



United States
Department of
Agriculture

Wyoming Basin Outlook Report

May 1, 2017

Natural Resources Conservation Service



Blue Ridge Snow course 08G02 established 1/01/1940 (In the Shoshone Forest 15 miles SSW of Lander, WY) Photo taken by Ryan Mikesell on April 26th, 2017
61" snow 31" SWE

Basin Outlook Reports

And

Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

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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. 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 above the median on May 1st at 137%. The year-to-date precipitation average for Wyoming basins is now at 139% varying from 78-188% of average. Monthly precipitation for the basins varied from 97-241% of average for an overall average of 150%. Basin reservoir levels for Wyoming vary from 59-194% of average for an overall average of 126%. Forecasted runoff varies from 52-267% of average across the Wyoming basins for an overall average of 175%.

Snowpack

Snow water equivalent (SWE), across Wyoming is above median for May 1st at 137%. SWE in the Cheyenne River Basin of Wyoming was the lowest at 0%. While SWE in the Wind River Basin is the highest at 237% of median? *See Appendix A for further information.*

Precipitation

Last month's precipitation was above average across the Wyoming Mountains at 150% of average. Year to date precipitation is at 139% of average. The Powder River Basin had the highest precipitation for the month at 241% of average. The Cheyenne River Basin had the lowest precipitation amount at 97% 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	+60%	Upper North Platte River	+11%
Madison-Gallatin	+44%	Sweetwater River	+40%
Yellowstone River	+42%	Lower North Platte River	+26%
Wind River	+42%	Laramie River	+10%
Bighorn River	+102%	South Platte River	+12%
Shoshone River	+80%	Little Snake River	+09%
Powder River	+141%	Upper Green River	+34%
Tongue River	+86%	Lower Green River	+29%
Belle Fourche River	+72%	Upper Bear River	+36%
Cheyenne River	-03%		

See Appendix B for further information.

Streams

Stream flow yields for May-Sept or May-July are forecast to be above average statewide over Wyoming at 175%. The Snake, Madison, and Upper Yellowstone River Basins should yield about 170%, 115% and 147% of average, respectively. Yields from the Wind and Bighorn River Basins should be about 263% and 267% of average, respectively. Yields from the Shoshone and Clarks Fork River Basins of Wyoming should be about 187% and 169% of average, respectively. Yields from the Powder & Tongue River Basins should be about 222% and 141% of average, respectively. Yield for the Cheyenne River Basin should be about 59% of average. Yields for the Upper North Platte, Sweetwater, Lower North Platte, and Laramie River Basins of Wyoming should be about 110%, 262%, 121%, and 103% of average, respectively. Yields for the Little Snake, Green River, and Smith's Fork Basins of Wyoming should be 83%, 225%, and 193% of average respectively. *See Appendix C for further information.*

Reservoirs

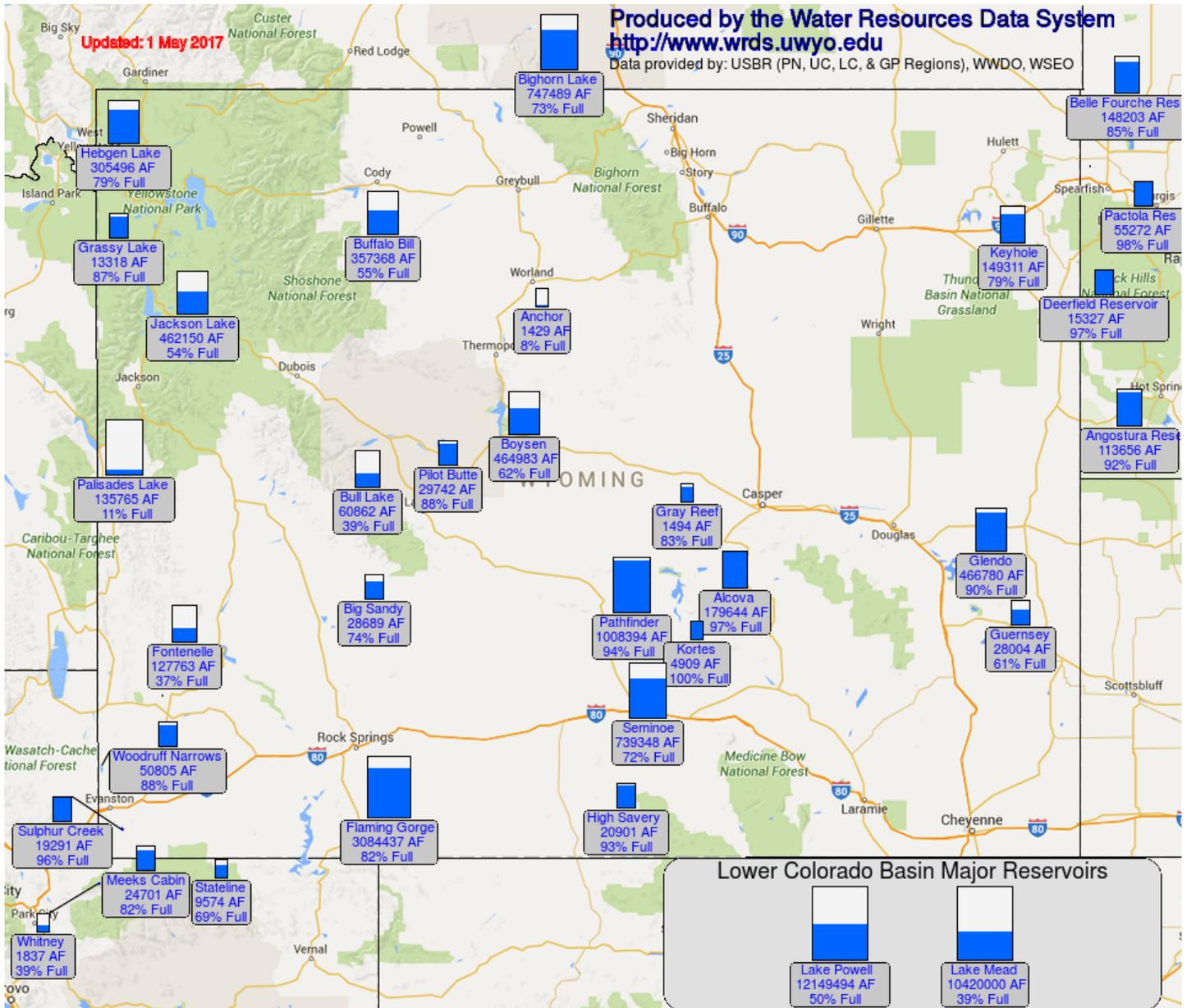
Reservoir storage is above average at 126% for the entire state. Reservoirs in the Snake River Basin are below average at 59%. Reservoirs in the Madison-Gallatin River Basins are above average at 108%. Reservoirs in the Wind River Basin are below average at 88%. Reservoirs on the Big Horn are below average at 92%. The Buffalo Bill Reservoir on the Shoshone is above average at 106%. The Tongue River Basin Reservoir is above average at 194%. Reservoirs in the Belle Fourche and Cheyenne River Basins are above average in storage at 113 & 111% respectively. Reservoirs on the Upper and Lower North Platte River Basins are above average at 150% and 133% respectively. Reservoirs on the Laramie and Little Snake River basins are at 132% and 137% respectively. Reservoirs on the Upper Green River are above average at 105%. Reservoirs on the Lower Green River Basin are about average at 101%. Reservoir on the Upper Bear River Basin is above average at 112%. *See below.*

Wyoming Reservoir Levels for Apr.1st, 2017

WYOMING	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Alcova	158.1	157.7	158.5	184.3	86%	86%	86%	100%	99%
Bighorn Lake	751.5	813.4	787.5	1356	55%	60%	58%	95%	103%
Big Sandy	29.8	21.1	19.9	38.3	78%	55%	52%	150%	106%
Boysen	578.2	546	489	596	97%	92%	82%	118%	112%
Buffalo Bill	457.1	432.7	348.9	646.6	71%	67%	54%	131%	124%
Bull Lake	51.7	70.6	75.4	151.8	34%	47%	50%	69%	94%
Fontenelle	206.3	139.2	121.7	344.8	60%	40%	35%	170%	114%
Glendo	421.3	376.5	389.4	506.4	83%	74%	77%	108%	97%
Grassy Lake	13.5	13.5	12.3	15.2	89%	89%	81%	110%	110%
Guernsey	0	25.6	20	45.6	0%	56%	44%	0%	128%
High Savery Reservoir	15.5	11.6	13.1	22.4	69%	52%	58%	118%	89%
Jackson Lake	536.6	570.9	430.7	847	63%	67%	51%	125%	133%
Kendrick Project	953.1	934.6		1201.7	79%	78%			
Keyhole	147.1	168.7	96.8	193.8	76%	87%	50%	152%	174%
Meeks Cabin Reservoir	15.7	9.5	13.4	32.5	48%	29%	41%	117%	71%
North Platte Project	997.5	857.6		1062.1	94%	81%			
Pathfinder	967.3	865.1	604.6	1016.5	95%	85%	59%	160%	143%
Pilot Butte	26.9	23.6	24.8	31.6	85%	75%	78%	108%	95%
Seminole	770.6	707	481.2	1016.7	76%	70%	47%	160%	147%
Viva Naughton Res	21.6	29.7	27.2	42.4	51%	70%	64%	79%	109%
Wheatland #2	65.5	70.3	51	98.9	66%	71%	52%	128%	138%
Woodruff Narrows Reservoir	48.7	51.6	38.4	57.3	85%	90%	67%	127%	134%
Basin-wide Total	5282.9	5104.3	4203.8	7244.1	73%	70%	58%	126%	121%
# of reservoirs	20	20	20	20	20	20	20	20	20

Data provided by: USBR (PN, UC, LC, & GP Regions), WWDO, WSEO

Updated: 1 May 2017



Snake River Basin

Snow

The Snake River Basin SWE above Palisades is 163% of median (77% last year). SWE in the Snake River Basin above Jackson Lake is 143% of median (59% last year). Pacific Creek Basin SWE is 222% of median (62% last year). Buffalo Fork SWE is 150% of median (66% last year). Gros Ventre River Basin SWE is 166% of median (89% last year). SWE in the Hoback River drainage is 221% of median (74% last year). SWE in the Greys River drainage is 183% of median (106% last year). The Salt River Basin SWE is 169% of median (89% last year).

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 160% of average (71% last year). Percentages range from 82-277% of average for the 29 reporting stations. Water-year-to-date precipitation is 168% of average for the Snake River Basin (95% last year). Year-to-date percentages range from 143-218% of average.

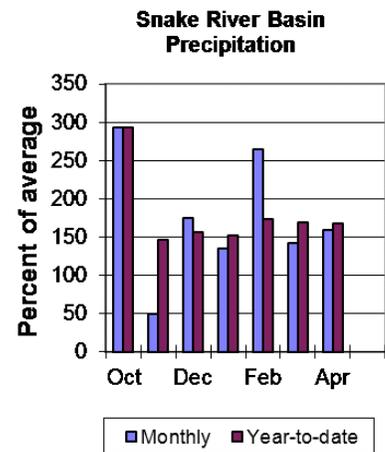
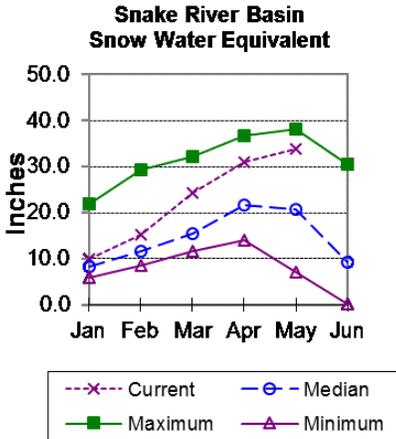
Reservoirs

Current reservoir storage is 59% of average for the three storage reservoirs in the basin. Grassy Lake storage is about 104% of average (13,300 ac-ft compared to 14,100 last year). Jackson Lake storage

is 104% of average (462,200 ac-ft compared to 628,900 ac-ft last year). Palisades Reservoir storage is about 37% of average (335,800 ac-ft compared to 1,148,300 ac-ft last year). *Detailed reservoir data shown on the following page and in Appendix D.*

Streamflow

The 50% exceedance forecasts for May through September are way above average for this basin. The Snake near Moran will yield about 1,160,000 ac-ft (150% of average). Snake River above Reservoir near Alpine will yield about 4,080,000 ac-ft (179% of average). The Snake near Irwin will yield about 5,390,000 ac-ft (171% of average). The Snake near Heise yield will be about 5,770,000 ac-ft (170% of average). Pacific Creek at Moran will yield about 280,000 ac-ft (174% of average). Buffalo Fork above Lava near Moran yield will be around 495,000 ac-ft (162% of average). Greys River above Palisades Reservoir yield will be around 565,000 ac-ft (179% of average). Salt River near Etna yield will be around 575,000 ac-ft (185% of average). *See the following page for further information.*



Snake River Basin Streamflow Forecasts - May 1, 2017

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 ²	MAY-JUL	930	995	1040	149%	1090	1160	700
	MAY-SEP	1020	1100	1160	150%	1210	1290	775
Snake R ab Reservoir nr Alpine ²	MAY-JUL	3270	3430	3530	180%	3640	3800	1960
	MAY-SEP	3770	3950	4080	179%	4200	4380	2280
Snake R nr Irwin ²	MAY-JUL	4190	4450	4620	174%	4790	5050	2660
	MAY-SEP	4880	5190	5390	171%	5590	5890	3150
Snake R nr Heise ²	MAY-JUL	4470	4740	4920	173%	5100	5370	2840
	MAY-SEP	5240	5560	5770	170%	5990	6300	3390
Pacific Ck at Moran	MAY-JUL	225	250	270	178%	285	310	152
	MAY-SEP	240	265	280	174%	300	325	161
Buffalo Fk ab Lava Ck nr Moran	MAY-JUL	385	415	430	162%	450	475	265
	MAY-SEP	440	470	495	162%	515	545	305
Greys R ab Reservoir nr Alpine	MAY-JUL	440	465	480	181%	495	520	265
	MAY-SEP	515	545	565	179%	585	615	315
Salt R ab Reservoir nr Etna	MAY-JUL	400	440	470	192%	495	540	245
	MAY-SEP	495	540	575	185%	605	655	310

- 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

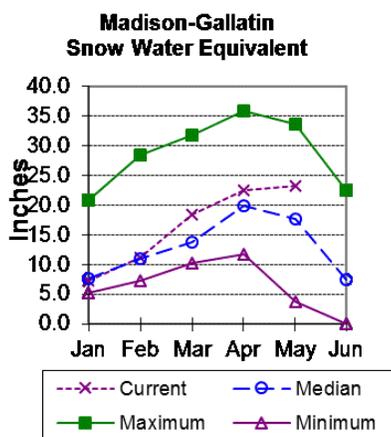
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Grassy Lake	13.3	14.1	12.8	15.2
Jackson Lake	462.2	628.9	445.7	847.0
Palisades Reservoir	335.8	1148.3	911.7	1400.0
Basin-wide Total	811.3	1791.3	1370.2	2262.2
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
SNAKE above Jackson Lake	6	146%	66%
PACIFIC CREEK	2	171%	82%
BUFFALO FORK	3	150%	66%
GROS VENTRE RIVER	4	166%	89%
HOBACK RIVER	4	221%	74%
GREYS RIVER	5	183%	106%
SALT RIVER	4	169%	89%
SNAKE RIVER BASIN	26	162%	78%

Madison-Gallatin Rivers Basin

Snow

In the Madison-Gallatin drainage, SWE is 132% of median (73% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*

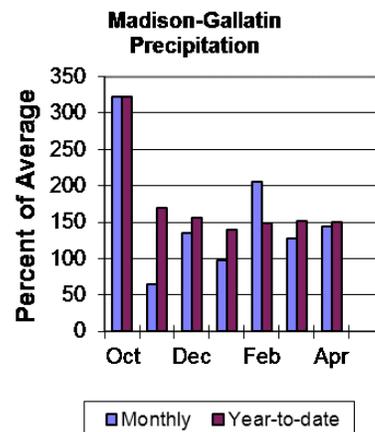


Precipitation

Last month's precipitation in the Madison-Gallatin drainage was 144% of average (61% last year). The 6 reporting station percentages range from 128-156% of average. Water-year-to-date precipitation is about 150% of average, which was 85% last year. Year to date percentage ranges from 133-186%.

Reservoirs

Ennis Lake is storing about 35,100 ac-ft of water (86% of capacity, 108% of average this year or about 108% last year). Hebgen Lake is storing about 298,200 ac-ft of water (79% of capacity, 108% of average this year, 110% last year).



capacity, 108% of average this year, 110% last year).

Detailed reservoir data shown below & in Appendix D.

Streamflow

The 50% exceedance forecast for May through September is above average for the basin. Hebgen Reservoir inflow will be about 465,000 ac-ft (115% of average). *See below for detailed runoff volumes.*

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Madison-Gallatin River Basins Streamflow Forecasts - May 1, 2017

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	MAY-JUL	290	330	355	116%	380	420	305
	MAY-SEP	380	430	465	115%	500	550	405

- 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

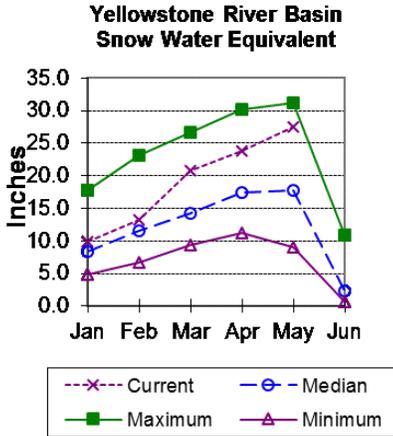
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Ennis Lake	35.1	35.1	32.4	41.0
Hebgen Lake	298.2	303.7	276.7	378.8
Basin-wide Total	333.2	338.8	309.1	419.8
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
MADISON-GALLATIN RIVER BASINS	6	132%	73%

Yellowstone River Basin

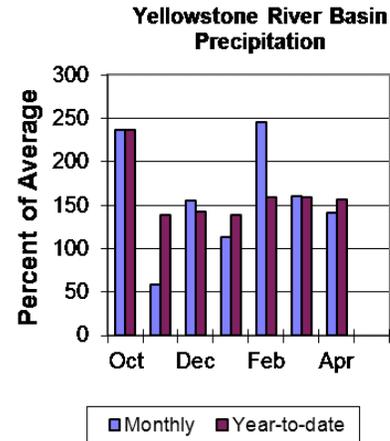
Snow

SWE in the Yellowstone River Basin is 155% of median (72% last year). SWE in the Yellowstone River Drainage in WY is 157% of median (73% last year). SWE in the Clarks Fork Drainage of the Yellowstone River Basin in Wyoming is 158% of median (86% last year). *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 142% of average (59% last year). The 17 reporting station percentages range from 105-298% of average. Water-year-to-date precipitation is 157% of average, which was 91% last year. Year to date percentages range from 86-208%.



Reservoirs

No reservoir data

Streamflow

The 50% exceedance forecasts for May through September are way above average for the basin. Yellowstone River at Lake Outlet will yield around 1,100,000 ac-ft (150% of average). Yellowstone at Corwin Springs will yield around 2,590,000 ac-ft (146% of average). Yellowstone near Livingston will yield around 2,960,000 ac-ft (147% of average). Clarks Fork of the Yellowstone near Belfry will yield around 885,000 ac-ft (169% of average). *See the following for further information.*

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Yellowstone River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	710	770	815	150%	860	920	545
	MAY-SEP	960	1040	1100	150%	1160	1250	735
Yellowstone R at Corwin Springs	MAY-JUL	1930	2080	2180	147%	2280	2430	1480
	MAY-SEP	2260	2460	2590	146%	2720	2920	1770
Yellowstone R at Livingston	MAY-JUL	2180	2370	2500	150%	2620	2810	1670
	MAY-SEP	2600	2810	2960	147%	3110	3330	2010
Clarks Fk Yellowstone R nr Belfry ²	MAY-JUL	720	770	800	167%	835	885	480
	MAY-SEP	790	845	885	169%	920	975	525

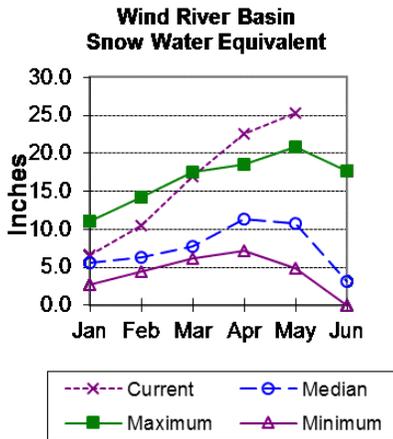
- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
YELLOWSTONE RIVER in WY	10	157%	68%
CLARKS FORK in WY	8	158%	86%

Wind River Basin

Snow

Wind River Basin above Boysen Reservoir SWE is 236% of median (120% last year). SWE in the Wind River above Dubois is 199% of median (74% last year). Little Wind River SWE above Riverton is 241% of median (145% last year), and Popo Agie drainage SWE is 240% of median (136% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*



in Appendix D.

Streamflow

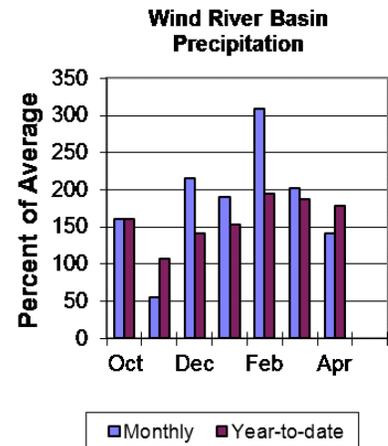
The 50% exceedance forecasts for the May through September runoff period are at record levels for most of the Wind River Basin. Dinwoody Creek near Burris should yield around 122,000 ac-ft (134% of average). The Wind River above Bull Lake Creek will yield around 935,000 ac-ft (201% of average). Bull Lake Creek near Lenore will yield around 295,000 ac-ft (178% of average). Wind River at Riverton will yield around 1,060,000 ac-ft (202% of average). Little Popo Agie River near Lander should yield around 108,000 ac-ft (235% 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 715,000 ac-ft (260% of average). Boysen Reservoir inflow will yield around 1,620,000 ac-ft (263% of average). *See the following page for detailed runoff volumes.*

Precipitation

Precipitation for the Wind River Basin was 142% of average (123% last year) from the 11 reporting stations. Last month's basin's precipitation varied from 35-431% of average. Water year-to-date precipitation is 178% of average and was 105% last year at this time. Year-to-date percentages range from 158-265% of average.

Reservoirs

Current storage in Bull Lake is 60,100 ac-ft (80% of average) (76,400 ac-ft last year at 102% of average). Boysen Reservoir is storing (424,900 ac-ft) (89% of average) or (572,000 ac-ft last year at 120% of average). Pilot Butte is at 99% of average (25,900 ac-ft) (26,500 ac-ft or about 101% last year). *Detailed reservoir data shown on the following page and*



Wind River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	78	85	89	137%	93	100	65
	MAY-SEP	110	117	122	134%	127	134	91
Wind R Ab Bull Lake Ck	MAY-JUL	740	805	845	197%	890	950	430
	MAY-SEP	820	890	935	201%	980	1050	465
Bull Lake Ck nr Lenore	MAY-JUL	220	230	240	178%	250	265	135
	MAY-SEP	270	285	295	178%	305	320	166
Wind R at Riverton	MAY-JUL	800	865	905	203%	950	1010	445
	MAY-SEP	945	1010	1060	202%	1100	1170	525
Little Popo Agie R nr Lander	MAY-JUL	87	94	98	251%	103	110	39
	MAY-SEP	96	103	108	235%	113	121	46
Little Wind R nr Riverton	MAY-JUL	550	615	655	267%	700	760	245
	MAY-SEP	605	670	715	260%	760	825	275
Boysen Reservoir Inflow	MAY-JUL	1250	1380	1470	263%	1560	1690	560
	MAY-SEP	1380	1520	1620	263%	1710	1850	615

- 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

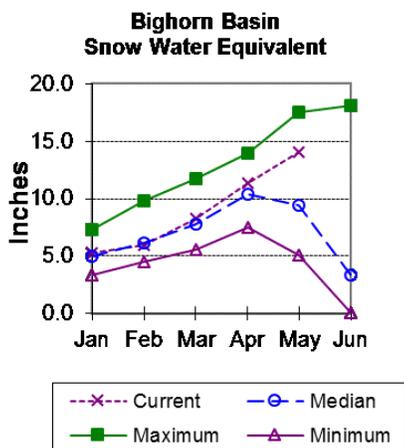
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Bull Lake	60.1	76.4	75.1	151.8
Boysen	424.9	572.0	476.4	596.0
Pilot Butte	25.9	26.5	26.1	31.6
Basin-wide Total	510.9	674.9	577.6	779.4
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
WIND above Dubois	6	199%	74%
LITTLE WIND	2	241%	145%
POPO AGIE	7	240%	136%
WIND RIVER BASIN	16	236%	120%

Bighorn River Basin

Snow

The Bighorn River Basin SWE above Bighorn Reservoir is 149% of median (101% last year). The Nowood River SWE is 132% of median (99% last year). The Greybull River SWE is 254% of median (140% last year). Shell Creek SWE is at 129% of median (89% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*



791,000 ac-ft or about 102% last year. *Detailed reservoir data shown below and in Appendix D.*

Streamflow

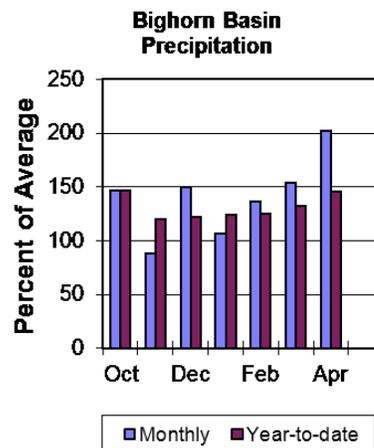
The 50% exceedance forecasts for the May through Sept. runoffs are at record levels for most of the basin. Boysen Reservoir inflow should yield 1,620,000 ac-ft (263% of average); the Greybull River near Meeteetse should yield around 325,000 ac-ft (191% of average); Shell Creek near Shell should yield around 75,000 ac-ft (119% of average) and the Bighorn River at Kane should yield around 2,220,000 ac-ft (267% of average). *See the following for detailed runoff.*

Precipitation

Last month's precipitation was 202% of average (134% last year). Sites ranged from 89-431% of average for the month. Year-to-date precipitation is 146% of average (96% last year). Year-to-date percentages, from the 19 reporting stations, range from 94-275%.

Reservoirs

Boysen Reservoir is currently storing 424,900 ac-ft (89% of average). Bighorn Lake is now at 729,800 ac-ft (94% of average). Boysen was at 572,000 ac-ft or about 120% of average last year and Bighorn Lake was at



Bighorn River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	1250	1380	1470	263%	1560	1690	560
	MAY-SEP	1380	1520	1620	263%	1710	1850	615
Greybull R nr Meeteetse	MAY-JUL	196	225	245	198%	260	290	124
	MAY-SEP	270	305	325	191%	350	380	170
Shell Ck nr Shell	MAY-JUL	49	57	63	121%	69	77	52
	MAY-SEP	59	69	75	119%	81	91	63
Bighorn R at Kane	MAY-JUL	1650	1870	2010	261%	2160	2380	770
	MAY-SEP	1840	2070	2220	267%	2370	2600	830

- 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

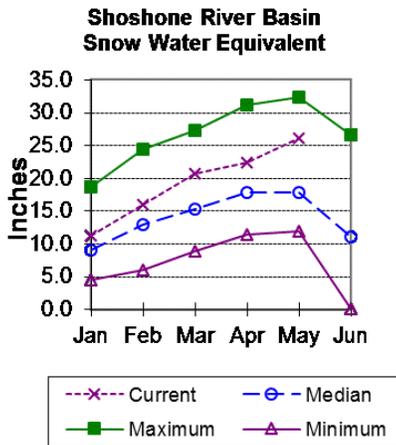
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Boysen	424.9	572.0	476.4	596.0
Bighorn Lake	729.8	791.0	773.6	1356.0
Basin-wide Total	1154.7	1363.0	1250.0	1952.0
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
NOWOOD RIVER	7	132%	99%
GREYBULL RIVER	2	254%	140%
SHELL CREEK	4	129%	89%
BIGHORN RIVER BASIN	14	149%	101%

Shoshone River Basin

Snow

Snowpack in this basin is above median for this time of year. Snow Water Equivalent (SWE) is 147% of median (74% last year) in the Shoshone River Basin. *See Appendix A at the end of this report for a detailed listing of snow course information.*

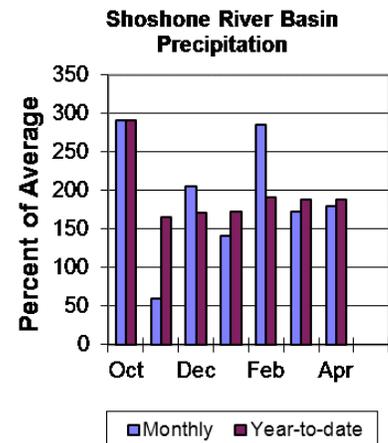


Precipitation

Precipitation for last month was 180% of average (99% last year). Monthly percentages range from 104-519% of average. The basin year-to-date precipitation is now 188% of average (104% last year). Year-to-date percentages range from 161-357% of average for the 10 reporting stations.

Reservoirs

Current storage in Buffalo Bill Reservoir is about 106% of average this year (134% last year) - the reservoir is at 55% of capacity. Currently, about 357,400 ac-ft are stored in the reservoir compared to 449,300 ac-ft last



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

Streamflow

The 50% exceedance forecasts for the May through Sept. period are extremely high for the Shoshone River Basin. The North Fork Shoshone River at Wapiti will yield around 820,000 ac-ft (169% of average). The South Fork of the Shoshone River near Valley will yield around 450,000 ac-ft (191% of average), and the South Fork above Buffalo Bill Reservoir runoff will yield a record of 450,000 ac-ft (234% of average). The Buffalo Bill Reservoir inflow will yield around 1,310,000 ac-ft (187% of average). *See the following for detailed runoff volumes.*

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Shoshone River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	655	705	735	171%	770	820	430
	MAY-SEP	725	785	820	169%	860	915	485
SF Shoshone R nr Valley	MAY-JUL	345	370	385	193%	400	425	200
	MAY-SEP	405	430	450	191%	470	495	235
SF Shoshone R ab Buffalo Bill Reservoir	MAY-JUL	365	400	420	228%	440	475	184
	MAY-SEP	390	425	450	234%	475	510	192
Buffalo Bill Reservoir Inflow ²	MAY-JUL	1060	1140	1190	189%	1240	1320	630
	MAY-SEP	1160	1250	1310	187%	1370	1460	700

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

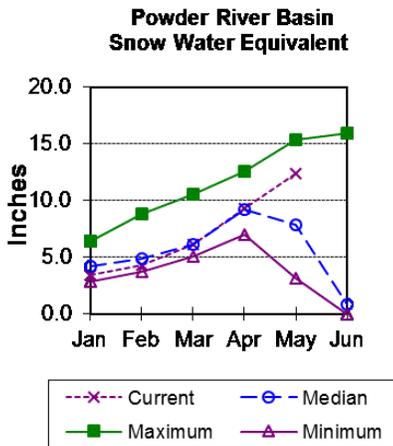
Reservoir Storage	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
End of April, 2017				
Buffalo Bill	357.4	449.3	336.3	646.6
Basin-wide Total	357.4	449.3	336.3	646.6
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis	# of Sites	% Median	Last Year % Median
May 1, 2017			
SHOSHONE RIVER BASIN	5	147%	74%

Powder River Basin

Snow

Powder River SWE is 157% of median (104% last year). Upper Powder River drainage is 136% of median (106% last year). SWE in the Clear Creek drainage is 198% of median (99% last year). Crazy Woman Creek drainage SWE is 127% of median (87% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*



Precipitation

Last month's precipitation was 241% of average (149% last year) for the nine reporting stations. Monthly percentages range from 194-349% of average. Year-to-date precipitation is 135% of average in the basin (94% last year). Precipitation for the year ranges from 98-185% of average.

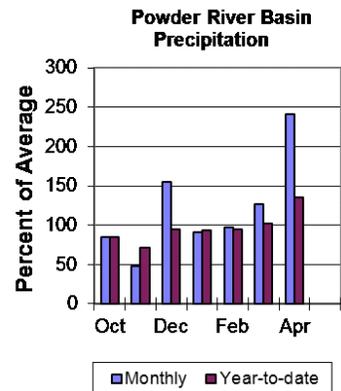
Reservoirs

No reservoir data for the basin.

Streamflow

The 50% exceedance forecasts for the May through September period are above average for most of the basin. The Middle Fork of the Powder River near Barnum should yield around 18,500 ac-ft (127% of average). The North Fork of the Powder River near Hazelton should yield around 13,400 ac-ft (149% of average). Rock Creek near Buffalo will yield about 39,000 ac-ft (186% of average), and Piney Creek at Kearny should yield about 86,000 ac-ft (200% of average). The Powder River at Moorhead will yield around 370,000 ac-ft (218% of average). The Powder River near Locate will yield around 410,000 ac-ft (222% of average). *See the following for detailed runoff volumes.*

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Powder River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	11.5	15.1	17.5	128%	19.9	23	13.7
	MAY-SEP	12.3	16	18.5	127%	21	25	14.6
NF Powder R nr Hazelton	MAY-JUL	9.5	11.3	12.6	152%	13.9	15.7	8.3
	MAY-SEP	10.1	12.1	13.4	149%	14.7	16.7	9
Rock Ck nr Buffalo	MAY-JUL	25	30	33	186%	37	42	17.7
	MAY-SEP	30	35	39	186%	43	48	21
Piney Ck at Kearny	MAY-JUL	56	71	81	203%	91	106	40
	MAY-SEP	61	76	86	200%	96	111	43
Powder R at Moorehead	MAY-JUL	215	285	335	222%	385	460	151
	MAY-SEP	245	320	370	218%	420	495	170
Powder R nr Locate	MAY-JUL	225	310	365	223%	420	505	164
	MAY-SEP	260	350	410	222%	465	555	185

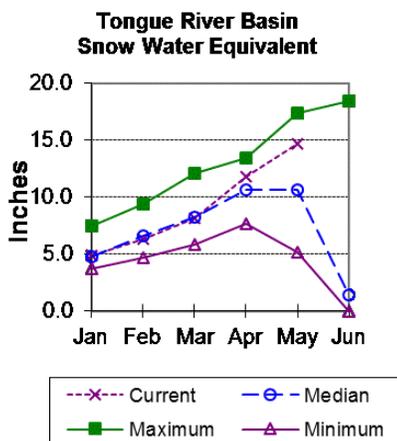
- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
UPPER POWDER RIVER	5	136%	106%
CLEAR CREEK	2	198%	99%
CRAZY WOMAN CREEK	2	127%	87%
POWDER RIVER BASIN	7	157%	104%

Tongue River Basin

Snow

Upper Tongue River SWE is 138% of median (94% last year). The Goose Creek drainage SWE is 149% of median (101% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*



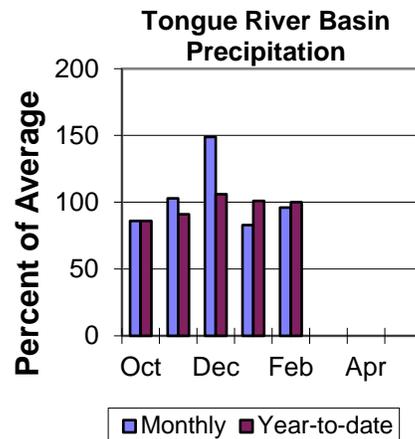
Precipitation

Last month's precipitation was 186% of average (160% last year) for 12 reporting stations. Monthly percentages range from 58-411% of average. Year-to-date precipitation is 133% of average in the basin (97% last year). Precipitation for the year ranges from 87-225% of average.

Reservoirs

The Tongue River Reservoir currently is storing 67,200 ac-ft, while last year's storage was 80,300 ac-ft. The Tongue River Reservoir is at 194% of

average for this time of year or 85% of capacity. *Detailed reservoir data shown below and in Appendix D.*



Streamflow

The 50% exceedance forecasts for the May through September period are about average for the basin. The yield for Tongue River near Dayton will be around 114,000 ac-ft (124% of average). Big Goose Creek near Sheridan will yield around 68,000 ac-ft (131% of average). Little Goose Creek near Bighorn will yield around 50,000 ac-ft (135% of average). The Tongue River Reservoir Inflow will be around 280,000 ac-ft (141% of average). *See below for detailed runoff volumes.*

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Tongue River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	75	90	100	125%	110	124	80
	MAY-SEP	86	103	114	124%	125	141	92
Big Goose Ck nr Sheridan	MAY-JUL	43	53	59	134%	66	76	44
	MAY-SEP	51	61	68	131%	75	85	52
Little Goose Ck nr Bighorn	MAY-JUL	31	37	41	141%	45	51	29
	MAY-SEP	39	46	50	135%	55	61	37
Tongue River Reservoir Inflow	MAY-JUL	164	215	250	143%	290	340	175
	MAY-SEP	185	240	280	141%	315	375	198

- 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 April, 2017				
Tongue River Res	67.2	80.3	34.7	79.1
Basin-wide Total	67.2	80.3	34.7	79.1
# of reservoirs	1	1	1	1

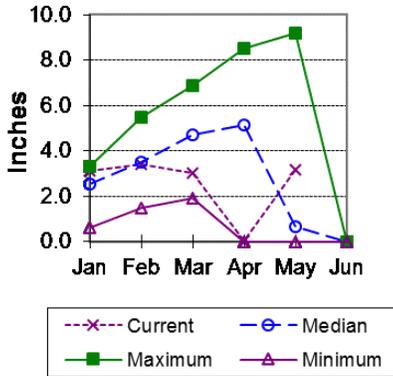
Watershed Snowpack Analysis	# of Sites	% Median	Last Year % Median
May 1, 2017			
GOOSE CREEK	3	149%	101%
TONGUE RIVER BASIN	8	138%	94%

Belle Fourche River Basin

Snow

Belle Fourche River Basin SWE is 486%* of median (229%* last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*

**Belle Fourche River Basin
Snow Water Equivalent**



Precipitation

Precipitation for last month was 172% of average (104% last year) in the Black Hills for the 3 reporting stations. Year-to-date precipitation is 105% of average (104% last year).

Reservoirs

Belle Fourche Reservoir is storing 100% of average (145,100 ac-ft), or about 81% of capacity. Keyhole Reservoir is storing 152% of average (149,000 ac-ft), or about 77% of capacity. Shadehill Reservoir is storing 81% of average 49,800 ac-ft), or about 61% of capacity.

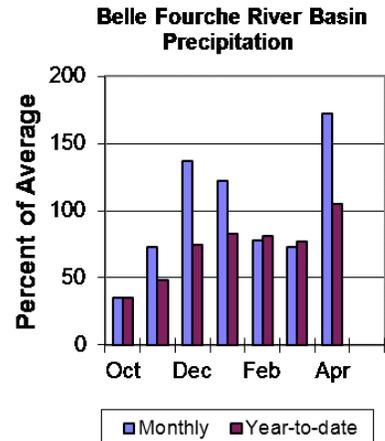
Detailed reservoir data shown below and in Appendix D.

Streamflow

There are no streamflow forecast points for the basin.

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Belle Fourche River Basin - May 1, 2017



Reservoir Storage End of April, 2017

Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
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Belle Fourche	145.1	163.3	144.5	178.4
Keyhole	149.0	168.8	98.1	193.8
Shadehill	49.8	51.6	61.2	81.4
Basin-wide Total	344.0	383.7	303.8	453.6
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis May 1, 2017

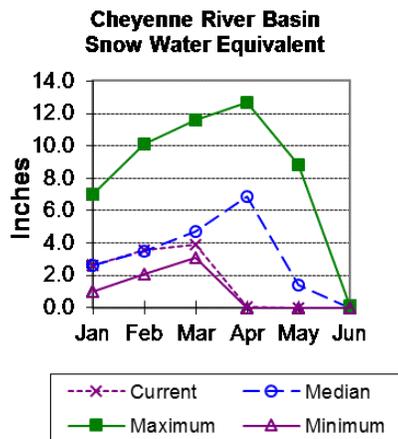
	# of Sites	% Median	Last Year % Median
BELLE FOURCHE RIVER BASIN	3	486%	229%

*-Data is suspect

Cheyenne River Basin

Snow

Cheyenne River Basin SWE is at 0% of median (0% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*

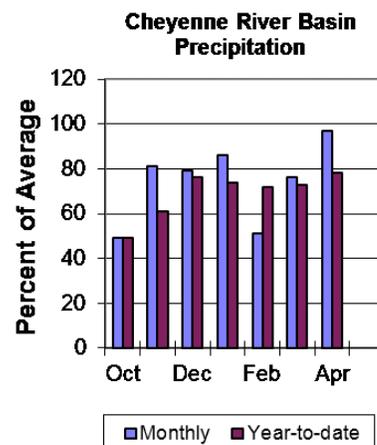


Precipitation

Precipitation for last month was 97% of average (62% last year) in the Black Hills. There were three reporting stations. Year-to-date precipitation is 78% of average (78% last year).

Reservoirs

Angostura is currently storing 111% of average (108,000 ac-ft), or about 88% of capacity. Deerfield reservoir is storing 107% of average (15,100 ac-ft), or about 100% of capacity. Pactola Reservoir is storing 114% of average (54,300 ac-ft), or about 99%



of capacity. *Detailed reservoir data shown below and in Appendix D.*

Streamflow

The following runoff values are the 50% exceedance forecasts for the May through July period. These values are very low. The Deerfield Reservoir Inflow should yield around 2,600 ac-ft (67% of average). Pactola Reservoir Inflow yield will be around 9,100 ac-ft (52% of average). *See the following for detailed runoff volumes.*

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Cheyenne River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	0.1	1.56	2.6	67%	3.6	5	3.9
Pactola Reservoir Inflow	MAY-JUL	1	4.5	9.1	52%	13.7	20	17.5

- 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

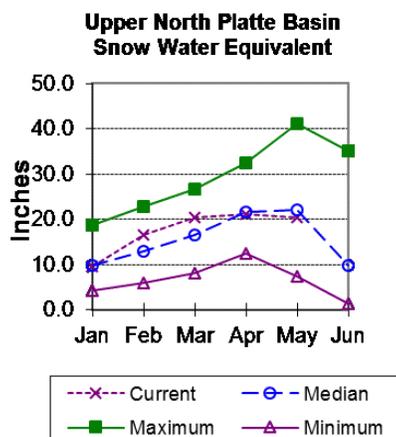
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Angostura	108.0	112.9	97.6	122.1
Deerfield	15.1	14.2	14.2	15.2
Pactola	54.3	54.7	47.7	55.0
Basin-wide Total	177.4	181.8	159.5	192.3
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
CHEYENNE RIVER BASIN	2	0%	0%

Upper North Platte River Basin

Snow

The Upper North Platte River Basin above Seminoe Reservoir SWE is 93% of median (112% last year). North Platte above Northgate SWE is 97% of median (111% last year). Encampment River SWE is 101% of median (112% last year). Brush Creek SWE is 72% of median (109% last year). Medicine Bow and Rock Creek SWE are 99% of median (101% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*



Precipitation

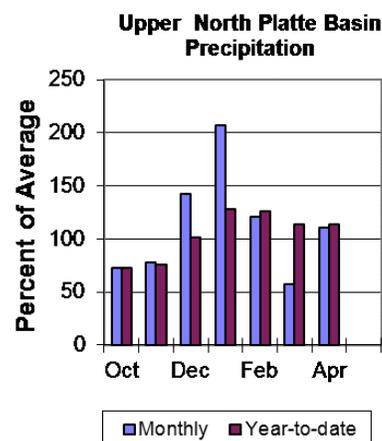
Seventeen reporting stations show last month's precipitation at 111% of average (146% last year). Precipitation varied from 87-132% of average last month. Total water-year-to-date precipitation is 114% of average for the basin (109% last year). Year-to-date percentages range from 86-153% of average.

Reservoirs

Seminoe Reservoir is storing 738,800 ac-ft or 73% of capacity. Seminoe Reservoir is at 150% of average and was at 150% of average last year. *Detailed reservoir data shown on the following page and in Appendix D.*

Streamflow

The 50% exceedance forecasts for the May through September period are above average for the Upper North Platte River Basin. The yield for the North Platte River near Northgate will be around 235,000 ac-ft (112% of average). The Encampment River near Encampment yield will be around 148,000 ac-ft (117% of average). Rock Creek near Arlington yield will be around 51,000 ac-ft (102% of average). Sweetwater River near Pathfinder will yield a record of about 131,000 ac-ft (262% of average). Seminoe Reservoir inflow should be around 735,000 ac-ft (110% of average). *See the following page for more detailed information on projected runoff.*



Upper North Platte River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	117	172	210	112%	250	305	187
	MAY-SEP	132	194	235	112%	280	340	210
Encampment R nr Encampment ²	MAY-JUL	97	121	138	117%	155	179	118
	MAY-SEP	105	131	148	117%	165	191	127
Rock Ck nr Arlington	MAY-JUL	37	44	48	100%	53	60	48
	MAY-SEP	39	46	51	102%	56	63	50
Sweetwater R nr Alcova	MAY-JUL	99	113	122	265%	131	145	46
	MAY-SEP	106	121	131	262%	141	156	50
Seminole Reservoir Inflow	MAY-JUL	435	580	675	110%	770	915	615
	MAY-SEP	485	635	735	110%	835	985	670

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

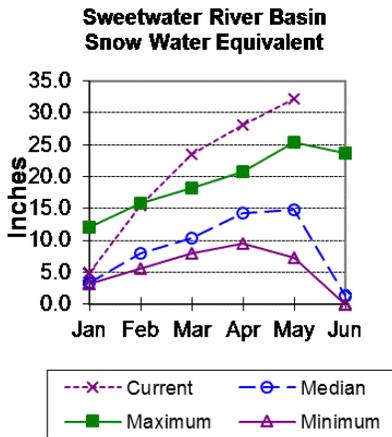
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Seminole	738.8	739.6	492.5	1016.7
Basin-wide Total	738.8	739.6	492.5	1016.7
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
N PLATTE above Northgate	11	97%	111%
ENCAMPMENT RIVER	4	101%	112%
BRUSH CREEK	5	72%	109%
MEDICINE BOW & ROCK CREEKS	2	95%	106%
UPPER NORTH PLATTE RIVER BASIN	23	92%	113%

Sweetwater River Basin

Snow

Sweetwater River Basin SWE is 218% of median (109% last year). See *Appendix A at the end of this report for a detailed listing of snow course information.*



Precipitation

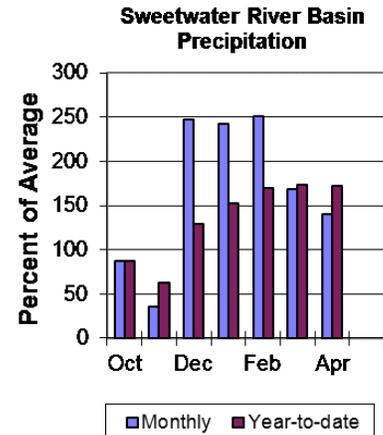
Last month's precipitation was 140% of average (138% last year) for the 3 reporting stations ranging from 129-154%. The water year-to-date precipitation for the basin is currently 172% of average (96% last year). Year-to-date percentages range from 140-184% of average.

Reservoirs

Reservoir storage is as follows: Pathfinder 1,008,400 ac-ft (99% of capacity, 163% of average, 150% last year).

Streamflow

The 50% exceedance forecast for the May through September period will be a record high. The Sweetwater River near Pathfinder will yield about 131,000 ac-ft (262% of average). See below for detailed information on projected runoff.



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Sweetwater River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	99	113	122	265%	131	145	46
	MAY-SEP	106	121	131	262%	141	156	50

- 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

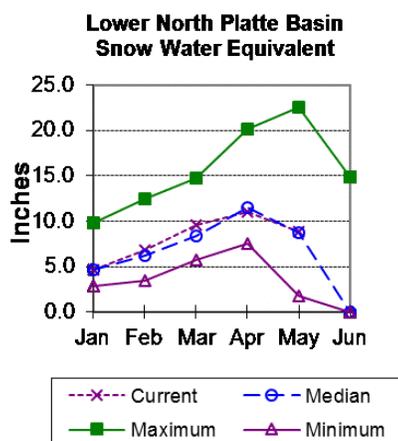
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Pathfinder	1008.4	925.1	617.9	1016.5
Basin-wide Total	1008.4	925.1	617.9	1016.5
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
SWEETWATER RIVER BASIN	4	218%	109%

Lower North Platte River Basin

Snow

Lower North Platte River Basin SWE is 101% of median (165% last year). Deer and LaPrele Creeks SWE is 105% of median (153% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*



Precipitation

Last month's precipitation was 126% of average (157% last year). The 6 reporting station percentages for the month range from 93-217%. The water year-to-date precipitation for the basin is currently 107% of average (126% last year). Year-to-date percentages range from 95-153% of average.

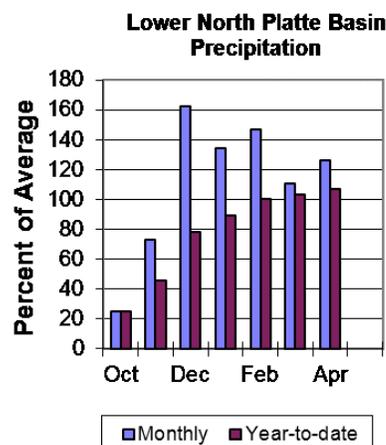
Reservoirs

Reservoir storage is as follows: Alcova 179,600 ac-ft (100% of average) (97% of capacity); Glendo 459,800 ac-ft (106% of average) (91% of capacity); Guernsey 28,200 ac-ft (94% of average) (62% of capacity); Pathfinder

1,008,400 ac-ft (163% of average) (99% of capacity) (163% of average last year). *Detailed reservoir data shown on the following page and in Appendix D.*

Streamflow

The 50% exceedance forecasts for the May through September period will be above average. North Platte - Alcova to Orin Gain will yield - ac-ft. LaPrele Creek above LaPrele Reservoir should yield around 14,000 ac-ft (95% of average). North Platte River below Glendo Reservoir should yield around 840,000 ac-ft (120% of average), and below Guernsey Reservoir should yield around 845,000 ac-ft (121% of average). *See the following for more detailed information on projected runoff.*



Lower North Platte River Basin Streamflow Forecasts - May 1, 2017

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)
<hr/>								
La Prele Ck ab La Prele Reservoir	MAY-JUL	5.7	10.4	13.6	91%	16.8	21	14.9
	MAY-SEP	6.1	10.8	14	95%	17.2	22	14.8
North Platte R bl Glendo Reservoir	MAY-JUL	480	675	805	120%	940	1140	670
	MAY-SEP	500	705	840	120%	975	1180	700
North Platte R bl Guernsey Reservoir	MAY-JUL	470	670	810	121%	950	1150	670
	MAY-SEP	495	705	845	121%	985	1200	700

- 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

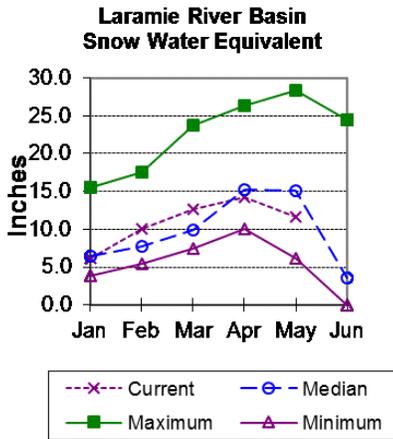
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Alcova	179.6	179.6	178.9	184.3
Glendo	459.8	462.4	434.5	506.4
Guernsey	28.2	35.6	29.9	45.6
Pathfinder	1008.4	925.1	617.9	1016.5
Basin-wide Total	1676.0	1602.7	1261.2	1752.8
# of reservoirs	4	4	4	4

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
DEER & LaPRELE CREEKS	2	105%	153%
LOWER NORTH PLATTE RIVER BASIN	4	101%	165%

Laramie River Basin

Snow

SWE for the entire Laramie River Basin (above mouth entering North Platte) is 77% of median (147% last year). SWE for the Laramie River above Laramie is 83% of median (172% last year). SWE for the Little Laramie River is 71% of median (121% last year). **SWE total for the entire North Platte River Basin above Torrington is 99% of median (118% last year).** See Appendix A at the end of this report for a detailed listing of snow course information.



Precipitation

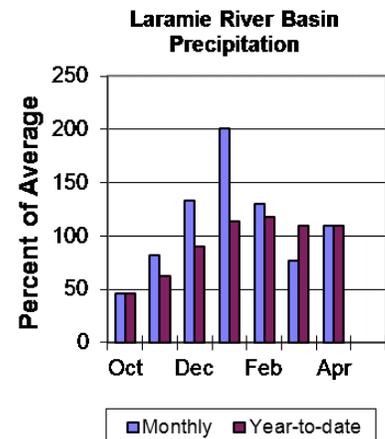
Last month's precipitation was 110% of average (160% last year). For the 12 reporting station percentages for the month range from 66-206%. The water year-to-date precipitation for the basin is currently 110% of average (131% last year). Year-to-date percentages range from 90-153% of average.

Reservoirs

Reservoir storage is as follows: Wheatland #2 73,500 ac-ft (132% of average) (74% of capacity) was (132% of average last year). Detailed reservoir data shown on the following page and in Appendix D.

Streamflow

The 50% exceedance forecasts for the May through September period will be about average. Laramie River near Woods Landing should yield around 130,000 ac-ft (109% of average). The Little Laramie near Filmore should produce about 50,000 ac-ft (96% of average). See below for detailed information on projected runoff.



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Laramie River Basin Streamflow Forecasts - May 1, 2017

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	MAY-JUL	81	103	119	110%	135	157	108
	MAY-SEP	88	113	130	109%	147	172	119
Little Laramie R nr Filmore	MAY-JUL	31	40	46	96%	52	61	48
	MAY-SEP	33	43	50	96%	57	67	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

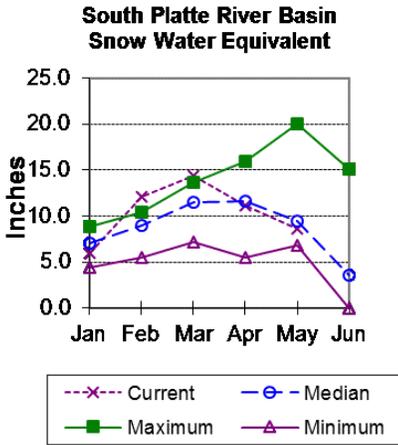
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Wheatland #2	73.5	86.2	55.6	98.9
Basin-wide Total	73.5	86.2	55.6	98.9
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
LARAMIE RIVER abv Laramie	6	89%	168%
LITTLE LARAMIE RIVER	2	82%	116%
LARAMIE RIVER BASIN	9	87%	149%
NORTH PLATTE TOTAL RIVER BASIN	34	102%	118%

South Platte River Basin (WY)

Snow

South Platte River Basin SWE in WY is 91% of median (119% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*



Precipitation

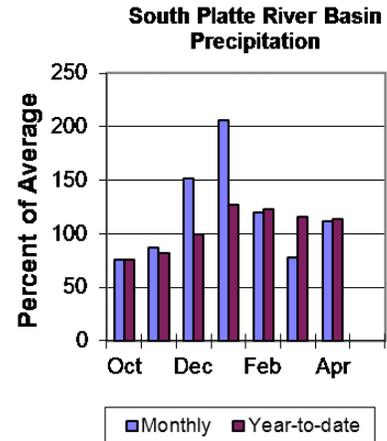
Last month's precipitation was 112% of average (125% last year) for the 5 reporting stations. The water year-to-date precipitation for the basin is currently 111 of average (119% last year). Year-to-date percentages range from 90-120% of average.

Reservoirs

No reservoir data for the basin.

Streamflow

There are no streamflow forecast points for the basin.



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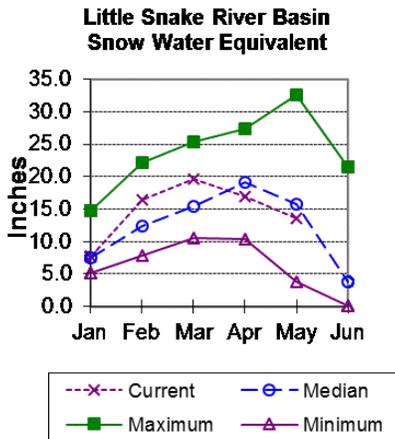
South Platte River Basin - May 1, 2017

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
SOUTH PLATTE RIVER BASIN	7	95%	114%

Little Snake River Basin

Snow

Little Snake River drainage SWE is 86% of median (117% last year). See *Appendix A at the end of this report for a detailed listing of snow course information.*

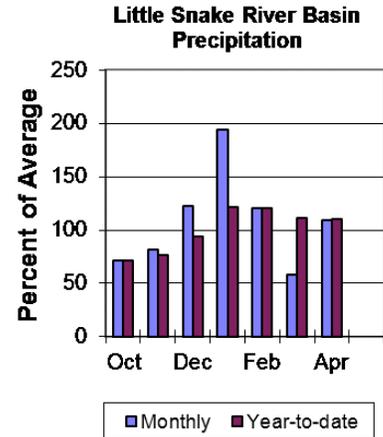


Precipitation

Precipitation across the basin was 109% of average (162% last year) for the eight reporting stations. Last month's precipitation ranged from 87-126% of average. The Little Snake River Basin water-year-to-date precipitation is currently 110% of average (104% last year). Year-to-date percentages range from 89-131% of average.

Reservoirs

High Savery Dam - 20,900 ac-ft (137% of average) (93% of capacity) (112% of average last year). See below for detailed information on reservoirs and in Appendix D.



Streamflow

The 50% exceedance forecasts for the May through July period will be below average. The Little Snake River near Slater should yield around 123,000 ac-ft (89% of average). The Little Snake River near Dixon should yield around 245,000 ac-ft (83% of average). See below for detailed information on projected runoff.

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Little Snake River Basin Streamflow Forecasts - May 1, 2017

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 ²	APR-JUL	123	140	152	97%	165	185	156
	MAY-JUL	94	111	123	89%	136	156	138
Little Snake R nr Dixon ²	APR-JUL	215	265	305	88%	350	420	345
	MAY-JUL	153	205	245	83%	290	360	295

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 April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
High Savery Reservoir	20.9	17.1	15.3	22.4
Basin-wide Total	20.9	17.1	15.3	22.4
# of reservoirs	1	1	1	1

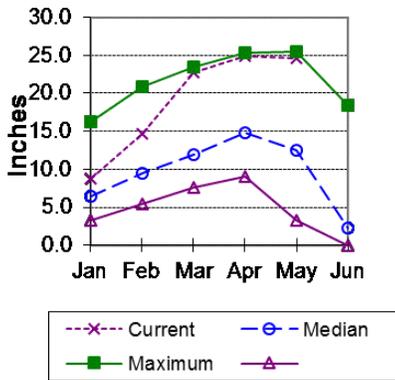
Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
LITTLE SNAKE RIVER BASIN	10	86%	117%

Upper Green River Basin

Snow

Upper Green River Basin above Fontenelle Reservoir SWE is 196% of median (88% last year). Green River Basin above Warren Bridge SWE is 207% of median (66% last year). West Side of Upper Green River Basin SWE is 193% of median (101% last year). New Fork River SWE is 189% of median (65% last year). Big Sandy-Eden Valley Basin SWE is 183% of median (92% last year). *See Appendix A at the end of this report for a detailed listing of snow course information.*

**Upper Green River Basin
Snow Water Equivalent**



capacity (121% of average) (97% last year). Fontenelle Reservoir is 127,800 ac-ft (37% of capacity) (102% of average) (139% last year). *Detailed reservoir data shown on the following page and in Appendix D.*

Streamflow

The 50% exceedance forecasts for the May through July period will be way above average. The yield on the Green River at Warren Bridge is about 410,000 ac-ft (182% of average). Pine Creek above Fremont Lake yield will be about 157,000 ac-ft (164% of average). New Fork River near Big Piney yield will be a record high of about 660,000 ac-ft (200% of average). Fontenelle Reservoir Inflow is estimated to be a record around 1,420,000 ac-ft (222% of average), and Big Sandy near Farson yield will be around 90,000 ac-ft (188% of average). *See the following for a more detailed forecast.*

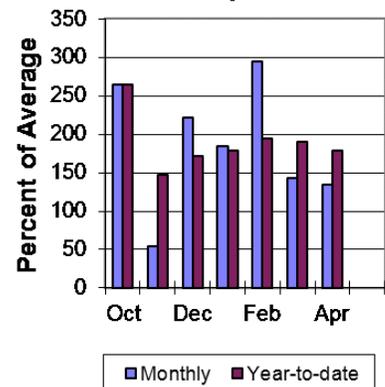
Precipitation

The 16 reporting precipitation sites in the basin were 134% of average last month (82% last year). Last month's precipitation varied from 113-180% of average. Water year-to-date precipitation is 179% of average (96% last year). Year to date percentages of average range from 159-249%.

Reservoir

Storage in Big Sandy Reservoir is 28,000 ac-ft or 73% of

**Upper Green River Basin
Precipitation**



Upper Green River Basin Streamflow Forecasts - May 1, 2017

 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	390	415	435	178%	450	475	245
	MAY-JUL	365	390	410	182%	425	450	225
Pine Creek ab Fremont Lake	APR-JUL	147	155	160	163%	165	173	98
	MAY-JUL	144	152	157	164%	162	170	96
New Fork R nr Big Piney	APR-JUL	640	690	725	204%	760	810	355
	MAY-JUL	575	625	660	200%	695	745	330
Fontenelle Reservoir Inflow	APR-JUL	1670	1780	1650	228%	1920	2030	725
	MAY-JUL	1440	1550	1420	222%	1690	1800	640
Big Sandy R nr Farson	APR-JUL	81	89	94	181%	99	107	52
	MAY-JUL	77	85	90	188%	95	103	48

- 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

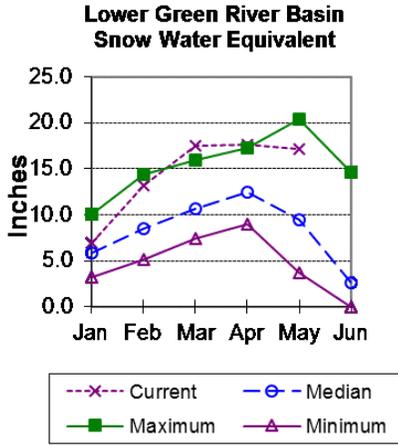
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Big Sandy	28.0	22.5	23.1	38.3
Fontenelle	127.8	173.5	125.0	344.8
Basin-wide Total	155.8	196.0	148.1	383.1
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
GREEN above Warren Bridge	5	207%	66%
UPPER GREEN - West Side	5	193%	101%
NEWFORK RIVER	2	189%	65%
BIG SANDY-EDEN VALLEY	2	183%	92%
GREEN above Fontenelle	14	196%	88%

Lower Green River Basin

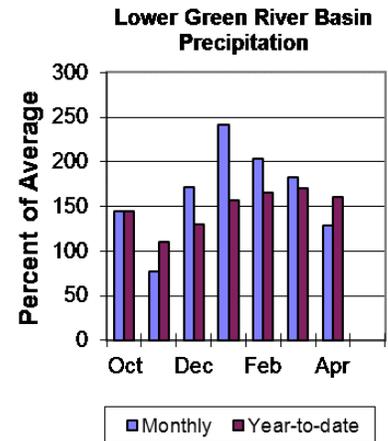
Snow

Lower Green River Basin SWE is 181% of median (115% last year). Hams Fork drainage SWE is 201% of median (90% last year). Blacks Fork drainage SWE is 141% of median (134% last year). Henrys Fork SWE is 152% of median (255% last year). [SWE for the entire Green River Basin \(above Flaming Gorge\) is 192% of median \(97% last year\).](#) 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 129% of average (129% last year). Precipitation ranged from 51-242% of average for the month. The basin year-to-date precipitation is currently 160% of average (107% last year). Year-to-date percentages range from 112-294% of average.



Reservoirs

Fontenelle Reservoir is currently storing 127,800 ac-ft; this is 102% of average (139% last year) (37% of capacity). Flaming Gorge is currently storing 3,084,400 ac-ft; this is 101% of average (106% last year) (82% of capacity). Viva Naughton is currently storing 18,700 ac-ft; this is 59% of average (121% last year) (44% of capacity). Detailed reservoir data shown on the following page and in Appendix D.

Streamflow

The 50% exceedance forecasts for the May through July period will be above average. The Green River near Green River will yield a record of about 1,470,000 ac-ft (230% of average). The Blacks Fork near Robertson will yield about 115,000 ac-ft (140% of average). East Fork of Smiths Fork near Robertson will yield around 36,000 ac-ft (138% of average). Hams Fork below Pole Creek near Frontier will yield a record of around 107,000 ac-ft (223% of average). The Hams Fork Inflow to Viva Naughton Reservoir will yield a record of about 141,000 ac-ft (227% of average). The Flaming Gorge Reservoir inflow will be a record about 1,900,000 ac-ft (225% of average). See the following page for more detailed information on projected runoff.

Lower Green River Basin Streamflow Forecasts - May 1, 2017

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 ²	APR-JUL	1510	1630	1710	234%	1790	1910	730
	MAY-JUL	1270	1390	1470	230%	1550	1670	640
Blacks Fk nr Robertson	APR-JUL	104	115	123	143%	131	144	86
	MAY-JUL	96	107	115	140%	123	136	82
EF of Smiths Fork nr Robertson ²	APR-JUL	32	36	39	144%	43	48	27
	MAY-JUL	29	33	36	138%	40	45	26
Hams Fk bl Pole Ck nr Frontier	APR-JUL	107	117	124	230%	131	143	54
	MAY-JUL	90	100	107	223%	114	126	48
Viva Naughton Reservoir Inflow	APR-JUL	150	167	179	242%	192	210	74
	MAY-JUL	112	129	141	227%	154	174	62
Flaming Gorge Reservoir Inflow ²	APR-JUL	2170	2350	2250	230%	2610	2810	980
	MAY-JUL	1820	2000	1900	225%	2260	2460	845

- 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 April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Fontenelle	127.8	173.5	125.0	344.8
Flaming Gorge Reservoir	3084.4	3213.5	3039.0	3749.0
Viva Naughton Res	18.7	38.1	31.6	42.4
Basin-wide Total	3230.9	3425.1	3195.6	4136.2
# of reservoirs	3	3	3	3

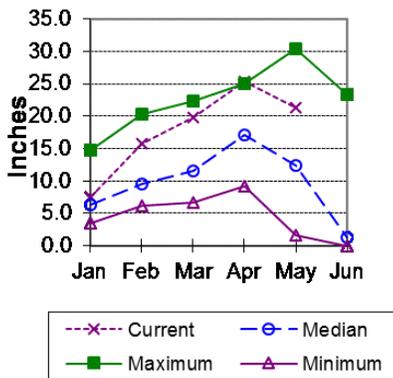
Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
HAMS FORK RIVER	4	201%	90%
BLACKS FORK	2	141%	134%
HENRYS FORK	2	152%	255%
LOWER GREEN RIVER BASIN	8	181%	115%
GREEN above FLAMING GORGE	21	192%	97%

Upper Bear River Basin

Snow

Upper Bear River Basin above the UT-WY state line SWE is 145% of median (83% last year). SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 200% of median (83% last year). Upper Bear River Basin SWE above WY-UT state line is 171% of median (86% last year). *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 136% of average for the 9 reporting stations; this was 85% last year. The year-to-date precipitation for the basin is 158% of average; this was 96% last year. Year-to-date percentages range from 118-279% of average.

Reservoirs

Storage in Woodruff Narrows Reservoir is 50,800 ac-ft about 89% of capacity (112% of

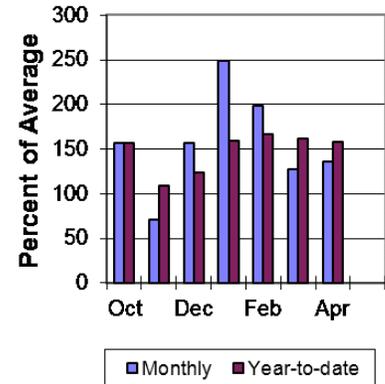
average) (126% last year). *Detailed reservoir data shown below and in Appendix D.*

Streamflow

The following 50% exceedance forecasts for the May through September period will be extremely high. The Bear River near the Utah-Wyoming State Line should yield about 187,000 ac-ft (161% of average). The Bear River above Reservoir near Woodruff should yield around 210,000 ac-ft (189% of average). The Smiths Fork River near Border Jct. will yield around 183,000 ac-ft (193% of average). *See below for detailed information on projected runoff.*

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Upper Bear River Basin Precipitation



Upper Bear River Basin Streamflow Forecasts - May 1, 2017

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	158	171	180	161%	189	200	112
	APR-SEP	175	190	200	163%	210	225	123
	MAY-JUL	146	159	167	161%	175	188	104
	MAY-SEP	163	177	187	161%	197	210	116
Bear R ab Resv nr Woodruff	APR-JUL	176	210	230	190%	250	285	121
	APR-SEP	185	220	245	191%	270	305	128
	MAY-JUL	145	175	195	186%	215	245	105
	MAY-SEP	154	187	210	189%	230	265	111
Smiths Fk nr Border	APR-JUL	166	177	184	207%	191	200	89
	APR-SEP	190	200	210	202%	220	230	104
	MAY-JUL	140	150	157	196%	164	174	80
	MAY-SEP	164	175	183	193%	191	200	95

- 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 April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Woodruff Narrows Reservoir	50.8	57.4	45.5	57.3
Basin-wide Total	50.8	57.4	45.5	57.3
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
UPPER BEAR RIVER in Utah	3	145%	83%
SMITHS & THOMAS FORKS	3	200%	83%
UPPER BEAR RIVER BASIN	8	171%	86%

Appendix A (Snowpack)

In Word double click the object below to view entire document

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 Basinwide Summary: May 1, 2017
 (Averages/Medians based on 1961-2010 reference period)

Snowpack Summary for May 1, 2017										
SNAAK above Jackson Lake	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	Snowpack Summary for May 1, 2017	
									Current	Average
Asler Creek	SC	7750								
Glade Creek	SC	7040	38	18.8	18.6	90%	9.8	52%		
Grassy Lake	SNOTEL	7265	93	39.6	29.1	136%	20.3	70%		
Huckleberry Divide	SC	7300								
Lewis Lake Divide	SNOTEL	7550	106	48.7	30.1	162%	20.5	68%		
Moran	SC	6750								
Snake River Station	SNOTEL	6620	32	14.3	7.4	193%	3.7	50%		
Thumb Divide	SNOTEL	7960	45	20.6	12.4	166%	3.7	30%		
Two Ocean Plateau	SNOTEL	9240	46.2	29.7	156%	26.1	83%	66%		
Basin Index						146%				
# of sites							6	6		
PACIFIC CREEK										
Base Camp	SNOTEL	7030	47	20.6	9.3	222%	5.8	62%		
Moran	SC	6750								
Two Ocean Plateau	SNOTEL	9240	46.2	29.7	156%	26.1	88%	82%		
Basin Index						171%				
# of sites							2	2		
BUFFALO FORK										
Four Mile	SC	6600	20	8.8	4.8	148%	2.2	48%		
Topwotee Pass	SNOTEL	6580	102	37.0	24.7	150%	22.3	90%		
Turpin Meadows	SC	6900								
Younts Peak	SNOTEL	8350	50	23.5	15.5	152%	5.1	33%		
Basin Index						159%				
# of sites							3	3		
GROS VENTRE RIVER										
Elbo Ranch	SC	7100	31	12.0	8.4	128%	8.0	94%		
Gros Ventre Summit	SNOTEL	8750	55	21.4	11.8	184%	9.5	82%		
Gunsight Pass	SNOTEL	9820	71	26.2	12.5	210%	14.0	112%		
Topwotee Pass	SNOTEL	6580	102	37.0	24.7	150%	22.3	90%		
Basin Index						166%				
# of sites							4	4		
HOBACK RIVER										
Blind Bull Sum	SNOTEL	8650	111	48.1	23.1	206%	25.0	108%		
East Rim Divide	SNOTEL	7930	24	10.9	8.2	133%	0.0	0%		
Granite Creek	SNOTEL	6770	64	22.0	8.3	265%	4.4	53%		
Hoback GS	SC	6864	13	6.4	0.0	0%	0.0	0%		
Snow King Mountain	SC	7680								
Basin Index						221%				
# of sites							4	4		
GREYS RIVER										
Blind Bull Sum	SNOTEL	8650	111	48.1	23.1	206%	25.0	108%		

Appendix B (Precipitation)

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Report Created: 5/3/2017 4:40:37 PM
 Basinwide Summary: May 1, 2017
 (Averages/Medians based on 1961-2010 reference period)

SNAAK above Jackson Lake	Network	Elevation (ft)	Monthly Total Precipitation for April 2017				Water Year to Date Precipitation through April 2017					
			Current (in)	Average (in)	% Average	Last Year (in)	Current (in)	Average (in)	% Average	Last Year (in)		
Asler Creek	SNOTEL	7265	8.8	4.1	107%	2.1	49%	61.4	38.3	158%	38.9	94%
Lewis Lake Divide	SNOTEL	7550	10.6	4.4	107%	1.6	34%	59.7	36.9	162%	33.1	99%
Snake River Station	SNOTEL	6620	4.9	3.3	150%	0.8	19%	38.3	24.8	154%	23.6	95%
Thumb Divide	SNOTEL	7960	4.8	3.2	150%	0.8	20%	28.6	17.9	159%	14.6	82%
Two Ocean Plateau	SNOTEL	9240	6.1	3.8	160%	1.5	38%	45.8	35.1	130%	26.1	89%
Basin Index					150%					150%		
# of sites												
PACIFIC CREEK												
Base Camp	SNOTEL	7030	1.8	2.4	75%	1.4	58%	14.4	11.9	121%	11.9	100%
Two Ocean Plateau	SNOTEL	9240	6.1	3.8	160%	1.5	38%	45.8	35.1	130%	26.1	87%
Basin Index					149%					149%		
# of sites												
BUFFALO FORK												
Topwotee Pass	SNOTEL	6580	8.9	3.8	181%	2.8	72%	42.9	27.2	158%	26.9	97%
Younts Peak	SNOTEL	8350	3.8	2.2	169%	1.4	62%	39.8	17.8	223%	14.6	82%
Basin Index					169%					171%		
# of sites												
GROS VENTRE RIVER												
Elbo Ranch	SNOTEL	7100	2.8	2.2	126%	1.2	55%	26.4	14.1	187%	12.1	86%
Gunsight Pass	SNOTEL	9820	4.6	2.8	164%	2.2	79%	28.1	17.2	163%	16.1	93%
Topwotee Pass	SNOTEL	6580	5.6	2.8	197%	2.8	79%	42.9	27.2	158%	26.9	97%
Basin Index					161%					161%		
# of sites												
HOBACK RIVER												
Blind Bull Sum	SNOTEL	8650	3.8	2.2	174%	1.1	48%	38.9	21.3	183%	17.6	85%
East Rim Divide	SNOTEL	7930	1.8	1.4	130%	1.7	109%	23.5	13.9	169%	12.5	97%
Granite Creek	SNOTEL	6770	2.8	2.2	127%	1.6	88%	38.2	21.9	173%	18.8	88%
Basin Index					130%					130%		
# of sites												
GREYS RIVER												
Blind Bull Sum	SNOTEL	8650	3.8	2.2	174%	1.1	48%	38.9	21.3	183%	17.6	85%
Colburns Creek	SNOTEL	7910	7.1	3.1	196%	3.6	99%	43.6	27.4	159%	29	100%
Spring Creek Divide	SNOTEL	9000	4.9	3.3	149%	2.1	64%	44.3	26.2	169%	26.4	97%
Topwotee Pass	SNOTEL	6580	4.7	3.1	152%	2	63%	28.6	17.8	161%	28.2	100%
Willow Creek	SNOTEL	8350	10.1	8.4	120%	4.5	54%	37.3	37.8	100%	36.9	99%
Basin Index					150%					150%		
# of sites												
SALT RIVER												
Colburns Creek	SNOTEL	7910	7.1	3.1	196%	3.6	99%	43.6	27.4	159%	29	100%
Salt River Summit	SNOTEL	7780	3.8	2.4	158%	2	85%	31.8	16.4	175%	17.3	94%
Willow Creek	SNOTEL	8350	10.1	8.4	120%	4.5	54%	37.3	37.8	100%	36.9	99%
Basin Index					150%					150%		
# of sites												
SNAAK RIVER BASIN												
Alta 1 NW	COOP	6210	2.50	1.40	180%	1.19	115%	19.43	9.39	207%	8.24	85%
Alta 1 SW	COOP	6430	5.15	2.20	234%	2.09	119%	22.74	14.86	152%	16.1	100%
Basin Camp	SNOTEL	7580	1.8	2.8	65%	1.4	84%	42.1	22.9	185%	21.2	93%
Basin 3 SE	COOP	6430	4.77	1.70	277%	2.32	139%	27.43	12.91	212%	17.29	150%
Basin 3 SW	SNOTEL	6130	1.8	6.1	30%	0.1	6%	16.8	4.7	358%	37.2	89%
Basin 4 SW	SNOTEL	6430	1.8	2.8	65%	1.4	84%	42.1	22.9	185%	21.2	93%
Basinland	COOP	6820	1.3	0.87	149%	0.81	94%	23.75	11.64	204%	10.79	90%
Colburns Creek	SNOTEL	7910	7.1	3.1	196%	3.6	99%	43.6	27.4	159%	29	100%
Danah Ranch	COOP	8180	1.08	1.08	100%	1.08	87%	16.86	8.17	206%	7.48	92%
East Rim Divide	SNOTEL	7930	1.8	1.4	130%	1.7	109%	23.5	13.9	169%	12.5	97%
Grand Teton	SNOTEL	6070	12.1	5.2	233%	4.8	88%	61	34.8	147%	34.5	100%
Granite Creek	SNOTEL	6770	2.8	2.2	127%	1.6	88%	38.2	21.9	173%	18.8	88%
Grassy Lake	SNOTEL	7265	8.8	4.1	197%	2.1	49%	61.4	38.3	158%	38.9	94%
Gros Ventre Summit	SNOTEL	8750	3	2.2	136%	1.2	55%	28.4	14.8	191%	12.1	82%
Gunsight Pass	SNOTEL	9820	4.6	2.8	164%	2	71%	28.2	17	179%	18.3	102%
Jackson	COOP	6500	1.05	1.26	83%	2.3	176%	16.3	8.3	210%	6.28	125%
Lewis Lake Divide	SNOTEL	7550	10.6	4.4	107%	1.6	34%	59.7	36.9	162%	33.1	99%
Loomis	COOP	6540	2.7	2.2	122%	1.7	77%	34.3	18.9	181%	17.9	96%
Loon	COOP	6470	1.79	4.8	37%	1	2%	25.5	14.2	184%	15.1	98%
Moran 5 WNW	COOP	6790	2.19	2.04	107%	1.08	83%	20.4	16.71	179%	14.68	87%

Appendix C (Forecasts)

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Streamflow Forecast Summary: May 1, 2017
(averages based on 1981-2010 reference period)

SNAKE RIVER BASIN	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						30yr Avg (KAF)
		90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	
Snake R nr Moran ¹	MAY-JUL	930	965	1040	146%	1080	1160	700
	MAY-SEP	1020	1100	1180	150%	1210	1290	775
Snake R ab Reservoir nr Alpine ²	MAY-JUL	3270	3430	3530	180%	3640	3800	1900
	MAY-SEP	3770	3660	4080	170%	4200	4380	2280
Snake R nr Irwin ²	MAY-JUL	4100	4450	4820	174%	4700	5050	2690
	MAY-SEP	4880	5100	5300	171%	5560	5890	3150
Snake R nr Heise ²	MAY-JUL	4470	4740	4920	173%	5100	5370	2840
	MAY-SEP	5240	5560	5770	170%	5960	6300	3390
Pacific Ck at Moran	MAY-JUL	225	250	270	178%	285	310	152
	MAY-SEP	240	265	280	174%	300	325	161
Buffalo Fk ab Lava Ck nr Moran	MAY-JUL	385	415	430	162%	450	475	265
	MAY-SEP	440	470	495	162%	515	545	305
Greys R ab Reservoir nr Alpine	MAY-JUL	440	465	480	181%	495	520	265
	MAY-SEP	515	545	565	179%	585	615	315
Salt R ab Reservoir nr Etna	MAY-JUL	400	440	470	192%	495	540	245
	MAY-SEP	495	540	575	185%	605	655	310

- 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

MADISON-GALLATIN RIVER BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Hebgen Reservoir Inflow	MAY-JUL	290	330	355	116%	380	420	305
	MAY-SEP	360	430	465	119%	500	550	405

- 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

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	MAY-JUL	710	770	815	150%	860	920	545
	MAY-SEP	960	1040	1100	150%	1160	1250	735
Yellowstone R at Corwin Springs	MAY-JUL	1930	2080	2180	147%	2280	2430	1480
	MAY-SEP	2260	2460	2590	146%	2720	2920	1770
Yellowstone R at Livingston	MAY-JUL	2180	2370	2500	150%	2620	2810	1670
	MAY-SEP	2600	2810	2960	147%	3110	3330	2010

Appendix D (Reservoirs)

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Reservoir Storage Summary for the end of April 2017
(averages based on 1981-2010 reference period)

SNAKE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Capacity	Last Year % Capacity	Average % Capacity
Grassy Lake	13.3	14.1	12.8	15.2	88%	93%	84%	104%	110%	110%
Jackson Lake	462.2	428.3	467.7	847.0	55%	50%	55%	104%	141%	141%
Patuxent Reservoir	335.8	1148.3	911.7	1490.0	24%	77%	61%	37%	193%	193%
Basin-wide Total	911.3	1791.3	1392.2	2362.2	36%	79%	61%	39%	131%	131%
# of reservoirs	3	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 % Capacity	Last Year % Capacity	Average % Capacity
Enns Lake	36.1	36.1	32.4	41.0	88%	88%	79%	108%	108%	108%
Hebgen Lake	299.2	353.3	278.7	378.8	79%	80%	73%	108%	110%	110%
Basin-wide Total	335.3	389.4	305.1	419.8	79%	80%	73%	108%	110%	110%
# of reservoirs	2	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 % Capacity	Last Year % Capacity	Average % Capacity
Bull Lake	60.1	74.4	75.1	151.8	40%	50%	50%	102%	102%	102%
Boyer	426.9	672.0	478.4	556.0	77%	96%	86%	109%	120%	120%
Zoss Butte	26.5	26.5	26.1	31.6	84%	84%	83%	99%	103%	103%
Basin-wide Total	513.5	872.9	579.6	739.4	69%	87%	74%	108%	117%	117%
# of reservoirs	3	3	3	3	3	3	3	3	3	3
BIHORN RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Capacity	Last Year % Capacity	Average % Capacity
Boyer	426.8	672.0	478.4	556.0	77%	96%	86%	109%	120%	120%
Elkhorn Lake	729.8	781.0	773.8	1388.0	54%	56%	57%	94%	102%	102%
Basin-wide Total	1156.6	1453.0	1252.2	1944.0	59%	76%	74%	104%	110%	110%
# of reservoirs	2	2	2	2	2	2	2	2	2	2
SHOShONE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Capacity	Last Year % Capacity	Average % Capacity
Buffalo Bill	37.4	44.9	39.3	64.6	58%	69%	61%	100%	134%	134%
Basin-wide Total	37.4	44.9	39.3	64.6	58%	69%	61%	100%	134%	134%
# of reservoirs	1	1	1	1	1	1	1	1	1	1
TOWNE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Capacity	Last Year % Capacity	Average % Capacity
Tongue River Res.	87.2	85.3	84.7	79.1	110%	108%	107%	144%	134%	134%
Basin-wide Total	87.2	85.3	84.7	79.1	110%	108%	107%	144%	134%	134%
# of reservoirs	1	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 % Capacity	Last Year % Capacity	Average % Capacity
Belle Fourche	141.1	163.3	144.6	178.4	79%	92%	81%	100%	113%	113%
Kochov	149.0	168.4	161.1	193.8	77%	87%	81%	102%	112%	112%
Shoshone	49.8	61.2	61.2	61.4	81%	83%	79%	81%	84%	84%
Basin-wide Total	340.0	392.9	366.9	433.6	79%	90%	81%	101%	110%	110%
# of reservoirs	3	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 % Capacity	Last Year % Capacity	Average % Capacity
Angostura	108.0	112.0	97.8	122.1	88%	92%	80%	111%	116%	116%
Overton	15.1	14.2	14.2	15.2	100%	94%	94%	107%	100%	100%
Patola	56.2	56.2	47.7	55.0	102%	102%	87%	116%	115%	115%
Basin-wide Total	179.3	182.4	159.7	192.3	93%	96%	87%	111%	114%	114%
# of reservoirs	3	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 % Capacity	Last Year % Capacity	Average % Capacity
Shoshone	788.8	788.8	492.5	1016.7	78%	78%	48%	100%	100%	100%
Basin-wide Total	788.8	788.8	492.5	1016.7	78%	78%	48%	100%	100%	100%
# of reservoirs	1	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 % Capacity	Last Year % Capacity	Average % Capacity
Shoshone	1008.4	925.1	617.9	1018.5	99%	91%	61%	103%	100%	100%
Basin-wide Total	1008.4	925.1	617.9	1018.5	99%	91%	61%	103%	100%	100%
# of reservoirs	1	1	1	1	1	1	1	1	1	1

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:

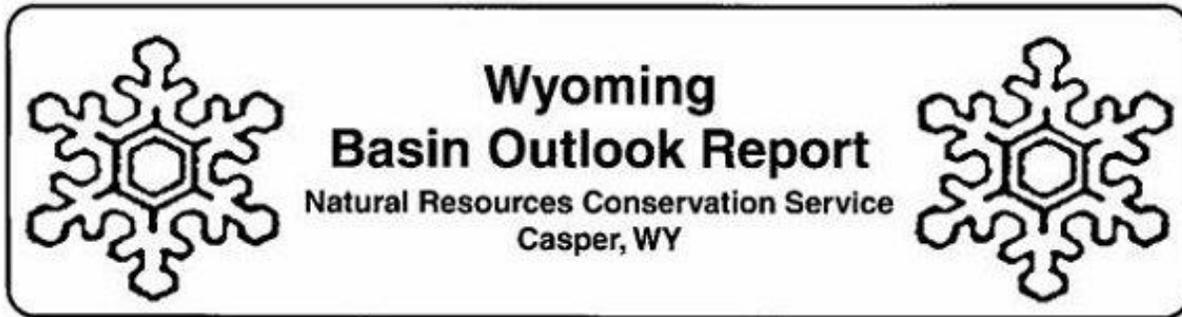
The Wyoming State Engineer's Office

The University of Wyoming

Local:

The City of Cheyenne

The City of Rawlins



Natural Resources Conservation Service
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