



United States
Department of
Agriculture

Wyoming Basin Outlook Report

May 1, 2016

**Natural
Resources
Conservation
Service**



Med Bow SNOTEL #1196 (Medicine Bow Forest above Saratoga, WY) ID O6H26S
established 11/20/11

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 at median for May. 1st at 101%. Monthly precipitation for the basins was 59-162% of average for an overall average of 121%. The year-to-date precipitation average for Wyoming basins is now at 99% varying from 59-162% of average. Forecasted runoff varies from 60-110% of average across the Wyoming basins for an overall average of 94%. Basin reservoir levels for Wyoming vary from 105-199% of average for an overall average of 121%.

Snowpack

Snow water equivalent (SWE), across Wyoming is at median for May 1st at 101%. SWE in the Cheyenne River Basin of Wyoming is the lowest at 0% of median. While SWE in the Lower North Platte River Basin is the highest at 165% of median. *See Appendix A for further information.*

Precipitation

Last month's precipitation was way above average across the Wyoming Mountains at 121% of average. The Little Snake River Basin had the highest precipitation for the month at 162% of average. The Yellowstone River Basin had the lowest precipitation amount at 59% of average. The following table displays the major river basins and their departure from average for last month.

Basin	Departure from average		Departure from average
Snake River	-32%	Upper North Platte River	+48%
Madison-Gallatin	-40%	Sweetwater River	+42%
Yellowstone River	-41%	Lower North Platte River	+57%
Wind River	+24%	Laramie River	+56%
Bighorn River	+40%	South Platte River	+26%
Shoshone River	+05%	Little Snake River	+62%
Powder River	+42%	Upper Green River	-18%
Tongue River	+58%	Lower Green River	+29%
Belle Fourche River	+05%	Upper Bear River	-15%
Cheyenne River	-40%		

See Appendix B for further information.

Streams

Stream flow yields for May thru September are about average statewide over Wyoming at 91%. The Snake River, Madison, and Upper Yellowstone River Basins should yield about 80%, 75% and 81% of average, respectively. Yields from the Wind and Bighorn River Basins should be about 126% and 120% of average, respectively. Yields from the Shoshone and Clarks Fork River Basins of Wyoming should be about 94% and 85% of average, respectively. Yields from the Powder & Tongue River Basins should be about 92% and 86% of average, respectively. Yield for the Cheyenne River Basin should be about 68% of average. Yields for the Upper North Platte, Sweetwater, Lower North Platte, and Laramie Rivers of Wyoming should be about 122%, 112%, 129%, and 120% of average, respectively. Yields for the Little Snake, Green River, and Smith's Fork of Wyoming should be 88%, 82%, and 85% of average respectively. *See Appendix C for further information.*

Reservoirs

Reservoir storage is above average at 121% for the entire state. Reservoirs in the Snake River Basin are above average at 131%. Reservoirs in the Madison-Gallatin Basin are above average at 110%. Reservoirs in the Wind River Basin are above average at 117%. Reservoirs on the Big Horn are above average at 109%. The Buffalo Bill Reservoir on the Shoshone is above average at 134%. The Tongue River Basin Reservoir is above average at 199%. Reservoirs in the Belle Fourche and Cheyenne River Basins are above average in storage at 126 & 114% respectively. Reservoirs on the Upper and Lower North Platte River are above average at 150% and 127% respectively. Reservoirs on the Laramie and Little Snake River basins are at 155% and 112% respectively. Reservoirs on the Upper Green River are above average at 118%. Reservoirs on the Lower Green River Basin are above average at 105%. Reservoir on the Upper Bear River Basin is above average at 126%. *See below for further info.*

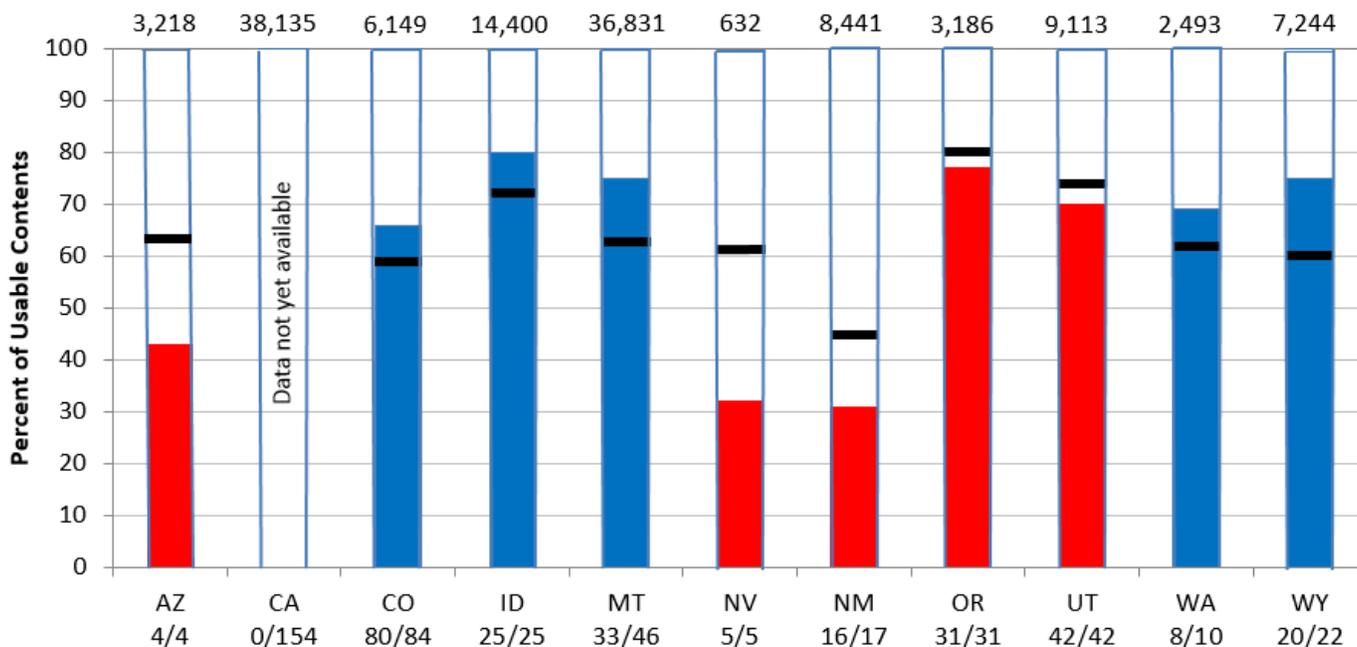
Wyoming Reservoir Levels for May 1st, 2016

WYOMING	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Aloosa	157.7	158.3	158.5	184.3	86%	86%	86%	99%	100%
Bighorn Lake	813.4	848.6	787.5	1356.0	60%	63%	58%	103%	108%
Big Sandy	21.1	23.4	19.9	38.3	55%	61%	52%	106%	118%
Boysen	546.0	619.7	489.0	596.0	92%	104%	82%	112%	127%
Buffalo Bill	432.7	478.2	348.9	646.6	67%	74%	54%	124%	137%
Bull Lake	70.6	105.1	75.4	151.8	47%	69%	50%	94%	139%
Fontenelle	139.2	200.6	121.7	344.8	40%	58%	35%	114%	165%
Glendo	376.5	308.2	389.4	506.4	74%	61%	77%	97%	79%
Grassy Lake	13.5	13.1	12.3	15.2	89%	86%	81%	110%	107%
Guemsey	25.6	27.2	20.0	45.6	56%	60%	44%	128%	136%
High Savary Reservoir	11.6	15.0	13.1	22.4	52%	67%	58%	89%	115%
Jackson Lake	570.9	646.2	430.7	847.0	67%	76%	51%	133%	150%
Kendrick Project		720.2		1201.7		60%			
Keyhole	168.2	173.6	96.8	193.8	87%	90%	50%	174%	179%
Meeks Cabin Reservoir	9.5	26.6	13.4	32.5	29%	82%	41%	71%	198%
North Platte Project		894.6		1062.1		84%			
Pathfinder	865.1	687.0	604.6	1016.5	85%	68%	59%	143%	114%
Pilot Butte	24.7	22.9	24.8	31.6	78%	73%	78%	100%	92%
Seminole	707.0	743.2	481.2	1016.7	70%	73%	47%	147%	154%
Viva Naughton Res	31.1	34.1	27.2	42.4	73%	80%	64%	114%	125%
Wheatland #2	70.3	79.5	51.0	98.9	71%	80%	52%	138%	156%
Woodruff Narrows Reservoir	51.6	50.9	38.4	57.3	90%	89%	67%	134%	133%
Basin-wide Total	5106.3	5261.5	4203.8	7244.1	70%	73%	58%	121%	125%
# of reservoirs	20	20	20	20	20	20	20	20	20

Reservoir Storage as of May 1, 2016

■ Below Average
 ■ Above Average
 ■ Average

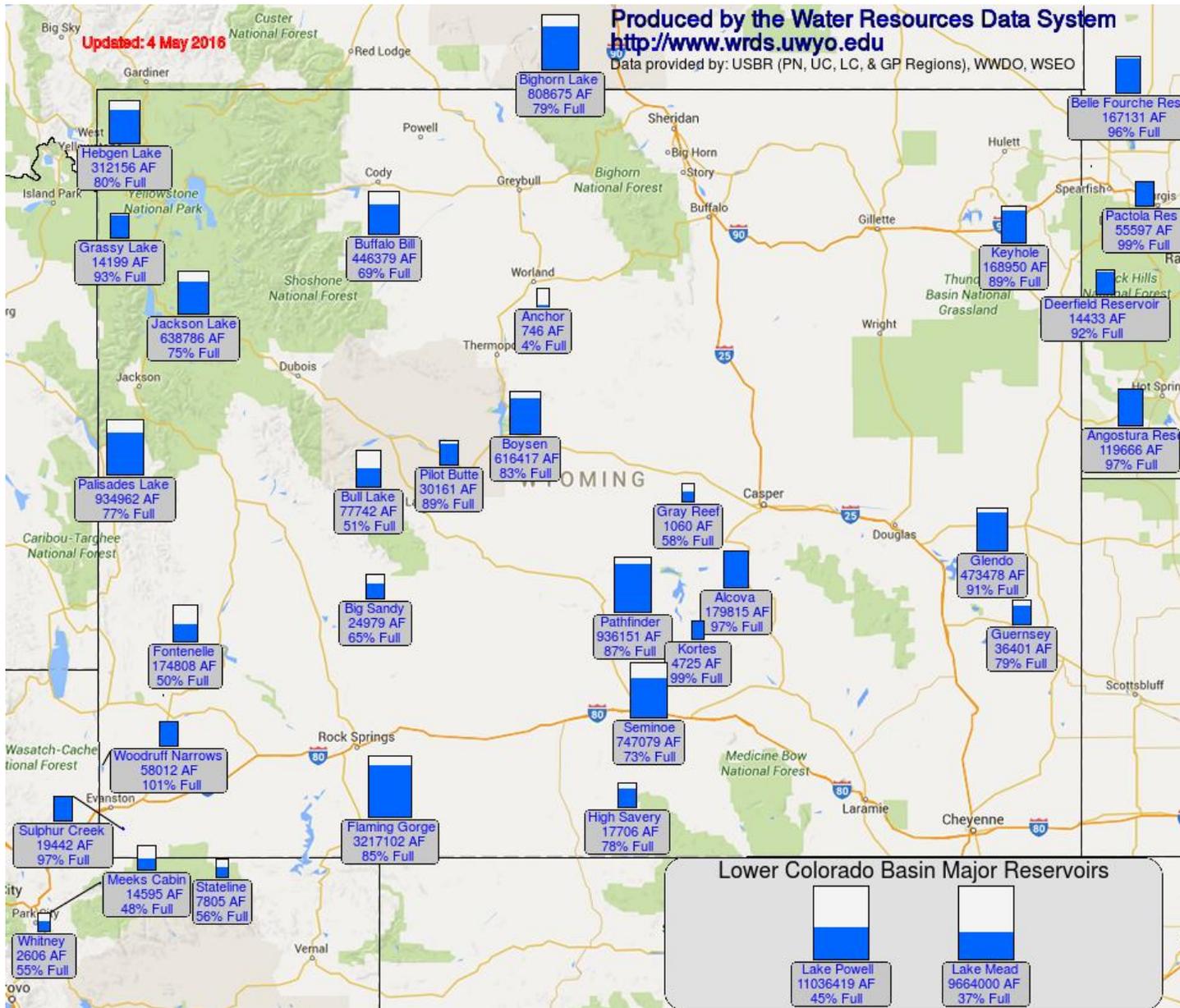
Capacity of Reservoirs Reported (1000 Acre-Feet)



Prepared by: USDA Natural Resources Conservation Service
 National Water and Climate Center, Portland, OR
www.wcc.nrcs.usda.gov

State and Number of Reservoirs Reported

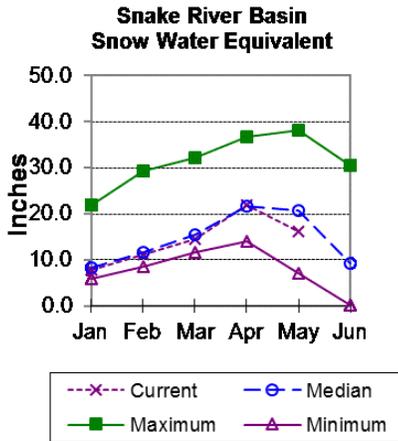
Updated: 4 May 2016



Snake River Basin

Snow

The Snake River Basin SWE above Palisades is 78% of median. SWE in the Snake River Basin above Jackson Lake is 66% of median. Pacific Creek Basin SWE is 82% of median. Buffalo Fork SWE is 84% of median. Gros Ventre River Basin SWE is 89% of median. SWE in the Hoback River drainage is 66% of median. SWE in the Greys River drainage is 106% of median. In the Salt River Basin SWE is 87% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*

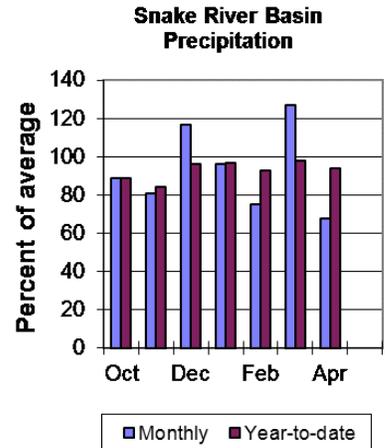


Precipitation

Last month's precipitation for the Snake River Basin was 68% of average (61% last year). Percentages range from 19-179% of average for the 28 reporting stations. Water-year-to-date precipitation is 94% of average for the Snake River Basin (81% last year). Year-to-date percentages range from 76-117% of average.

Reservoirs

Current reservoir storage is 131% of average for the three storage reservoirs in the basin. Grassy Lake storage is about 110% of average (14,100 ac-ft compared to 13,800 last year). Jackson Lake storage is 141% of



average (628,900 ac-ft compared to 707,800 ac-ft last year). Palisades Reservoir storage is about 126% of average (1,148,300 ac-ft compared to 1,194,400 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 below average for this basin. The Snake near Moran yield is 565,000 ac-ft (73% of average). Snake River above Reservoir near Alpine will yield about 1,710,000 ac-ft (75% of average). The Snake near Irwin will yield about 2,510,000 ac-ft (80% of average). The Snake near Heise yield will be about 2,710,000 ac-ft (80% of average). Pacific Creek near Moran Yield will be around 124,000 ac-ft (77% of average). Buffalo Fork above Lava near Moran yield will be around 250,000 ac-ft (82% of average). Greys River above Palisades Reservoir yield will be around 285,000 ac-ft (90% of average). Salt River near Etna yield will be around 260,000 ac-ft (84% of average). *See the following page for further information.*

Snake River Basin Streamflow Forecasts - May 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 ²	MAY-JUL	380	450	500	71%	545	615	700
	MAY-SEP	435	515	565	73%	620	700	775
Snake R ab Reservoir nr Alpine ²	MAY-JUL	1200	1360	1470	75%	1580	1740	1960
	MAY-SEP	1400	1590	1710	75%	1830	2020	2280
Snake R nr Irwin ²	MAY-JUL	1660	1910	2090	79%	2260	2520	2660
	MAY-SEP	2000	2300	2510	80%	2710	3010	3150
Snake R nr Heise ²	MAY-JUL	1790	2060	2240	79%	2420	2690	2840
	MAY-SEP	2180	2500	2710	80%	2930	3240	3390
Pacific Ck at Moran	MAY-JUL	75	99	116	76%	133	157	152
	MAY-SEP	82	107	124	77%	141	166	161
Buffalo Fk ab Lava Ck nr Moran	MAY-JUL	181	205	225	85%	245	270	265
	MAY-SEP	198	230	250	82%	270	300	305
Greys R ab Reservoir nr Alpine	MAY-JUL	195	220	235	89%	250	275	265
	MAY-SEP	235	265	285	90%	305	335	315
Salt R ab Reservoir nr Etna	MAY-JUL	130	172	200	82%	230	270	245
	MAY-SEP	179	225	260	84%	295	340	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

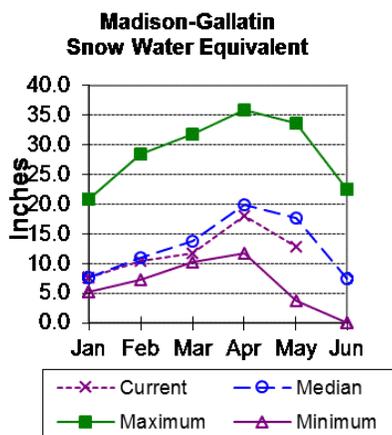
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Grassy Lake	14.1	13.8	12.8	15.2
Jackson Lake	628.9	707.8	445.7	847.0
Palisades Reservoir	1148.3	1194.4	911.7	1400.0
Basin-wide Total	1791.3	1915.9	1370.2	2262.2
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
SNAKE above Jackson Lake	6	66%	40%
PACIFIC CREEK	2	82%	65%
BUFFALO FORK	2	84%	73%
GROS VENTRE RIVER	4	89%	75%
HOBACK RIVER	5	66%	61%
GREYS RIVER	5	106%	83%
SALT RIVER	5	87%	44%
SNAKE RIVER BASIN	27	78%	57%

Madison-Gallatin Rivers Basin

Snow

SWE is 73% of median in the Madison-Gallatin drainage. *See Appendix A at the end of this report for a detailed listing of snow course information.*



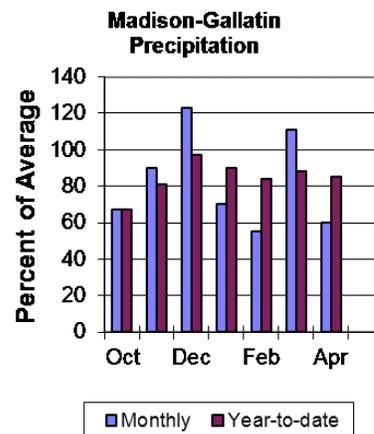
Precipitation

Last month precipitation in the Madison-Gallatin drainage was 60% of average (22% last year). The six reporting stations percentages range from 80-124% of average. Water-year-to-date precipitation is about 88% of average, which was 65% last year. Year to date percentage ranges from 82-96%.

Reservoirs

Ennis Lake is storing about 35,100 ac-ft of water (86% of capacity, 108% of average or 106% last year). Hebgen Lake is storing about 303,700 ac-ft of water (80%

of capacity, 110% of average, 119% last year). *Detailed reservoir data shown below & in Appendix D.*



Streamflow

The 50% exceedance forecast for May through September is below average for the basin. Hebgen Reservoir inflow is 305,000 ac-ft (75% of average). *See below for detailed runoff volumes.*

Data Current as of: 5/5/2016 3:16:17 PM

Madison-Gallatin River Basins Streamflow Forecasts - May 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	MAY-JUL	173	205	225	74%	245	275	305
	MAY-SEP	245	280	305	75%	330	365	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

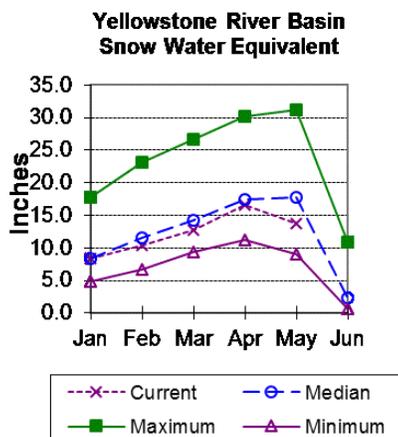
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Ennis Lake	35.1	34.3	32.4	41.0
Hebgen Lake	303.7	328.2	276.7	378.8
Basin-wide Total	338.8	362.5	309.1	419.8
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
MADISON-GALLATIN RIVER BASINS	7	68%	37%

Yellowstone River Basin

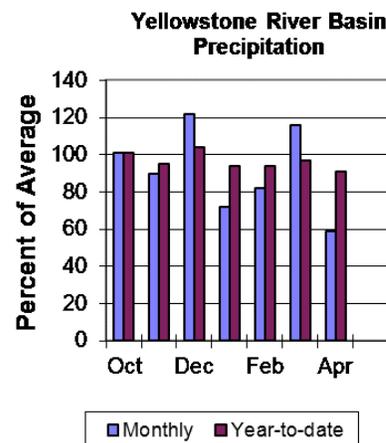
Snow

SWE in the Yellowstone River Basin is 77% of median. SWE in the Yellowstone River Drainage in WY is 72% of median. SWE in the Clarks Fork Drainage of the Yellowstone River Basin in Wyoming is 86% 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 116% of average (39% last year). The 16 reporting stations percentages range from 80-270% of average. Water-year-to-date precipitation is 97% of average, which was 91% last year. Year to date percentages range from 84-160%.



Reservoirs

No reservoir data

Streamflow

The 50% exceedance forecasts for May through September are below average for the basin. Yellowstone at Lake Outlet will yield around 580,000 ac-ft (79% of average).

Yellowstone at Corwin Springs will yield around 1,430,000 ac-ft (81% of average). Yellowstone near Livingston will yield around 1,630,000 ac-ft (81% of average). Clarks Fork of the Yellowstone near Belfry will yield around 445,000 ac-ft (85% of average).

See the following for further information.

Data Current as of: 5/5/2016 3:16:18 PM

Yellowstone River Basin Streamflow Forecasts - May 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	MAY-JUL	335	395	435	80%	475	535	545
	MAY-SEP	455	530	580	79%	630	705	735
Yellowstone R at Corwin Springs	MAY-JUL	955	1110	1210	82%	1310	1470	1480
	MAY-SEP	1120	1300	1430	81%	1560	1740	1770
Yellowstone R at Livingston	MAY-JUL	1060	1240	1370	82%	1500	1690	1670
	MAY-SEP	1250	1480	1630	81%	1780	2010	2010
Clarks Fk Yellowstone R nr Belfry ²	MAY-JUL	345	385	415	86%	440	485	480
	MAY-SEP	360	410	445	85%	480	530	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

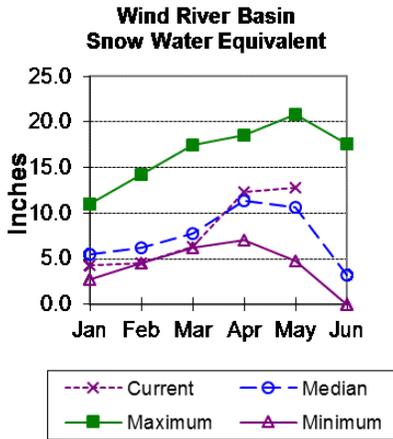
3) Median value used in place of average

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
YELLOWSTONE RIVER in WY	8	72%	57%
CLARKS FORK in WY	8	86%	85%

Wind River Basin

Snow

Wind River Basin above Boysen Reservoir SWE is 120% of median. SWE in the Wind River above Dubois is 77% of median. Little Wind SWE is 145% of median, and Popo Agie drainage SWE is 136% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



Precipitation

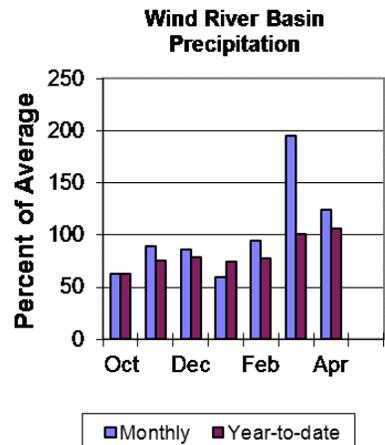
Last month's basin's precipitation varied from 104-317% of average. Precipitation for the basin was 195% of average (40% last year) from the 11 reporting stations. Water year-to-date precipitation is 101% of average and was 79% last year at this time. Year-to-date percentages range from 77-135% of average.

Reservoirs

Current storage in Bull Lake is 76,400 ac-ft (102% of average) (145% last year). Boysen Reservoir is storing (572,000 ac-ft) about 120% of average 127% last year). Pilot Butte is at 106% of average (27,600 ac-ft) (101% last year). *Detailed reservoir data shown on the following page and in Appendix D.*

Streamflow

The 50% exceedance forecasts for the May through September runoff period are above average. Dinwoody Creek near Burris should yield around 93,000 ac-ft (102% of average). The Wind River above Bull Lake Creek will yield around 475,000 ac-ft (102% of average). Bull Lake Creek near Lenore will yield around 190,000 ac-ft (114% of average). Wind River at Riverton will yield around 545,000 ac-ft (104% of average). Little Popo Agie River near Lander should yield around 62,000 ac-ft (135% 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 395,000 ac-ft (144% of average). Boysen Reservoir inflow will yield around 775,000 ac-ft (126% of average). *See the following page for detailed runoff volumes.*



Wind River Basin Streamflow Forecasts - May 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	MAY-JUL	56	62	66	102%	70	76	65
	MAY-SEP	80	88	93	102%	98	106	91
Wind R Ab Bull Lake Ck	MAY-JUL	350	405	445	103%	485	540	430
	MAY-SEP	365	430	475	102%	520	585	465
Bull Lake Ck nr Lenore	MAY-JUL	127	144	156	116%	168	185	135
	MAY-SEP	153	175	190	114%	205	225	166
Wind R at Riverton	MAY-JUL	360	425	470	106%	515	580	445
	MAY-SEP	410	490	545	104%	600	680	525
Little Popo Agie R nr Lander	MAY-JUL	46	51	55	141%	59	64	39
	MAY-SEP	52	58	62	135%	66	72	46
Little Wind R nr Riverton	MAY-JUL	245	315	360	147%	405	475	245
	MAY-SEP	270	345	395	144%	445	520	275
Boysen Reservoir Inflow	MAY-JUL	470	615	715	128%	815	960	560
	MAY-SEP	490	660	775	126%	890	1060	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

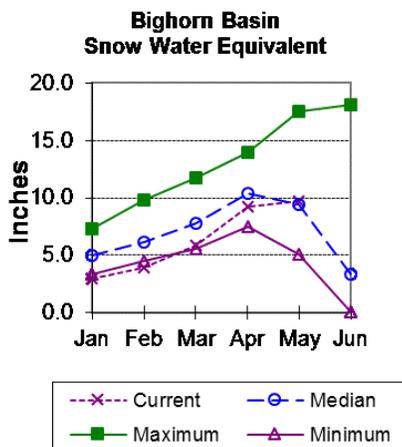
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Bull Lake	76.4	108.6	75.1	151.8
Boysen	572.0	607.4	476.4	596.0
Pilot Butte	27.6	26.3	26.1	31.6
Basin-wide Total	676.0	742.3	577.6	779.4
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
WIND above Dubois	5	77%	71%
LITTLE WIND	2	145%	59%
POPO AGIE	6	136%	58%
WIND RIVER BASIN	15	120%	62%

Bighorn River Basin

Snow

The Bighorn River Basin SWE above Bighorn Reservoir is 103% of median. The Nowood River is at 106% of median. The Greybull River SWE is at 140% of median. Shell Creek SWE is at 89% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*

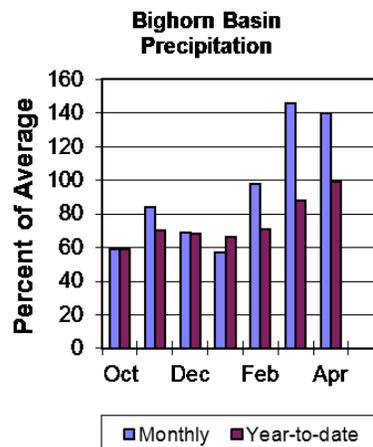


Precipitation

Last month's precipitation was 146% of average (41% last year). Sites ranged from 84-290% of average for the month. Year-to-date precipitation is 88% of average (91% last year). Year-to-date percentages, from the 19 reporting stations, range from 62-133%.

Reservoirs

Boysen Reservoir is currently storing 572,000 ac-ft (120% of average). Bighorn Lake is now at 791,000 ac-ft (102% of average). Boysen was at 127% of average last year at this time and Big Horn



Lake was at 107% last year. *Detailed reservoir data shown below and in Appendix D.*

Streamflow

The 50% exceedance forecasts for the May through September runoffs are above average. Boysen Reservoir inflow should yield 775,000 ac-ft (126% of average); the Greybull River near Meeteetse should yield around 205,000 ac-ft (121% of average); Shell Creek near Shell should yield around 52,000 ac-ft (83% of average) and the Bighorn River at Kane should yield around 1,000,000 ac-ft (120% of average). *See the following for detailed runoff.*

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Bighorn River Basin Streamflow Forecasts - May 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	MAY-JUL	470	615	715	128%	815	960	560
	MAY-SEP	490	660	775	126%	890	1060	615
Greybull R nr Meeteetse	MAY-JUL	128	141	150	121%	159	172	124
	MAY-SEP	158	186	205	121%	225	250	170
Shell Ck nr Shell	MAY-JUL	27	35	41	79%	47	55	52
	MAY-SEP	37	46	52	83%	58	67	63
Bighorn R at Kane	MAY-JUL	620	805	935	121%	1060	1250	770
	MAY-SEP	650	860	1000	120%	1140	1350	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

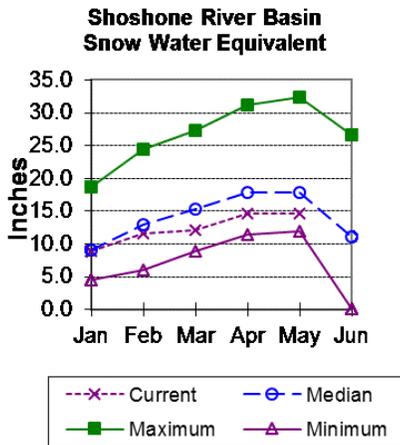
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Boysen	572.0	607.4	476.4	596.0
Bighorn Lake	791.0	825.3	773.6	1356.0
Basin-wide Total	1363.0	1432.7	1250.0	1952.0
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
NOWOOD RIVER	5	106%	71%
GREYBULL RIVER	2	140%	65%
SHELL CREEK	4	89%	81%
BIGHORN RIVER BASIN	12	103%	75%

Shoshone River Basin

Snow

Snowpack in this basin is below median for this time of year. Snow Water Equivalent (SWE) is 82% of median in the Shoshone River Basin. *See Appendix A at the end of this report for a detailed listing of snow course information.*



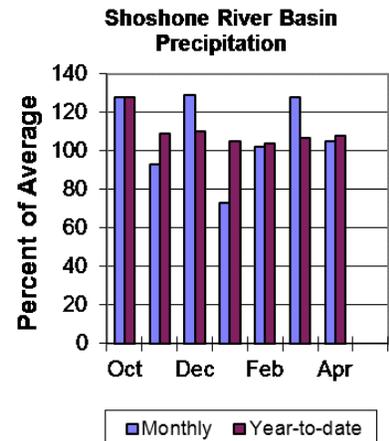
Precipitation

Precipitation for last month was 128% of average (39% last year). Monthly percentages range from 29-164% of average. The basin year-to-date precipitation is now 107% of average (93% last year). Year-to-date percentages range from 73-129% of average for the 8 reporting stations.

Reservoirs

Current storage in Buffalo Bill Reservoir is about 134% of average (148% last year) - the reservoir is at about 69% of capacity. Currently, about 449,300 ac-ft are stored in the

reservoir compared to 497,400 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 September period are slightly below average for the basin. The North Fork Shoshone River at Wapiti will yield around 440,000 ac-ft (91% of average). The South Fork of the Shoshone River near Valley will yield around 240,000 ac-ft (102% of average), and the South Fork above Buffalo Bill Reservoir runoff will yield around 195,000 ac-ft (102% of average). The Buffalo Bill Reservoir inflow will yield around 660,000 ac-ft (94% of average). *See the following for detailed runoff volumes.*

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Shoshone River Basin Streamflow Forecasts - May 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	MAY-JUL	310	360	390	91%	425	470	430
	MAY-SEP	350	405	440	91%	475	530	485
SF Shoshone R nr Valley	MAY-JUL	173	192	205	103%	220	235	200
	MAY-SEP	205	225	240	102%	255	275	235
SF Shoshone R ab Buffalo Bill Reservoir	MAY-JUL	139	169	190	103%	210	240	184
	MAY-SEP	140	173	195	102%	215	250	192
Buffalo Bill Reservoir Inflow ²	MAY-JUL	465	540	590	94%	640	715	630
	MAY-SEP	520	605	660	94%	715	800	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, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Buffalo Bill	449.3	497.4	336.3	646.6
Basin-wide Total	449.3	497.4	336.3	646.6
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
SHOSHONE RIVER BASIN	4	82%	60%

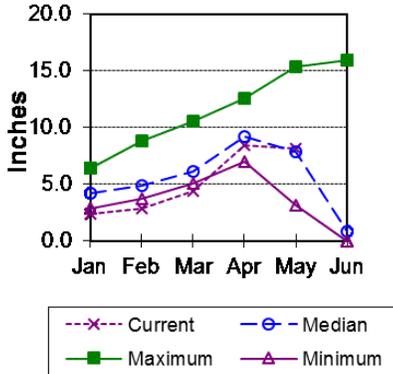
Powder River Basin

Snow

Powder River SWE is 104% of median. Upper Powder River drainage is 106% of median. SWE in the Clear Creek drainage is 99% of median. Crazy Woman Creek drainage SWE is at 87% 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 130% of average (33% last year) for the nine reporting stations. Monthly percentages range from 72-160% of average. Year-to-date precipitation is 77% of average in the basin (87% last year).

Precipitation for the year ranges from 61-96% of average.

Reservoirs

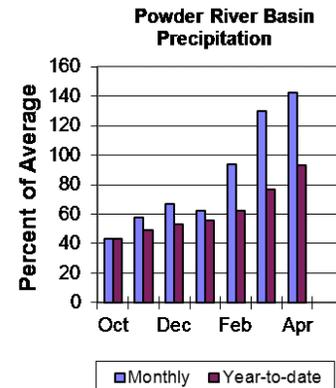
No reservoir data for the basin.

Streamflow

The 50% exceedance forecasts for the May

through September period are below average for the basin. The Middle Fork of the Powder River near Barnum should yield around 14,200 ac-ft (97% of average). The North Fork of the Powder River near Hazelton should yield around 8,400 ac-ft (93% of average). Rock Creek near Buffalo will yield about 19,900 ac-ft (95% of average), and Piney Creek at Kearny should yield about 39,000 ac-ft (91% of average). The Powder River at Moorhead will yield around 157,000 ac-ft (92% of average). The Powder River near Locate will yield around 172,000 ac-ft (93% of average). *See the following for detailed runoff volumes.*

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Powder River Basin Streamflow Forecasts - May 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	MAY-JUL	8.3	11.3	13.3	97%	15.3	18.3	13.7
	MAY-SEP	9	12.1	14.2	97%	16.3	19.4	14.6
NF Powder R nr Hazelton	MAY-JUL	5	6.6	7.7	93%	8.8	10.4	8.3
	MAY-SEP	5.5	7.2	8.4	93%	9.6	11.3	9
Rock Ck nr Buffalo	MAY-JUL	10.1	13.8	16.3	92%	18.8	22	17.7
	MAY-SEP	13.3	17.2	19.9	95%	23	27	21
Piney Ck at Kearny	MAY-JUL	19.2	29	35	88%	41	51	40
	MAY-SEP	22	32	39	91%	46	56	43
Powder R at Moorehead	MAY-JUL	53	104	139	92%	174	225	151
	MAY-SEP	67	121	157	92%	193	245	170
Powder R nr Locate	MAY-JUL	44	109	153	93%	197	260	164
	MAY-SEP	53	124	172	93%	220	290	185

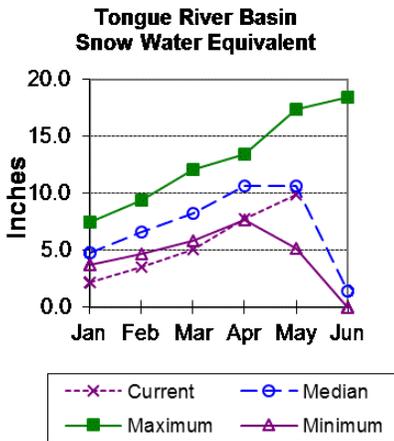
- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
UPPER POWDER RIVER	5	106%	71%
CLEAR CREEK	2	99%	75%
CRAZY WOMAN CREEK	2	87%	96%
POWDER RIVER BASIN	7	104%	73%

Tongue River Basin

Snow

Upper Tongue River drainage SWE is at 93% of median. The Goose Creek drainage SWE is at 101% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*

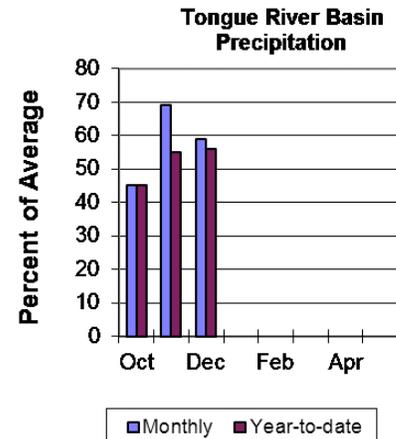


Precipitation

Last month's precipitation was 129% of average (37% last year) for 10 reporting stations. Monthly percentages range from 84-161% of average. Year-to-date precipitation is 79% of average in the basin (87% last year). Precipitation for the year ranges from 63-122% of average.

Reservoirs

The Tongue River Reservoir currently is storing 69,000 ac-ft, while last year's storage was 66,500 ac-ft. The Tongue River Reservoir is at 199% of average for this time of year



or 87% of capacity. *Detailed reservoir data shown below and in Appendix D.*

Streamflow

The 50% exceedance forecasts for the May through September period are below average for the basin. The yield for Tongue River near Dayton will be around 82,000 ac-ft (89% of average). Big Goose Creek near Sheridan will yield around 47,000 ac-ft (90% of average). Little Goose Creek near Bighorn will yield around 34,000 ac-ft (92% of average). The Tongue River Reservoir Inflow will be around 171,000 ac-ft (86% of average). *See below for detailed runoff volumes.*

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Tongue River Basin Streamflow Forecasts - May 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	MAY-JUL	43	59	70	88%	81	97	80
	MAY-SEP	53	70	82	89%	93	111	92
Big Goose Ck nr Sheridan	MAY-JUL	25	34	39	89%	44	53	44
	MAY-SEP	33	41	47	90%	53	61	52
Little Goose Ck nr Bighorn	MAY-JUL	18.7	24	27	93%	30	35	29
	MAY-SEP	25	30	34	92%	38	43	37
Tongue River Reservoir Inflow	MAY-JUL	60	114	150	86%	186	240	175
	MAY-SEP	75	132	171	86%	210	265	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

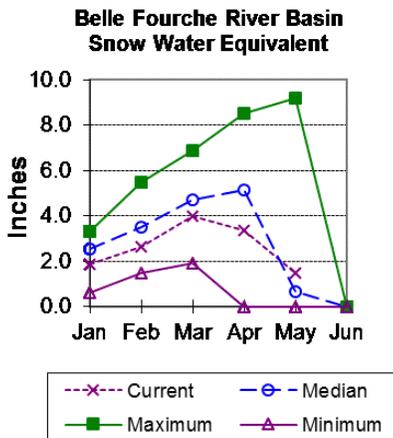
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Tongue River Res	69.0	66.5	34.7	79.1
Basin-wide Total	69.0	66.5	34.7	79.1
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
GOOSE CREEK	3	101%	82%
TONGUE RIVER BASIN	9	93%	83%

Belle Fourche River Basin

Snow

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



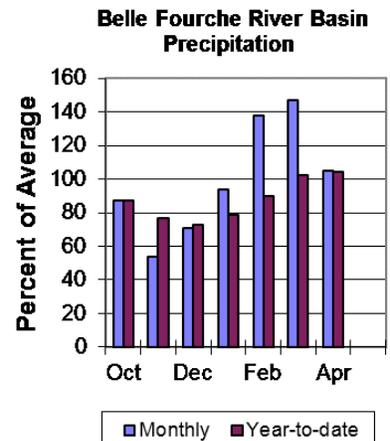
Precipitation

Precipitation for last month was 147% of average (47% last year) in the Black Hills for the four reporting stations. Year-to-date precipitation is 102% of average (83% last year).

Reservoirs

Belle Fourche Reservoir is storing 113% of average (163,300 ac-ft), about 92% of capacity. Keyhole Reservoir is storing 172% of average (168,800 ac-ft), about 87% of capacity. Shadehill Reservoir is

storing 84% of average (51,600 ac-ft), about 63% 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, 2016

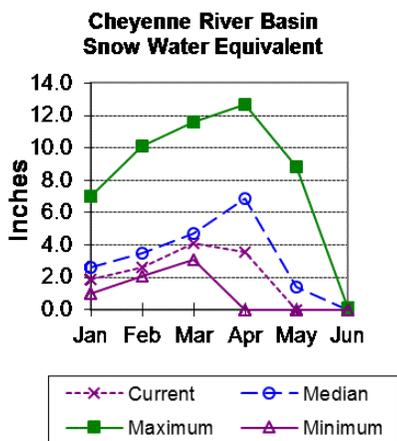
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Belle Fourche	163.3	165.3	144.5	178.4
Keyhole	168.8	172.8	98.1	193.8
Shadehill	51.6	57.8	61.2	81.4
Basin-wide Total	383.6	395.9	303.8	453.6
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
BELLE FOURCHE RIVER BASIN	3	229%	0%

Cheyenne River Basin

Snow

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



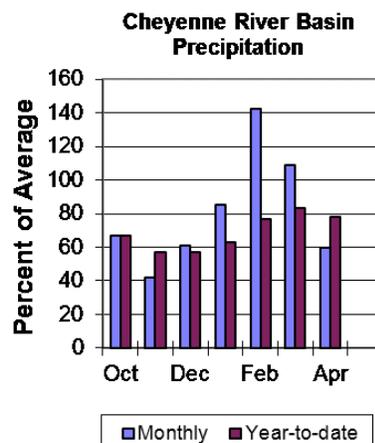
Precipitation

Precipitation for last month was 109% of average (24% last year) in the Black Hills. There were three reporting stations. Year-to-date precipitation is 83% of average (75% last year).

Reservoirs

Angostura is currently storing 116% of average (112,900 ac-ft), about 92% of capacity. Deerfield reservoir is storing 100% of average (14,200 ac-ft), about 94% of capacity. Pactola Reservoir is

storing 115% of average (54,700 ac-ft), 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. The Deerfield Reservoir Inflow yield is around 3,000 ac-ft (77% of average). Pactola Reservoir Inflow yield is around 11,300 ac-ft (65% of average). *See the following for detailed runoff volumes.*

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Cheyenne River Basin Streamflow Forecasts - May 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	MAY-JUL	0.5	1.53	3	77%	4.4	6.5	3.9
Pactola Reservoir Inflow	MAY-JUL	1	3.7	11.3	65%	18.9	30	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

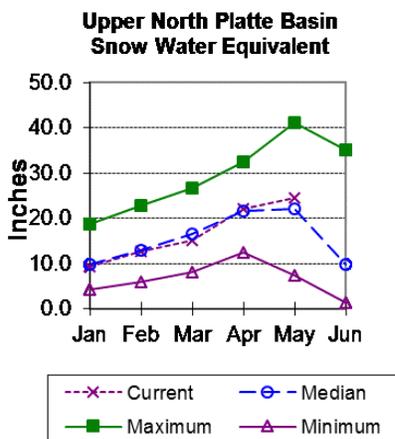
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Angostura	112.9	110.7	97.6	122.1
Deerfield	14.2	15.4	14.2	15.2
Pactola	54.7	53.8	47.7	55.0
Basin-wide Total	181.8	179.9	159.5	192.3
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis May 1, 2016	# 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 111% of median. North Platte above Northgate SWE is 110% of median. Encampment River SWE is 112% of median. Brush Creek SWE is 109% of median. Medicine Bow and Rock Creek SWE are 101% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



Seminoe Reservoir is at 150% of average and was at 145% of average last year. *Detailed reservoir data shown on the following page and in Appendix D.*

Streamflow

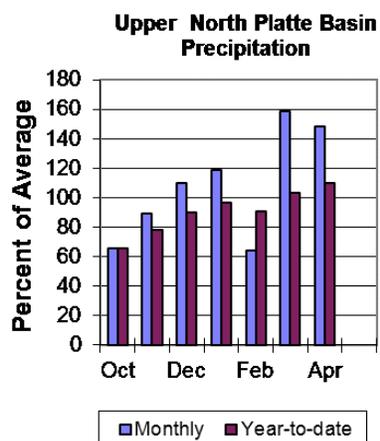
The 50% exceedance forecasts for the May through September period are below average for the Upper North Platte River Basin. The yield for the North Platte River near Northgate will be around 265,000 ac-ft (126% of average). The Encampment River near Encampment yield will be around 148,000 ac-ft (117% of average). Rock Creek near Arlington yield will be around 57,000 ac-ft (114% of average). Sweetwater River near Pathfinder will yield about 56,000 ac-ft (112% of average). Seminoe Reservoir inflow should be around 815,000 ac-ft (122% of average). *See the following page for more detailed information on projected runoff.*

Precipitation

Nineteen reporting stations show last month's precipitation at 159% of average (72% last year). Precipitation varied from 128-414% of average last month. Total water-year-to-date precipitation is 103% of average for the basin (82% last year). Year-to-date percentages range from 81-174% of average.

Reservoirs

Seminoe Reservoir is storing 739,600 ac-ft or 73% of



Upper North Platte River Basin Streamflow Forecasts - May 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	MAY-JUL	154	200	235	126%	270	315	187
	MAY-SEP	171	225	265	126%	305	360	210
Encampment R nr Encampment ²	MAY-JUL	105	125	138	117%	151	171	118
	MAY-SEP	113	134	148	117%	162	183	127
Rock Ck nr Arlington	MAY-JUL	43	49	54	113%	59	65	48
	MAY-SEP	45	52	57	114%	62	69	50
Sweetwater R nr Alcova	MAY-JUL	28	42	51	111%	60	74	46
	MAY-SEP	31	46	56	112%	66	81	50
Seminole Reservoir Inflow	MAY-JUL	450	625	745	121%	865	1040	615
	MAY-SEP	490	685	815	122%	945	1140	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

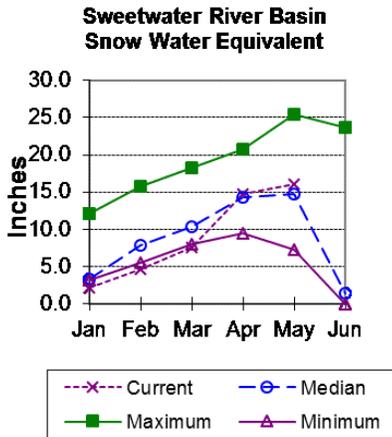
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Seminole	739.6	713.4	492.5	1016.7
Basin-wide Total	739.6	713.4	492.5	1016.7
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
N PLATTE above Northgate	11	110%	64%
ENCAMPMENT RIVER	4	112%	67%
BRUSH CREEK	5	109%	53%
MEDICINE BOW & ROCK CREEKS	3	101%	74%
UPPER NORTH PLATTE RIVER BASIN	24	111%	63%

Sweetwater River Basin

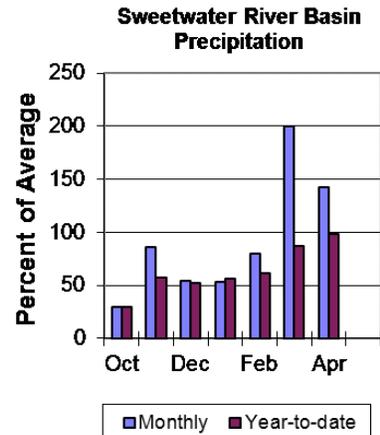
Snow

Sweetwater River Basin SWE is 109% 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 200% of average (53% last year) for the four reporting stations ranging from 114-230%. The water year-to-date precipitation for the basin is currently 87% of average (68% last year). Year-to-date percentages range from 77-100% of average.



Reservoirs

Reservoir storage is as follows: Pathfinder 925,100 ac-ft (150% of average or 91% of capacity).

Streamflow

The 50% exceedance forecast for the May through September period will be slightly above average. The Sweetwater River near Pathfinder will yield about 56,000 ac-ft (112% of average). See below for detailed information on projected runoff.

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Sweetwater River Basin Streamflow Forecasts - May 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	MAY-JUL	28	42	51	111%	60	74	46
	MAY-SEP	31	46	56	112%	66	81	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

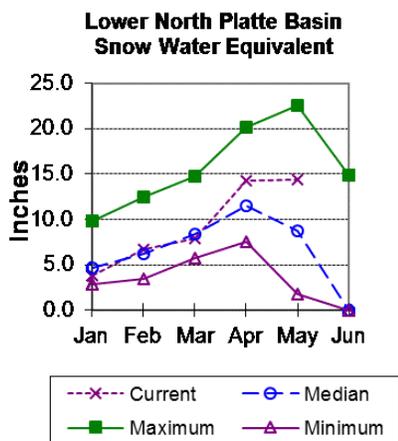
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Pathfinder	925.1	657.5	617.9	1016.5
Basin-wide Total	925.1	657.5	617.9	1016.5
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
SWEETWATER RIVER BASIN	4	109%	42%

Lower North Platte River Basin

Snow

Lower North Platte River Basin SWE is 165% of median. *See Appendix A at the end of this report for a detailed listing of snow course information.*



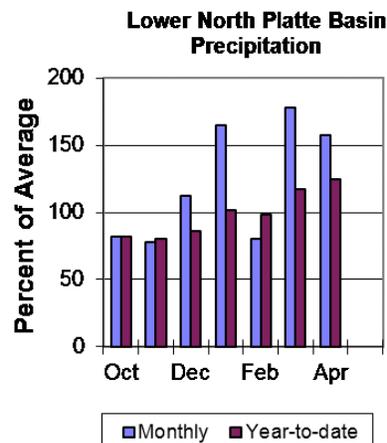
Precipitation

Last month's precipitation was 178% of average (53% last year). For the eight reporting stations percentages for the month range from 114-292%. The water year-to-date precipitation for the basin is currently 117% of average (72% last year). Year-to-date percentages range from 97-173% of average.

Reservoirs

Reservoir storage is as follows: Alcova 179,600 ac-ft (100% of average) (97% of capacity); Glendo 462,400 ac-ft (106% of average) (91% of capacity); Guernsey

35,600 ac-ft (119% of average) (78% of capacity); Pathfinder 925,100 ac-ft (150% of average) (91% of capacity) (106% 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 23,000 ac-ft (155% of average). North Platte River below Glendo Reservoir should yield around 895,000 ac-ft (128% of average), and below Guernsey Reservoir should yield around 905,000 ac-ft (129% of average). *See the following for more detailed information on projected runoff.*

Lower North Platte River Basin Streamflow Forecasts - May 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)
<hr/>								
La Prele Ck ab La Prele Reservoir	MAY-JUL	13	18.4	22	148%	26	31	14.9
	MAY-SEP	14.1	19.4	23	155%	27	32	14.8
North Platte R bl Glendo Reservoir	MAY-JUL	615	760	860	128%	960	1100	670
	MAY-SEP	645	795	895	128%	995	1150	700
North Platte R bl Guernsey Reservoir	MAY-JUL	565	740	860	128%	980	1160	670
	MAY-SEP	600	780	905	129%	1030	1210	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, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Alcova	179.6	180.0	178.9	184.3
Glendo	462.4	410.8	434.5	506.4
Guernsey	35.6	29.6	29.9	45.6
Pathfinder	925.1	657.5	617.9	1016.5
Basin-wide Total	1602.7	1277.9	1261.2	1752.8
# of reservoirs	4	4	4	4

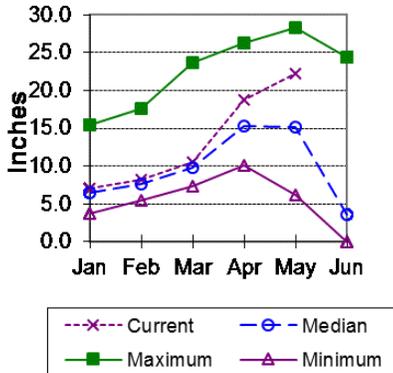
Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
DEER & LaPRELE CREEKS	2	153%	65%
LOWER NORTH PLATTE RIVER BASIN	4	165%	51%

Laramie River Basin

Snow

SWE for the entire Laramie River Basin (above mouth entering North Platte) is 123% of median. SWE for the Laramie River above Laramie is 147% of median. SWE for the Little

**Laramie River Basin
Snow Water Equivalent**



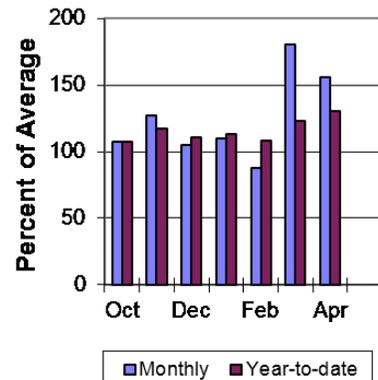
Laramie River is 121% of median. **SWE total for the entire North Platte River Basin above Torrington is 118% of median.**

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

Precipitation

Last month's precipitation was 180% of average (55% last year). For the 12 reporting stations percentages for the month range from 47-200%. The water year-to-date precipitation for the basin is currently 108% of average (95% last year). Year-to-date percentages range from 148-302% of average.

**Laramie River Basin
Precipitation**



Reservoirs
Reservoir storage is as follows: Wheatland #2 86,200 ac-ft (155% of average) (87% of capacity) was (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. Laramie River near Woods Landing should yield around 153,000 ac-ft (129% of average). The Little Laramie near Filmore should produce about 61,000 ac-ft (117% of average). *See below for detailed information on projected runoff.*

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Laramie River Basin Streamflow Forecasts - May 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	MAY-JUL	106	126	140	130%	154	174	108
	MAY-SEP	115	138	153	129%	168	191	119
Little Laramie R nr Filmore	MAY-JUL	43	51	57	119%	63	71	48
	MAY-SEP	45	55	61	117%	67	77	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, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Wheatland #2	86.2	90.7	55.6	98.9
Basin-wide Total	86.2	90.7	55.6	98.9
# of reservoirs	1	1	1	1

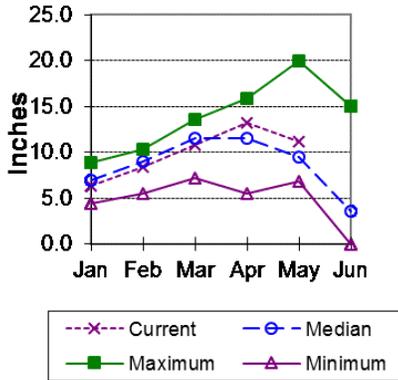
Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
LARAMIE RIVER abv Laramie	7	172%	70%
LITTLE LARAMIE RIVER	5	121%	78%
LARAMIE RIVER BASIN	13	147%	73%
NORTH PLATTE TOTAL RIVER BASIN	39	118%	62%

South Platte River Basin (WY)

Snow

South Platte River Basin SWE in WY is 118% 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 182% of average (58% last year) for the six reporting stations. The water year-to-date precipitation for the basin is currently 119% of average (97% last year). Year-to-date percentages range from 102-194% of average.

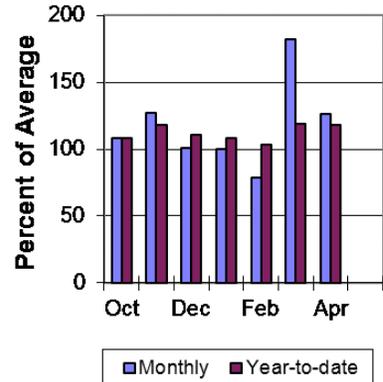
Reservoirs

No reservoir data for the basin.

Streamflow

There are no streamflow

**South Platte River Basin
Precipitation**



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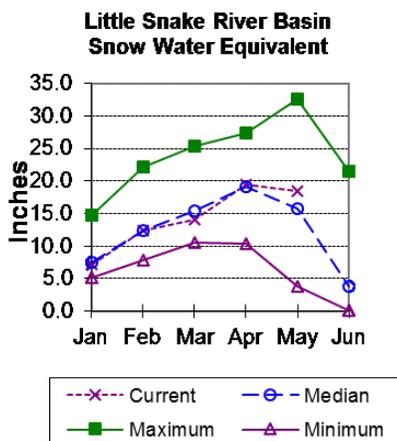
South Platte River Basin - May 1, 2016

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
SOUTH PLATTE RIVER BASIN	8	118%	88%

Little Snake River Basin

Snow

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

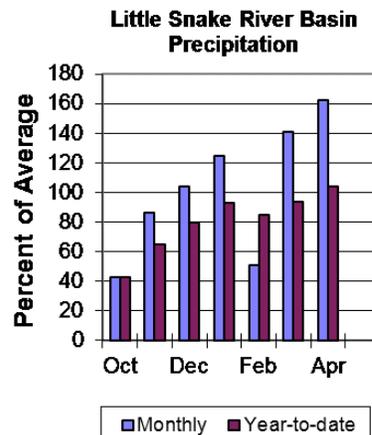


Precipitation

Precipitation across the basin was 141% of average (77% last year) for the eight reporting stations. Last month's precipitation ranged from 81-203% of average. The Little Snake River Basin water-year-to-date precipitation is currently 94% of average (70% last year). Year-to-date percentages range from 65-108% of average.

Reservoirs

High Savery Dam - 17,100 ac-ft (112% of average) (76% of capacity) (107% last year's average). 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 122,000 ac-ft (88% 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, 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 ²	APR-JUL	116	132	144	92%	157	177	156
	MAY-JUL	94	110	122	88%	135	155	138
Little Snake R nr Dixon ²	APR-JUL	205	260	300	87%	345	415	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

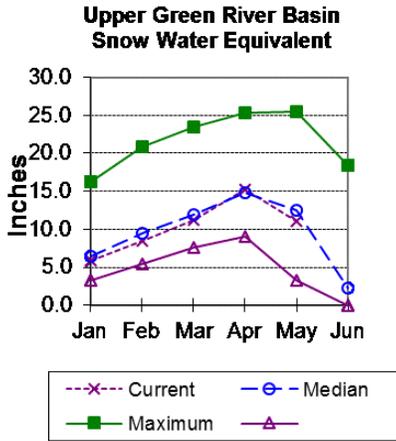
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
High Savery Reservoir	17.1	16.4	15.3	22.4
Basin-wide Total	17.1	16.4	15.3	22.4
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
LITTLE SNAKE RIVER BASIN	10	117%	46%

Upper Green River Basin

Snow

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



Precipitation

The 15 reporting precipitation sites in the basin were 137% of average last month (43% last year). Last month's precipitation varied from 90-236% of average. Water year-to-date precipitation is 98% of average (89% last year). Year to date percentages of average range from 66-121%.

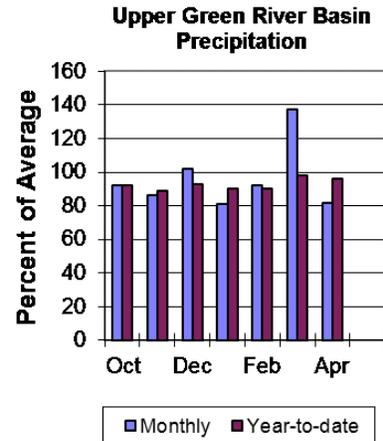
Reservoir

Storage in Big Sandy Reservoir is 22,500 ac-ft or 59% of capacity (97% of average) (112% last year).

Fontenelle Reservoir is 152,800 ac-ft (44% of capacity) (122% of average) (148% 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 below average. The yield on the Green River at Warren Bridge is about 170,000 ac-ft (76% of average). Pine Creek above Fremont Lake yield will be about 80,000 ac-ft (83% of average). New Fork River near Big Piney yield will be about 265,000 ac-ft (80% of average). Fontenelle Reservoir Inflow is estimated to be around 460,000 ac-ft (72% of average), and Big Sandy near Farson yield will be around 42,000 ac-ft (88% of average). *See the following for a more detailed forecast.*



Upper Green River Basin Streamflow Forecasts - May 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	176	191	78%	205	230	245
	MAY-JUL	133	155	170	76%	186	210	225
Pine Creek ab Fremont Lake	APR-JUL	70	77	83	85%	89	98	98
	MAY-JUL	67	74	80	83%	86	95	96
New Fork R nr Big Piney	APR-JUL	210	255	285	80%	320	370	355
	MAY-JUL	191	235	265	80%	300	350	330
Fontenelle Reservoir Inflow	APR-JUL	380	475	550	76%	630	765	725
	MAY-JUL	290	385	460	72%	540	675	640
Big Sandy R nr Farson	APR-JUL	35	41	46	88%	51	59	52
	MAY-JUL	31	37	42	88%	47	55	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

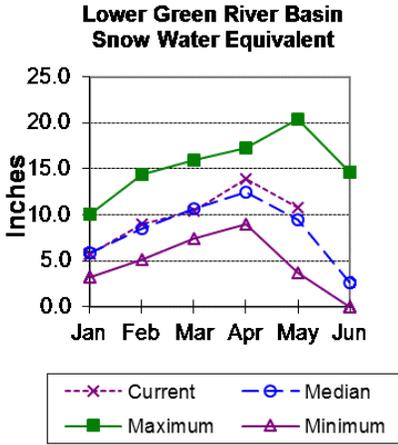
Reservoir Storage End of April, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Big Sandy	22.5	25.9	23.1	38.3
Fontenelle	152.8	184.5	125.0	344.8
Basin-wide Total	175.3	210.4	148.1	383.1
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
GREEN above Warren Bridge	5	66%	46%
UPPER GREEN - West Side	5	101%	83%
NEWFORK RIVER	2	65%	37%
BIG SANDY-EDEN VALLEY	2	92%	39%
GREEN above Fontenelle	14	88%	69%

Lower Green River Basin

Snow

Lower Green River Basin SWE is 114% of median. Hams Fork drainage SWE is 90% of median. Blacks Fork drainage SWE is 134% of median. Henrys Fork SWE is 240% of median. *SWE for the entire Green River Basin (above Flaming Gorge) is 96% of median. See Appendix A at the end of this report for a detailed listing of snow course information.*

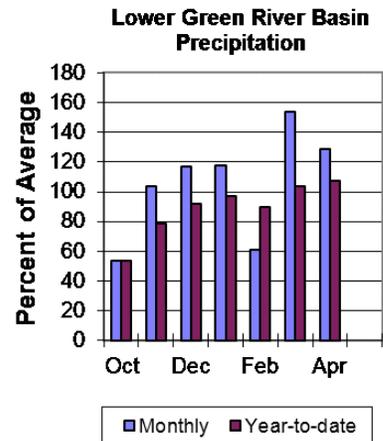


Precipitation

Precipitation for the 10 reporting stations during last month was 154% of average (49% last year). Precipitation ranged from 133-297% of average for the month. The basin year-to-date precipitation is currently 104% of average (73% last year). Year-to-date percentages range from 72-179% of average.

Reservoirs

Fontenelle Reservoir is currently storing 152,800 ac-ft; this is 122% of average (148% last year) (44% of capacity). Flaming Gorge is currently storing 3,171,700 ac-ft; this is 104% of average (106% last year) (85% of capacity). Viva Naughton is currently storing 38,100 ac-ft; this is 121% of average (134% last year) (90% 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 below average. The Green River near Green River will yield about 465,000 ac-ft (73% of average). The Blacks Fork near Robertson will yield about 90,000 ac-ft (106% of average). East Fork of Smiths Fork near Robertson will yield around 28,000 ac-ft (108% of average). Hams Fork below Pole Creek near Frontier will yield around 33,000 ac-ft (69% of average). The Hams Fork Inflow to Viva Naughton Reservoir will yield about 40,000 ac-ft (65% of average). The Flaming Gorge Reservoir inflow will be about 695,000 ac-ft (82% of average). *See the following page for more detailed information on projected runoff.*

Lower Green River Basin Streamflow Forecasts - May 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 ²	APR-JUL	405	485	540	74%	600	695	730
	MAY-JUL	330	410	465	73%	525	620	640
Blacks Fk nr Robertson	APR-JUL	78	88	95	107%	102	114	89
	MAY-JUL	73	83	90	106%	97	109	85
EF of Smiths Fork nr Robertson ²	APR-JUL	22	26	29	107%	32	36	27
	MAY-JUL	21	25	28	108%	31	35	26
Hams Fk bl Pole Ck nr Frontier	APR-JUL	32	37	41	76%	45	52	54
	MAY-JUL	24	29	33	69%	37	44	48
Viva Naughton Reservoir Inflow	APR-JUL	39	48	54	73%	61	72	74
	MAY-JUL	25	34	40	65%	47	58	62
Flaming Gorge Reservoir Inflow ²	APR-JUL	665	765	835	85%	910	1030	980
	MAY-JUL	525	625	695	82%	770	890	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, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Fontenelle	152.8	184.5	125.0	344.8
Flaming Gorge Reservoir	3171.7	3212.6	3039.0	3749.0
Viva Naughton Res	38.1	42.2	31.6	42.4
Basin-wide Total	3362.6	3439.4	3195.6	4136.2
# of reservoirs	3	3	3	3

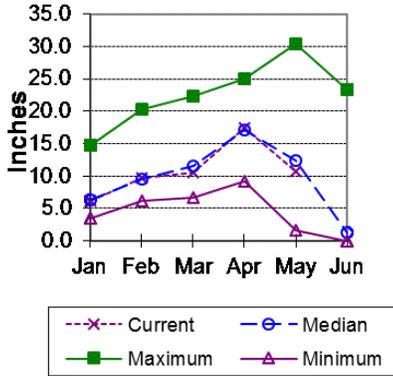
Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
HAMS FORK RIVER	4	90%	64%
BLACKS FORK	2	134%	52%
HENRYS FORK	2	240%	0%
LOWER GREEN RIVER BASIN	8	114%	56%
GREEN above FLAMING GORGE	21	96%	63%

Upper Bear River Basin

Snow

Upper Bear River Basin in Utah SWE is 83% of median. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 83% of median. Bear River Basin SWE, above the Idaho State line, is 86% 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



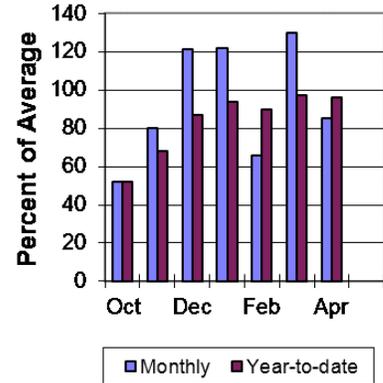
Precipitation

Precipitation for last month was 130% of average for the 8 reporting stations; this was 46% last year. The year-to-date precipitation for the basin is 97% of average; this was 68% last year. Year-to-date percentages range from 79-117% of average.

Reservoirs

Storage in Woodruff Narrows Reservoir was 57,400 ac-ft about 100% of capacity (126% of average) (120% last year).

Upper Bear River Basin Precipitation



Detailed reservoir data shown below and in Appendix D.

Streamflow

The following 50% exceedance forecasts for the May through September period will be below average. The Bear River near the Utah-Wyoming State Line should yield about 98,000 ac-ft (84% of average). The Bear River above Reservoir near Woodruff should yield around 80,000 ac-ft (72% of average). The Smiths Fork River near Border Jct. will yield around 81,000 ac-ft (85% of average). *See below for detailed information on projected runoff.*

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Upper Bear River Basin Streamflow Forecasts - May 1, 2016

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

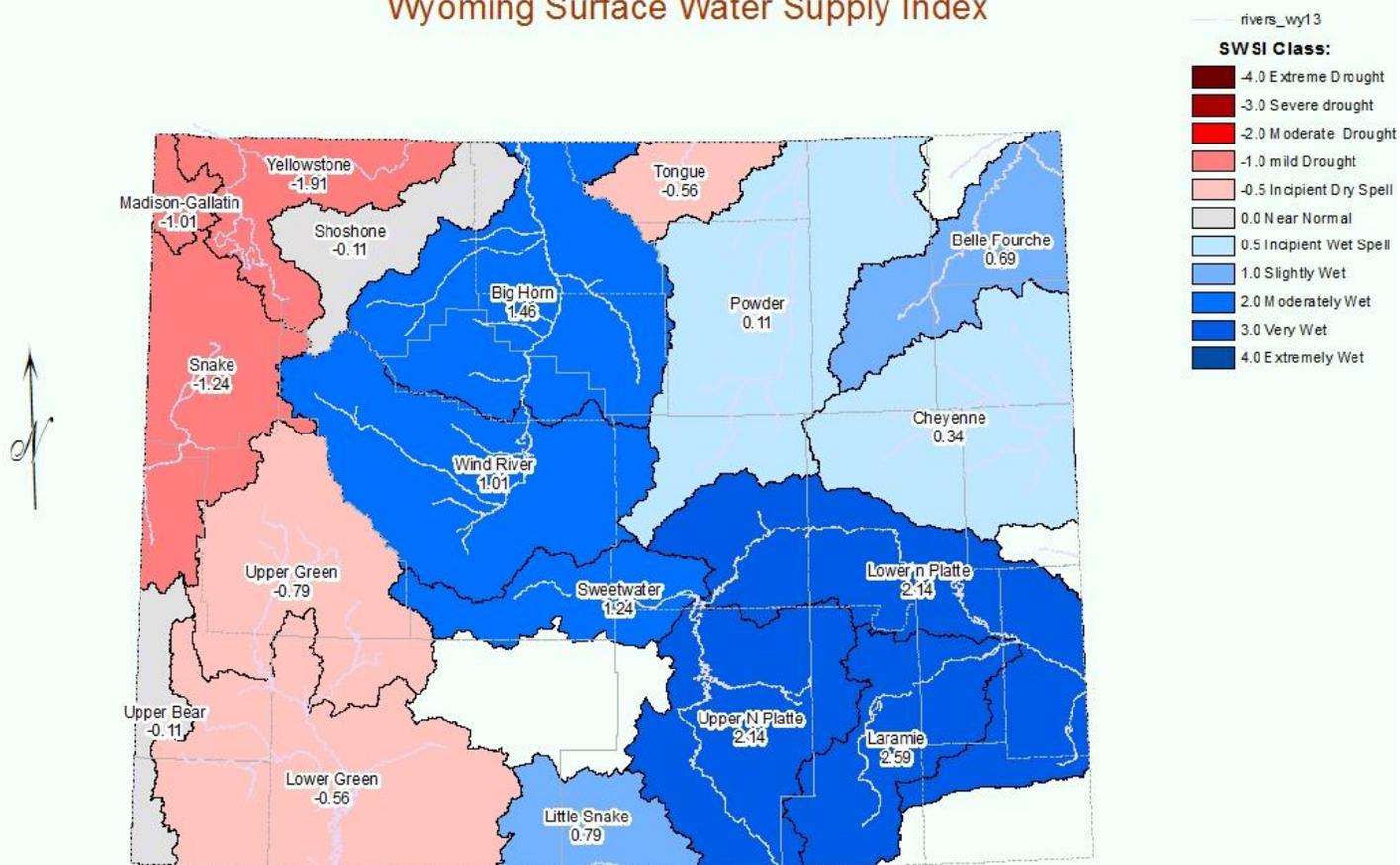
UPPER BEAR RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Bear R nr UT-WY State Line	APR-JUL	68	82	91	81%	101	114	112
	APR-SEP	76	91	101	82%	111	126	123
	MAY-JUL	68	80	88	85%	97	109	104
	MAY-SEP	75	89	98	84%	108	122	116
Bear R ab Resv nr Woodruff	APR-JUL	55	73	86	71%	99	117	121
	APR-SEP	59	77	90	70%	103	122	128
	MAY-JUL	47	65	76	72%	88	105	105
	MAY-SEP	52	69	80	72%	92	109	111
Smiths Fk nr Border	APR-JUL	64	72	78	88%	83	91	89
	APR-SEP	76	85	92	88%	98	108	104
	MAY-JUL	53	61	67	84%	72	80	80
	MAY-SEP	65	74	81	85%	87	97	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, 2016	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Woodruff Narrows Reservoir	57.4	54.5	45.5	57.3
Basin-wide Total	57.4	54.5	45.5	57.3
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2016	# of Sites	% Median	Last Year % Median
UPPER BEAR RIVER in Utah	3	83%	10%
SMITHS & THOMAS FORKS	3	83%	55%
UPPER BEAR RIVER BASIN	8	86%	32%

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: 5/5/2016

Appendix A

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Report Created: 5/5/2016 5:19:44 AM

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

Snowpack Summary for May 1, 2016

SNAKE above Jackson Lake	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Aster Creek	SC	7750						
Glade Creek	SC	7040	18	9.6	18.6	52%	1.6	9%
Grassy Lake	SNOTEL	7285	45	20.3	29.1	70%	15.9	55%
Huckleberry Divide	SC	7300						
Lewis Lake Divide	SNOTEL	7850	46	20.5	30.1	68%	10.1	34%
Moran	SC	6750						
Snake River Station	SNOTEL	6920	9	3.7	7.4	50%	0.0	0%
Thumb Divide	SNOTEL	7980	9	3.7	12.4	30%	0.0	0%
Two Ocean Plateau	SNOTEL	9240	60	26.1	29.7	88%	22.7	76%
Basin Index								
# of sites							6	6
PACIFIC CREEK	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Base Camp	SNOTEL	7030	14	5.8	9.3	62%	2.5	27%
Moran	SC	6750						
Two Ocean Plateau	SNOTEL	9240	60	26.1	29.7	88%	22.7	76%
Basin Index								
# of sites							2	2
BUFFALO FORK	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Four Mile	SC	6900	6	2.2	4.6	48%	0.6	13%
Togwotee Pass	SNOTEL	9580	61	22.3	24.7	90%	20.9	85%
Turpin Meadows	SC	6900						
Younts Peak	SNOTEL	8350	10	5.1	15.5	33%		
Basin Index								
# of sites							2	2
GROS VENTRE RIVER	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Elbo Ranch	SC	7100	18	6.0	9.4	64%	6.4	68%
Gros Ventre Summit	SNOTEL	8750	28	9.5	11.6	82%	7.0	60%
Gunsight Pass	SNOTEL	9820	39	14.0	12.5	112%	9.2	74%
Togwotee Pass	SNOTEL	9580	61	22.3	24.7	90%	20.9	85%
Basin Index								
# of sites							4	4
HOBACK RIVER	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Blind Bull Sum	SNOTEL	8650	59	25.0	23.1	108%	24.1	104%
East Rim Divide	SNOTEL	7930	0	0.0	8.2	0%	0.0	0%
Granite Creek	SNOTEL	6770	12	4.4	8.3	53%	3.9	47%
Hoback GS	SC	6664	0	0.0	0.0		0.0	
Snow King Mountain	SC	7680	9	3.5	10.3	34%	2.2	21%
Basin Index								
# of sites							5	5
GREYS RIVER	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Blind Bull Sum	SNOTEL	8650	59	25.0	23.1	108%	24.1	104%

Appendix B

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Basinwide Summary: May 1, 2016 (Averages/Medians based on 1981-2010 reference period)			Snowpack Summary for May 1, 2016						
SNAKE above Jackson Lake	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Aster Creek	SC	7750							
Glade Creek	SC	7040	18	9.6	18.6	52%	1.6	9%	
Grassy Lake	SNOTEL	7265	45	20.3	29.1	70%	15.9	55%	
Huckleberry Divide	SC	7300							
Lewis Lake Divide	SNOTEL	7850	46	20.5	30.1	68%	10.1	34%	
Moran	SC	6750							
Snake River Station	SNOTEL	6920	9	3.7	7.4	50%	0.0	0%	
Thumb Divide	SNOTEL	7980	9	3.7	12.4	30%	0.0	0%	
Two Ocean Plateau	SNOTEL	9240	60	26.1	29.7	88%	22.7	76%	
Basin Index						66%		40%	
# of sites							6	6	
PACIFIC CREEK									
	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Base Camp	SNOTEL	7030	14	5.8	9.3	62%	2.5	27%	
Moran	SC	6750							
Two Ocean Plateau	SNOTEL	9240	60	26.1	29.7	88%	22.7	76%	
Basin Index						82%		65%	
# of sites							2	2	
BUFFALO FORK									
	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Four Mile	SC	6900	6	2.2	4.6	48%	0.6	13%	
Togwotee Pass	SNOTEL	9580	61	22.3	24.7	90%	20.9	85%	
Turpin Meadows	SC	6900							
Younts Peak	SNOTEL	8350	10	5.1	15.5	33%			
Basin Index						84%		73%	
# of sites							2	2	
GROS VENTRE RIVER									
	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Elbo Ranch	SC	7100	18	6.0	9.4	64%	6.4	68%	
Gros Ventre Summit	SNOTEL	8750	28	9.5	11.6	82%	7.0	60%	
Gunsight Pass	SNOTEL	9820	39	14.0	12.5	112%	9.2	74%	
Togwotee Pass	SNOTEL	9580	61	22.3	24.7	90%	20.9	85%	
Basin Index						89%		75%	
# of sites							4	4	
HOBACK RIVER									
	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Blind Bull Sum	SNOTEL	8650	59	25.0	23.1	108%	24.1	104%	
East Rim Divide	SNOTEL	7930	0	0.0	8.2	0%	0.0	0%	
Granite Creek	SNOTEL	6770	12	4.4	8.3	53%	3.9	47%	
Hoback GS	SC	6664	0	0.0	0.0		0.0		
Snow King Mountain	SC	7660	9	3.5	10.3	34%	2.2	21%	
Basin Index						66%		61%	
# of sites							5	5	
GREYS RIVER									
	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Blind Bull Sum	SNOTEL	8650	59	25.0	23.1	108%	24.1	104%	

Appendix C

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Basinwide Summary: May 1, 2016
(averages based on 1981-2010 reference period)

Reservoir Storage Summary for the end of April 2016

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	14.1	13.8	12.8	15.2	93%	91%	84%	110%	108%	
Jackson Lake	628.9	707.8	445.7	847.0	74%	84%	53%	141%	159%	
Palsades Reservoir	1148.3	1194.4	911.7	1400.0	82%	85%	65%	126%	131%	
Basin-wide Total	1791.3	1915.9	1370.2	2262.2	79%	85%	61%	131%	140%	
# 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 % Average	Last Year % Average	
Ennis Lake	35.1	34.3	32.4	41.0	86%	84%	79%	108%	106%	
Hebgen Lake	303.7	328.2	276.7	378.8	80%	87%	73%	110%	119%	
Basin-wide Total	338.8	362.5	309.1	419.8	81%	86%	74%	110%	117%	
# 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 % Average	Last Year % Average	
Bull Lake	76.4	108.6	75.1	151.8	50%	72%	49%	102%	145%	
Boysen	572.0	607.4	476.4	596.0	96%	102%	80%	120%	127%	
Pilot Butte	27.6	26.3	26.1	31.6	87%	83%	83%	106%	101%	
Basin-wide Total	676.0	742.3	577.6	779.4	87%	95%	74%	117%	129%	
# of reservoirs	3	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	572.0	607.4	476.4	596.0	96%	102%	80%	120%	127%	
Bighorn Lake	791.0	825.3	773.6	1356.0	58%	61%	57%	102%	107%	
Basin-wide Total	1363.0	1432.7	1250.0	1952.0	70%	73%	64%	109%	115%	
# 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 % Average	Last Year % Average	
Buffalo Bill	449.3	497.4	336.3	646.6	69%	77%	52%	134%	148%	
Basin-wide Total	449.3	497.4	336.3	646.6	69%	77%	52%	134%	148%	
# of reservoirs	1	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	69.0	66.5	34.7	79.1	87%	84%	44%	199%	192%	
Basin-wide Total	69.0	66.5	34.7	79.1	87%	84%	44%	199%	192%	
# 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 % Average	Last Year % Average	
Belle Fourche	163.3	165.3	144.5	178.4	92%	93%	81%	113%	114%	
Keyhole	168.8	172.8	98.1	193.8	87%	89%	51%	172%	176%	
Shadehill	51.6	57.8	61.2	81.4	63%	71%	75%	84%	94%	
Basin-wide Total	383.6	395.9	303.8	453.6	85%	87%	67%	126%	130%	
# 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 % Average	Last Year % Average	
Angostura	112.9	110.7	97.6	122.1	92%	91%	80%	116%	113%	
Deerfield	14.2	15.4	14.2	15.2	94%	101%	93%	100%	108%	
Pactola	54.7	53.8	47.7	55.0	99%	98%	87%	115%	113%	
Basin-wide Total	181.8	179.9	159.5	192.3	95%	94%	83%	114%	113%	
# 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 % Average	Last Year % Average	
Seminole	739.6	713.4	492.5	1016.7	73%	70%	48%	150%	145%	
Basin-wide Total	739.6	713.4	492.5	1016.7	73%	70%	48%	150%	145%	
# 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 % Average	Last Year % Average	
Pathfinder	925.1	657.5	617.9	1016.5	91%	65%	61%	150%	106%	
Basin-wide Total	925.1	657.5	617.9	1016.5	91%	65%	61%	150%	106%	
# of reservoirs	1	1	1	1	1	1	1	1	1	1

Appendix D

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Streamflow Forecast Summary: May 1, 2016 (averages based on 1981-2010 reference period)

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	380	450	500	71%	545	615	700
	MAY-SEP	435	515	565	73%	620	700	775
Snake R ab Reservoir nr Alpine ²	MAY-JUL	1200	1360	1470	75%	1580	1740	1960
	MAY-SEP	1400	1590	1710	75%	1830	2020	2280
Snake R nr Irwin ²	MAY-JUL	1660	1910	2090	79%	2260	2520	2660
	MAY-SEP	2000	2300	2510	80%	2710	3010	3150
Snake R nr Heise ²	MAY-JUL	1790	2060	2240	79%	2420	2690	2840
	MAY-SEP	2180	2500	2710	80%	2930	3240	3390
Pacific Ck at Moran	MAY-JUL	75	99	116	76%	133	157	152
	MAY-SEP	82	107	124	77%	141	166	161
Buffalo Fk ab Lava Ck nr Moran	MAY-JUL	181	205	225	85%	245	270	265
	MAY-SEP	198	230	250	82%	270	300	305
Greys R ab Reservoir nr Alpine	MAY-JUL	195	220	235	89%	250	275	265
	MAY-SEP	235	265	285	90%	305	335	315
Salt R ab Reservoir nr Etna	MAY-JUL	130	172	200	82%	230	270	245
	MAY-SEP	179	225	260	84%	295	340	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	173	205	225	74%	245	275	305
	MAY-SEP	245	280	305	75%	330	365	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

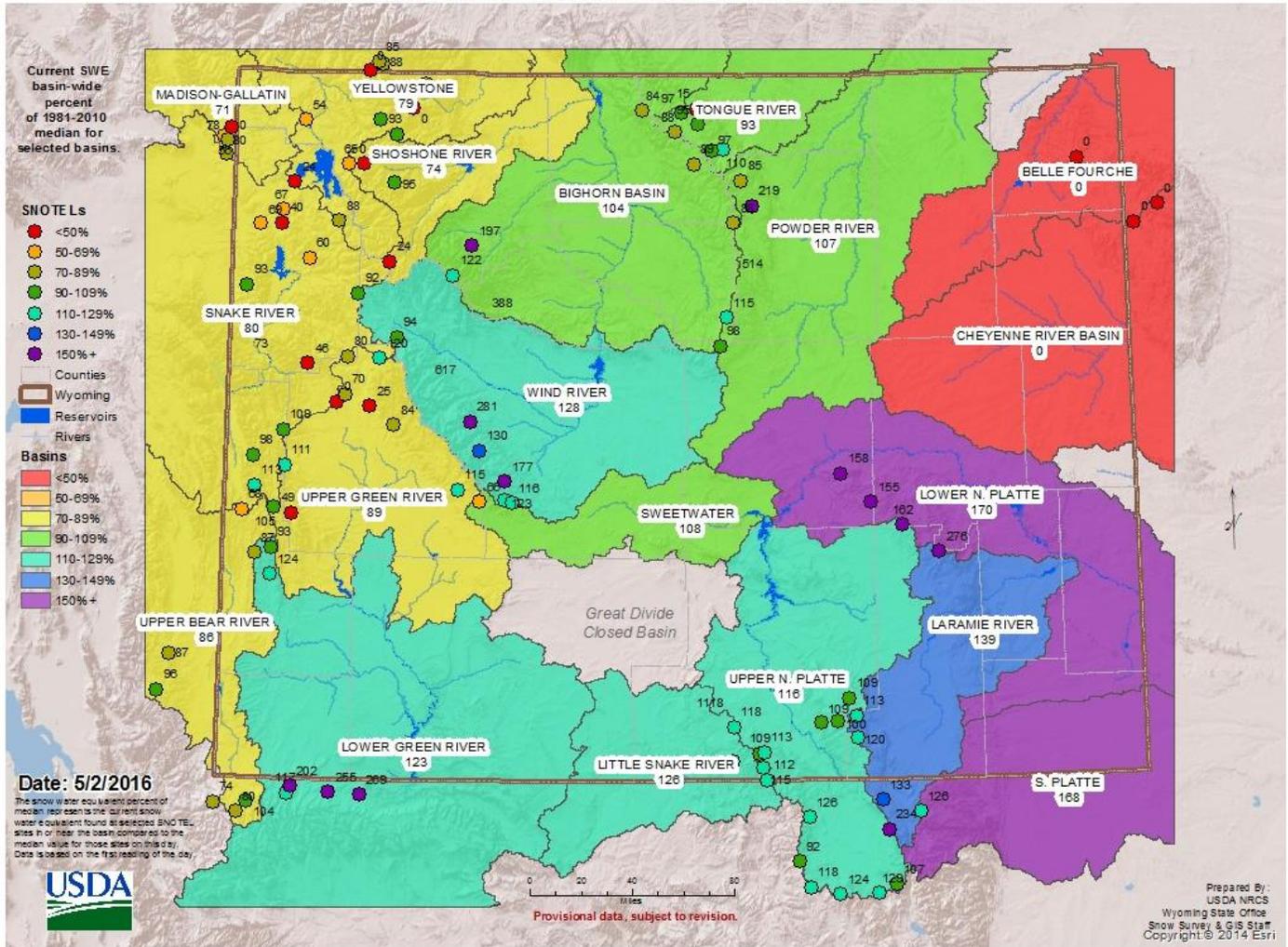
YELLOWSTONE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Yellowstone R at Yellowstone Lake Outlet	MAY-JUL	335	395	435	80%	475	535	545
	MAY-SEP	455	530	580	79%	630	705	735
Yellowstone R at Corwin Springs	MAY-JUL	955	1110	1210	82%	1310	1470	1480
	MAY-SEP	1120	1300	1430	81%	1560	1740	1770
Yellowstone R at Livingston	MAY-JUL	1060	1240	1370	82%	1500	1690	1670
	MAY-SEP	1250	1480	1630	81%	1780	2010	2010

Jason Weller (Chief)
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N R C S
Casper, Wyoming

May 2nd, 2016 Statewide SWE @ 100% of median

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:

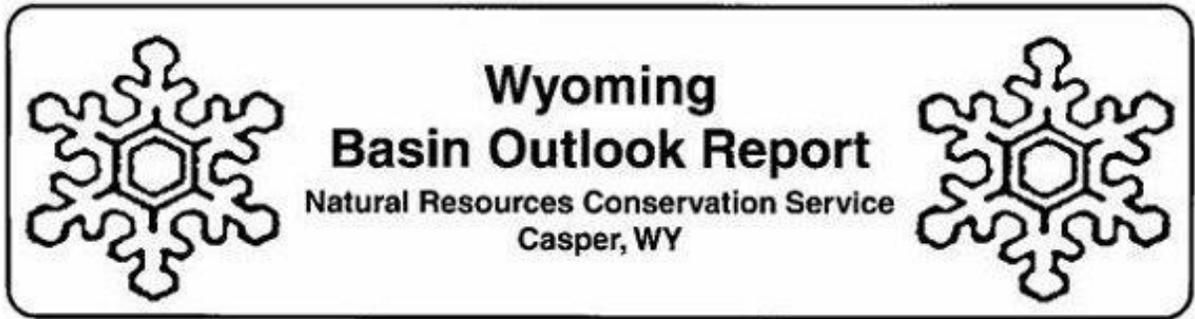
The Wyoming State Engineer's Office

The University of Wyoming

Local:

The City of Cheyenne

The City of Rawlins



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