Reservoir inflow should be around 555,000 ac-ft (111% of average). See the following table for more detailed information on projected runoff.



UPPER NORTH PLATTE RIVER BASIN

Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
NORTH PLATTE RIVER nr Northgate							
JUN-JUL	92	118	136	102	154	180	133
JUN-SEP	110	142	164	103	186	220	159
ENCAMPMENT RIVER nr Encampment							
JUN-JUL	90	105	115	116	125	140	99
JUN-SEP	99	115	126	117	137	153	108
ROCK CREEK nr Arlington							
JUN-JUL	40	44	47	124	50	54	38
JUN-SEP	43	48	51	124	54	59	41
SWEETWATER RIVER nr Alcova							
JUN-JUL	31	38	43	130	48	55	33
JUN-SEP	35	43	49	126	55	63	39
SEMINOE RESERVOIR Inflow							
JUN-JUL	340	425	485	112	545	630	435
JUN-SEP	380	485	555	111	625	730	500

\* 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.
- (3) - Median value used in place of average.

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

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
SEMINOE	1016.7	805.1	715.3	658.3

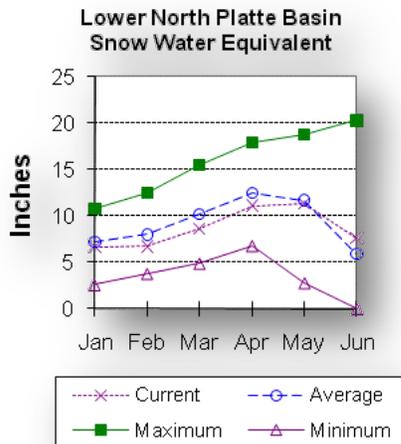
UPPER NORTH PLATTE RIVER BASIN  
Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
N PLATTE above Northgate	5	158	93
ENCAMPMENT RIVER	3	207	151
BRUSH CREEK	2	167	146
MEDICINE BOW & ROCK CREEKS	2	171	134
N PLATTE above Seminoe	13	179	123

# Lower North Platte River Basin

## Snow

SWE for the North Platte River Basin is at 129% of average. The Sweetwater drainage SWE is currently at 207% of average. Deer and LaPrele Creek SWE are at 152% of average. SWE for the North Platte above the Laramie River drainage is 130% of average. SWE for the Laramie River above Laramie is 171% of average. SWE for the Little Laramie River is 219% of average. The Laramie River above mouth, SWE is 161% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Last month's precipitation was 120% of average or 211% of last year's amount. Of the 8 reporting stations, percentages for the month range from 90-197%. The water year-to-date precipitation for the basin is currently 112% of average (114% of last year). Year-to-date percentages range from 91-155% of average.

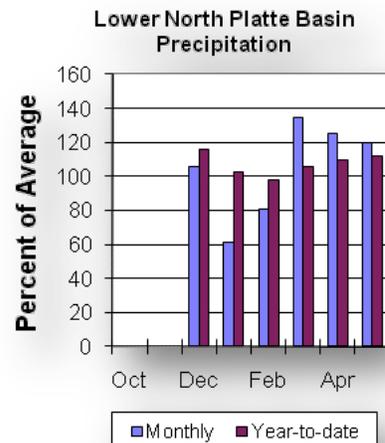
## Reservoir

The Lower North Platte River basin reservoir storage is above average at 115%. Reservoir storage is as follows: Alcova 179,900 ac-ft (101% of average); Glendo 545,600 ac-ft (108% of average); Guernsey 27,200 ac-ft (75% of average);

Pathfinder 911,800 ac-ft (118% of average);  
 Seminoe 805,100 ac-ft (122% of average); and  
 Wheatland #2 74,800 ac-ft (127% of average):

## Streamflow

The following yields are based on the 50% exceedance forecasts for the June through September period. The Sweetwater River near Alcova is forecast to yield about 49,000 ac-ft (126% of average). Deer Creek at Glenrock is forecast to yield 12,700 ac-ft (208% of average). LaPrele Creek above the reservoir is forecast to yield 8,300 ac-ft (160% of average). North Platte - Alcova to Orin Gain is forecast to yield 53,000 ac-ft (161% of average). North Platte River below Glendo Reservoir is 550,000 ac-ft (117% of average), and below Guernsey Reservoir is anticipated to yield around 590,000 ac-ft (118% of average). Laramie River near Woods Landing should yield around 114,000 ac-ft (128% of average). The Little Laramie near Filmore should produce about 67,000 ac-ft (143% of average). See the following table for more detailed information on projected runoff.



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

Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
SWEETWATER RIVER nr Alcova							
JUN-JUL	31	38	43	130	48	55	33
JUN-SEP	35	43	49	126	55	63	39
DEER CREEK at Glenrock							
JUN-JUL	4.8	9.1	12.0	218	14.9	19.2	5.5
JUN-SEP	6.0	10.0	12.7	208	15.4	19.4	6.1
LaPRELE CREEK abv Reservoir							
JUN-JUL	3.7	6.2	7.9	161	9.6	12.1	4.9
JUN-SEP	4.2	6.6	8.3	160	10.0	12.4	5.2
NORTH PLATTE - Alcova to Orin Gain							
JUN-JUL	15.6	24	39	156	54	75	25
JUN-SEP	21	39	53	161	67	89	33
NORTH PLATTE RIVER blw Glendo Res (2)							
JUN-JUL	400	465	510	116	555	620	440
JUN-SEP	430	500	550	117	600	670	470
NORTH PLATTE RIVER blw Guernsey Res (2)							
JUN-JUL	400	480	535	119	590	670	450
JUN-SEP	445	530	590	118	650	735	500
LARAMIE RIVER nr Woods							
JUN-JUL	76	89	98	127	107	120	77
JUN-SEP	89	104	114	128	124	139	89
LITTLE LARAMIE RIVER nr Filmore							
JUN-JUL	50	55	59	141	63	68	42
JUN-SEP	56	63	67	143	71	78	47

\* 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.

(3) - Median value used in place of average.

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

Reservoir Storage (1000AF) End of May

Reservoir	Usable	***** Usable Storage *****		
	Capacity	This Year	Last Year	Average
ALCOVA	184.3	179.9	180.2	178.8
GLENDO	506.4	545.6	437.3	503.4
GUERNSEY	45.6	27.2	27.5	36.2
PATHFINDER	1016.5	911.8	468.0	775.1
SEMINOE	1016.7	805.1	715.3	658.3
WHEATLAND #2	98.9	74.8	83.2	59.0

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

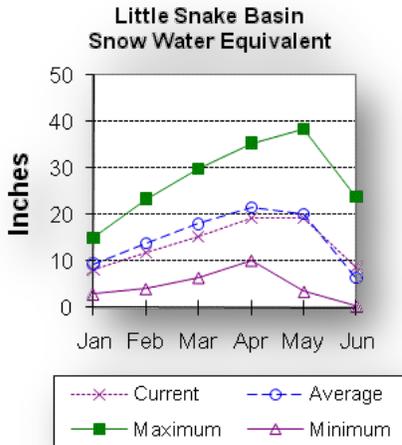
Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
SWEETWATER	2	822	207
DEER & LaPRELE CREEKS	2	0	152
N PLATTE abv Laramie R.	17	201	130
LARAMIE RIVER abv Laramie	5	252	171
LITTLE LARAMIE RIVER	2	350	219
LARAMIE RIVER above mouth	6	272	161
NORTH PLATTE	17	198	129

# Little Snake River Basin

## Snow

Currently, snow water equivalent (SWE) in the Little Snake River drainage is 134% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

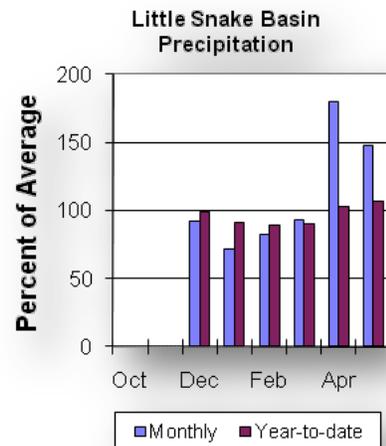
Precipitation across the basin was 148% of average (194% of last year) for the 5 reporting stations. Last month's precipitation ranged from 118-163% of average. The Little Snake River basin water-year-to-date precipitation is currently 107% of average (95% of last year). Year-to-date percentages range from 96-119% of average.

## Reservoir

High Savery Dam -Pending

## Streamflow

The 50% exceedance forecast for the June through July time frame on the Little Snake River drainage is expected to be above average this year. The Little Snake River near Slater should yield around 80,000 ac-ft (113% of average). The Little Snake River near Dixon is estimated to yield around 152,000 ac-ft (114% of average). See the following table for more detailed information on projected runoff.



LITTLE SNAKE RIVER BASIN  
Streamflow Forecasts - June 1, 2010

```

=====
Forecast Pt | <=== Drier === Future Conditions === Wetter ===> |
Forecast    | ===== Chance of Exceeding * ===== |
Period      | (1000AF) (1000AF) | (1000AF) (% AVG.) | (1000AF) (1000AF) | (1000AF)
=====
Little Snake River nr Slater
APR-JUL     | 154    167    | 176    111    | 186    200    | 159
JUN-JUL     | 58     71     | 80     113    | 90     106    | 71

Little Snake River nr Dixon
APR-JUL     | 265    320    | 365    111    | 410    485    | 330
JUN-JUL     | 98     129    | 152    114    | 177    220    | 133
=====

```

\* 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.
- (3) - Median value used in place of average.

```

=====
LITTLE SNAKE RIVER BASIN
Watershed Snowpack Analysis - June 1, 2010
=====

```

```

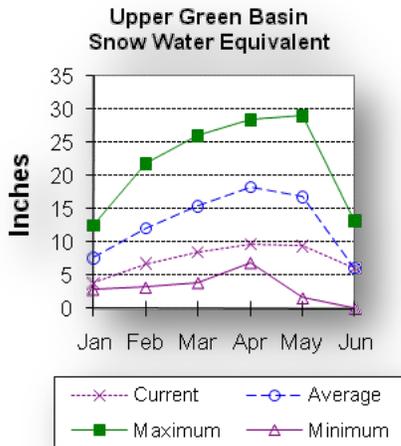
=====
Watershed   | Number of | This Year as Percent of |
              | Data Sites| Last Year   | Average
=====
LITTLE SNAKE RIVER | 6         | 184         | 134
=====

```

# Upper Green River Basin

## Snow

SWE in the Green River Basin above Warren Bridge is about 4% of average.



SWE for the West Side of Upper Green River Basin is about 120% of average. Newfork River Basin SWE is now about 0% of average. Big Sandy-Eden Valley Basin is 0% of average. SWE in the Green River Basin above Fontenelle Reservoir is about 100% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

## Precipitation

The 11 reporting precipitation sites in the basin were 122% of average last month (146% of last year). Last month's precipitation varied from 69-199% of average. Water year-to-date precipitation is about 73% of average (73% of last year). Year to date percentage of average ranges from 63-91%

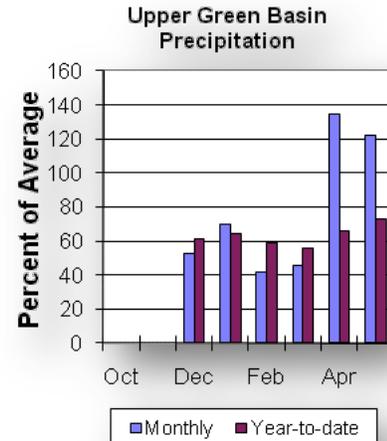
for the reporting stations.

## Reservoir

Storage in Big Sandy Reservoir is 26,400 ac-ft or 69% of capacity. This is 90% of average. Eden Reservoir - No Report. Fontenelle Reservoir is 116,200 ac-ft or 34% of capacity; 64% of average. This is 67% 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 June through July runoff period in the Upper Green River Basin are forecast to be below average. The yield on the Green River at Warren Bridge is 115,000 ac-ft (62% of average). Pine Creek above Fremont Lake is 47,000 ac-ft (56% of average). New Fork River near Big Piney is 180,000 ac-ft (61% of average). Fontenelle Reservoir Inflow is estimated to be 310,000 ac-ft (54% of average), and Big Sandy near Farson is expected to be around 24,000 ac-ft (62% of average). See the following table for more detailed information on projected runoff.



UPPER GREEN RIVER BASIN  
Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
Little Snake River nr Slater							
APR-JUL	154	167	176	111	186	200	159
JUN-JUL	58	71	80	113	90	106	71
Little Snake River nr Dixon							
APR-JUL	265	320	365	111	410	485	330
JUN-JUL	98	129	152	114	177	220	133

\* 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.
- (3) - Median value used in place of average.

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

Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
BIG SANDY	38.3	26.4	27.3	29.4
EDEN		NO REPORT		
FONTENELLE	344.8	116.2	230.4	181.9

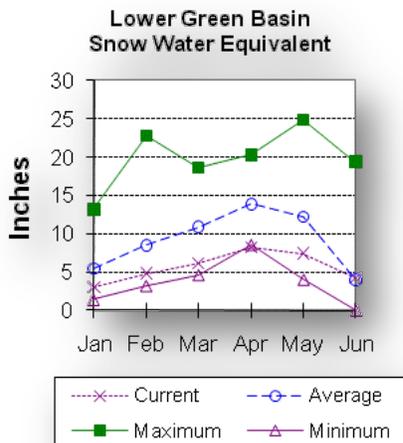
UPPER GREEN RIVER BASIN  
Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
GREEN above Warren Bridge	4	141	4
UPPER GREEN (West Side)	5	158	120
NEWFORK RIVER	2	0	0
BIG SANDY/EDEN VALLEY	1	0	0
GREEN above Fontenelle	11	159	100

# Lower Green River Basin

## Snow

SWE in the Green River Basin above Flaming Gorge is 105% of average. SWE in the Hams Fork Basin is 118% of average. Blacks Fork Basin SWE is currently 147% of average. In the Henrys Fork drainage SWE is 0%. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Precipitation was above average for the 3 reporting stations during last month at 169% of average or 216% of last year. Precipitation ranged from 148-181% of average for the month. The basin year-to-date precipitation is currently 79% of average (88% of last year). Year-to-date percentages range from 75-91% of average.

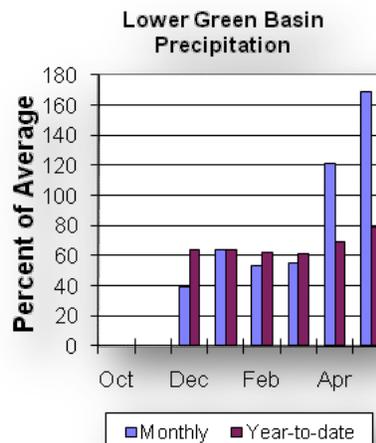
## Reservoirs

Fontenelle Reservoir is currently storing 116,200 ac-ft; this is 64% of average (50% of last year). Flaming Gorge is currently

storing 3,191 ac-ft; this is 105% of average (107% of last year). Viva Naughton is currently storing 45,300 ac-ft, 116% of average or 107% 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 50% exceedance forecasts for the June through July runoff period in the Lower Green River Basin are forecast to be below average. The Green River near Green River is forecast to yield about 315,000 ac-ft (54% of average). The Blacks Fork near Robertson is forecast to yield 55,000 ac-ft (82% of average). East Fork of Smiths Fork near Robertson is forecast to yield 16,500 ac-ft (79% of average). Hams Fork below Pole Creek near Frontier is forecast to be 21,000 ac-ft (64% of average). The Hams Fork Inflow to Viva Naughton Reservoir is forecast to be 25,000 ac-ft (68% of average). The Flaming Gorge Reservoir inflow will be about 410,000 ac-ft (56% of average). See the following table for more detailed information on projected runoff.



LOWER GREEN RIVER BASIN  
Streamflow Forecasts - June 1, 2010

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 nr Green River, WY (2)							
APR-JUL	305	365	415	47	465	550	875
JUN-JUL	205	265	315	54	365	450	580
Blacks Fork nr Robertson							
APR-JUL	55	63	69	73	75	85	95
JUN-JUL	41	49	55	82	61	71	67
EF of Smiths Fork nr Robertson (2)							
APR-JUL	15.2	18.5	21	72	24	28	29
JUN-JUL	10.7	14.0	16.5	79	19.2	24	21
Hams Fk blw Pole Ck nr Frontier							
APR-JUL	31	35	38	59	41	46	65
JUN-JUL	14.3	18.2	21	64	24	29	33
Hams Fork Inf to Viva Naughton Res							
APR-JUL	40	45	50	56	55	64	89
JUN-JUL	14.2	20	25	68	30	39	37
Flaming Gorge Reservoir Inflow (2)							
APR-JUL	415	505	575	48	650	770	1190
JUN-JUL	250	340	410	56	485	605	730

\* 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.
- (3) - Median value used in place of average.

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

Reservoir	Usable Capacity	***** This Year *****	***** Usable Storage ***** Last Year	***** Average *****
FONTENELLE	344.8	116.2	230.4	181.9
FLAMING GORGE	3749.0	3191.0	2991.0	3040.0
VIVA NAUGHTON RES	42.4	45.3	44.8	39.0

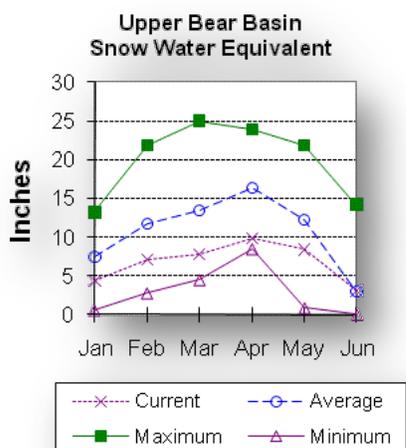
LOWER GREEN RIVER BASIN  
Watershed Snowpack Analysis - June 1, 2010

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
HAMS FORK RIVER	3	232	118
BLACKS FORK	2	371	147
HENRYS FORK	2	0	0
GREEN above Flaming Gorge	18	185	105

# Upper Bear River Basin

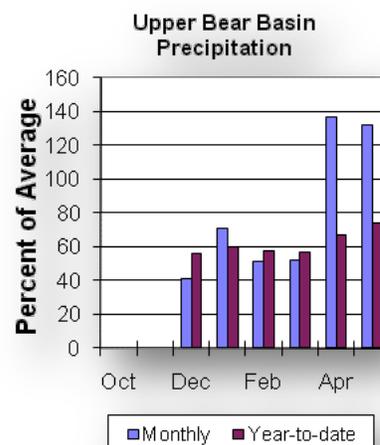
## Snow

Snow water equivalent (SWE) in the Upper Bear River Basin in Utah is estimated to be 93% of average. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is estimated at 118% of average. Bear River Basin SWE, above the Idaho State line, is 103% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Precipitation for last month was 132% of average for the 2 reporting stations; this is 145% of the precipitation received last year. The year-to-date precipitation, for the basin, is 74% of average; this is 82% of last year's amount.



## Reservoir

Storage in Woodruff Narrows reservoir, is 57,300 ac-ft (142% of average). Current reservoir storage is about 100% of capacity. Reservoir storage last year at this time was 57,300 ac-ft.

## Streamflow

The following 50% exceedance forecasts are for the June through September period. The Bear River near the Utah-Wyoming State Line is 81,000 ac-ft (99% of average). The Bear River above Reservoir near Woodruff is 71,000 ac-ft (100% of average). The Smiths Fork River near Border is 61,000 ac-ft (79% of average). See the following table for more detailed information on projected runoff.

UPPER BEAR RIVER BASIN  
Streamflow Forecasts - June 1, 2010

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	
Bear R nr UT-WY State Line						
APR-JUL	69	81	89	79	97	109
APR-SEP	81	95	105	84	115	129
JUN-JUL	48	58	65	93	72	82
JUN-SEP	62	73	81	99	89	100
Bear R abv Resv. nr Woodruff						
APR-JUL	68	86	99	73	112	130
APR-SEP	84	102	115	81	128	146
JUN-JUL	34	47	55	86	63	76
JUN-SEP	49	62	71	100	80	93
Smiths Fk nr Border, WY						
APR-JUL	32	47	57	55	67	82
APR-SEP	58	71	80	66	89	102
JUN-JUL	26	33	38	62	43	50
JUN-SEP	46	55	61	79	67	76

\* 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.
- (3) - Median value used in place of average.

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

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
WOODRUFF NARROWS	57.3	57.3	57.3	40.3

UPPER BEAR RIVER BASIN  
Watershed Snowpack Analysis - June 1, 2010

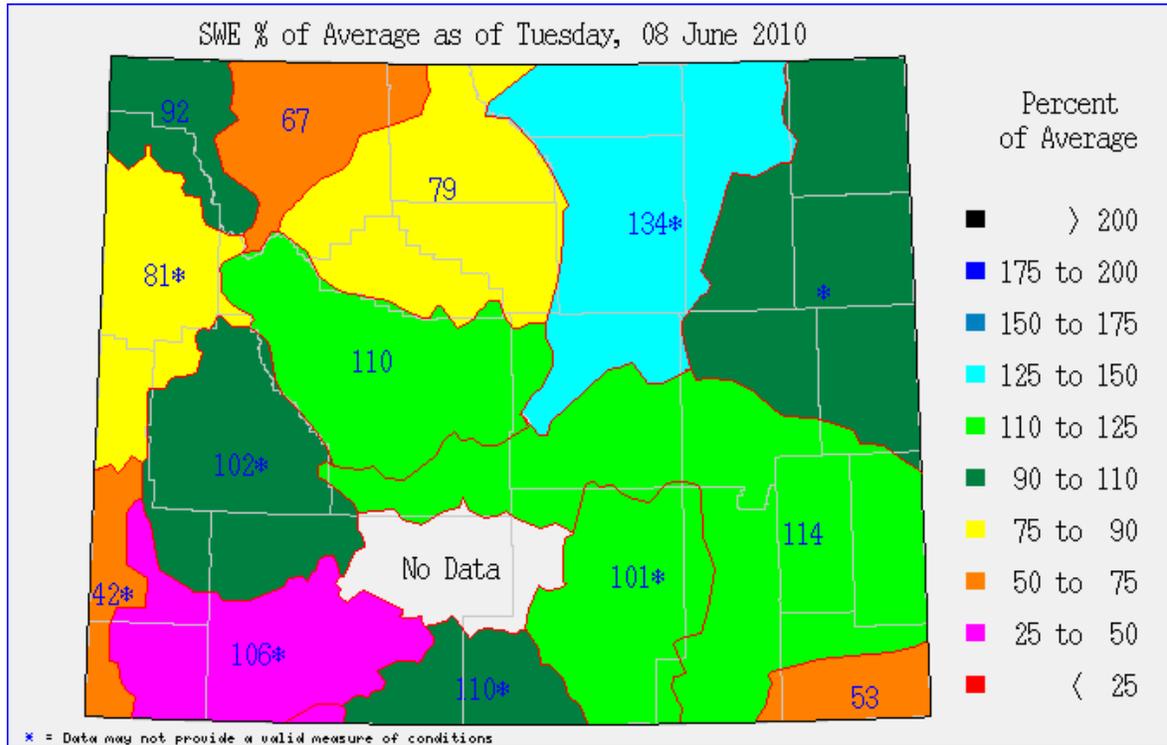
Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER BEAR RIVER in Utah	5	1081	93
SMITHS & THOMAS FORKS	3	232	118
BEAR RIVER abv ID line	6	329	103
NORTHWEST	47	142	100
NORTHEAST	11	458	172
SOUTHEAST	20	214	121
SOUTHWEST	25	185	105

Issued by

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U.S. Department of Agriculture  
Natural Resources Conservation Service  
Washington D.C.

Released by

J Xavier Montoya  
State Conservationist  
N R C S  
Casper, Wyoming



**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:**

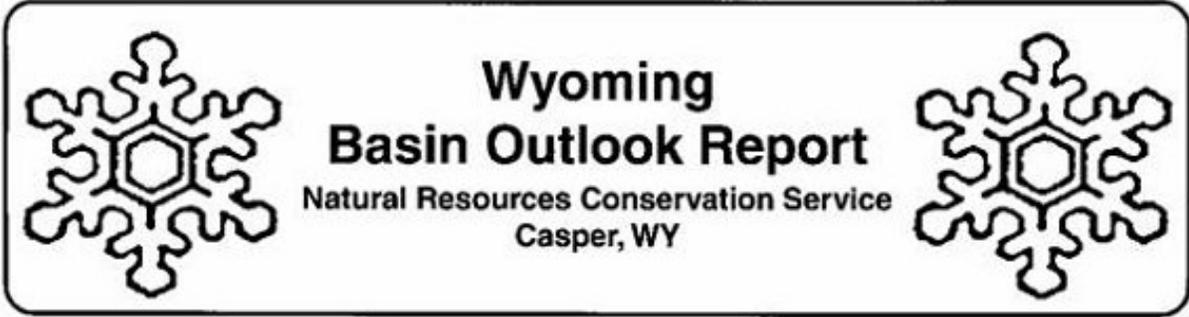
The Wyoming State Engineer's Office

The University of Wyoming

**Local:**

The City of Cheyenne

The City of Rawlins



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