



United States  
Department of  
Agriculture

# Wyoming Basin Outlook Report

## Feb 1, 2016

Natural  
Resources  
Conservation  
Service



Josh Fredrickson of the State Engineers Office measuring snow  
at Geyser Creek Snow Course February 2015

# Basin Outlook Reports

## And

### Federal - State - Private Cooperative Snow Surveys

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*For more water supply and resource management information, contact:*

**Lee Hackleman/Water Supply Specialist**  
100 East "B" Street Casper, WY 82601 (307) 233-67443

#### *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. 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 above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. 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 below median for Feb. 1<sup>st</sup> at 87%. Monthly precipitation for the basins was 42-165% of average for an overall average of 92%. The year-to-date precipitation average for Wyoming basins is now at 82% varying from 53-116% of average. Forecasted runoff varies from 36-102% of average across the Wyoming basins for an overall average of 81%. Basin reservoir levels for Wyoming vary from 87-190% of average for an overall average of 120%.

## Snowpack

Snow water equivalent (SWE), across Wyoming is below median for Jan. 1<sup>st</sup> at 81%. SWE in the Sweetwater River Basin of Wyoming is the lowest basin at 54% of median. While SWE in the Shoshone River Basin is at 129% for the highest basin. *See Appendix A for further information.*

## Precipitation

Last month's precipitation was slightly below average across the Wyoming Mountains at 92% of average. The Lower North Platte River Basin had the highest precipitation for the month at 165% of average. The Sweetwater River Basin had the lowest precipitation amount at 42% of average. The following table displays the major river basins and their departure from average for last month.

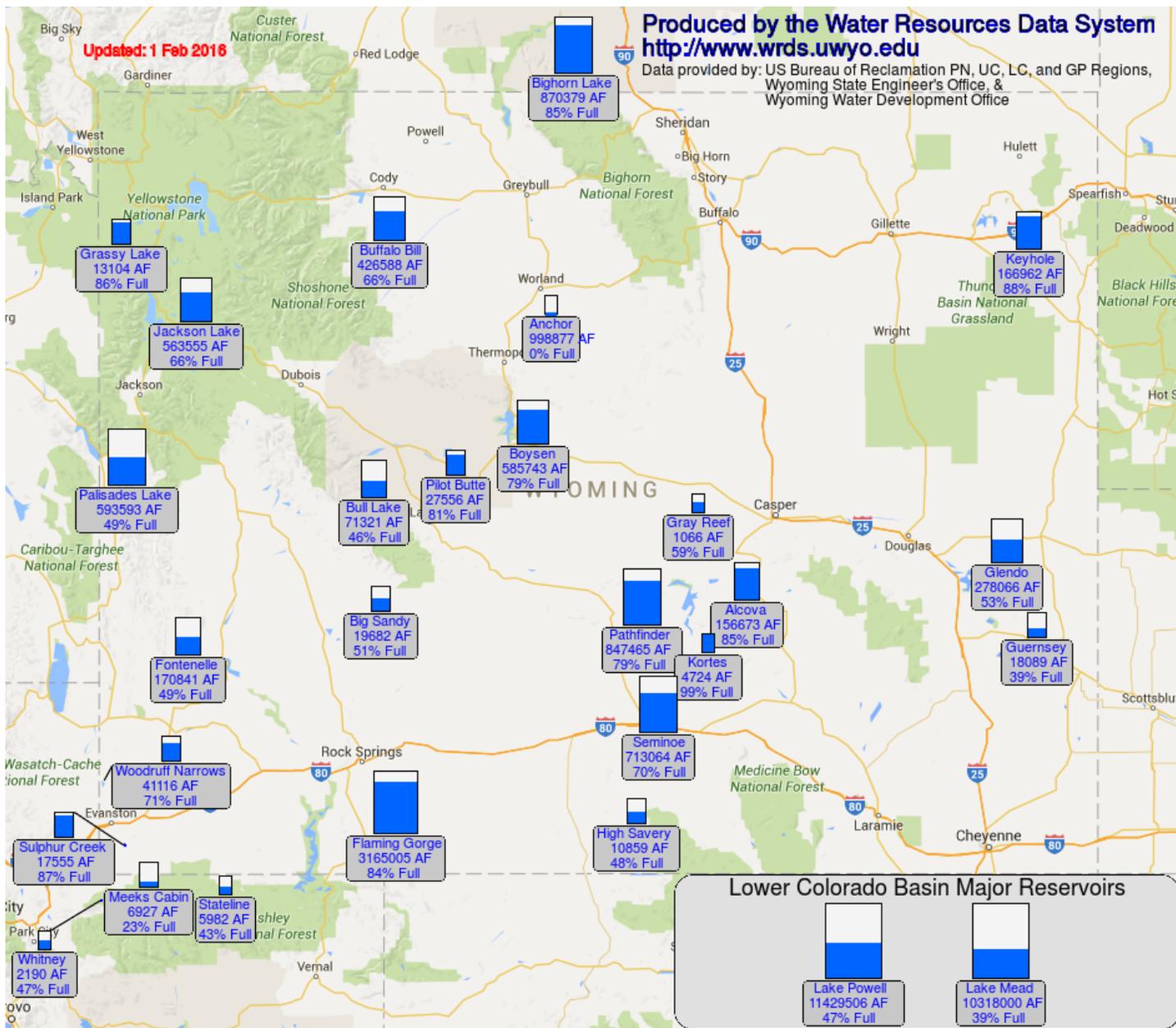
Basin	Departure from average	Basin	Departure from average
Snake River	-09%	Upper North Platte River	+19%
Madison-Gallatin	-29%	Sweetwater River	-58%
Yellowstone River	-29%	Lower North Platte River	+65%
Wind River	-41%	Laramie River	+06%
Bighorn River	-44%	South Platte River	+03%
Shoshone River	-34%	Little Snake River	+25%
Powder River	-42%	Upper Green River	-19%
Tongue River	-46%	Lower Green River	+15%
Belle Fourche River	+22%	Upper Bear River	+18%
Cheyenne River	-07%		

*See Appendix B for further information.*

## Reservoirs

Reservoir storage is above average at 120% for the entire state. Reservoirs in the Snake River Basin are about average at 101%. Reservoirs in the Wind River Basin are above average at 106%. Reservoirs on the Big Horn are above average at 105%. The Buffalo Bill Reservoir on the Shoshone is above average at 121%. Reservoirs in the Belle Fourche and Cheyenne River Basins are above average in storage at 149 & 119% respectively. Reservoirs on the Upper and Lower North Platte River are above average at 137% and 126% respectively. Reservoirs on the Laramie and Little Snake River basins are at 128% and 91% respectively. Reservoirs on the Upper Green River are above average at 113%. Reservoirs on the Lower Green River Basin are above average at 104%. Reservoir on the Upper Bear River Basin is above average at 142%. *See Appendix D for further information.*

## Wyoming Reservoir Levels for January 31<sup>st</sup> 2016



### Streams

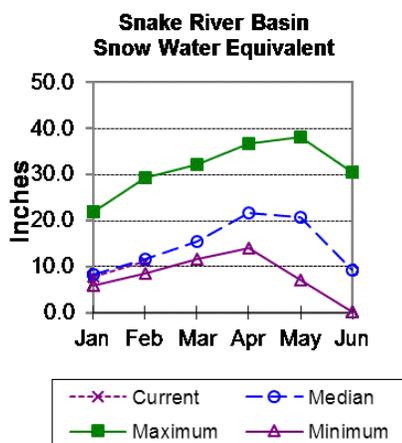
Stream flow yield for June thru September is expected to be below average over Wyoming at 86%. The Snake River, Madison, and Upper Yellowstone River Basins are expected to yield about 87%, 89% and 91% of average, respectively. Yields from the Wind and Bighorn River Basins are expected to be about 56% and 45% of average, respectively. Yields from the Shoshone and Clarks Fork River Basins of Wyoming are expected to yield about 89% and 91% of average, respectively. Yields from the Powder & Tongue River Basins are expected to be about 36% and 49% of average, respectively. Yield for the Cheyenne River Basin is expected to be about 62% of average. Yields for the Upper North Platte, Sweetwater, Lower North Platte, and Laramie Rivers of Wyoming are expected to be about 93%, 38%, 88%, and 102% of average, respectively. Yields for the Little Snake, Green River, and Smith's Fork of Wyoming are expected to be 80%, 77%, and 102% of average respectively. *See Appendix C for further information.*



# Snake River Basin

## Snow

The Snake River Basin SWE above Palisades is 95% of median. SWE in the Snake River Basin above Jackson Lake is 97% of median. Pacific Creek Basin SWE is 98% of median. Buffalo Fork SWE is 93% of median. Gros Ventre River Basin SWE is 91% of median. SWE in the Hoback River drainage is 89% of median. SWE in the Greys River drainage is 99% of median. In the Salt River area SWE is 92% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation for the Snake River Basin was 96% of average (76% last year). Percentages range from 44-179% of average for the 29 reporting stations. Water-year-to-date precipitation is 97% of average for the Snake River Basin (97% last year). Year-to-date percentages range from 72-119% of average.

## Reservoirs

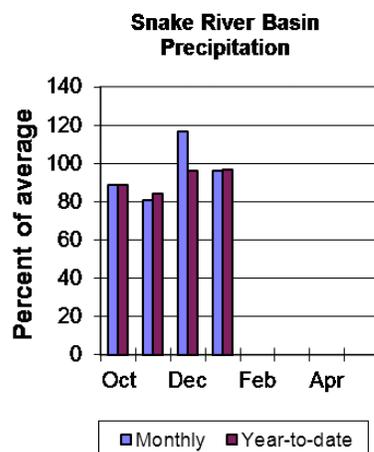
Current reservoir storage is 101% of average for the 3 storage reservoirs in the basin. Grassy Lake storage is about 110% of average (13,100 ac-ft compared to 12,700 last year). Jackson Lake storage is 131% of

average (563,600 ac-ft compared to 649,400 ac-ft last year). Palisades Reservoir storage is about 87% of average (793,600 ac-ft compared to 1,133,000 ac-ft last year).

*Detailed reservoir data is shown on the following page and Appendix D.*

## Streamflow

The 50% exceedance forecasts for April through September are below average for this basin. The Snake near Moran is 795,000 ac-ft (94% of average). Snake River above reservoir near Alpine is 2,180,000 ac-ft (87% of average). The Snake near Irwin is 3,160,000 ac-ft (90% of average). The Snake near Heise is 3,420,000 ac-ft (90% of average). Pacific Creek near Moran is 152,000 ac-ft (88% of average). Buffalo Fork above Lava near Moran is 295,000 ac-ft (92% of average). Greys River above Palisades Reservoir is 325,000 ac-ft (90% of average). Salt River near Etna is 330,000 ac-ft (89% of average). *See the following page for further information.*



## Snake River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

SNAKE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Snake R nr Moran <sup>2</sup>	APR-JUL	550	655	725	95%	800	905	765
	APR-SEP	600	715	795	94%	880	995	845
Snake R ab Reservoir nr Alpine <sup>2</sup>	APR-JUL	1430	1700	1890	87%	2070	2340	2170
	APR-SEP	1650	1960	2180	87%	2390	2710	2500
Snake R nr Irwin <sup>2</sup>	APR-JUL	1990	2410	2700	90%	3000	3420	3010
	APR-SEP	2320	2820	3160	90%	3500	4000	3500
Snake R nr Heise <sup>2</sup>	APR-JUL	2150	2600	2910	90%	3210	3670	3240
	APR-SEP	2540	3060	3420	90%	3780	4310	3780
Pacific Ck at Moran	APR-JUL	103	127	144	88%	160	185	164
	APR-SEP	110	135	152	88%	169	195	173
Buffalo Fk ab Lava Ck nr Moran	APR-JUL	192	235	260	93%	290	330	280
	APR-SEP	215	265	295	92%	330	380	320
Greys R ab Reservoir nr Alpine	APR-JUL	198	245	275	90%	310	355	305
	APR-SEP	230	285	325	90%	360	415	360
Salt R ab Reservoir nr Etna	APR-JUL	148	220	265	88%	310	380	300
	APR-SEP	193	275	330	89%	385	465	370

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

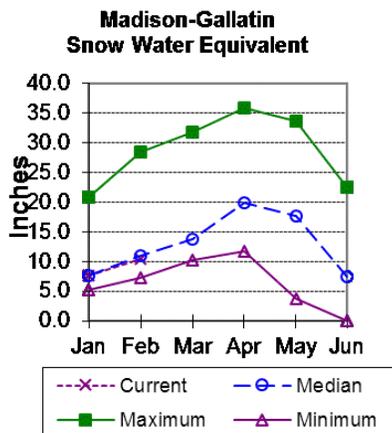
Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Grassy Lake	13.1	12.7	11.9	15.2
Jackson Lake	563.6	649.4	431.2	847.0
Palisades Reservoir	793.6	1133.0	911.2	1400.0
Basin-wide Total	1370.3	1795.1	1354.3	2262.2
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
SNAKE above Jackson Lake	9	97%	99%
PACIFIC CREEK	3	98%	107%
BUFFALO FORK	2	93%	124%
GROS VENTRE RIVER	4	91%	110%
HOBACK RIVER	5	89%	118%
GREYS RIVER	5	99%	119%
SALT RIVER	5	92%	103%
SNAKE RIVER BASIN	30	95%	107%

# Madison-Gallatin Rivers Basin

## Snow

SWE is 96% of median in the Madison-Gallatin drainage. *See Appendix A at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month precipitation in the Madison-Gallatin drainage was 70% of average (66% last year). The 6 reporting stations percentages range from 60-84% of average. Water-year-to-date precipitation is about 90% of average, which was 81% last year. Year to date percentage ranges from 81-103%.

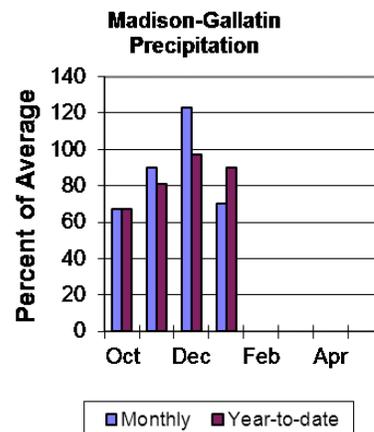
## Reservoirs

Ennis Lake is storing about 28,900 ac-ft of water (70% of capacity, 97% of average or 98% last year). Hebgen Lake is storing about 310,900 ac-ft of water (82%

of capacity, 111 of average or 114% last year). *Detailed reservoir data is shown below & Appendix D.*

## Streamflow

The 50% exceedance forecast for April through September is below average for the basin. Hebgen Reservoir inflow is 420,000 ac-ft (89% of average). *See below for detailed runoff volumes.*



Data Current as of: 2/4/2016 10:13:55 AM

## Madison-Gallatin River Basins Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

MADISON-GALLATIN RIVER BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Hebgen Reservoir Inflow	APR-JUL	260	300	330	89%	355	400	370
	APR-SEP	335	385	420	89%	450	500	470

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

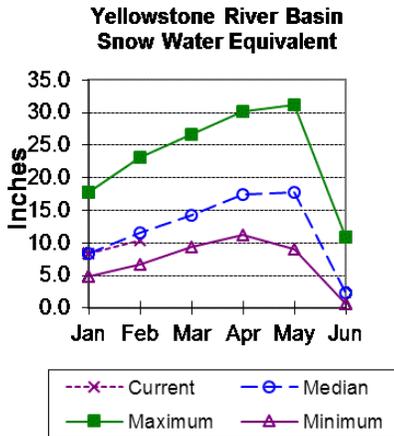
Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Ennis Lake	28.9	29.2	29.8	41.0
Hebgen Lake	310.9	318.8	279.0	378.8
Basin-wide Total	339.8	348.1	308.8	419.8
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
MADISON-GALLATIN RIVER BASINS	8	96%	86%

# Yellowstone River Basin

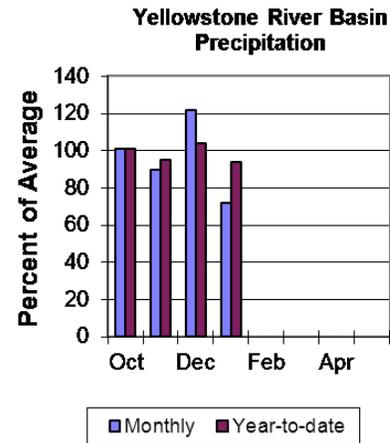
## Snow

SWE in the Yellowstone River Basin is 90% of median. SWE in the Yellowstone River Drainage in WY is 90% of median. SWE in the Clarks Fork Drainage of the Yellowstone River Basin in Wyoming is 90% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation in the Yellowstone River Basin was 71% of average (101% last year). The 17 reporting stations percentages range from 4-103% of average. Water-year-to-date precipitation is 96% of average, which was 106% last year. Year to date percentages range from 72-159%.



## Reservoirs

No reservoir data

## Streamflow

The 50% exceedance forecasts for June through September are slightly below average for the basin. Yellowstone at Lake Outlet is 685,000 ac-ft (89% of average). Yellowstone at Corwin Springs will yield around 1,720,000 ac-ft (91% of average). Yellowstone near Livingston will yield around 1,970,000 ac-ft (92% of average). Clarks Fork of the Yellowstone near Belfry 500,000 ac-ft (91% of average). *See the following for further information.*

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## Yellowstone River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

YELLOWSTONE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Yellowstone R at Yellowstone Lake Outlet	APR-JUL	415	480	520	90%	560	625	575
	APR-SEP	550	630	685	89%	740	820	770
Yellowstone R at Corwin Springs	APR-JUL	1210	1360	1470	92%	1580	1730	1590
	APR-SEP	1410	1590	1720	91%	1850	2030	1880
Yellowstone R at Livingston	APR-JUL	1350	1550	1680	93%	1810	2000	1800
	APR-SEP	1590	1810	1970	92%	2120	2350	2140
Clarks Fk Yellowstone R nr Belfry <sup>2</sup>	APR-JUL	375	430	465	91%	500	555	510
	APR-SEP	405	460	500	91%	540	595	550

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

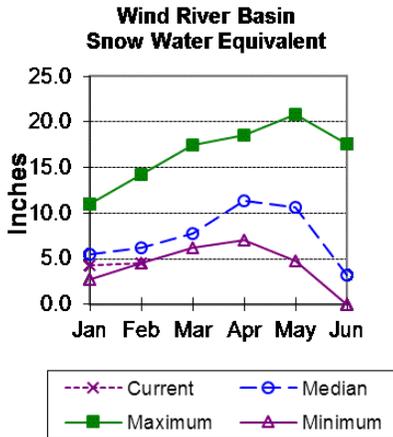
3) Median value used in place of average

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
YELLOWSTONE RIVER in WY	10	90%	108%
CLARKS FORK in WY	8	90%	116%

# Wind River Basin

## Snow

Wind River Basin above Boysen Reservoir SWE is 73% of median. SWE in the Wind River above Dubois is 80% of median. Little Wind SWE is 62% of median, and Popo Agie drainage SWE is 64% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



## Precipitation

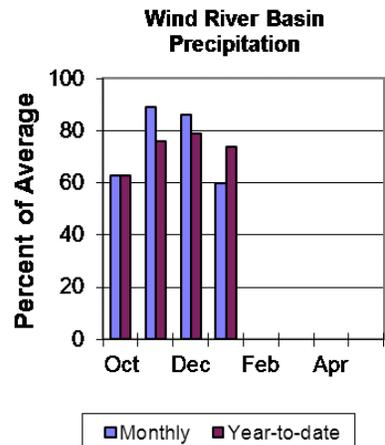
Last month's basin's precipitation varied from 35-98% of average. Precipitation for the basin was 60% of average (55% last year) from the 11 reporting stations. Water year-to-date precipitation is 74% of average and was 85% last year at this time. Year-to-date percentages range from 43-105% of average.

## Reservoirs

Current storage in Bull Lake is 70,600 ac-ft (94% of average) (140% last year). Boysen Reservoir is storing (545,700 ac-ft) about 108% of average 125% last year). Pilot Butte is at 107% of average (24,900 ac-ft) 100% last year). *Detailed reservoir data is shown on the following page and Appendix D.*

## Streamflow

The 50% exceedance forecasts for the April through September runoff period are below average. Dinwoody Creek near Burris should yield 88,000 ac-ft (96% of average). The Wind River above Bull Lake Creek will yield 385,000 ac-ft (79% of average). Bull Lake Creek near Lenore will yield 130,000 ac-ft (77% of average). Wind River at Riverton will yield around 430,000 ac-ft (78% of average). Little Popo Agie River near Lander should yield around 28,000 ac-ft (57% of average). South Fork of Little Wind near Fort Washakie will yield around ac-ft (% of average). Little Wind River near Riverton will yield around 142,000 ac-ft (48% of average). Boysen Reservoir inflow will yield around 375,000 ac-ft (56% of average). *See the following page for detailed runoff volumes.*



## Wind River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

WIND RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Dinwoody Ck nr Burris	APR-JUL	48	56	62	94%	68	76	66
	APR-SEP	71	81	88	96%	95	104	92
Wind R Ab Bull Lake Ck	APR-JUL	210	305	370	81%	430	525	455
	APR-SEP	215	315	385	79%	450	550	490
Bull Lake Ck nr Lenore	APR-JUL	74	94	108	78%	121	141	139
	APR-SEP	89	114	130	77%	146	171	169
Wind R at Riverton	APR-JUL	200	305	375	79%	445	550	475
	APR-SEP	235	350	430	78%	510	625	550
Little Popo Agie R nr Lander	APR-JUL	1.21	14.2	23	55%	32	45	42
	APR-SEP	4.8	18.6	28	57%	37	51	49
Little Wind R nr Riverton	APR-JUL	5	61	131	49%	200	305	270
	APR-SEP	5	69	142	48%	215	325	295
Boysen Reservoir Inflow	APR-JUL	2	215	365	60%	510	725	610
	APR-SEP	2	220	375	56%	530	755	665

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Bull Lake	70.6	105.2	75.4	151.8
Boysen	545.7	630.5	506.0	596.0
Pilot Butte	24.9	23.1	23.2	31.6
Basin-wide Total	641.2	758.8	604.6	779.4
# of reservoirs	3	3	3	3

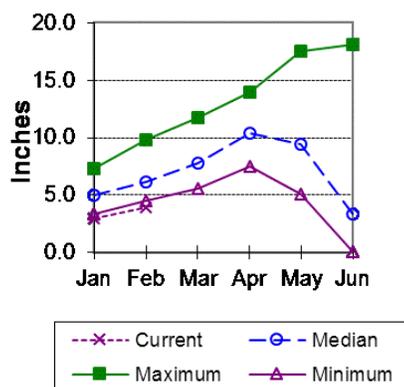
Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
WIND above Dubois	6	80%	120%
LITTLE WIND	2	62%	67%
POPO AGIE	7	64%	69%
WIND RIVER BASIN	17	73%	94%

# Bighorn River Basin

## Snow

The Bighorn River Basin SWE above Bighorn Reservoir is 64% of median. The Nowood River is at 60% of median. The Greybull River SWE is at 81% of median. Shell Creek SWE is at 63% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*

**Bighorn Basin  
Snow Water Equivalent**



## Precipitation

Last month's precipitation was 57% of average (81% last year). Sites ranged from 29-91% of average for the month. Year-to-date precipitation is 66% of average (96% last year). Year-to-date percentages, from the 19 reporting stations, range from 35-132%.

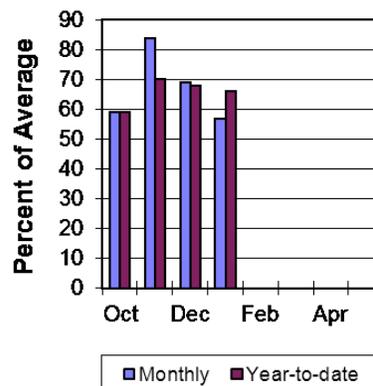
## Reservoirs

Boysen Reservoir is currently storing 545,700 ac-ft (108% of average). Bighorn Lake is now at 852,700 ac-ft (103% of average). Boysen was at 125% of average last year

at this time and Big Horn Lake was at 106% last year.

*Detailed reservoir data is shown on the following page and Appendix D.*

**Bighorn Basin  
Precipitation**



## Streamflow

The 50% exceedance forecasts for the June through September runoffs are anticipated to be below average. Boysen Reservoir inflow should yield 375,000 ac-ft (56% of average); the Greybull River near Meeteetse should yield around 132,000 ac-ft (75% of average); Shell Creek near Shell should yield around 42,000 ac-ft (64% of average) and the Bighorn River at Kane should yield around 405,000 ac-ft (45% of average). *See the following for detailed runoff volumes.*

Data Current as of: 2/4/2016 10:13:58 AM

**Bighorn River Basin  
Streamflow Forecasts - February 1, 2016**

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

BIGHORN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Boysen Reservoir Inflow	APR-JUL	2	215	365	60%	510	725	610
	APR-SEP	2	220	375	56%	530	755	665
Greybull R nr Meeteetse	APR-JUL	63	84	98	75%	112	133	131
	APR-SEP	89	115	132	75%	149	175	177
Shell Ck nr Shell	APR-JUL	17.8	27	33	60%	40	49	55
	APR-SEP	26	35	42	64%	49	59	66
Bighorn R at Kane	APR-JUL	5	210	420	50%	630	935	840
	APR-SEP	5	180	405	45%	630	960	905

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

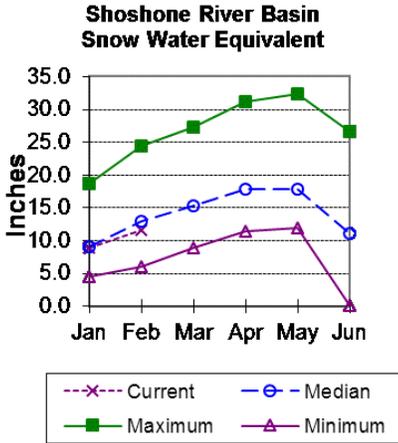
Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Boysen	545.7	630.5	506.0	596.0
Bighorn Lake	852.7	877.5	825.9	1356.0
Basin-wide Total	1398.4	1508.0	1331.9	1952.0
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
NOWOOD RIVER	7	60%	113%
GREYBULL RIVER	2	81%	120%
SHELL CREEK	4	63%	99%
BIGHORN RIVER BASIN	14	64%	107%

# Shoshone River Basin

## Snow

Snowpack in this basin is below median for this time of year. Snow Water Equivalent (SWE) is 89% of median in the Shoshone River Basin. *See Appendix A at the end of this report for a detailed listing of snow course information.*



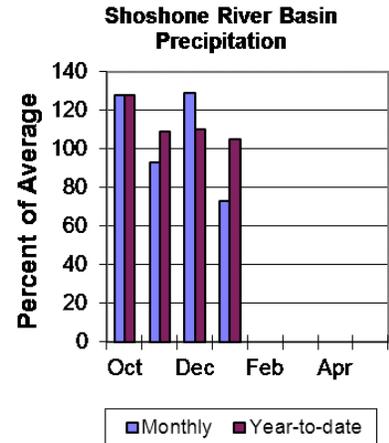
## Precipitation

Precipitation for last month was 73% of average (102% last year). Monthly percentages range from 0-200% of average. The basin year-to-date precipitation is now 105% of average (107% last year). Year-to-date percentages range from 72-153% of average for the 9 reporting stations.

## Reservoirs

Current storage in Buffalo Bill Reservoir is about 121% of average (131% last year) - the reservoir is at about 66% of capacity. Currently, about 426,600 ac-ft are stored in the

reservoir compared to 463,500 ac-ft last year. *Detailed reservoir data is shown on the following page and Appendix D.*



## Streamflow

The 50% exceedance forecasts for the April through September period are expected to be slightly below average for the basin. The North Fork Shoshone River at Wapiti will yield 470,000 ac-ft (91% of average). The South Fork of the Shoshone River near Valley will yield 220,000 ac-ft (90% of average), and the South Fork above Buffalo Bill Reservoir runoff will yield 169,000 ac-ft (85% of average). The Buffalo Bill Reservoir inflow is expected to yield around 665,000 ac-ft (89% of average). *See the following for detailed runoff volumes.*

Data Current as of: 2/4/2016 10:13:58 AM

**Shoshone River Basin  
Streamflow Forecasts - February 1, 2016**  
Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

SHOSHONE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
NF Shoshone R at Wapiti	APR-JUL	335	385	420	91%	455	505	460
	APR-SEP	380	435	470	91%	505	580	515
SF Shoshone R nr Valley	APR-JUL	153	178	195	91%	210	235	215
	APR-SEP	175	205	220	90%	240	270	245
SF Shoshone R ab Buffalo Bill Reservoir	APR-JUL	102	142	170	88%	198	240	193
	APR-SEP	98	140	169	85%	198	240	200
Buffalo Bill Reservoir Inflow <sup>2</sup>	APR-JUL	470	555	610	90%	670	755	675
	APR-SEP	515	605	665	89%	725	815	745

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Buffalo Bill	426.6	463.5	353.8	646.6
Basin-wide Total	426.6	463.5	353.8	646.6
# of reservoirs	1	1	1	1

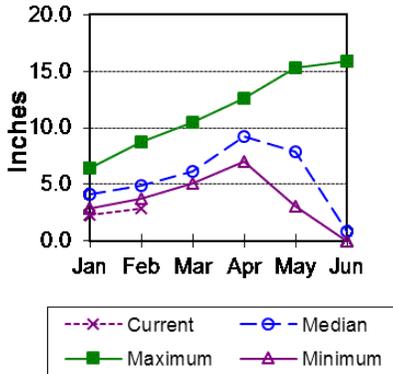
Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
SHOSHONE RIVER BASIN	4	89%	105%

# Powder River Basin

## Snow

Powder River SWE is 59% of median. Upper Powder River drainage is 64% of median. SWE in the Clear Creek drainage is 52% of median. Crazy Woman Creek drainage SWE is at 50% of median. See *Appendix A at the end of this report for a detailed listing of snow course information.*

**Powder River Basin  
Snow Water Equivalent**



## Precipitation

Last month's precipitation was 62% of average (77% last year) for the 9 reporting stations. Monthly percentages range from 42-143% of average. Year-to-date precipitation is 56% of average in the basin (91% last year). Precipitation for the year ranges from 39-71% of average.

## Reservoirs

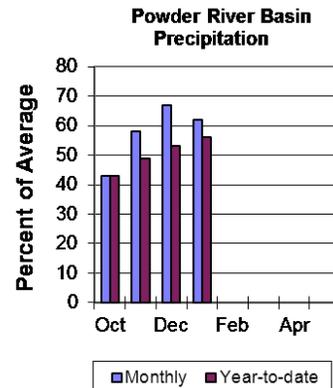
No reservoir data for the basin.

## Streamflow

The 50% exceedance forecasts for the April

through September period are expected to be below average for the basin. The Middle Fork of the Powder River near Barnum should yield 9,300 ac-ft (55% of average). The North Fork of the Powder River near Hazelton should yield around 5,400 ac-ft (55% of average). Rock Creek near Buffalo will yield about 12,200 ac-ft (55% of average), and Piney Creek at Kearny should yield about 25,000 ac-ft (53% of average). The Powder River at Moorhead will yield 70,000 ac-ft (36% of average). The Powder River near Locate will yield 85,000 ac-ft (39% of average). See *the following for detailed runoff volumes.*

Data Current as of: 2/4/2016 10:13:59 AM



**Powder River Basin  
Streamflow Forecasts - February 1, 2016**

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

POWDER RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
MF Powder R nr Barnum	APR-JUL	3	6.4	8.7	54%	11	14.3	16.1
	APR-SEP	3.5	7	9.3	55%	11.7	15.2	17
NF Powder R nr Hazelton	APR-JUL	2.4	3.9	4.9	54%	5.9	7.4	9.1
	APR-SEP	2.8	4.3	5.4	55%	6.5	8	9.9
Rock Ck nr Buffalo	APR-JUL	4	7.6	10	54%	12.4	16	18.6
	APR-SEP	5.7	9.6	12.2	55%	14.8	18.7	22
Piney Ck at Kearny	APR-JUL	1.25	14.2	23	52%	35	52	44
	APR-SEP	3.1	16.1	25	53%	37	54	47
Powder R at Moorehead	APR-JUL	1	22	63	36%	104	163	177
	APR-SEP	1	28	70	36%	112	173	196
Powder R nr Locate	APR-JUL	1	15.3	78	39%	142	235	199
	APR-SEP	1	18.7	85	39%	152	250	220

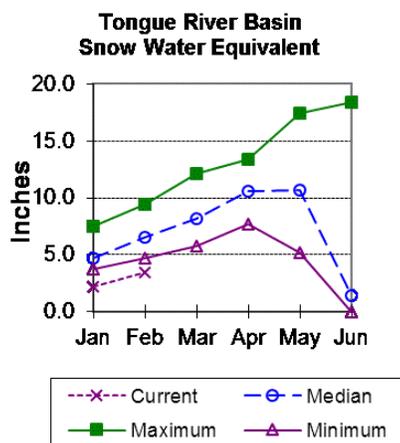
- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
UPPER POWDER RIVER	5	64%	113%
CLEAR CREEK	4	52%	114%
CRAZY WOMAN CREEK	3	50%	125%
POWDER RIVER BASIN	9	59%	113%

# Tongue River Basin

## Snow

Upper Tongue River drainage SWE is at 53% of median. The Goose Creek drainage SWE is at 47% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*

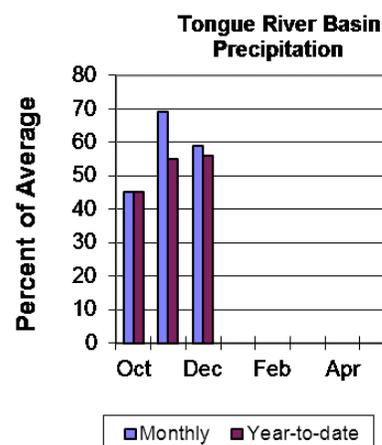


## Precipitation

Last month's precipitation was 62% of average (83% last year) for the 12 reporting stations. Monthly percentages range from 35-128% of average. Year-to-date precipitation is 57% of average in the basin (91% last year). Precipitation for the year ranges from 31-100% of average.

## Reservoirs

The Tongue River Reservoir currently is storing 50,200 ac-ft, while last year's storage was 51,000 ac-ft. The Tongue River Reservoir is at 188% of average for this time of year



or 63% of capacity. *Detailed reservoir data is shown below and Appendix D.*

## Streamflow

The 50% exceedance forecasts for the April through September period are expected to be below average for the basin. The yield for Tongue River near Dayton is 54,000 ac-ft (55% of average). Big Goose Creek near Sheridan will yield 32,000 ac-ft (59% of average). Little Goose Creek near Bighorn will yield 20,000 ac-ft (51% of average). The Tongue River Reservoir Inflow is 106,000 ac-ft (49% of average). *See below for detailed runoff volumes.*

Data Current as of: 2/4/2016 10:14:00 AM

### Tongue River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

TONGUE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Tongue R nr Dayton	APR-JUL	14.8	33	46	53%	59	77	86
	APR-SEP	20	40	54	55%	67	87	98
Big Goose Ck nr Sheridan	APR-JUL	5.8	17.2	25	54%	33	44	46
	APR-SEP	12.5	24	32	59%	40	52	54
Little Goose Ck nr Bighorn	APR-JUL	2.3	9.7	14.8	48%	19.8	27	31
	APR-SEP	7	14.9	20	51%	26	34	39
Tongue River Reservoir Inflow	APR-JUL	5	51	94	49%	137	200	193
	APR-SEP	5	61	106	49%	151	220	215

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

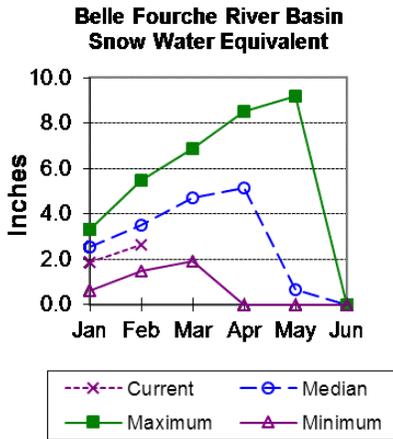
Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Tongue River Res	50.2	51.0	26.7	79.1
Basin-wide Total	50.2	51.0	26.7	79.1
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
GOOSE CREEK	3	47%	94%
TONGUE RIVER BASIN	9	53%	97%

# Belle Fourche River Basin

## Snow

Belle Fourche River Basin SWE is at 76% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



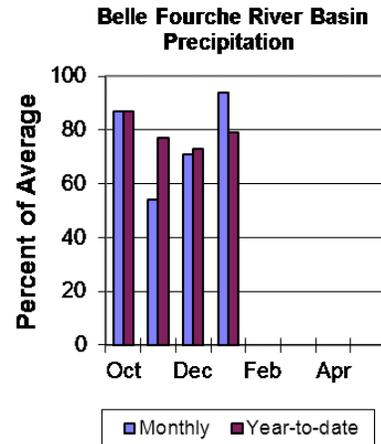
## Precipitation

Precipitation for last month was 94% of average (113% last year) in the Black Hills for the 4 reporting stations. Year-to-date precipitation is 79% of average (94% last year).

## Reservoirs

Belle Fourche Reservoir is storing 128% of average (141,800 ac-ft), about 80% of capacity. Keyhole Reservoir is storing 190% of average (166,700 ac-ft), about 86% of capacity. Shadehill Reservoir is

storing 119% of average (50,900 ac-ft), about 63% of capacity. *Detailed reservoir data is shown below and Appendix D.*



## Streamflow

There are no streamflow forecast points for the basin.

Data Current as of: 2/4/2016 10:14:01 AM

## Belle Fourche River Basin - February 1, 2016

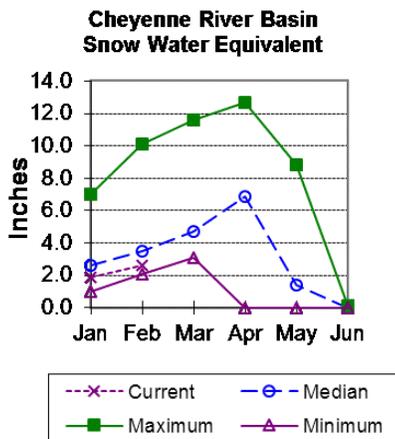
Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Belle Fourche	141.8	138.2	110.5	178.4
Keyhole	166.7	171.7	87.9	193.8
Shadehill	50.9	57.5	42.8	81.4
<b>Basin-wide Total</b>	<b>359.5</b>	<b>367.5</b>	<b>241.2</b>	<b>453.6</b>
<b># of reservoirs</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
<b>BELLE FOURCHE RIVER BASIN</b>	<b>6</b>	<b>76%</b>	<b>109%</b>

# Cheyenne River Basin

## Snow

Cheyenne River Basin SWE is at 74% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



## Precipitation

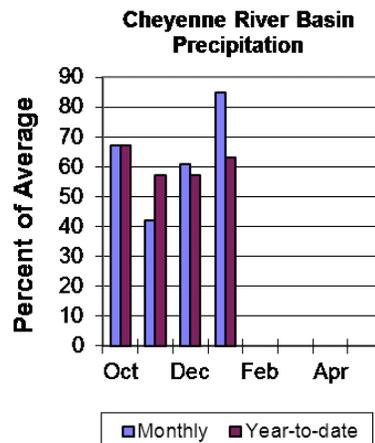
Precipitation for last month was 85% of average (106% last year) in the Black Hills. There were 3 reporting stations. Year-to-date precipitation is 63% of average (91% last year).

## Reservoirs

Angostura is currently storing 126% of average (104,700 ac-ft), about 86% of capacity.

Deerfield reservoir is storing 103% of average (14,200 ac-ft), about 93% of capacity.

Pactola Reservoir is storing 109% of average (51,100 ac-ft), about 93% of capacity. *Detailed reservoir data is shown below and Appendix D.*



storing 109% of average (51,100 ac-ft), about 93% of capacity. *Detailed reservoir data is shown below and Appendix D.*

## Streamflow

The following runoff values are the 50% exceedance forecasts for the April through July period. The Deerfield Reservoir Inflow is expected to be 4,000 ac-ft (77% of average). Pactola Reservoir Inflow is expected to yield around 12,700 ac-ft (58% of average). *See the following for detailed runoff volumes.*

Data Current as of: 2/4/2016 10:14:02 AM

### Cheyenne River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

CHEYENNE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Deerfield Reservoir Inflow	MAR-JUL	0.6	3	4.7	76%	6.4	8.8	6.2
	APR-JUL	1.73	3	4	77%	5.1	7.1	5.2
Pactola Reservoir Inflow	MAR-JUL	3.2	6.4	14	56%	22	33	25
	APR-JUL	3.2	8.1	12.7	58%	18.4	29	22

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

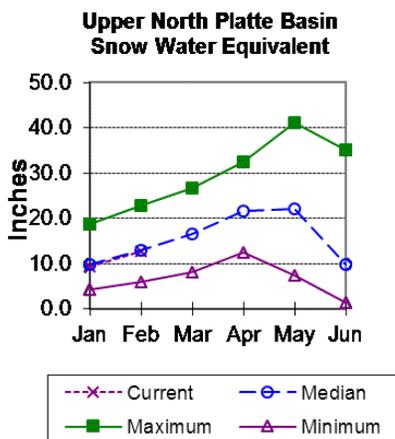
Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Angostura	104.7	104.4	83.2	122.1
Deerfield	14.2	15.2	13.7	15.2
Pactola	51.1	51.6	45.5	55.0
<b>Basin-wide Total</b>	<b>169.9</b>	<b>171.2</b>	<b>142.4</b>	<b>192.3</b>
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
CHEYENNE RIVER BASIN	7	74%	119%

# Upper North Platte River Basin

## Snow

The Upper North Platte River Basin above Seminoe Reservoir SWE is 98% of median. North Platte above Northgate SWE is 96% of median. Encampment River SWE is 101% of median. Brush Creek SWE is 103% of median. Medicine Bow and Rock Creek SWE are 95% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



## Precipitation

19 reporting stations show last month's precipitation at 119% of average (43% last year). Precipitation varied from 97-250% of average last month. Total water-year-to-date precipitation is 97% of average for the basin (80% last year). Year-to-date percentages range from 46-130% of average.

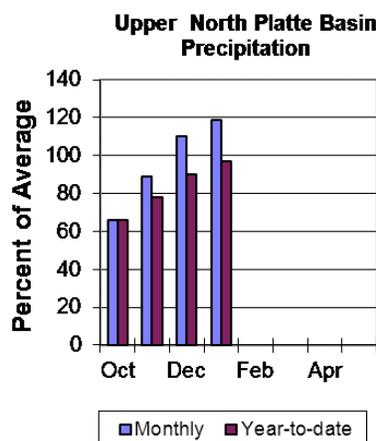
## Reservoirs

Seminoe Reservoir is storing 712,500 ac-ft or 70% of

capacity. Seminoe Reservoir is storing about 137% of average for this time of the year and was at 136% last year. *Detailed reservoir data is shown on the following page and Appendix D.*

## Streamflow

The following yields are the 50% exceedance forecasts for the April through September period and are expected to be below average for the Upper North Platte River Basin. Yield for the North Platte River near Northgate will be 255,000 ac-ft (102% of average). The Encampment River near Encampment yield will be 129,000 ac-ft (93% of average). Rock Creek near Arlington yield will be 50,000 ac-ft (96% of average). Seminoe Reservoir inflow should be around 715,000 ac-ft (93% of average). *See the following page for more detailed information on projected runoff.*



## Upper North Platte River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

UPPER NORTH PLATTE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
<hr/>								
North Platte R nr Northgate	APR-JUL	115	185	230	102%	280	350	225
	APR-SEP	126	205	255	102%	305	385	250
Encampment R nr Encampment <sup>2</sup>	APR-JUL	75	102	121	94%	140	167	129
	APR-SEP	81	110	129	93%	148	177	138
Rock Ck nr Arlington	APR-JUL	31	41	48	98%	55	65	49
	APR-SEP	32	43	50	96%	57	68	52
Sweetwater R nr Alcova	APR-JUL	1	5.3	20	34%	35	56	59
	APR-SEP	1	8.3	24	38%	40	63	64
Seminoe Reservoir Inflow	APR-JUL	255	500	665	93%	830	1070	715
	APR-SEP	280	540	715	93%	895	1160	770

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

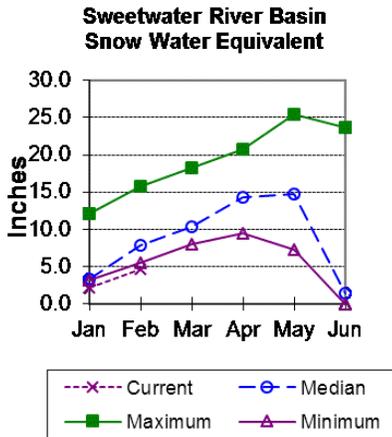
Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Seminoe	712.5	708.6	520.8	1016.7
Basin-wide Total	712.5	708.6	520.8	1016.7
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
N PLATTE above Northgate	11	96%	77%
ENCAMPMENT RIVER	4	101%	76%
BRUSH CREEK	5	103%	77%
MEDICINE BOW & ROCK CREEKS	3	95%	76%
UPPER NORTH PLATTE RIVER BASIN	24	98%	75%

# Sweetwater River Basin

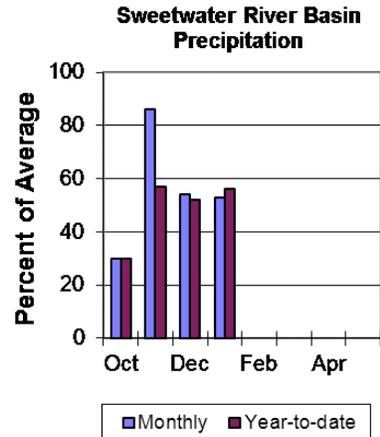
## Snow

Sweetwater River Basin SWE is 59% of median. See *Appendix A at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 53% of average (31% last year) for the 4 reporting stations ranging from 42-145%. The water year-to-date precipitation for the basin is currently 56% of average (69% last year). Year-to-date percentages range from 43-100% of average.



## Reservoirs

Reservoir storage is as follows: Pathfinder 847,500 ac-ft (137% of average or 70% of capacity).

## Streamflow

The following yield is based on the 50% exceedance forecast for the April through September period, and is expected to be near record low. The Sweetwater River near Pathfinder is forecast to yield about 24,000 ac-ft (38% of average). *See below for more detailed information on projected runoff.*

Data Current as of: 2/4/2016 10:14:04 AM

## Sweetwater River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

SWEETWATER RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Sweetwater R nr Alcova	APR-JUL	1	5.3	20	34%	35	56	59
	APR-SEP	1	8.3	24	38%	40	63	64

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

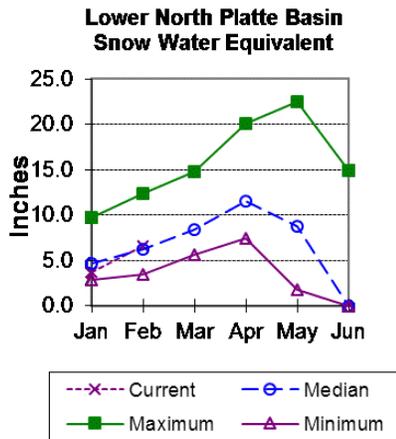
Reservoir Storage	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
End of January, 2016				
Pathfinder	847.5	688.6	559.0	1016.5
Basin-wide Total	847.5	688.6	559.0	1016.5
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis	# of Sites	% Median	Last Year % Median
February 1, 2016			
SWEETWATER RIVER BASIN	5	59%	68%

# Lower North Platte River Basin

## Snow

Lower North Platte River Basin SWE is 107% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



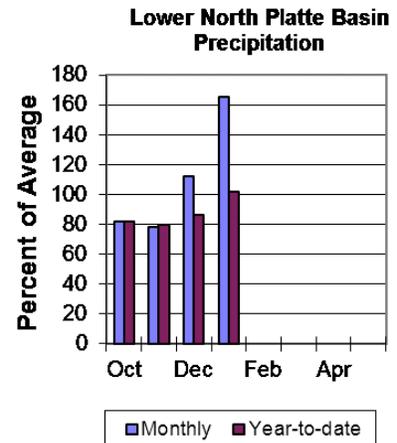
## Precipitation

Last month's precipitation was 165% of average or 64% last year. For the 7 reporting stations percentages for the month range from 133-194%. The water year-to-date precipitation for the basin is currently 102% of average or 72% last year. Year-to-date percentages range from 84-138% of average.

## Reservoirs

Reservoir storage is as follows: Alcova 156,600 ac-ft (101% of average) (85% of capacity); Glendo 271,100 ac-ft (90% of average) (54% of capacity); Guernsey

18,100 ac-ft (159% of average) (40% of capacity); Pathfinder 847,500 ac-ft (152% of average) (83% of capacity) (123% of average last year). *Detailed reservoir data is shown on the following page and Appendix D.*



## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through September period, and are expected to be below average. North Platte - Alcova to Orin Gain is forecast to yield --- ac-ft. LaPrele Creek above LaPrele Reservoir should yield 17,800 ac-ft (89% of average). North Platte River below Glendo Reservoir should yield 725,000 ac-ft (85% of average), and below Guernsey Reservoir is anticipated to yield around 750,000 ac-ft (88% of average). *See the following for more detailed information on projected runoff.*

Data Current as of: 2/4/2016 10:14:05 AM

### Lower North Platte River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

LOWER NORTH PLATTE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
La Prele Ck ab La Prele Reservoir	APR-JUL	0.7	9.8	17.6	88%	25	37	19.9
	APR-SEP	0.7	10	17.8	89%	26	37	19.9
North Platte R bl Glendo Reservoir	APR-JUL	445	605	710	87%	815	975	820
	APR-SEP	445	610	725	85%	835	1000	850
North Platte R bl Guernsey Reservoir	APR-JUL	395	590	720	88%	855	1050	820
	APR-SEP	410	610	750	88%	885	1090	850

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Alcova	156.6	156.4	155.0	184.3
Glendo	271.1	222.5	301.5	506.4
Guernsey	18.1	22.4	11.4	45.6
Pathfinder	847.5	688.6	559.0	1016.5
<b>Basin-wide Total</b>	<b>1293.3</b>	<b>1089.9</b>	<b>1026.9</b>	<b>1752.8</b>
# of reservoirs	4	4	4	4

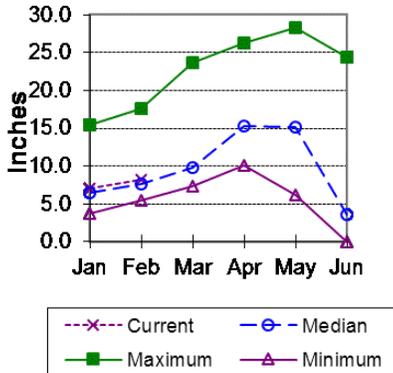
Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
DEER & LaPRELE CREEKS	2	106%	76%
LOWER NORTH PLATTE RIVER BASIN	4	107%	76%

# Laramie River Basin

## Snow

SWE for the entire Laramie River Basin (above mouth entering North Platte) is 107% of median. SWE for the Laramie River above Laramie is 110% of median. SWE for the Little

**Laramie River Basin  
Snow Water Equivalent**



Laramie River is 102% of median. **SWE total for the entire North Platte River Basin above Torrington is 97% of median.**

*See Appendix A at the end of this report for a detailed listing of snow course information.*

## Precipitation

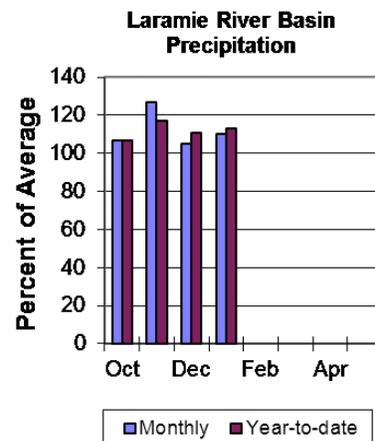
Last month's precipitation was 110% of average (57% last year). For the 12 reporting stations percentages for the month range from 71-189%. The water year-to-date precipitation for the basin is currently 113% of average (87% last year). Year-to-date percentages range from 91-179% of average.

## Reservoirs

Reservoir storage is as follows: Wheatland #2 52,200 ac-ft (128% of average) (53% of capacity or 168% of average last year).

## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through September period, and are expected to be slightly below average. Laramie River near Woods Landing should yield around 128,000 ac-ft (102% of average). The Little Laramie near Filmore should produce about 52,000 ac-ft (95% of average). *See below for more detailed information on projected runoff.*



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## Laramie River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

LARAMIE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Laramie R nr Woods	APR-JUL	77	101	117	102%	132	156	115
	APR-SEP	86	111	128	102%	146	171	126
Little Laramie R nr Filmore	APR-JUL	30	41	49	96%	57	68	51
	APR-SEP	31	44	52	95%	60	73	55

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Wheatland #2	52.2	68.7	40.9	98.9
Basin-wide Total	52.2	68.7	40.9	98.9
# of reservoirs	1	1	1	1

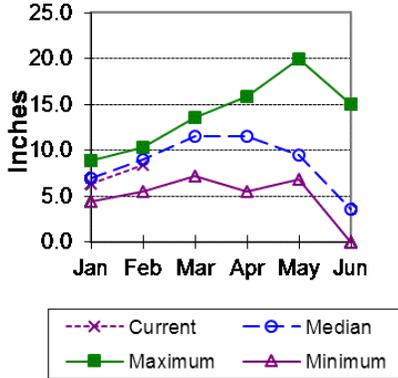
Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
LARAMIE RIVER abv Laramie	7	110%	83%
LITTLE LARAMIE RIVER	5	102%	91%
LARAMIE RIVER BASIN	13	107%	87%
NORTH PLATTE TOTAL RIVER BASIN	40	97%	77%

## South Platte River Basin (WY)

### Snow

South Platte River Basin SWE in WY is 93% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*

**South Platte River Basin Snow Water Equivalent**

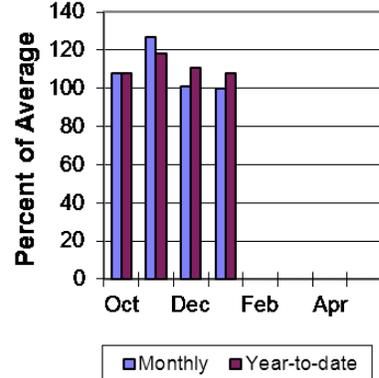


forecast points for the basin.

### Precipitation

Last month's precipitation was 100% of average or 53% last year for the 5 reporting stations. The water year-to-date precipitation for the basin is currently 108% of average or 98% last year. Year-to-date percentages range from 98-182% of average.

**South Platte River Basin Precipitation**



### Reservoirs

No reservoir data for the basin.

### Streamflow

There are no streamflow

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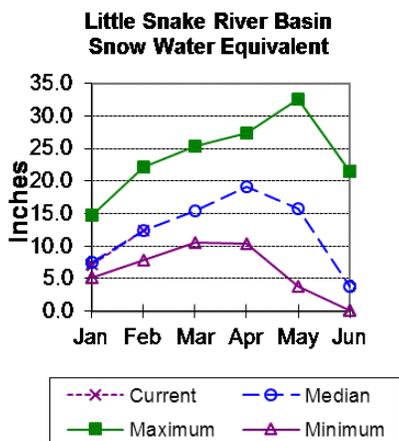
## South Platte River Basin - February 1, 2016

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
SOUTH PLATTE RIVER BASIN	8	93%	86%

# Little Snake River Basin

## Snow

Little Snake River drainage SWE is 100% of median. See *Appendix A at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation across the basin was 125% of average or 32% last year for the 8 reporting stations. Last month's precipitation ranged from 95-173% of average. The Little Snake River Basin water-year-to-date precipitation is currently 93% of average or 69% last year. Year-to-date percentages range from 70-111% of average.

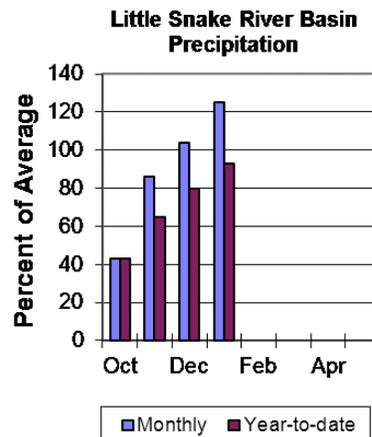
## Reservoirs

High Savery Dam - 10,800 ac-ft (91% of average) (48% of capacity) (117% last year's average).

## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through July period, and are expected to be near record lows. The Little Snake River near Slater should yield around 135,000 ac-ft (87% of average). The Little Snake River near Dixon is estimated to yield around 275,000 ac-ft (80% of average). See below for more detailed information on projected runoff.

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## Little Snake River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

LITTLE SNAKE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Little Snake R nr Slater <sup>2</sup>	APR-JUL	89	115	135	87%	156	190	156
Little Snake R nr Dixon <sup>2</sup>	APR-JUL	150	220	275	80%	335	435	345

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
High Savery Reservoir	10.8	13.9	11.9	22.4
Basin-wide Total	10.8	13.9	11.9	22.4
# of reservoirs	1	1	1	1

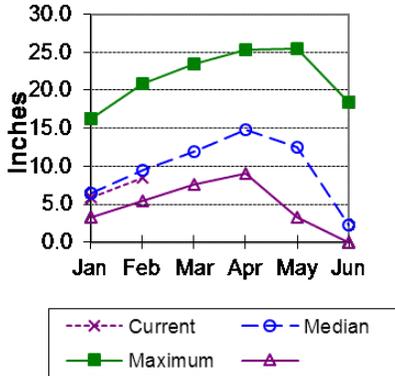
Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
LITTLE SNAKE RIVER BASIN	10	100%	71%

# Upper Green River Basin

## Snow

Upper Green River Basin above Fontenelle Reservoir SWE is 90% of median. Green River Basin above Warren Bridge SWE is 89% of median. West Side of Upper Green River Basin SWE is 99% of median. New Fork River SWE is 74% of median. Big Sandy-Eden Valley Basin SWE is 59% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*

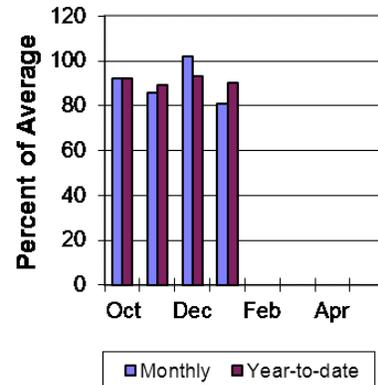
**Upper Green River Basin Snow Water Equivalent**



## Precipitation

The 16 reporting precipitation sites in the basin were 81% of average last month or 66% last year). Last month's precipitation varied from 57-107% of average. Water year-to-date precipitation is 90% of average or 104% last year. Year to date percentages of average range from 58-115%.

**Upper Green River Basin Precipitation**



of average) (122% last year). Fontenelle Reservoir is 170,300 ac-ft (49% of capacity) (113% of average) (155% last year). *Detailed reservoir data is shown on the following page and Appendix D.*

## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through July period, and are expected to be below average. The yield on the Green River at Warren Bridge is 210,000 ac-ft (86% of average). Pine Creek above Fremont Lake yield will be 85,000 ac-ft (87% of average). New Fork River near Big Piney yield will be 270,000 ac-ft (76% of average). Fontenelle Reservoir Inflow is estimated to be 525,000 ac-ft (72% of average), and Big Sandy near Farson yield will be 33,000 ac-ft (63% of average). *See the following page for more detailed information on projected runoff.*

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**Upper Green River Basin Streamflow Forecasts - February 1, 2016**

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

UPPER GREEN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Green R at Warren Bridge	APR-JUL	154	187	210	86%	240	280	245
Pine Creek ab Fremont Lake	APR-JUL	69	78	85	87%	92	102	98
New Fork R nr Big Piney	APR-JUL	148	215	270	76%	330	430	355
Fontenelle Reservoir Inflow	APR-JUL	270	415	525	72%	650	860	725
Big Sandy R nr Farson	APR-JUL	18.3	26	33	63%	40	51	52

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

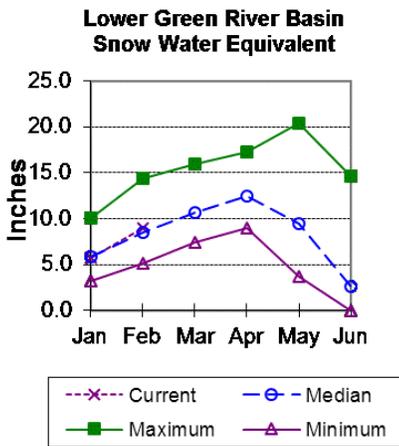
Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Big Sandy	19.0	20.8	17.0	38.3
Fontenelle	170.3	233.1	150.1	344.8
Basin-wide Total	189.3	253.9	167.1	383.1
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
GREEN above Warren Bridge	5	89%	119%
UPPER GREEN - West Side	5	99%	128%
NEW FORK RIVER	3	74%	106%
BIG SANDY-EDEN VALLEY	3	59%	76%
GREEN above Fontenelle	15	90%	118%

# Lower Green River Basin

## Snow

Lower Green River Basin SWE is 105% of median. Hams Fork drainage SWE is 91% of median. Blacks Fork drainage SWE is 119% of median. Henrys Fork SWE is 151% of median. SWE for the entire Green River Basin (above Flaming Gorge) is 95% of median. See Appendix A at the end of this report for a detailed listing of snow course information.

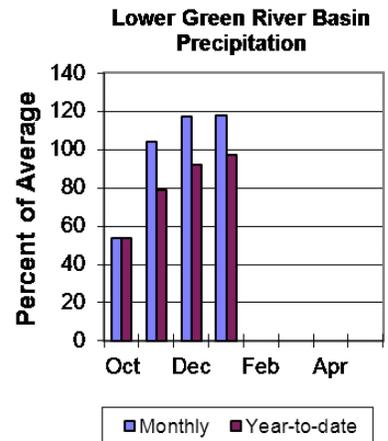


## Precipitation

Precipitation for the 12 reporting stations during last month was 118% of average or 51% last year. Precipitation ranged from 66-250% of average for the month. The basin year-to-date precipitation is currently 97% of average or 80% last year. Year-to-date percentages range from 42-171% of average.

## Reservoirs

Fontenelle Reservoir is currently storing 170,300 ac-ft; this is 113% of average (155% last year) (49% of capacity). Flaming Gorge is currently storing 3,165,000 ac-ft; this is 104% of average (106% last year) (84% of capacity). Viva Naughton is currently storing 30,200 ac-ft; this is 100% of average (103% last year) (71% of capacity). Detailed reservoir data is shown on the following page and Appendix



## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through July period and are expected to be below average. The Green River near Green River is forecast to yield about 540,000 ac-ft (74% of average). The Blacks Fork near Robertson is forecast to yield 89,000 ac-ft (100% of average). East Fork of Smiths Fork near Robertson is forecast to yield 27,000 ac-ft (100% of average). Hams Fork below Pole Creek near Frontier is forecast to yield 40,000 ac-ft (74% of average). The Hams Fork Inflow to Viva Naughton Reservoir is forecast to be 52,000 ac-ft (70% of average). The Flaming Gorge Reservoir inflow will be about 750,000 ac-ft (77% of average). See the following page for more detailed information on projected runoff.

## Lower Green River Basin Streamflow Forecasts - February 1, 2016

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

LOWER GREEN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Green R nr Green River, WY <sup>2</sup>	APR-JUL	275	420	540	74%	670	890	730
Blacks Fk nr Robertson	APR-JUL	58	75	89	100%	104	127	89
EF of Smiths Fork nr Robertson <sup>2</sup>	APR-JUL	17.2	23	27	100%	32	39	27
Hams Fk bl Pole Ck nr Frontier	APR-JUL	19.1	31	40	74%	51	69	54
Viva Naughton Reservoir Inflow	APR-JUL	21	38	52	70%	68	96	74
Flaming Gorge Reservoir Inflow <sup>2</sup>	APR-JUL	375	585	750	77%	935	1250	980

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Fontenelle	170.3	233.1	150.1	344.8
Flaming Gorge Reservoir	3165.0	3234.4	3049.0	3749.0
Viva Naughton Res	30.2	31.1	30.1	42.4
Basin-wide Total	3365.5	3498.6	3229.2	4136.2
# of reservoirs	3	3	3	3

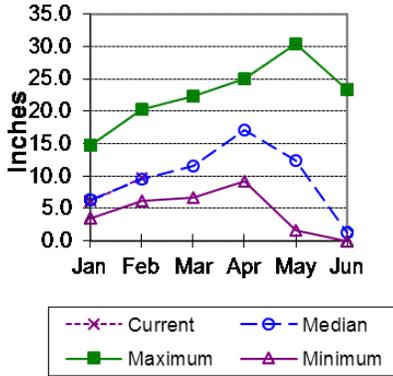
Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
HAMS FORK RIVER	4	91%	98%
BLACKS FORK	2	119%	71%
HENRYS FORK	2	151%	101%
LOWER GREEN RIVER BASIN	8	105%	92%
GREEN above FLAMING GORGE	22	95%	110%

# Upper Bear River Basin

## Snow

Upper Bear River Basin in Utah SWE is 102% of median. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 92% of median. Bear River Basin SWE, above the Idaho State line, is 105% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*

**Upper Bear River Basin Snow Water Equivalent**



## Precipitation

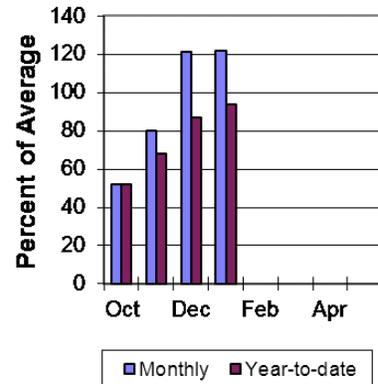
Precipitation for last month was 122% of average for the 9 reporting stations; this was 50% last year. The year-to-date precipitation for the basin is 94% of average; this was 73% last year. Year-to-date percentages range from 83-106% of average.

## Reservoirs

Storage in Woodruff Narrows Reservoir was 41,100 ac-ft about 72% of capacity (142% of average) (139% last

year). *Detailed reservoir data is shown below and Appendix D.*

**Upper Bear River Basin Precipitation**



## Streamflow

The following 50% exceedance forecasts are for the April through September period, and are expected to be below average. The Bear River near the Utah-Wyoming State Line should yield 115,000 ac-ft (93% of average). The Bear River above Reservoir near Woodruff should yield 130,000 ac-ft (102% of average). The Smiths Fork River near Border Jct. will yield 90,000 ac-ft (87% of average).

*See below for more detailed information on projected runoff.*

Data Current as of: 2/4/2016 10:14:11 AM

**Upper Bear River Basin Streamflow Forecasts - February 1, 2016**

Forecast Exceedance Probabilities for Risk Assessment  
Chance that actual volume will exceed forecast

UPPER BEAR RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Bear R nr UT-WY State Line	APR-JUL	63	87	103	92%	120	144	112
	APR-SEP	70	97	115	93%	133	160	123
Bear R ab Resv nr Woodruff	APR-JUL	26	82	120	99%	158	215	121
	APR-SEP	10.2	82	130	102%	178	250	128
Smiths Fk nr Border	APR-JUL	39	61	75	84%	89	111	89
	APR-SEP	50	74	90	87%	106	130	104

1) 90% and 10% exceedance probabilities are actually 95% and 5%

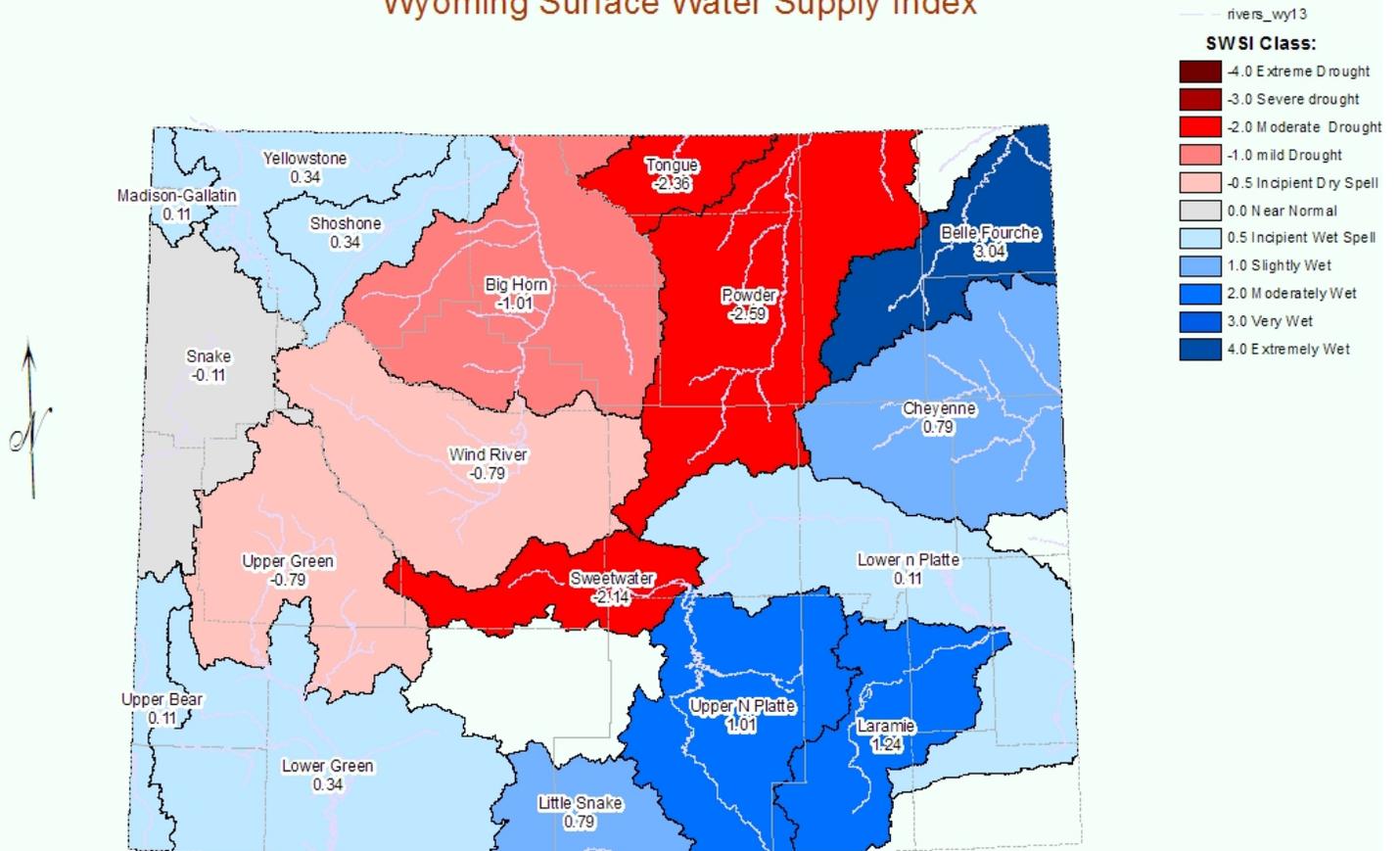
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of January, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Woodruff Narrows Reservoir	41.1	40.4	29.0	57.3
Basin-wide Total	41.1	40.4	29.0	57.3
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2016	# of Sites	% Median	Last Year % Median
UPPER BEAR RIVER in Utah	3	105%	71%
SMITHS & THOMAS FORKS	3	92%	100%
UPPER BEAR RIVER BASIN	8	102%	84%

# Wyoming Surface Water Supply Index



The Surface Water Supply Index (SWSI) is computed using only surface water supplies for the drainage. The computation includes reservoir storage, if applicable, plus the forecast runoff. The index is purposely created to resemble the Palmer Drought Index, with normal conditions centered near zero. Adequate and excessive supply has a positive number and deficit water supply has a negative value. Soil moisture and forecast precipitation are not considered as such, but the forecast runoff may consider these values.

Date: 2/5/2016

**Appendix A**  
**Double click the object below to view in word**

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**Basinwide Summary: February 1, 2016**  
(Averages/Medians based on 1981-2010 reference period)

<b>Snowpack Summary for February 1, 2016</b>
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<b>SNAKE above Jackson Lake</b>	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Aster Creek	SC	7750	54	12.4	17.0	73%	14.7	86%
Glade Creek	SC	7040	54	14.9	14.8	101%	15.1	102%
Grassy Lake	SNOTEL	7265	82	21.1	20.3	104%	20.9	103%
Huckleberry Divide	SC	7300	50	13.2	12.8	103%	13.3	104%
Lewis Lake Divide	SNOTEL	7850	75	20.1	20.0	101%	17.8	89%
Moran	SC	6750	34	8.6	8.0	108%	9.0	113%
Snake River Station	SNOTEL	6920	51	11.4	10.9	105%	12.6	116%
Thumb Divide	SNOTEL	7980	39	8.6	9.6	90%	8.2	85%
Two Ocean Plateau	SNOTEL	9240	64	16.3	17.6	93%	18.1	103%
<b>Basin Index</b>						<b>97%</b>		<b>99%</b>
# of sites						9		9
<b>PACIFIC CREEK</b>	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Base Camp	SNOTEL	7030	43	10.8	10.8	100%	12.0	111%
Moran	SC	6750	34	8.6	8.0	108%	9.0	113%
Two Ocean Plateau	SNOTEL	9240	64	16.3	17.6	93%	18.1	103%
<b>Basin Index</b>						<b>98%</b>		<b>107%</b>
# of sites						3		3
<b>BUFFALO FORK</b>	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Four Mile	SC	6900						
Togwotee Pass	SNOTEL	9580	56	13.3	15.0	89%	16.0	107%
Turpin Meadows	SC	6900	31	6.8	6.6	103%	10.8	164%
Younts Peak	SNOTEL	8350	29	7.0	9.6	73%		
<b>Basin Index</b>						<b>93%</b>		<b>124%</b>
# of sites						2		2
<b>GROS VENTRE RIVER</b>	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Elbo Ranch	SC	7100	37	7.4	7.2	103%	9.0	125%
Gros Ventre Summit	SNOTEL	8750	36	6.9	8.4	82%	9.0	107%
Gunsight Pass	SNOTEL	9820	35	7.7	8.3	93%	8.7	105%
Togwotee Pass	SNOTEL	9580	56	13.3	15.0	89%	16.0	107%
<b>Basin Index</b>						<b>91%</b>		<b>110%</b>
# of sites						4		4
<b>HOBACK RIVER</b>	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Blind Bull Sum	SNOTEL	8650	58	14.1	13.8	102%	17.6	128%
East Rim Divide	SNOTEL	7930	35	6.2	6.8	91%	9.9	146%
Granite Creek	SNOTEL	6770	47	9.7	10.6	92%	13.2	125%
Hoback GS	SC	6664	27	5.4	6.8	79%	6.3	93%
Snow King Mountain	SC	7660	30	6.4	8.8	73%	8.4	95%
<b>Basin Index</b>						<b>89%</b>		<b>118%</b>
# of sites						5		5
<b>GREYS RIVER</b>	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Blind Bull Sum	SNOTEL	8650	58	14.1	13.8	102%	17.6	128%

## Appendix B

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Report Created: 2/4/2016 11:50:20 AM

**Basinwide Summary: February 1, 2016**  
(Averages/Medians based on 1981-2010 reference period)

		Monthly Total Precipitation for January 2016						Water Year to Date Precipitation through January 2016					
SNAKE above Jackson Lake	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
Grassy Lake	SNOTEL	7265	7.8	7	111%	6.8	97%	25.5	24.1	106%	21.6	90%	
Lewis Lake Divide	SNOTEL	7850	5.1	6.3	81%	4.7	75%	22.9	23.3	98%	20.4	88%	
Snake River Station	SNOTEL	6920	4.2	4.6	91%	3.7	80%	16.7	15.6	107%	14.9	98%	
Thumb Divide	SNOTEL	7980	1.9	3.4	56%	1.7	50%	10.4	12.2	85%	9.1	75%	
Two Ocean Plateau	SNOTEL	9240	2.9	4.7	62%	4	85%	16.2	17.4	93%	16.4	94%	
<b>Basin Index</b>					<b>84%</b>		<b>80%</b>			<b>99%</b>		<b>89%</b>	
<b># of sites</b>						<b>5</b>		<b>5</b>			<b>5</b>		
<b>PACIFIC CREEK</b>													
Base Camp	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
Base Camp	SNOTEL	7030	3.5	4.1	85%	3.8	93%	14.4	14.1	102%	13.3	94%	
Two Ocean Plateau	SNOTEL	9240	2.9	4.7	62%	4	85%	16.2	17.4	93%	16.4	94%	
<b>Basin Index</b>					<b>73%</b>		<b>89%</b>			<b>97%</b>		<b>94%</b>	
<b># of sites</b>						<b>2</b>		<b>2</b>			<b>2</b>		
<b>BUFFALO FORK</b>													
Topwoise Pass	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
Topwoise Pass	SNOTEL	9580	4.2	4.3	98%	4.1	95%	15.7	15.9	98%	17.3	100%	
Younts Peak	SNOTEL	8350	1.2	2.7	44%			7.6	10.5	72%			
<b>Basin Index</b>					<b>96%</b>		<b>95%</b>			<b>99%</b>		<b>100%</b>	
<b># of sites</b>						<b>1</b>		<b>1</b>			<b>1</b>		
<b>GROS VENTRE RIVER</b>													
Gros Ventre Summit	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
Gros Ventre Summit	SNOTEL	8750	1.4	2.1	67%	1.1	52%	7.1	8.3	86%	7.5	90%	
Gunsight Pass	SNOTEL	9620	1.5	2.4	63%	1.6	67%	8.8	8.9	99%	8.7	98%	
Topwoise Pass	SNOTEL	9580	4.2	4.3	98%	4.1	95%	15.7	15.9	98%	17.3	100%	
<b>Basin Index</b>					<b>81%</b>		<b>77%</b>			<b>95%</b>		<b>101%</b>	
<b># of sites</b>						<b>3</b>		<b>3</b>			<b>3</b>		
<b>HOBACK RIVER</b>													
Blind Bull Sum	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
Blind Bull Sum	SNOTEL	8650	2.7	3.5	77%	2.4	69%	9.7	12.9	75%	12.6	98%	
East Rim Divide	SNOTEL	7930	1.8	2.2	82%	1.7	77%	7	7.7	91%	8.6	112%	
Granite Creek	SNOTEL	6770	3	4.2	71%	2.4	57%	11.9	13.7	87%	13.6	99%	
<b>Basin Index</b>					<b>76%</b>		<b>66%</b>			<b>83%</b>		<b>101%</b>	
<b># of sites</b>						<b>3</b>		<b>3</b>			<b>3</b>		
<b>GREYS RIVER</b>													
Blind Bull Sum	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
Blind Bull Sum	SNOTEL	8650	2.7	3.5	77%	2.4	69%	9.7	12.9	75%	12.6	98%	
Cottonwood Creek	SNOTEL	7870	6	4.7	128%	3.8	77%	15.3	15.9	96%	17.9	113%	
Spring Creek Divide	SNOTEL	9000	4.8	4.5	107%	3.6	80%	13.8	15.4	90%	17.6	114%	
Triple Peak	SNOTEL	8500	4.5	5.1	88%	3.5	69%	15.1	16.1	94%	18.9	117%	
Willow Creek	SNOTEL	8380	7.5	6	125%	4	67%	19.8	21.7	91%	20.2	93%	
<b>Basin Index</b>					<b>101%</b>		<b>72%</b>			<b>90%</b>		<b>106%</b>	
<b># of sites</b>						<b>5</b>		<b>5</b>			<b>5</b>		
<b>SALT RIVER</b>													
Cottonwood Creek	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
Cottonwood Creek	SNOTEL	7870	6	4.7	128%	3.8	77%	15.3	15.9	96%	17.9	113%	
Salt River Summit	SNOTEL	7760	3	3.1	97%	1.9	61%	8.9	10.7	83%	9.7	91%	
Willow Creek	SNOTEL	8380	7.5	6	125%	4	67%	19.8	21.7	91%	20.2	93%	
<b>Basin Index</b>					<b>120%</b>		<b>69%</b>			<b>91%</b>		<b>99%</b>	
<b># of sites</b>						<b>3</b>		<b>3</b>			<b>3</b>		
<b>SNAKE RIVER BASIN</b>													
Afton	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
Afton	COOP	6210	1.57	1.4	112%	0.58	41%	4.54	5.76	79%	4.27	74%	
Alta 1 NW	COOP	6430	3.12	2.47	126%	1.97	80%	9.38	8.96	105%	7.74	88%	
Base Camp	SNOTEL	7030	3.5	4.1	85%	3.8	93%	14.4	14.1	102%	13.3	94%	
Bedford 3 SE	COOP	6430	3.75	2.1	179%	1.44	69%	9.22	7.75	119%	8.38	108%	
Black Bear	SNOTEL	8170	5.5	7	79%	4.9	70%	23.7	25	95%	21.1	84%	
Blind Bull Sum	SNOTEL	8650	2.7	3.5	77%	2.4	69%	9.7	12.9	75%	12.6	98%	
Bondurant	COOP	6620	1.82	2.12	86%	1.61	76%	7.06	7.74	91%	8.19	106%	
Cottonwood Creek	SNOTEL	7870	6	4.7	128%	3.6	77%	15.3	15.9	96%	17.9	113%	
Darwin Ranch	COOP	8180	0.6	1.01	59%	0.31	31%	4.48	4.75	94%	4.66	99%	
East Rim Divide	SNOTEL	7930	1.8	2.2	82%	1.7	77%	7	7.7	91%	8.6	112%	
Grand Targhee	SNOTEL	9260	6.9	5.9	117%	6	102%	21.4	20.7	103%	22.4	106%	
Granite Creek	SNOTEL	6770	3	4.2	71%	2.4	57%	11.9	13.7	87%	13.6	99%	
Grassy Lake	SNOTEL	7265	7.8	7	111%	6.8	97%	25.5	24.1	106%	21.6	90%	
Gros Ventre Summit	SNOTEL	8750	1.4	2.1	67%	1.1	52%	7.1	8.3	86%	7.5	90%	
Gunsight Pass	SNOTEL	9620	1.5	2.4	63%	1.6	67%	8.8	8.9	99%	8.7	98%	
Jackson	COOP	6230	1.01	1.23	82%	0.81	66%	5.37	5.66	95%	5.51	97%	
Lewis Lake Divide	SNOTEL	7850	5.1	6.3	81%	4.7	75%	22.9	23.3	98%	20.4	88%	
Loomis Park	SNOTEL	8240	2.9	3.1	94%	2.1	68%	10.5	11.3	93%	12.1	107%	
Moose	COOP	6470	3.02	2.58	117%	2.31	90%	11	9.38	118%	9.66	103%	
Moran 5 WNW	COOP	6790	2.56	2.86	90%	2.08	73%	10.11	10.43	97%	9.64	92%	

**Appendix C**  
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Report Created:  
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**Streamflow Forecast Summary: February 1, 2016**  
**(averages based on 1981-2010 reference period)**

Forecast Exceedance Probabilities for Risk Assessment  
 Chance that actual volume will exceed forecast

<b>SNAKE RIVER BASIN</b>	<b>Forecast Period</b>	<b>90% (KAF)</b>	<b>70% (KAF)</b>	<b>50% (KAF)</b>	<b>% Avg</b>	<b>30% (KAF)</b>	<b>10% (KAF)</b>	<b>30yr Avg (KAF)</b>
Snake R nr Moran <sup>2</sup>	APR-JUL	550	655	725	95%	800	905	765
	APR-SEP	600	715	795	94%	880	995	845
Snake R ab Reservoir nr Alpine <sup>2</sup>	APR-JUL	1430	1700	1890	87%	2070	2340	2170
	APR-SEP	1650	1960	2180	87%	2390	2710	2500
Snake R nr Irwin <sup>2</sup>	APR-JUL	1990	2410	2700	90%	3000	3420	3010
	APR-SEP	2320	2820	3160	90%	3500	4000	3500
Snake R nr Heise <sup>2</sup>	APR-JUL	2150	2600	2910	90%	3210	3670	3240
	APR-SEP	2540	3060	3420	90%	3780	4310	3780
Pacific Ck at Moran	APR-JUL	103	127	144	88%	160	185	164
	APR-SEP	110	135	152	88%	169	195	173
Buffalo Fk ab Lava Ck nr Moran	APR-JUL	192	235	260	93%	290	330	280
	APR-SEP	215	265	295	92%	330	380	320
Greys R ab Reservoir nr Alpine	APR-JUL	198	245	275	90%	310	355	305
	APR-SEP	230	285	325	90%	360	415	360
Salt R ab Reservoir nr Etna	APR-JUL	148	220	265	88%	310	380	300
	APR-SEP	183	275	330	89%	385	465	370

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Forecast Exceedance Probabilities for Risk Assessment  
 Chance that actual volume will exceed forecast

<b>MADISON-GALLATIN RIVER BASINS</b>	<b>Forecast Period</b>	<b>90% (KAF)</b>	<b>70% (KAF)</b>	<b>50% (KAF)</b>	<b>% Avg</b>	<b>30% (KAF)</b>	<b>10% (KAF)</b>	<b>30yr Avg (KAF)</b>
Hebgen Reservoir Inflow	APR-JUL	260	300	330	89%	355	400	370
	APR-SEP	335	385	420	89%	450	500	470

- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Forecast Exceedance Probabilities for Risk Assessment  
 Chance that actual volume will exceed forecast

<b>YELLOWSTONE RIVER BASIN</b>	<b>Forecast Period</b>	<b>90% (KAF)</b>	<b>70% (KAF)</b>	<b>50% (KAF)</b>	<b>% Avg</b>	<b>30% (KAF)</b>	<b>10% (KAF)</b>	<b>30yr Avg (KAF)</b>
Yellowstone R at Yellowstone Lake Outlet	APR-JUL	415	480	520	90%	560	625	575
	APR-SEP	550	630	685	89%	740	820	770
Yellowstone R at Corwin Springs	APR-JUL	1210	1360	1470	92%	1580	1730	1590
	APR-SEP	1410	1590	1720	91%	1850	2030	1880
Yellowstone R at Livingston	APR-JUL	1350	1550	1680	93%	1810	2000	1800
	APR-SEP	1590	1810	1970	92%	2120	2350	2140

## Appendix D

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Report Created: 2/4/2016 11:50:23 AM

Basinwide Summary: February 1, 2018  
(averages based on 1981-2010 reference period)

Reservoir Storage Summary for the end of January 2016
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SNAKE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Grassy Lake	13.1	12.7	11.9	15.2	86%	84%	78%	110%	107%
Jackson Lake	563.6	649.4	431.2	847.0	67%	77%	51%	131%	151%
Palisades Reservoir	793.6	1133.0	911.2	1400.0	57%	81%	65%	87%	124%
Basin-wide Total	1370.3	1795.1	1354.3	2262.2	61%	79%	60%	101%	133%
# of reservoirs	3	3	3	3	3	3	3	3	3

MADISON-GALLATIN RIVER BASINS	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Ennis Lake	28.9	29.2	29.8	41.0	70%	71%	73%	97%	98%
Hebgen Lake	310.9	318.8	279.0	378.8	82%	84%	74%	111%	114%
Basin-wide Total	339.8	348.1	308.8	419.8	81%	83%	74%	110%	113%
# of reservoirs	2	2	2	2	2	2	2	2	2

WIND RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Bull Lake	70.6	105.2	75.4	151.8	47%	69%	50%	94%	140%
Boysen	545.7	630.5	506.0	596.0	92%	106%	85%	108%	125%
Pilot Butte	24.9	23.1	23.2	31.6	79%	73%	73%	107%	100%
Basin-wide Total	641.2	758.8	604.6	779.4	82%	97%	78%	106%	126%
# of reservoirs	3	3	3	3	3	3	3	3	3

BIGHORN RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Boysen	545.7	630.5	506.0	596.0	92%	106%	85%	108%	125%
Bighorn Lake	852.7	877.5	825.9	1356.0	63%	65%	61%	103%	106%
Basin-wide Total	1398.4	1508.0	1331.9	1952.0	72%	77%	68%	105%	113%
# of reservoirs	2	2	2	2	2	2	2	2	2

SHOŠHONE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Buffalo Bill	426.6	463.5	353.8	646.6	66%	72%	55%	121%	131%
Basin-wide Total	426.6	463.5	353.8	646.6	66%	72%	55%	121%	131%
# of reservoirs	1	1	1	1	1	1	1	1	1

TONGUE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Tongue River Res	50.2	51.0	26.7	79.1	63%	64%	34%	188%	191%
Basin-wide Total	50.2	51.0	26.7	79.1	63%	64%	34%	188%	191%
# of reservoirs	1	1	1	1	1	1	1	1	1

BELLE FOURCHE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Belle Fourche	141.8	138.2	110.5	178.4	80%	77%	62%	128%	125%
Keyhole	165.7	171.7	87.9	193.8	86%	89%	45%	190%	195%
Shadehill	50.9	57.5	42.8	81.4	63%	71%	53%	119%	134%
Basin-wide Total	359.5	367.5	241.2	453.6	79%	81%	53%	149%	152%
# of reservoirs	3	3	3	3	3	3	3	3	3

CHEYENNE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Angostura	104.7	104.4	83.2	122.1	86%	85%	68%	126%	125%
Deerfield	14.2	15.2	13.7	15.2	93%	100%	90%	103%	111%
Pactola	51.1	51.6	45.5	55.0	93%	94%	83%	112%	113%
Basin-wide Total	169.9	171.2	142.4	192.3	88%	89%	74%	119%	120%
# of reservoirs	3	3	3	3	3	3	3	3	3

UPPER NORTH PLATTE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Seminole	712.5	708.6	520.8	1016.7	70%	70%	51%	137%	136%
Basin-wide Total	712.5	708.6	520.8	1016.7	70%	70%	51%	137%	136%
# of reservoirs	1	1	1	1	1	1	1	1	1

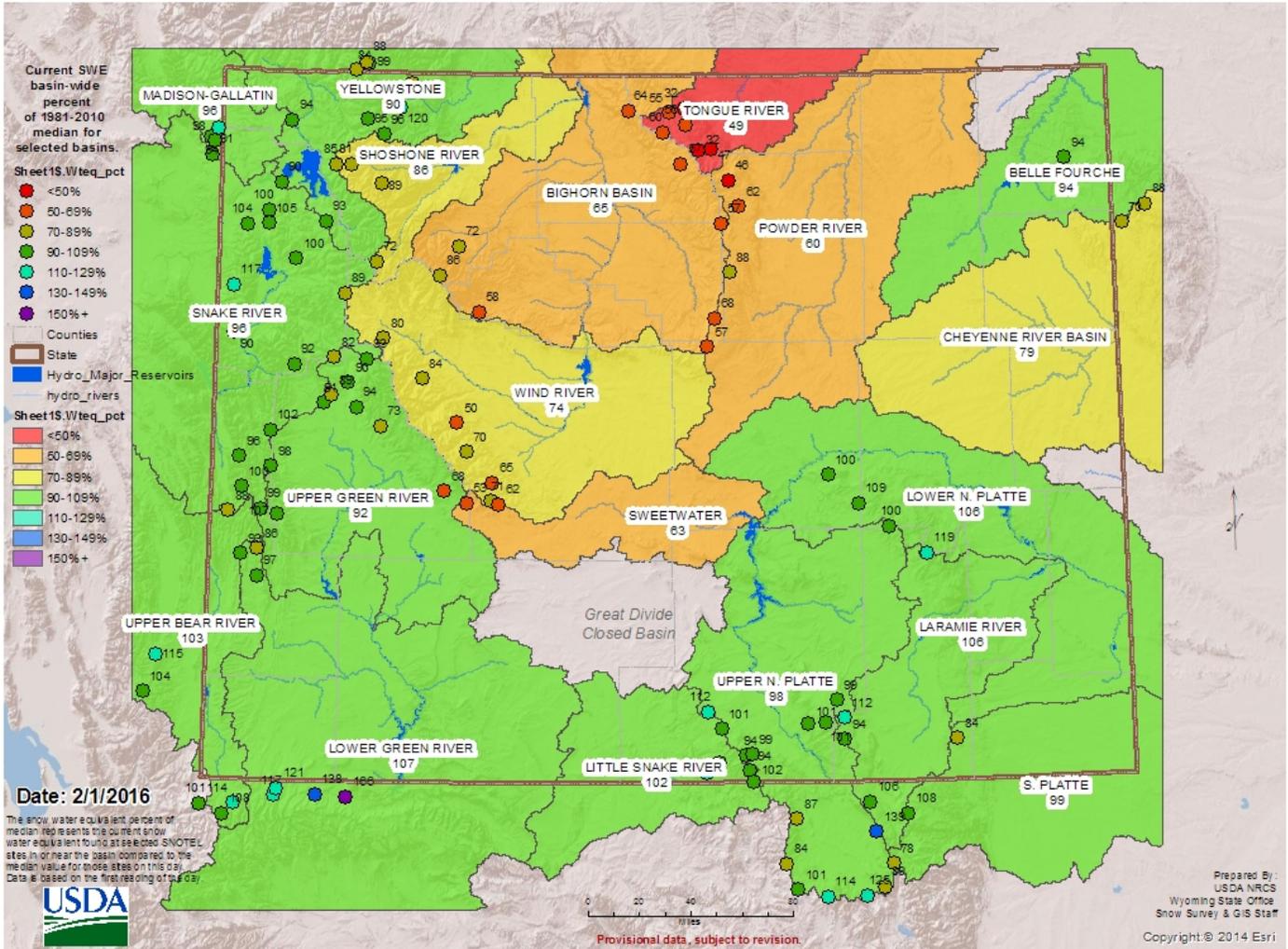
SWEETWATER RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Pathfinder	847.5	688.6	559.0	1016.5	83%	68%	55%	152%	123%
Basin-wide Total	847.5	688.6	559.0	1016.5	83%	68%	55%	152%	123%
# of reservoirs	1	1	1	1	1	1	1	1	1

Jason Weller (Chief)  
U.S.D.A.  
Natural Resources Conservation Service  
Washington D.C.

Astrid Martinez  
State Con.  
N R C S  
Casper, Wyoming

Feb. 1, 2016

Wyoming SNOTEL Current Snow Water Equivalent (SWE) % of Median



The above map is only for SNOTELS and does not include snow courses. The Outlook Report includes the snow courses.

**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:**

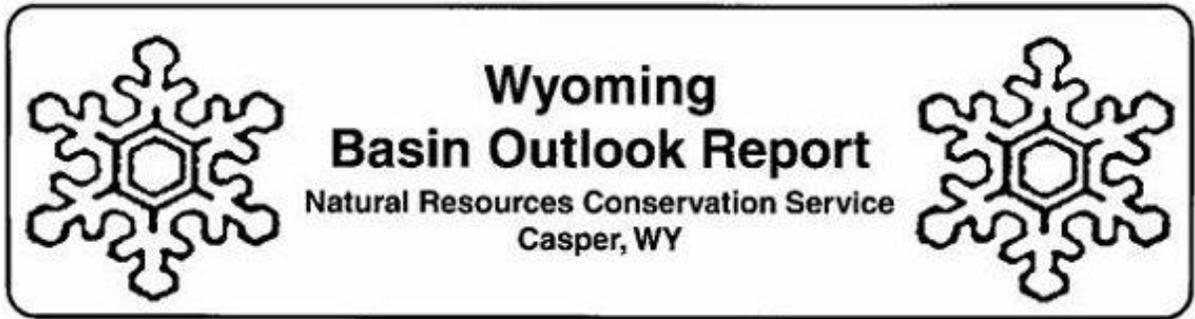
The Wyoming State Engineer's Office

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»