

# Wyoming Basin Outlook Report

## May 1, 2012



Thumb Divide SNOTEL (Yellowstone NP)

# 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 well below average for May 1<sup>st</sup> at 45%. Monthly precipitation for the basins varied from 45-123% of average. Year-to-date precipitation for Wyoming basins varies from 65-112% of average. Forecasted runoff varies from 18-106% of average across the Wyoming basins for an overall average of 62%. Basin reservoir levels for Wyoming vary from 60-209% of average for an overall average of 118%.

## Snowpack

Snow water equivalent (SWE), across Wyoming is well below average for this time of year at 45%. SWE in the NW portion of Wyoming is now about 70% of average (46% of last year). NE Wyoming SWE is currently about 69% of average (40% of last year). The SE Wyoming SWE is currently about 29% of average (17% of last year). The SW Wyoming SWE is about 33% of average (21% of last year).

## Precipitation

Last month's precipitation was below average across Wyoming. The Upper Yellowstone & Madison River Basins had the highest precipitation for the month at 123% of average. The Wind River Basin had the lowest precipitation amount at 45% 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	-17%	Upper North Platte River	-41%
Yellowstone & Madison	+23%	Lower North Platte	-45%
Wind River	-55%	Little Snake River	-45%
Bighorn	-19%	Upper Green River	-32%
Shoshone & Clarks Fork	-06%	Lower Green River	-29%
Powder & Tongue River	-07%	Upper Bear River	-52%
Belle Fourche & Cheyenne	-18%		

## Streams

Stream flow yield for April to September is expected to be well below average across Wyoming. Most probable yield for the entire State of Wyoming is forecast to be about 62% (varying from 16-106% of average). The Snake River and Upper Yellowstone & Madison River Basins are expected to yield about 68% and 94% of average, respectively; 61-106% of average for the various forecast points in the basins. Yields from the Wind and Bighorn River Basins are expected to be about 32% and 39% of average, respectively; varying from 32-99% of average in the basins. Yields from the Shoshone and Clarks Fork River Basins of Wyoming are expected to yield about 87% and 106% of average, respectively; varying from 63-106% of average. Yields from the Tongue & Powder River Basins are expected to be about 68% and 64% of average, respectively; varying from 64-81% of average. Yields for the Belle Fourche & Cheyenne River Basins are expected to be about 50% and 47% of average, respectively. Yields for the Upper and Lower North Platte River of Wyoming are expected to be about 18% and 26% of average, respectively; varying from 16-49% of average. Yields for the Little Snake, Green River, and Little Bear of Wyoming are expected to be 30%, 48%, and 36% of average respectively; yield estimates vary from 26-81% of average.

## Reservoirs

Reservoir storage varies widely across the state however reservoir storage is at 118% of average for the entire state. Reservoirs on the North Platte River are above average at 126%. Reservoirs in the northeast are above average in storage at 114%. Reservoirs in the Wind River Basin are above average at 113%. Reservoirs on the Big Horn are above average at 105%. The Buffalo Bill Reservoir on the Shoshone is above average at 136%. Reservoirs on the Green River are above average at 109%. See the following table for further information about reservoir storage.

### Major Reservoirs in Wyoming May 1, 2012

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	97	98	97	100	99
ANGOSTURA	88	92	93	95	96
BELLE FOURCHE	95	92	82	116	103
BIG SANDY	84	48	65	130	177
BIGHORN LAKE	59	61	58	101	97
BOYSEN	99	86	88	112	115
BUFFALO BILL	74	52	54	136	143
BULL LAKE	66	44	55	119	149
DEERFIELD	101	98	89	113	103
ENNIS LAKE			NO REPORT		
FLAMING GORGE	85	84	79	109	102
FONTENELLE	46	40	42	111	116
GLENDON	94	83	90	104	113
Grassy Lake	87	91	84	104	96
GUERNSEY	44	49	73	60	90
HEBGEN LAKE	84	69	67	124	121
Jackson Lake	86	64	56	155	134
KEYHOLE	95	70	60	158	134
PACTOLA	99	98	87	113	101
Palisades	75	27	62	121	279
PATHFINDER	89	90	73	121	99
PILOT BUTTE	89	69	81	109	128
SEMINOE	81	51	50	162	159
SHADEHILL	51	100	80	64	52
TONGUE RIVER	84	64	40	209	130
VIVA NAUGHTON	100	32	67	149	317
WHEATLAND #2	96	39	60	159	246
WOODRUFF NARROWS	103	77	67	153	134
TOTAL 27 RESERVOIRS	81	68	69	118	119
Raw KAF Totals Current=10739 Last Year=9031 Average=9089 Capacity=13247					

**BASIN SUMMARY OF  
SNOTEL and SNOW COURSE DATA**

May 2012

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
-----						
WYOMING Snow Course and SNOTEL Stations						
ALBANY	9400	4/25/12	9	3.6	22.1	12.3
BALD MOUNTAIN SNOTEL	9380	5/01/12	72	23.2	32.1	23.6
BASE CAMP SNOTEL	7030	5/01/12	---	6.0	26.3	12.3
BATTLE MTN. SNOTEL	7440	5/01/12	0	.0	15.2	4.6
BEARLODGE DIVIDE	4680	4/27/12	0	.0	.0	.4
BEARTOOTH LK. SNOTEL	9280	5/01/12	79	26.9	33.3	25.9
BEAR TRAP SNOTEL	8200	5/01/12	0	.0	11.4	2.5
BIG GOOSE SNOTEL	7760	5/01/12	8	3.0	13.1	11.6
BIG SANDY SNOTEL	9080	5/01/12	21	8.8	19.5	13.5
BLACKWATER SNOTEL	9780	5/01/12	65	25.3	36.7	28.8
BLIND BULL SNOTEL	8900	5/01/12	57	23.9	43.7	27.9
BONE SPGS. SNOTEL	9350	5/01/12	51	19.0	28.2	18.3
BROOKLYN LK. SNOTEL	10220	5/01/12	22	8.3	42.0	28.2
BURGESS JCT. SNOTEL	7880	5/01/12	24	8.6	15.9	13.3
BURROUGHS CRK SNOTEL	8750	5/01/12	33	11.2	20.7	13.6
CANYON SNOTEL	8090	5/01/12	24	9.3	21.7	11.3
CASPER MTN. SNOTEL	7850	5/01/12	18	9.0	13.6	17.1
CASTLE CREEK SNOTEL	8400	5/01/12	0	.0	7.2	--
CASTLE CREEK	8400	4/26/12	0	.0	6.0	2.4
CCC CAMP	7000	4/27/12	0	.0	17.6	8.0
CHALK CK #1 SNOTEL	9100	5/01/12	23	9.3	42.2	25.3
CHALK CK #2 SNOTEL	8200	5/01/12	17	1.6	26.6	12.0
CINNABAR PARK SNOTEL	9690	5/01/12	8	4.4	30.7	16.0
CLOUD PEAK SNOTEL	9850	5/01/12	30	11.3	22.0	16.2
COLE CANYON SNOTEL	5910	5/01/12	2	.9	9.2	5.0
COLD SPRINGS SNOTEL	9630	5/01/12	0	.0	9.5	4.8
COTTONWOOD CR SNOTEL	7700	5/01/12	---	13.0	37.2	19.8
CROW CREEK SNOTEL	8830	5/01/12	0	.0	8.8	5.4
DARBY CANYON	8250	5/01/12	38	15.8	36.6	24.6
DEEP LAKE	10500	4/30/12	62	26.2	--	--
DEER PARK SNOTEL	9700	5/01/12	16	7.1	22.3	18.6
DIVIDE PEAK SNOTEL	8860	5/01/12	0	.0	31.8	19.3
DOME LAKE SNOTEL	8880	5/01/12	26	10.6	19.4	13.5
DU NOIR	8760	4/26/12	0	.0	10.5	6.3
EAST RIM DIV SNOTEL	7930	5/01/12	0	.0	17.1	13.1
ELBO RANCH	7100	5/02/12	0	.0	15.2	9.5
ELKHART PARK SNOTEL	9400	5/01/12	---	10.7	17.6	12.8
EVENING STAR SNOTEL	9200	5/01/12	75	30.0	41.5	33.3
FOXPARK	9060	4/25/12	0	.0	13.8	5.3
GEYSER CREEK	8500	4/26/12	3	1.3	9.9	5.4
GLADE CREEK	7040	5/01/12	26	11.7	31.1	20.1
GRAND TARGHEE SNOTEL	9260	5/01/12	92	37.6	62.4	--
GRANITE CRK SNOTEL	6770	5/01/12	---	4.0	25.7	12.8
GRASSY LAKE	7270	5/01/12	54	27.0	47.3	32.5
GRASSY LAKE SNOTEL	7270	5/01/12	60	27.0	49.5	33.4
GRAVE SPRINGS SNOTEL	8550	5/01/12	12	3.7	12.3	11.1
GROS VENTRE SNOTEL	8750	5/01/12	4	2.0	18.7	13.3
GROVER PARK DIVIDE	7000	4/27/12	0	.0	12.8	6.4
HAIRPIN TURN	9480	4/25/12	12	4.6	27.6	15.6
HANSEN S.M. SNOTEL	8360	5/01/12	0	.0	10.5	4.9
HAMS FORK SNOTEL	7840	5/01/12	0	.0	17.8	6.0
HASKINS CREEK	8980	4/27/12	40	15.8	51.4	31.6

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
HOBACK GS	6640	4/27/12	0	.0	10.4	--
HOBBS PARK SNOTEL	10100	5/01/12	24	9.6	19.1	18.0
INDIAN CREEK SNOTEL	9430	5/01/12	---	13.9	40.4	28.3
JACKPINE CREEK	7350	5/01/12	31	14.2	31.5	19.2
KELLEY R.S. SNOTEL	8180	5/01/12	14	6.2	26.5	14.1
KENDALL R.S. SNOTEL	7740	5/01/12	4	1.7	14.5	10.0
KIRWIN SNOTEL	9550	5/01/12	21	6.8	16.9	13.0
LA PRELE SNOTEL	8380	5/01/12	0	.0	15.0	7.1
LARSEN CREEK SNOTEL	9020	5/01/12	0	.0	18.0	--
LEWIS LAKE DIVIDE	7850	5/02/12	78	39.4	62.3	42.3
LEWIS LAKE SNOTEL	7850	5/01/12	67	28.7	55.1	34.6
LIBBY LODGE	8750	4/25/12	0	.0	16.8	8.3
LITTLE GOOSE SNOTEL	8870	5/01/12	3	1.7	15.5	--
LITTLE WARM SNOTEL	9370	5/01/12	2	.4	15.8	11.1
LOOMIS PARK SNOTEL	8240	5/01/12	---	2.1	25.3	14.3
LUPINE CREEK	7380	4/30/12	0	.0	8.9	5.3
MARQUETTE SNOTEL	8760	5/01/12	2	.4	7.1	11.3
MIDDLE FORK	7420	4/26/12	0	.0	4.5	4.7
MIDDLE POWDER SNOTEL	7760	5/01/12	18	6.2	14.8	14.3
MOSS LAKE	9800	4/30/12	20	6.9	41.1	25.8
NEW FORK SNOTEL	8340	5/01/12	2	.9	15.2	8.4
NORRIS BASIN	7500	4/29/12	0	.0	12.2	6.8
NORTH BARRETT CREEK	9400	4/30/12	16	5.2	43.8	22.7
NORTH FRENCH SNOTEL	10130	5/01/12	34	14.0	63.0	34.5
OLD BATTLE SNOTEL	9920	5/01/12	59	22.6	56.7	36.9
ONION GULCH	8780	4/25/12	26	9.2	13.2	8.4
OWL CREEK SNOTEL	8980	5/01/12	0	.0	7.8	4.0
PARKERS PEAK SNOTEL	9400	5/01/12	60	24.0	38.3	24.5
PHILLIPS BNCH SNOTEL	8200	5/01/12	44	19.5	40.4	29.4
POCKET CREEK SNOTEL	9350	5/01/12	32	7.6	17.1	--
POLE MOUNTAIN	8700	4/26/12	0	.0	13.2	5.0
POWDER RVR.PASS SNTL	9480	5/01/12	19	6.1	20.7	10.7
PURGATORY GULCH	8970	4/27/12	0	.0	18.6	11.2
RANGER CREEK	8120	4/24/12	21	7.7	16.9	7.6
RENO HILL SNOTEL	8500	5/01/12	19	7.9	18.7	14.7
REUTER CANYON	6280	4/27/12	0	.0	10.6	3.6
RYAN PARK	8400	4/30/12	0	.0	22.6	7.2
SAGE CK BASIN SNTL	7850	5/01/12	0	.0	19.4	11.2
SALT RIVER SNOTEL	7600	5/01/12	0	.0	21.2	10.6
SAND LAKE SNOTEL	10050	5/01/12	57	22.6	54.8	37.0
SANDSTONE RS SNOTEL	8150	5/01/12	0	.0	23.1	9.5
SHELL CREEK SNOTEL	9580	5/01/12	68	20.4	24.4	16.8
SHERIDAN R.S.	7750	4/25/12	2	.7	8.4	3.3
SNAKE RV STA SNOTEL	6920	5/01/12	10	3.8	24.7	12.2
SNIDER BASIN SNOTEL	8060	5/01/12	4	2.6	24.4	12.6
SOLDIER PARK SNOTEL	8780	5/01/12	0	.0	11.8	--
SOUTH BRUSH SNOTEL	8440	5/01/12	0	.0	25.2	11.1
SOUTH PASS SNOTEL	9040	5/01/12	22	7.4	19.3	18.0
SPRING CRK. SNOTEL	9000	5/01/12	62	21.8	44.5	28.6
ST LAWRENCE ALT SNTL	8620	5/01/12	0	.0	3.7	6.1
SUCKER CREEK SNOTEL	8880	5/01/12	25	8.1	18.9	13.1
SYLVAN LAKE SNOTEL	8420	5/01/12	39	14.7	33.2	23.8
SYLVAN ROAD SNOTEL	7120	5/01/12	0	.0	17.9	8.1
T CROSS RANCH	7900	4/26/12	0	.0	8.8	3.3
TETON PASS W.S.	7740	5/01/12	41	16.8	39.4	27.5
THUMB DIVIDE SNOTEL	7980	5/01/12	24	9.8	29.4	14.9
TIE CREEK SNOTEL	6870	5/01/12	0	.0	8.8	3.9

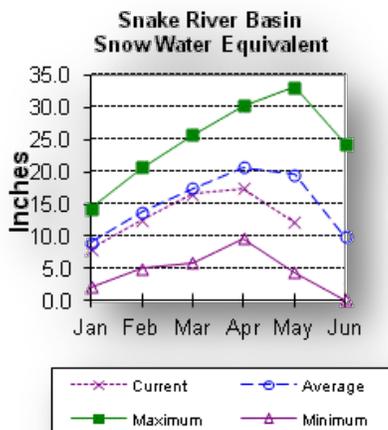
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
TIMBER CREEK SNOTEL	7950	5/01/12	0	.0	6.2	4.8
TOGWOTEE PASS	9580	5/02/12	54	21.7	43.6	32.0
TOGWOTEE PASS SNOTEL	9580	5/01/12	58	20.9	37.8	27.9
TOWNSEND CRK SNOTEL	8700	5/01/12	0	.0	9.4	9.1
TRIPLE PEAK SNOTEL	8500	5/01/12	26	11.1	42.3	23.7
TWO OCEAN SNOTEL	9240	5/01/12	82	36.4	49.9	31.8
TYRELL RANGER STA.	8300	4/25/12	17	6.9	14.0	6.1
WEBBER SPRING SNOTEL	9250	5/01/12	7	4.3	39.5	25.1
WHISKEY PARK SNOTEL	8950	5/01/12	16	7.3	44.0	30.5
WILLOW CREEK SNOTEL	8450	5/01/12	44	18.2	48.7	30.6
WINDY PEAK SNOTEL	7900	5/01/12	0	.0	10.0	4.9
WOLVERINE SNOTEL	7650	5/01/12	0	.0	17.4	7.2
YOUNTS PEAK SNOTEL	8350	5/01/12	33	13.5	23.7	18.1

NOTE: Missing snow depth entries indicate the site has no snow depth sensor or the sensor is malfunctioning. Missing data under Average 71-00 indicates the site is relatively new.

# Snake River Basin

## Snow

The Snake River Basin snow water equivalent (SWE) is 62% of average. SWE in the Snake River Basin above Jackson Lake is 83% of average. Pacific Creek Basin SWE is 96% of average. Buffalo Fork SWE is 75% of average. Gros Ventre River Basin SWE is 56% of average. SWE in the Hoback River drainage is 39% of average. SWE in the Greys River drainage is 72% of average. In the Salt River area SWE is 41% of average. SWE in the Snake River Basin above Palisades is 62% 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

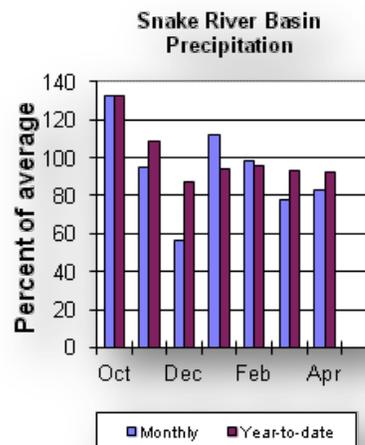
Precipitation across the basin was below average last month. Monthly precipitation for the basin was 83% of average (39% of last year). Last month's percentages range from 11-107% of average for the 16 reporting stations. Water-year-to-date precipitation is 92% of average for the Snake River Basin (72% of last year). Year-to-date percentages range from 56-108% of average.

## Reservoir

Current reservoir storage is 133% of average for the 3 storage reservoirs in the basin. Grassy Lake storage is about 104% of average (13,200 ac-ft compared to 13,800 last year). Jackson Lake storage is 155% of average (729,700 ac-ft compared to 544,500 ac-ft last year). Palisades Reservoir storage is about 121% of average (1,047,700 ac-ft compared to 375,200 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 below average for the basin. The Snake near Moran is 780,000 ac-ft (93% of average). Snake River above reservoir near Alpine is 1,800,000 ac-ft (71% of average). The Snake near Irwin is 2,400,000 ac-ft (68% of average). The Snake near Heise is 2,550,000 ac-ft (68% of average). Pacific Creek near Moran is 177,000 ac-ft (106% of average). Buffalo Fork above Lava near Moran is 300,000 ac-ft (91% of average). Gros Ventre River at Kelly is 205,000 ac-ft (105% of average). Greys River above Palisades Reservoir is 255,000 ac-ft (72% of average). Salt River near Etna is 220,000 ac-ft (61% of average). See the following page for detailed runoff volumes.



## Snake River Basin

Streamflow Forecasts - May 1, 2012

Forecast Pt	<=== Drier ===		Future Conditions		=== Wetter ===>		
Forecast	90%		70%		50%		30%
Period	(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	30 Yr Avg (1000AF)
Snake R nr Moran (1,2)							
MAY-JUL	555	655	700	93	745	845	750
MAY-SEP	615	730	780	93	830	945	840
Snake R nr Alpine (1,2)							
MAY-JUL	1250	1490	1600	74	1710	1950	2160
MAY-SEP	1370	1670	1800	71	1930	2230	2530
Snake R nr Irwin (1,2)							
MAY-JUL	1750	2020	2150	72	2280	2550	2980
MAY-SEP	1940	2260	2400	68	2540	2860	3520
Snake R nr Heise (2)							
MAY-JUL	1960	2160	2300	73	2440	2640	3170
MAY-SEP	2160	2390	2550	68	2710	2940	3760
Pacific Ck At Moran							
MAY-JUL	126	152	169	106	186	210	160
MAY-SEP	133	159	177	106	195	220	167
Buffalo Fork ab Lava nr Moran							
MAY-JUL	220	245	265	91	285	310	290
MAY-SEP	245	280	300	91	320	355	330
Gros Ventre R at Kelly							
MAY-JUL	104	137	160	105	183	215	152
MAY-SEP	146	181	205	105	230	265	196
Greys R Nr Alpine							
MAY-JUL	170	197	215	72	235	260	300
MAY-SEP	200	235	255	72	275	310	355
Salt R Nr Etna							
MAY-JUL	90	137	169	60	200	250	280
MAY-SEP	124	181	220	61	260	315	360

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 April

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
Grassy Lake	15.2	13.2	13.8	12.7
Jackson Lake	847.0	729.7	544.5	471.1
Palisades	1400.0	1047.5	375.2	862.6

### SNAKE RIVER BASIN

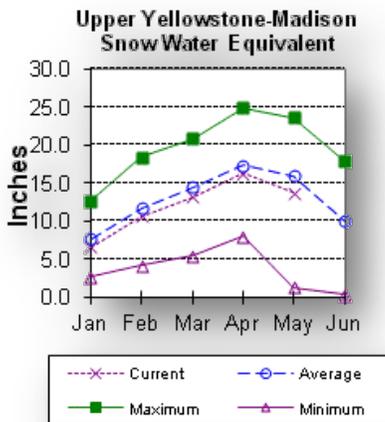
Watershed Snowpack Analysis - May 1, 2012

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SNAKE above Jackson Lake	6	49	80
PACIFIC CREEK	2	56	96
BUFFALO FORK	1	55	75
GROS VENTRE RIVER	3	34	45
HOBACK RIVER	5	25	39
GREYS RIVER	4	44	72
SALT RIVER	5	23	41
SNAKE above Palisades	22	37	61

# Yellowstone & Madison River Basins

## Snow

Snow water equivalent (SWE) is at 86% of average in the Madison drainage. SWE in the Yellowstone drainage is at 85% 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 123% of average (51% of last year). The 5 reporting stations percentages range from 105-162% of average. Water-year-to-date precipitation is about 111% of average (79% of last year's amount). Year to date percentage ranges from 99-138%.

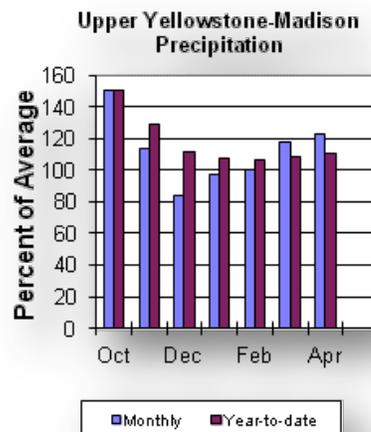
## Reservoir

Ennis Lake is NO REPORT. Hebgen Lake is storing about 315,600 ac-ft of water (84% of capacity, 124% of

average or 121% 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 near average for the basins. Yellowstone at Lake Outlet is 715,000 ac-ft (93% of average). Yellowstone at Corwin Springs will yield around 1,950,000 ac-ft (99% of average). Yellowstone near Livingston will yield around 1,780,000 ac-ft (95% of average). Hebgen Reservoir inflow is 400,000 ac-ft (90% of average). See the following page for detailed runoff volumes.



## Yellowstone & Madison River Basins

Streamflow Forecasts - May 1, 2012

Forecast Pt	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg
Forecast Period	Chance of Exceeding * (%)						(1000AF)
Forecast Period	90%	70%	50%	30%	10%	10%	(1000AF)
Forecast Period	(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
Yellowstone R at Yellowstone Lake							
MAY-JUL	440	500	540	97	580	640	555
MAY-SEP	590	665	715	93	765	840	770
Yellowstone R at Corwin Springs							
MAY-JUL	1240	1400	1500	97	1600	1760	1550
MAY-SEP	1460	1650	1780	95	1900	2090	1870
Yellowstone R at Livingston							
MAY-JUL	1380	1570	1700	96	1830	2020	1770
MAY-SEP	1650	1880	2030	94	2180	2410	2150
Hebgen Reservoir Inflow (2)							
MAY-JUL	250	280	300	90	320	350	335
MAY-SEP	340	375	400	90	425	460	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.

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

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
ENNIS LAKE			NO REPORT	
HEBGEN LAKE			NO REPORT	

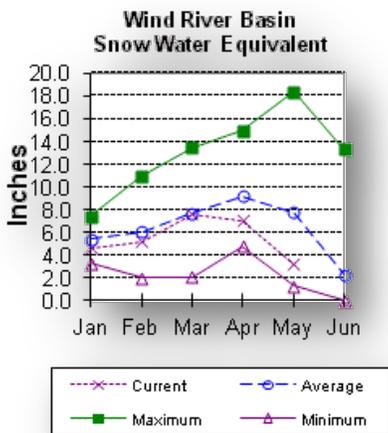
### UPPER YELLOWSTONE & MADISON RIVER BASINS Watershed Snowpack Analysis - May 1, 2012

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MADISON RIVER in WY	6	53	86
YELLOWSTONE RIVER in WY	9	54	85

# Wind River Basin

## Snow

The Wind River Basin above Boysen Reservoir is 41% of average for snow water equivalent at this time of the year. SWE in the Wind River above Dubois is 48% of average. The Little Wind SWE is 40% of average, and the Popo Agie drainage SWE is about 35% of average. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

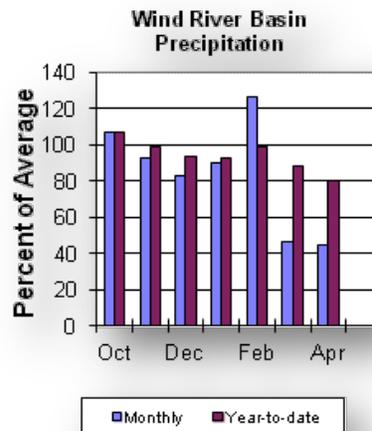
Last month's precipitation in the basin varied from 19-76% of average. Precipitation, for the basin, was about 45% of average from the 8 reporting stations; that is about 41% of last year's amount. Water year-to-date precipitation is 80% of average and about 80% of last year at this time. Year-to-date percentages range from 65-94% of average.

## Reservoirs

Current storage varies from 109-119% of average. Current storage in Bull Lake is about 99,800 ac-ft (119% of average) - the reservoir is at 149% of last year. Boysen Reservoir is storing about 112% of average (587,400 ac-ft) - the reservoir is about 115% of last year. Pilot Butte is at 109% of average (28,100 ac-ft) - the reservoir is at 128% 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 well below average. Dinwoody Creek near Burris is 80,000 ac-ft (86% of average). The Wind River above Bull Lake Creek is 270,000 ac-ft (53% of average). Bull Lake Creek near Lenore is 126,000 ac-ft (71% of average). Wind River at Riverton will yield around 285,000 ac-ft (47% of average). Little Popo Agie River near Lander is around 25,000 ac-ft (51% of average). South Fork of Little Wind near Fort Washakie will yield around 58,000 ac-ft (72% of average). Little Wind River near Riverton will yield around 129,000 ac-ft (45% of average). Boysen Reservoir inflow will yield around 245,000 ac-ft (32% of average). See the following page for detailed runoff volumes.



## Wind River Basin

Streamflow Forecasts - May 1, 2012

Forecast Pt	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg
Forecast Period	90%	70%	50%	30%	10%	(1000AF)
	(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)
=====						
Dinwoody Ck nr Burris						
MAY-JUL	45	51	55	85	59	65
MAY-SEP	67	75	80	86	85	93
Wind R ab Bull Lake Ck (2)						
MAY-JUL	111	167	205	50	245	300
MAY-SEP	160	225	270	53	315	380
Bull Lake Ck nr Lenore (2)						
MAY-JUL	76	93	105	73	117	134
MAY-SEP	89	111	126	71	141	163
Wind R at Riverton (2)						
MAY-JUL	139	205	245	48	290	355
MAY-SEP	154	235	285	47	340	420
Little Popo Agie R nr Lander						
MAY-JUL	11.3	16.8	20	47	24	30
MAY-SEP	14.8	21	25	51	29	35
SF Little Wind R nr Fort Washakie						
MAY-JUL	34	44	51	73	58	68
MAY-SEP	38	50	58	72	66	78
Little Wind R nr Riverton						
MAY-JUL	43	62	109	43	156	225
MAY-SEP	51	78	129	45	180	255
Boysen Reservoir Inflow (2)						
MAY-JUL	80	115	225	34	325	470
MAY-SEP	90	129	245	32	360	530

\* 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 April

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
BULL LAKE	151.8	99.8	67.2	83.9
BOYSEN	596.0	587.4	510.7	526.1
PILOT BUTTE	31.6	28.1	21.9	25.7

### WIND RIVER BASIN

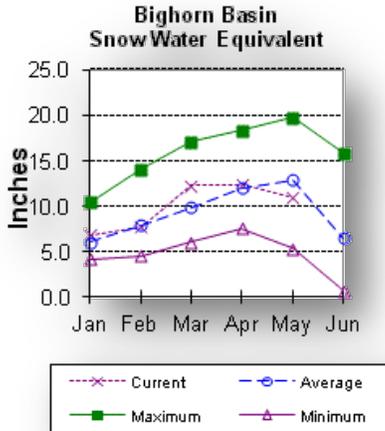
Watershed Snowpack Analysis - May 1, 2012

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
WIND RIVER above Dubios	7	31	48
LITTLE WIND	2	42	40
POPO AGIE	5	32	35
WIND above Boysen Resv	12	30	41

# Bighorn River Basin

## Snow

The Bighorn River Basin SWE above Bighorn Reservoir is at 85% of average. The Nowood River is at 72% of average. The Greybull River SWE is at 38% of average. Shell Creek SWE is 106% of average. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

Last month's precipitation was 81% of average (55% of last year). Sites ranged from 13-126% of average for the month. Year-to-date precipitation is 101% of average; that is 86% of last year at this time. Year-to-date percentages, from the 10 reporting stations, range from 72-121%.

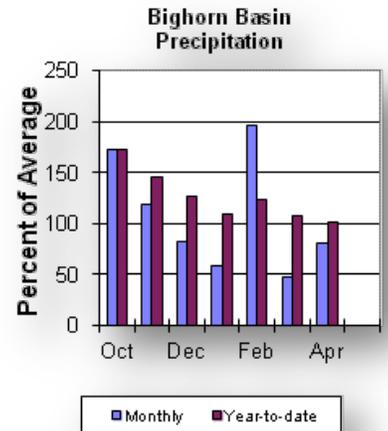
## Reservoir

Boysen Reservoir is currently storing 587,400 ac-ft (112% of average). Bighorn Lake is now at 798,100 ac-ft (101% of average). Boysen is currently storing 115% of last year

volume at this time and Big Horn Lake is storing 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 the May through September runoffs are anticipated to be below average. Boysen Reservoir inflow should yield 245,000 ac-ft (32% of average); the Greybull River near Meeteetse should yield around 120,000 ac-ft (62% of average); Shell Creek near Shell should yield around 68,000 ac-ft (99% of average) and the Bighorn River at Kane should yield around 395,000 ac-ft (39% of average). See the following page for detailed runoff volumes.



## Bighorn River Basin

Streamflow Forecasts - May 1, 2012

```

=====
<=== 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 80 115 225 34 325 470 665
MAY-SEP 90 129 245 32 360 530 758

Greybull R nr Meeteetse
MAY-JUL 60 73 82 58 91 104 141
MAY-SEP 73 101 120 62 139 167 194

Shell Ck nr Shell
MAY-JUL 42 50 56 98 62 70 57
MAY-SEP 53 62 68 99 74 83 69

Bighorn R at Kane (2)
MAY-JUL 44 230 360 39 490 675 915
MAY-SEP 43 255 395 39 535 745 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.
- (3) - Median value used in place of average.

```

=====
BIGHORN RIVER BASIN
Reservoir Storage (1000AF) End of April
=====
Usable ***** Usable Storage *****
Capacity This Year Last Year Average
=====
Reservoir
BOYSEN 596.0 587.4 510.7 526.1
BIGHORN LAKE NO REPORT
=====

```

```

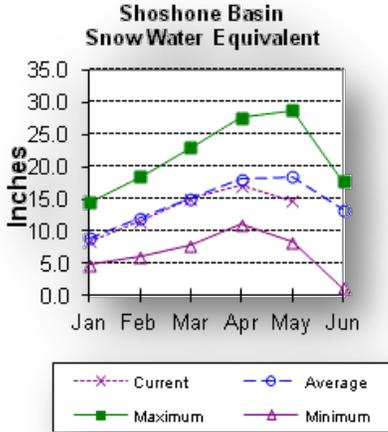
=====
BIGHORN RIVER BASIN
Watershed Snowpack Analysis - May 1, 2012
=====
Number of This Year as Percent of
Watershed Data Sites Last Year Average
=====
NOWOOD RIVER 4 45 72
GREYBULL RIVER 2 29 38
SHELL CREEK 4 69 106
BIGHORN (Boysen-Bighorn) 10 56 85
=====

```

# Shoshone & Clarks Fork River Basins

## Snow

Snowpack in these basins is below average for this time of year. Snow Water Equivalent (SWE) is 68% of average in the Shoshone River Basin. The Clarks Fork River Basin SWE is 91% of average. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

Precipitation for last month was 94% of average (49% of last year). Monthly percentages range from 33-133% of average. The basin year-to-date precipitation is now 112% of average (84% of last year). Year-to-date percentages range from 94-138% of average for the 8 reporting stations.

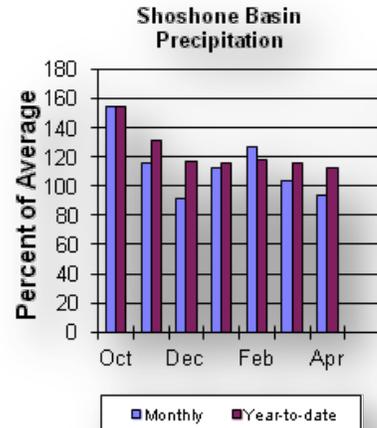
## Reservoir

Current storage in Buffalo Bill Reservoir is about 136% of average (143% of last year's storage) - the reservoir is at

about 74% of capacity. Currently, about 480,600 ac-ft are stored in the reservoir compared to 335,000 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 May through September period are expected to be below average for the basin. The North Fork Shoshone River at Wapiti is 500,000 ac-ft (103% of average). The South Fork of the Shoshone River near Valley is 215,000 ac-ft (84% of average), and the South Fork above Buffalo Bill Reservoir runoff is 136,000 ac-ft (63% of average). The Buffalo Bill Reservoir inflow is expected to yield around 655,000 ac-ft (87% of average). The Clarks Fork of the Yellowstone near Belfry is expected to yield 605,000 ac-ft (106% of average). See the following page for detailed runoff volumes.



## Shoshone & Clarks Fork River Basins

Streamflow Forecasts - May 1, 2012

Forecast Pt	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg
Forecast Period	Chance of Exceeding * (%)						(1000AF)
(1000AF)	90%	70%	50%	30%	10%	1000AF)	(1000AF)
NF Shoshone R at Wapiti							
MAY-JUL	360	410	440	104	475	520	425
MAY-SEP	410	465	500	103	535	590	485
SF Shoshone R nr Valley							
MAY-JUL	153	172	185	86	198	215	215
MAY-SEP	178	200	215	84	230	250	255
SF Shoshone R ab Buffalo Bill Res							
MAY-JUL	83	113	134	67	155	185	200
MAY-SEP	81	114	136	63	158	191	215
Buffalo Bill Reservoir Inflow (2)							
MAY-JUL	460	535	585	87	635	710	675
MAY-SEP	515	600	655	87	710	795	755
Clarks Fk Yellowstone R nr Belfry							
MAY-JUL	480	520	550	107	580	620	515
MAY-SEP	520	570	605	106	640	690	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.

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

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

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
BUFFALO BILL	646.6	480.6	335.0	352.2

### SHOSHONE & CLARKS FORK RIVER BASINS Watershed Snowpack Analysis - May 1, 2012

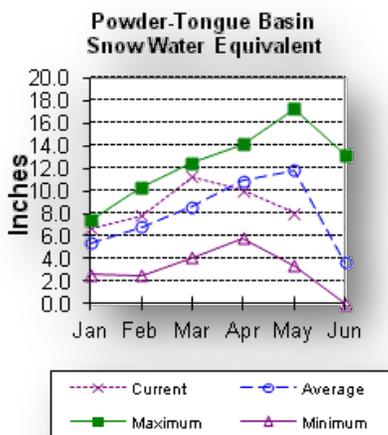
Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SHOSHONE RIVER	6	52	68
CLARKS FORK in WY	7	63	91

## Powder and Tongue River Basins

### Snow

Snow water equivalent (SWE) in the Upper Tongue River drainage is 77% of average. The Goose Creek drainage is 54% of average. SWE in the Clear Creek drainage is 54% of average. Crazy Woman Creek drainage is

80% of average. Upper Powder River drainage SWE is 60% of average. Powder River Basin SWE in Wyoming is 58% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



### Precipitation

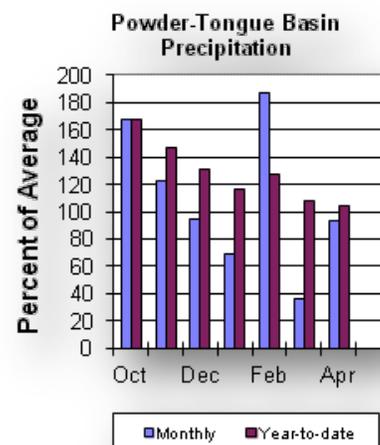
Last month's precipitation was 91% of average for the 9 reporting stations (61% of last year). Monthly percentages range from 57-131% of average. Year-to-date precipitation is 104% of average in the basin; this is 89% of last year at this time. Precipitation for the year ranges from 85-121% of average.

### Reservoir

The Tongue River Reservoir currently is storing 209% of average (66,100 ac-ft) compared to 130% of last year's storage.

### Streamflow

The 50% exceedance forecasts for the May through September period are expected to be well below average for the basins. The yield for Tongue River near Dayton is 76,000 ac-ft (74% of average). Big Goose Creek near Sheridan is 44,000 ac-ft (76% of average). Little Goose Creek near Bighorn is 31,000 ac-ft (78% of average). The Tongue River Reservoir Inflow is 152,000 ac-ft (68% of average). The Middle Fork of the Powder River near Barnum is 12,000 ac-ft (72% of average). The North Fork of the Powder River near Hazelton should yield around 7,900 ac-ft (81% of average). Rock Creek near Buffalo will yield about 17,900 ac-ft (78% of average), and Piney Creek at Kearny should yield about 36,000 ac-ft (75% of average). The Powder River at Moorehead is 132,000 ac-ft (66% of average). The Powder River near Locate is 141,000 ac-ft (64% of average). See the following page for detailed runoff volumes.



## Powder & Tongue River Basins

Streamflow Forecasts - May 1, 2012

Forecast Pt	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg
Forecast	Chance of Exceeding *						
Period	90%	70%	50%		30%	10%	(1000AF)
	(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
Tongue R nr Dayton (2)							
MAY-JUL	38	54	65	72	76	92	90
MAY-SEP	47	64	76	74	88	105	103
Big Goose Ck nr Sheridan							
MAY-JUL	23	32	37	76	42	51	49
MAY-SEP	30	38	44	76	50	58	58
Little Goose Ck nr Bighorn							
MAY-JUL	15.6	21	24	75	27	32	32
MAY-SEP	22	27	31	78	35	40	40
Tongue River Reservoir Inflow (2)							
MAY-JUL	43	97	133	67	169	225	199
MAY-SEP	56	113	152	68	191	250	225
MF Powder R nr Barnum							
MAY-JUL	6.2	9.2	11.2	72	13.2	16.2	15.6
MAY-SEP	6.8	9.9	12.0	72	14.1	17.2	16.6
NF Powder R nr Hazelton							
MAY-JUL	4.5	6.1	7.2	80	8.3	9.9	9.0
MAY-SEP	5.0	6.7	7.9	81	9.1	10.8	9.8
Rock Ck nr Buffalo							
MAY-JUL	8.2	11.9	14.4	76	16.9	21	18.9
MAY-SEP	11.2	15.2	17.9	78	21	25	23
Piney Ck at Kearny							
MAY-JUL	17.2	27	33	75	39	49	44
MAY-SEP	19.1	29	36	75	43	53	48
Powder R at Moorhead							
MAY-JUL	25	76	111	62	146	197	178
MAY-SEP	42	96	132	66	168	220	200
Powder R nr Locate							
MAY-JUL	10.0	75	119	61	163	230	195
MAY-SEP	22	93	141	64	189	260	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.

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

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

Reservoir	Usable Capacity	***** This Year *****	***** Usable Storage *****	***** Last Year *****	***** Average *****
TONGUE RIVER	79.1	66.1	50.9	31.7	

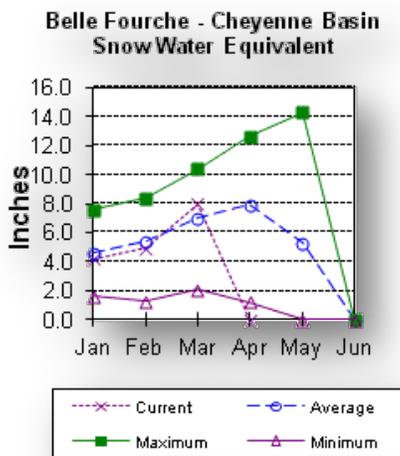
### POWDER & TONGUE RIVER BASINS Watershed Snowpack Analysis - May 1, 2012

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER TONGUE RIVER	7	54	77
GOOSE CREEK	2	32	54
CLEAR CREEK	2	26	54
CRAZY WOMAN CREEK	2	45	80
UPPER POWDER RIVER	4	36	60
POWDER RIVER in WY	6	31	58

## Belle Fourche and Cheyenne River Basins

### Snow

The Belle Fourche & Cheyenne River Basins are melted out so the SWE is 0% of average at this time. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



### Precipitation

Precipitation for last month was 82% of average or 61% of last year in the Black Hills. There were 3 reporting stations. Monthly percentages range from 71-96%. Year-to-date precipitation is 94% of average and 58% of last year's amount. Yearly percentages range from 90-96% of average.

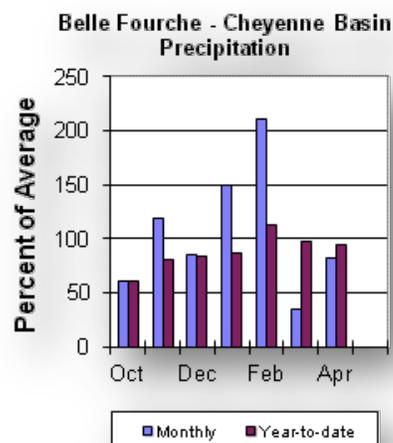
### Reservoir

Current reservoir storage is about 114% of average in the basin. Angostura is currently storing 95% of average

(107,900 ac-ft), about 88% of capacity. Belle Fourche reservoir is storing 116% of average (168,600 ac-ft), about 95% of capacity. Deerfield reservoir is storing 113% of average (15,300 ac-ft), about 101% of capacity. Keyhole reservoir is storing 158% of average (183,200 ac-ft), about 95% of capacity. Pactola reservoir is storing 113% of average (54,300 ac-ft), about 99% of capacity. Shadehill reservoir is storing 64% of average (41,800 ac-ft), about 51% 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 expected to be 1,900 ac-ft (50% of average). Pactola Reservoir Inflow is expected to yield around 8,500 ac-ft (47% of average). See the following page for detailed runoff volumes.



## Belle Fourche & Cheyenne River Basins

Streamflow Forecasts - May 1, 2012

```

=====
<=== 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 (2)
MAY-JUL     0.7    1.2    1.9    50     3.3    5.4    3.8
Pactola Reservoir Inflow (2)
MAY-JUL     2.4    4.0    8.5    47     16.1   27     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.
- (3) - Median value used in place of average.

```

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

```

```

=====
Usable ***** Usable Storage *****
Capacity This Year Last Year Average
=====
Reservoir
ANGOSTURA      122.1    107.9    112.6    113.7
BELLE FOURCHE  178.4    168.6    163.3    145.7
DEERFIELD      15.2     15.3     14.9     13.6
KEYHOLE        193.8    183.2    136.5    115.8
PACTOLA        55.0     54.3     53.8     47.9
SHADEHILL      81.4     41.8     81.0     65.2
=====

```

```

=====
BELLE FOURCHE & CHEYENNE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2012
=====

```

```

=====
Number of This Year as Percent of
Data Sites Last Year Average
=====
Watershed
BELLE FOURCHE      4          0          0
=====

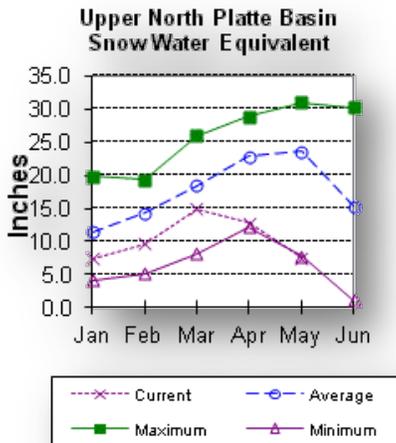
```

# Upper North Platte River Basin

## Snow

The SNOTELS above Seminoe Reservoir are showing about 32% of average (SWE) for this time of the year. SWE in the drainage area above Northgate is 32% of average at this time. SWE in the Encampment River drainage is about 33% of average. Brush Creek SWE for the year is about 26% of average. Medicine Bow and Rock Creek drainages SWE are

about 42% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

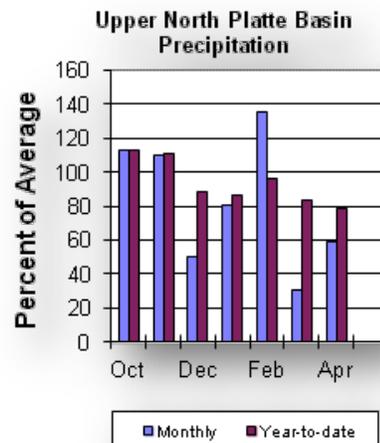
Eight reporting stations show last month's precipitation at 59% of average or 32% of last year's amount. Precipitation varied from 33-74% of average last month. Total water-year-to-date precipitation is about 79% of average for the basin, which is about 52% of last year's amount. Year to date percentage ranges from 64-88% of average.

## Reservoirs

Seminoe Reservoir is estimated to be storing 825,900 ac-ft or 81% of capacity. Seminoe Reservoir is also storing about 162% of average for this time of the year and 159% 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 well below average for the Upper North Platte River Basin. Yield for the North Platte River near Northgate will be around 37,000 ac-ft (16% of average). The Encampment River near Encampment is 50,000 ac-ft (32% of average). Rock Creek near Arlington is 26,000 ac-ft (47% of average). Seminoe Reservoir inflow should be around 135,000 ac-ft (18% of average). See the following table for more detailed information on projected runoff.



## Upper North Platte River Basin

Streamflow Forecasts - May 1, 2012

```

=====
<=== 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 R nr Northgate
MAY-JUL     12.0    20     30     15     63     111    205
MAY-SEP     15.0    22     37     16     75     131    230

Encampment R nr Encampment
MAY-JUL     13.0    33     46     31     59     79     147
MAY-SEP     15.0    36     50     32     64     85     156

Rock Ck nr Arlington
MAY-JUL     13.8    20     25     48     30     36     52
MAY-SEP     14.0    21     26     47     31     38     55

Sweetwater R nr Alcova
MAY-JUL     2.5     5.1    14.4    24     24     37     61
MAY-SEP     2.6     7.6    17.9    27     28     43     66

Seminoe Reservoir Inflow (2)
MAY-JUL     48     83     120    17     240    415    690
MAY-SEP     54     94     135    18     265    460    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.
- (3) - Median value used in place of average.

=====

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

```

=====
Usable ***** Usable Storage *****
Capacity This Year Last Year Average
Reservoir
=====
SEMINOE          1016.7      825.9      519.5      510.4
=====

```

UPPER NORTH PLATTE RIVER BASIN  
Watershed Snowpack Analysis - May 1, 2012

```

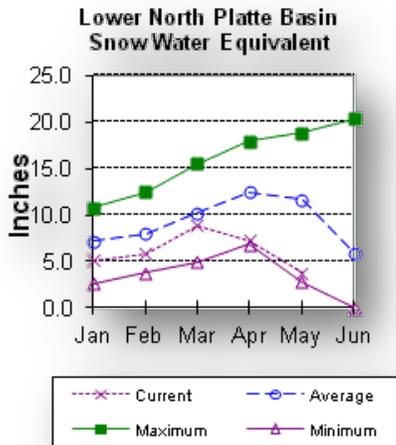
=====
Number of This Year as Percent of
Data Sites Last Year Average
Watershed
=====
N PLATTE above Northgate          7          19          32
ENCAMPMENT RIVER                  4          22          33
BRUSH CREEK                       5          13          26
MEDICINE BOW & ROCK CREEKS        3          27          42
N PLATTE above Seminoe           19          19          32
=====

```

# Lower North Platte, Sweetwater & Laramie River Basins

## Snow

SWE for the North Platte River Basin is at 32% of average. The Sweetwater drainage SWE is currently at 40% of average. Deer and LaPrele Creek SWE are at 36% of average. SWE for the North Platte above the Laramie River drainage is 32% of average. SWE for the Laramie River above Laramie is 31% of average. SWE for the Little Laramie River is 26% of average. The Laramie River above mouth, SWE is 30% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Last month's precipitation was 55% of average or 52% of last year's amount. Of the 8 reporting stations, percentages for the month range from 44-76%. The water year-to-date precipitation for the basin is currently 89% of average (73% of last year). Year-to-date percentages range from 65-120% of average.

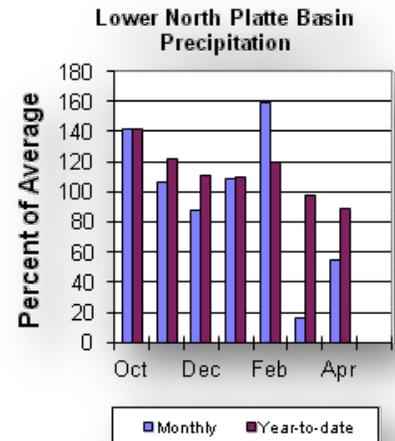
## Reservoir

The Lower North Platte & Laramie River Basins reservoir storage is above average at 126%. Reservoir storage is as follows: Alcova 179,400 ac-ft (100% of average); Glendo 478,100 ac-ft (104% of average); Guernsey 20,000 ac-ft (60% of

average); Pathfinder 905,400 ac-ft (121% of average); Seminoe 825,900 ac-ft (162% of average); and Wheatland #2 95,100 ac-ft (159% of average):

## Streamflow

The following yields are based on the 50% exceedance forecasts for the May through September period. The Sweetwater River near Pathfinder is forecast to yield about 17,900 ac-ft (27% of average). Deer Creek at Glenrock is forecast to yield 13,600 ac-ft (49% of average). LaPrele Creek above the reservoir is forecast to yield 8,800 ac-ft (47% of average). North Platte - Alcova to Orin Gain is forecast to yield 44,000 ac-ft (36% of average). North Platte River below Glendo Reservoir is 197,000 ac-ft (24% of average), and below Guernsey Reservoir is anticipated to yield around 220,000 ac-ft (26% of average). Laramie River near Woods Landing should yield around 59,000 ac-ft (47% of average). The Little Laramie near Filmore should produce about 26,000 ac-ft (43% of average). See the following table for more detailed information on projected runoff.



## Lower North Platte, Sweetwater & Laramie River Basins

Streamflow Forecasts - May 1, 2012

Forecast Pt	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg
Forecast	Chance of Exceeding *						(1000AF)
Period	90%	70%	50%	30%	10%	10%	(1000AF)
	(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
Sweetwater R nr Alcova							
MAY-JUL	2.5	5.1	14.4	24	24	37	61
MAY-SEP	2.6	7.6	17.9	27	28	43	66
Deer Ck at Glenrock							
MAY-JUL	1.0	7.6	13.1	49	21	33	27
La Prele Ck ab La Prele Reservoir							
MAY-JUL	0.5	2.5	8.7	47	12.3	17.7	18.6
MAY-SEP	0.5	5.2	8.8	47	12.4	17.7	18.9
North Platte R-Alcova to Orin Gain							
MAY-JUL	0.0	17.0	38	34	59	89	113
MAY-SEP	0.0	22	44	36	66	99	122
North Platte R bl Glendo Res (2)							
MAY-JUL	69	106	172	22	270	415	800
MAY-SEP	79	120	197	24	300	450	830
North Platte R bl Guernsey Res (2)							
MAY-JUL	72	114	179	22	300	475	815
MAY-SEP	88	134	220	26	345	525	860
Laramie R nr Woods							
MAY-JUL	19.0	39	53	46	67	87	115
MAY-SEP	21	44	59	47	74	97	127
Little Laramie R nr Filmore							
MAY-JUL	10.3	18.5	24	43	30	38	56
MAY-SEP	10.4	19.7	26	43	32	42	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.

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

### 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	179.4	180.5	178.8
GLENDO	506.4	478.0	422.7	458.2
GUERNSEY	45.6	20.0	22.3	33.3
PATHFINDER	1016.5	905.4	915.5	747.1
SEMINOE	1016.7	825.9	519.5	510.4
WHEATLAND #2	98.9	95.0	38.6	59.7

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

Watershed Snowpack Analysis - May 1, 2012

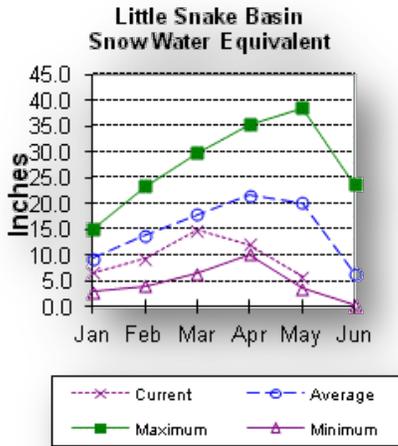
Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SWEETWATER	2	24	40
DEER & LaPRELE CREEKS	2	23	36
N PLATTE abv Laramie R.	23	20	32
LARAMIE RIVER abv Laramie	10	17	31
LITTLE LARAMIE RIVER	5	15	26
LARAMIE RIVER above mouth	13	17	30
NORTH PLATTE	29	19	32

# Little Snake River Basin

## Snow

Currently, snow water equivalent (SWE) in the Little Snake River

drainage is 29% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

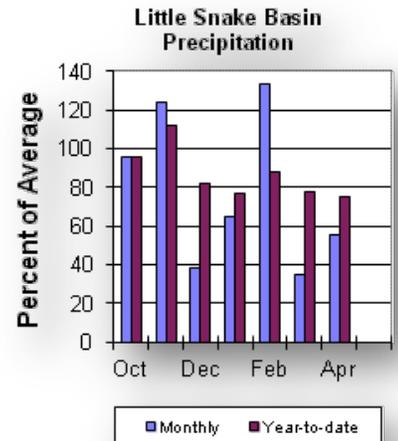
Precipitation across the basin was 55% of average (34% of last year) for the 5 reporting stations. Last month's precipitation ranged from 48-58% of average. The Little Snake River basin water-year-to-date precipitation is currently 75% of average (54% of last year). Year-to-date percentages range from 63-84% of average.

## Reservoir

High Savery Dam - 16,200 ac-ft

## Streamflow

The 50% exceedance forecast for the May through July time frame on the Little Snake River drainage is expected to be well below average this year. The Little Snake River near Slater should yield around 45,000 ac-ft (32% of average). The Little Snake River at Savery is estimated to yield around 87,000 ac-ft (30% of average). See the following table for more detailed information on projected runoff.



## Little Snake River Basin

Streamflow Forecasts - May 1, 2012

```

=====
<=== 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 R nr Slater
APR-JUL     55      66      74      47      83      99      159
MAY-JUL     26      37      45      32      54      70      141

Little Snake R nr Dixon
APR-JUL     102     118     139     42     163     205     330
MAY-JUL     50      66      87      30     111     152     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.
- (3) - Median value used in place of average.

```

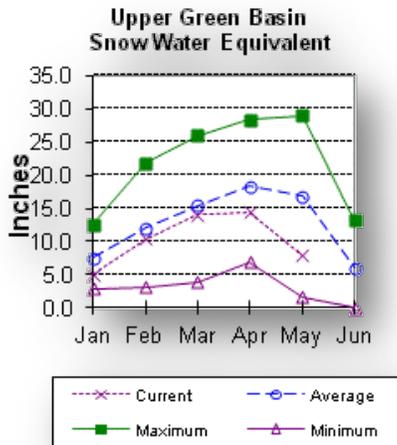
=====
LITTLE SNAKE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2012
=====
Watershed          Number of          This Year as Percent of
                   Data Sites        Last Year          Average
=====
LITTLE SNAKE RIVER          8              17              29
=====

```

# Upper Green River Basin

## Snow

SWE in the Green River Basin above Warren Bridge is about 11% of average. SWE for the West Side of Upper Green River Basin is about 61% of average. Newfork River Basin SWE is now about 55% of average. Big Sandy-Eden Valley Basin is 65% of average. SWE in the Green River Basin above Fontenelle Reservoir is about 47% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

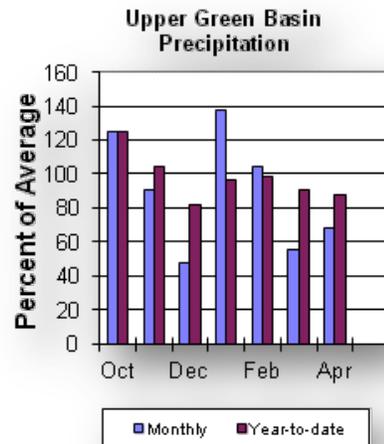
The 11 reporting precipitation sites in the basin were 68% of average last month (37% of last year). Last month's precipitation varied from 38-81% of average. Water year-to-date precipitation is about 88% of average (70% of last year). Year to date percentage of average ranges from 75-105% for the reporting stations.

## Reservoir

Storage in Big Sandy Reservoir is 32,300 ac-ft or 84% of capacity. This is 130% of average. Fontenelle Reservoir is 159,600 ac-ft or 46% of capacity; 111% of average. This is 114% 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 to be well below average. The yield on the Green River at Warren Bridge is 160,000 ac-ft (65% of average). Pine Creek above Fremont Lake is 88,000 ac-ft (85% of average). New Fork River near Big Piney is 260,000 ac-ft (71% of average). Fontenelle Reservoir Inflow is estimated to be 440,000 ac-ft (58% of average), and Big Sandy near Farson is expected to be around 39,000 ac-ft (72% of average). See the following table for more detailed information on projected runoff.



## Upper Green River Basin

Streamflow Forecasts - May 1, 2012

Forecast Pt	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg
Forecast Period	90%	70%	50%	30%	10%	Chance of Exceeding * (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF) (1000AF)	
<b>Green R at Warren Bridge</b>							
APR-JUL	157	176	190	72	205	225	265
MAY-JUL	127	146	160	65	174	196	246
<b>Pine Ck ab Fremont Lake</b>							
APR-JUL	74	82	88	85	94	103	104
MAY-JUL	69	77	83	81	89	98	102
<b>New Fork R nr Big Piney</b>							
APR-JUL	220	255	285	72	315	365	395
MAY-JUL	192	230	260	71	290	340	368
<b>Fontenelle Reservoir Inflow (2)</b>							
APR-JUL	375	470	540	63	615	740	860
MAY-JUL	275	370	440	58	515	640	765
<b>Big Sandy R nr Farson</b>							
APR-JUL	36	42	46	79	51	58	58
MAY-JUL	29	35	39	72	44	51	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.
- (3) - Median value used in place of average.

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

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
BIG SANDY	38.3	32.3	18.3	24.8
FONTENELLE	344.8	159.6	137.6	143.5

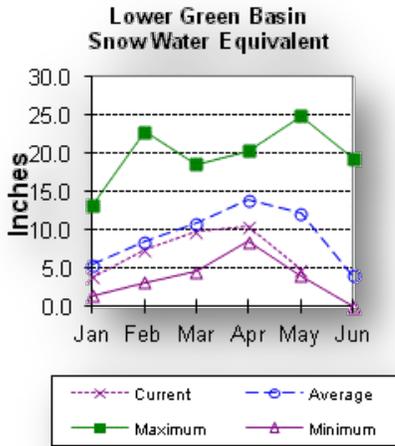
### UPPER GREEN RIVER BASIN Watershed Snowpack Analysis - May 1, 2012

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
GREEN above Warren Bridge	4	16	11
UPPER GREEN (West Side)	5	38	61
NEWFORK RIVER	2	38	55
BIG SANDY/EDEN VALLEY	1	45	65
GREEN above Fontenelle	11	31	47

# Lower Green River Basin

## Snow

SWE in the Green River Basin above Flaming Gorge is 39% of average. SWE in the Hams Fork Basin is 42% of average. Blacks Fork Basin SWE is currently 11% 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 for the 3 reporting stations during last month was at 71% of average or 45% of last year. Precipitation ranged from 67-79% of average for the month. The basin year-to-date precipitation is currently 72% of average (60% of last year). Year-to-date percentages range from 69-77% of average.

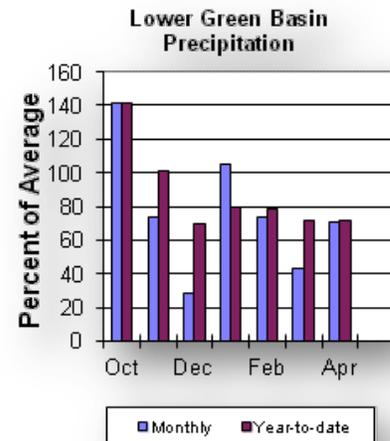
## Reservoirs

Fontenelle Reservoir is currently storing 159,600 ac-ft; this is 111% of average (116% of last year). Flaming Gorge is

currently storing 3,205,000 ac-ft; this is 109% of average (102% of last year). Viva Naughton is currently storing 42,500 ac-ft, 149% of average or 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 50% exceedance forecasts for the May through July runoff period in the Lower Green River Basin are forecast to be well below average. The Green River near Green River is forecast to yield about 445,000 ac-ft (57% of average). The Blacks Fork near Robertson is forecast to yield 35,000 ac-ft (38% of average). East Fork of Smiths Fork near Robertson is forecast to yield 12,000 ac-ft (43% of average). Hams Fork below Pole Creek near Frontier is forecast to be 20,000 ac-ft (33% of average). The Hams Fork Inflow to Viva Naughton Reservoir is forecast to be 20,000 ac-ft (26% of average). The Flaming Gorge Reservoir inflow will be about 495,000 ac-ft (48% of average). See the following table for more detailed information on projected runoff.



## Lower Green River Basin

Streamflow Forecasts - May 1, 2012

Forecast Pt	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg
Forecast Period	Chance of Exceeding *						(1000AF)
	90%	70%	50%	30%	10%		
	(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
Green R nr Green River, WY (2)							
APR-JUL	355	460	540	62	630	775	875
MAY-JUL	260	365	445	57	535	680	780
Blacks Fk nr Robertson							
APR-JUL	35	42	48	51	54	64	95
MAY-JUL	22	29	35	38	41	51	92
EF of Smiths Fork nr Robertson (2)							
APR-JUL	10.7	13.4	15.5	53	17.8	22	29
MAY-JUL	7.2	9.9	12.0	43	14.3	18.0	28
Hams Fk bl Pole Ck nr Frontier							
APR-JUL	21	26	30	46	34	41	65
MAY-JUL	11.6	16.3	20	33	24	31	60
Viva Naughton Reservoir Inflow (2)							
APR-JUL	27	31	36	40	42	51	89
MAY-JUL	11.0	15.0	20	26	26	35	76
Flaming Gorge Reservoir Inflow (2)							
APR-JUL	435	545	630	53	720	870	1190
MAY-JUL	300	410	495	48	585	735	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.  
 (3) - Median value used in place of average.

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

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
FONTENELLE	344.8	159.6	137.6	143.5
FLAMING GORGE	3749.0	3205.0	3156.0	2952.0
VIVA NAUGHTON RES	42.4	42.5	13.4	28.6

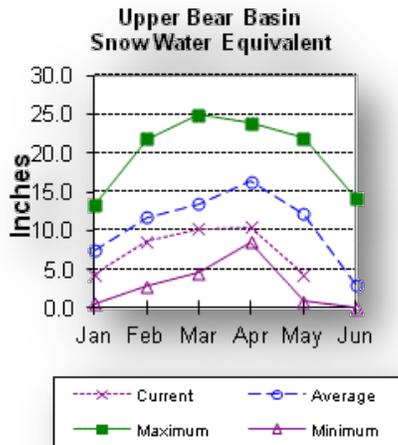
### LOWER GREEN RIVER BASIN Watershed Snowpack Analysis - May 1, 2012

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
HAMS FORK RIVER	3	24	42
BLACKS FORK	4	7	11
HENRYS FORK	2	0	0
GREEN above Flaming Gorge	20	24	39

# Upper Bear River Basin

## Snow

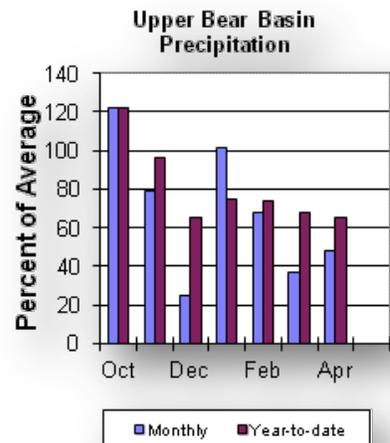
Snow water equivalent (SWE) in the Upper Bear River Basin in Utah is estimated to be 25% of average. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is at 38% of average. Bear River Basin SWE, above the Idaho State line, is 35% of average. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



is 52% of last year's amount.

## Precipitation

Precipitation for last month was 48% of average for the 2 reporting stations; this is 27% of the precipitation received last year. The year-to-date precipitation, for the basin, is 65% of average; this



## Reservoir

Storage in Woodruff Narrows reservoir is 58,900 ac-ft (153% of average). Current reservoir storage is about 103% of capacity. Reservoir storage last year at this time was 44,000 ac-ft.

## Streamflow

The following 50% exceedance forecasts are for the May through September period. The Bear River near the Utah-Wyoming State Line is 55,000 ac-ft (46% of average). The Bear River above Reservoir near Woodruff is 44,000 ac-ft (36% of average). The Smiths Fork River near Border is 51,000 ac-ft (46% of average). See the following table for more detailed information on projected runoff.

## Upper Bear River Basin

Streamflow Forecasts - May 1, 2012

```

=====
<=== 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)
=====
Bear R nr UT-WY State Line
APR-JUL     40     54     63     56     72     86     113
APR-SEP     43     58     68     54     78     93     125
MAY-JUL     29     42     50     47     58     71     107
MAY-SEP     32     46     55     46     64     78     119

Bear R ab Res nr Woodruff
APR-JUL     25     43     56     41     69     87     136
APR-SEP     27     45     58     41     71     89     142
MAY-JUL     13.0   30     42     36     54     71     116
MAY-SEP     15.0   32     44     36     56     73     122

Smiths Fk nr Border
APR-JUL     38     46     51     50     56     64     103
APR-SEP     46     55     62     51     69     78     121
MAY-JUL     27     35     40     42     45     53     95
MAY-SEP     35     44     51     46     58     67     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.
- (3) - Median value used in place of average.

```

=====
UPPER BEAR RIVER BASIN
Reservoir Storage (1000AF) End of April
=====
Usable ***** Usable Storage *****
Reservoir Capacity This Year Last Year Average
=====
WOODRUFF NARROWS          57.3          58.9          44.0          38.5
=====

```

```

=====
UPPER BEAR RIVER BASIN
Watershed Snowpack Analysis - May 1, 2012
=====
Number of This Year as Percent of
Watershed Data Sites Last Year Average
=====
UPPER BEAR RIVER in Utah          7          12          25
SMITHS & THOMAS FORKS             3          23          38
BEAR RIVER abv ID line           7          19          35
NORTHWEST                        62         45          69
NORTHEAST                        14         40          69
SOUTHEAST                        33         17          29
SOUTHWEST                        28         21          33
=====

```

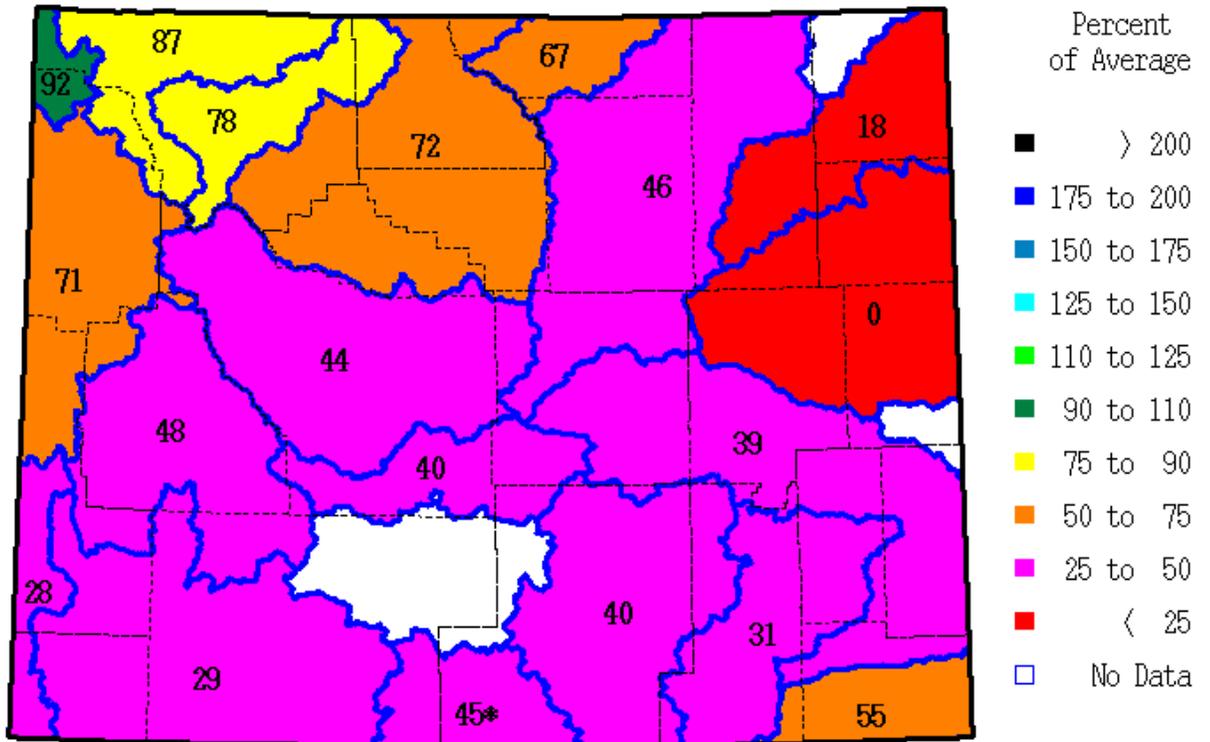
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Washington D.C.

Released by

Paul Shelton(acting)  
State Con.  
N R C S  
Casper, Wyoming

SWE % of Average as of Tuesday, 01 May 2012



\* = Data may not provide a valid measure of conditions

**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:**

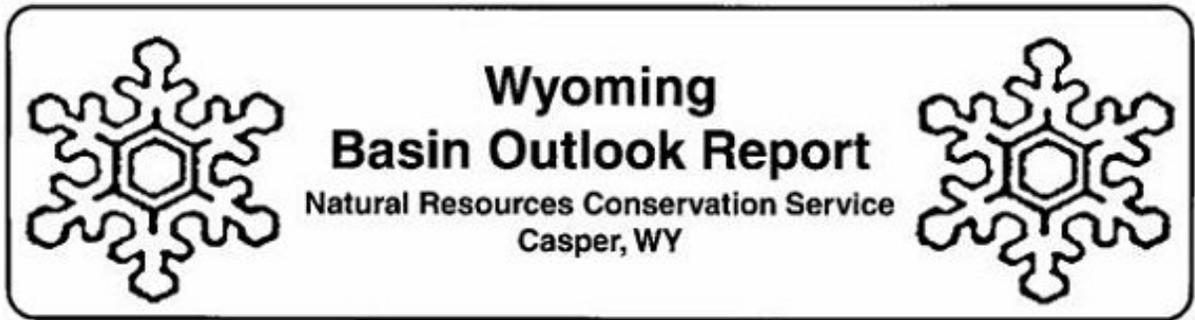
The Wyoming State Engineer's Office

The University of Wyoming

**Local:**

The City of Cheyenne

The City of Rawlins



Natural Resources Conservation Service  
100 East B Street  
Box 33124  
Casper, WY 82601

«Name»  
«Title»  
«Address1»  
«Address2»  
«City», «State» «PostalCode»

«MailingListID»