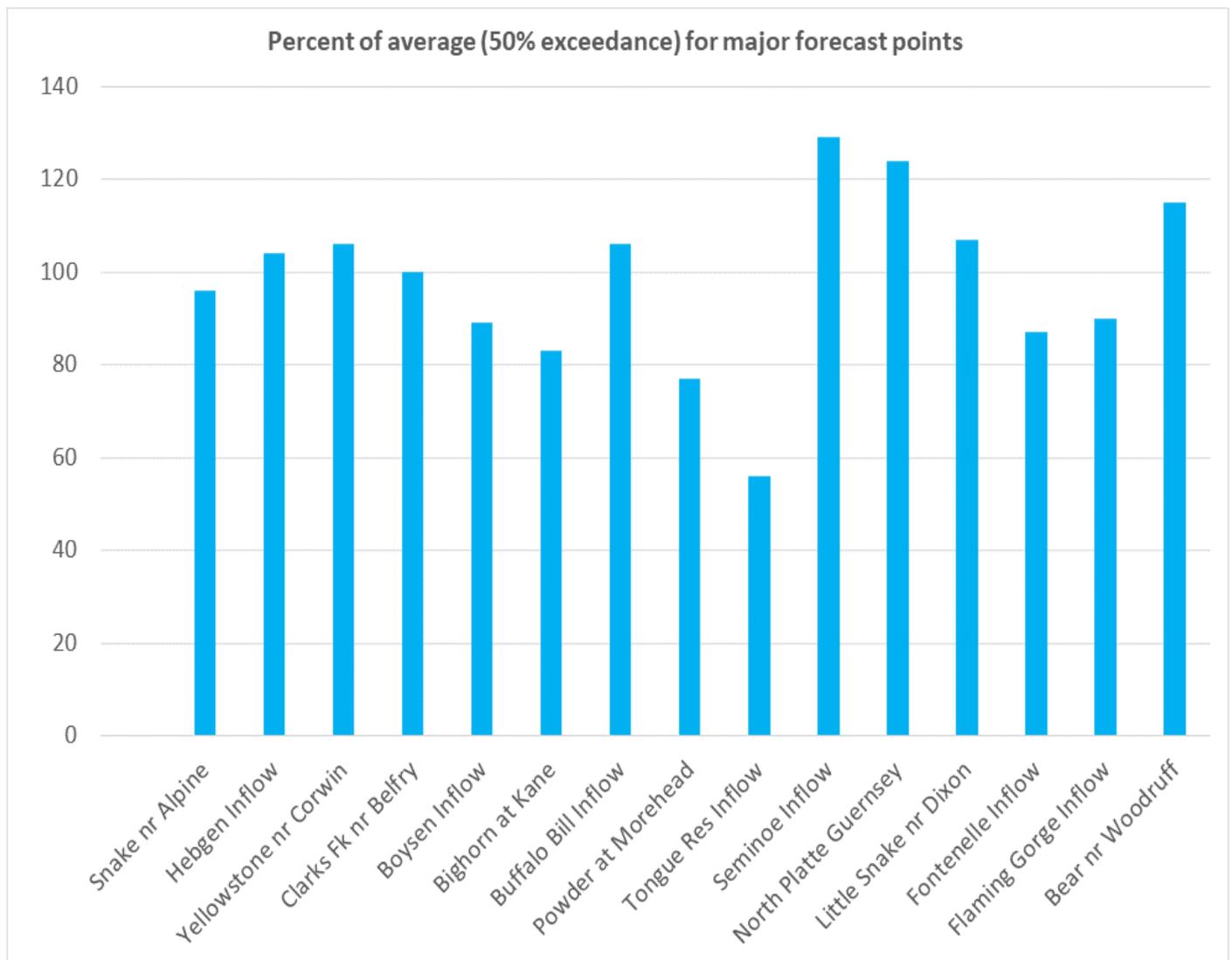


# Wyoming Basin & Water Supply Outlook Report

## April 1, 2019

**Natural  
 Resources  
 Conservation  
 Service**



Forecasted stream flows for April 1<sup>st</sup>, 2019

# Basin Outlook Reports

## And

### Federal - State - Private Cooperative Snow Surveys

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*For more information, contact:*

Ken Von Buettner  
100 East "B" Street Casper, WY 82601  
(307) 233-6743      [kenneth.vonbuettner@usda.gov](mailto:kenneth.vonbuettner@usda.gov)

#### *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 Basin & Water Supply Outlook Report

## Snowpack

Snow water equivalent (SWE) across Wyoming for April 1<sup>st</sup> was at 105% of median. SWE in the Belle Fourche River Basin was the highest at 136% of median, while SWE in the Tongue River Basin was the lowest at 76% of median. *See the map on page 5 and the Appendix for further information.*

## Precipitation

Last month's precipitation was a reversal of the previous month's with well above average amounts in the southeastern part of Wyoming and well below average in the northwest. The Laramie River Basin had the highest precipitation for the month at 165% of average. The Tongue River Basin had the lowest precipitation amount at 48% of average. The following table displays the major river basins and their departure from average for last month.

*See Appendix for further information.*

Basin	Departure from average	Basin	Departure from average
Snake River	-33%	Upper North Platte River	+47%
Madison-Gallatin	-50%	Sweetwater River	-31%
Yellowstone River	-44%	Lower North Platte River	+51%
Wind River	-36%	Laramie River	+65%
Bighorn River	-40%	North Platte River (Total)	+38%
Shoshone River	-40%	South Platte River	+54%
Powder River	-44%	Little Snake River	+36%
Tongue River	-52%	Upper Green River	-26%
Belle Fourche River	-18%	Lower Green River	+6%
Cheyenne River	-18%	Upper Bear River	+12%

## Streams

Stream flow yields for April thru September across Wyoming average 104%. The Snake River, Madison, and Upper Yellowstone River Basins should yield about 96%, 104% and 106% of average, respectively. Yields from the Wind and Bighorn River Basins should be about 89% and 83% of average. Yields from the Shoshone and Clarks Fork River Basins of Wyoming should be about 106% and 100% of average. Yields from the Powder and Tongue River Basins should be about 77% and 56% of average. Yield for the Cheyenne River Basin should be about 80% of average. Yields for the Sweetwater, Upper North Platte, Lower North Platte, and Laramie Rivers of Wyoming should be about 78%, 129%, 124%, and 134% of average, respectively. Yields for the Little Snake, Green River, Bear River, and Smith's Fork of Wyoming should be 107%, 87%, 115%, and 110% respectively.

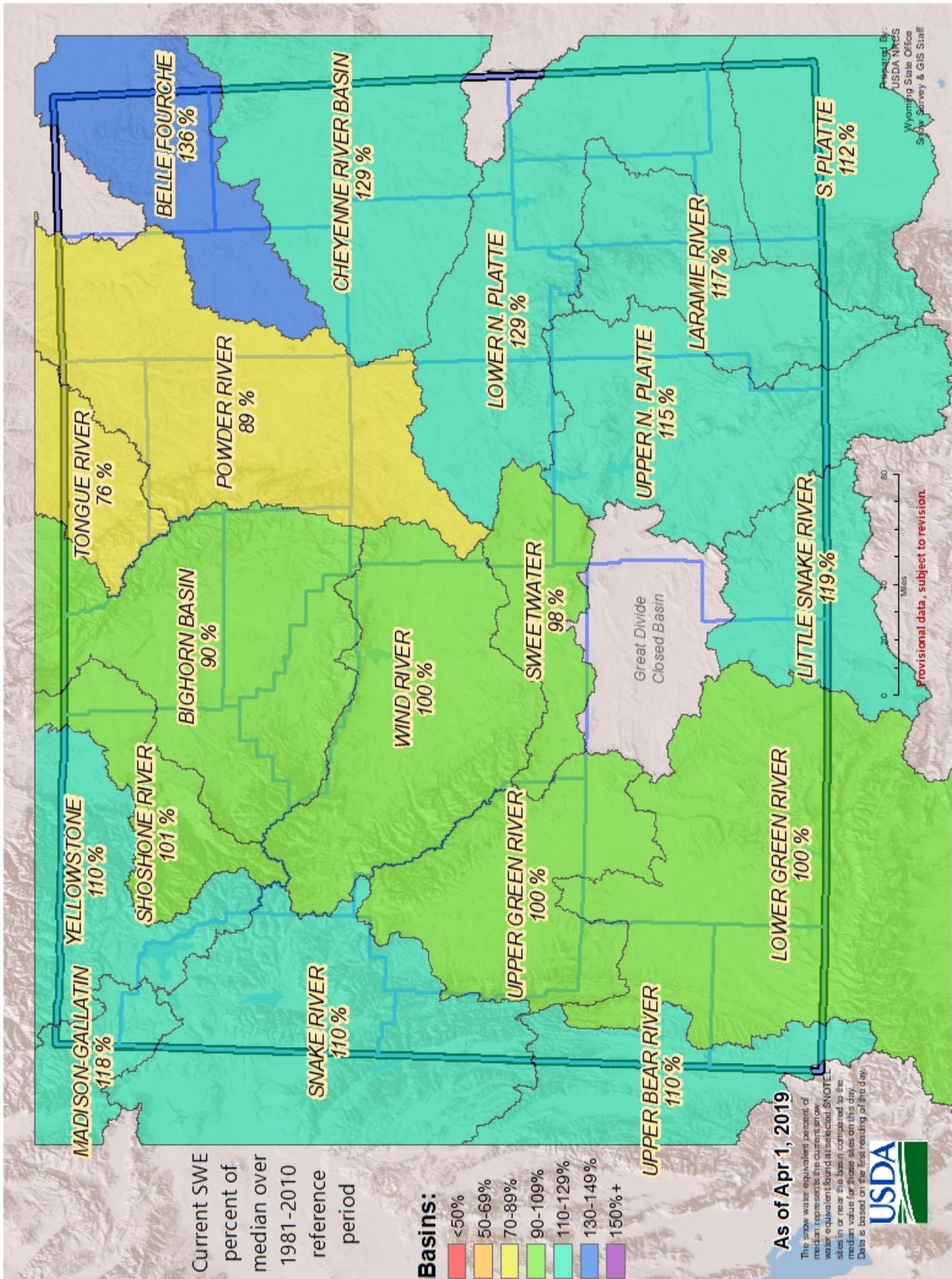
## Reservoirs

Reservoir storage was above average at 113% across the entire state. Reservoirs in the Snake River Basin are above average at 134%. Reservoirs in the Madison-Gallatin Basin are above average at 111%. Reservoirs in the Wind River Basin are above average at 108%. Reservoirs on the Big Horn are above average at 103%. The Buffalo Bill Reservoir on the Shoshone is above average at 124%. The Tongue River Basin Reservoir is above average at 216%. Reservoirs in the Belle Fourche and Cheyenne River Basins are above average at 175% & 112% respectively. Reservoirs on the Upper and Lower North Platte River are above average at 128% and 102% respectively. Reservoirs on the Laramie and Little Snake River basins are below average at 82% and 56% respectively. Reservoirs on the Upper Green River are below average at 80%. Reservoirs on the Lower Green River Basin are above average at 104% and are below average on the Upper Bear River Basin at 66%. *See below for further information.*

## Wyoming Reservoir Levels

Reservoir Storage Summary for the end of March 2019									
Reservoir	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Alcova	157.8	157.9	158.5	184.3	86%	86%	86%	100%	100%
Angostura	106.0	112.5	94.3	122.1	87%	92%	77%	112%	119%
Belle Fourche	151.6	132.6	133.5	178.4	85%	74%	75%	114%	99%
Big Sandy	17.6	33.4	19.9	38.3	46%	87%	52%	89%	168%
Bighorn Lake	783.2	761.5	787.5	1356.0	58%	56%	58%	99%	97%
Boysen	531.5	531.3	489.0	596.0	89%	89%	82%	109%	109%
Buffalo Bill	431.0	423.4	348.9	646.6	67%	65%	54%	124%	121%
Bull Lake	80.3	103.7	75.4	151.8	53%	68%	50%	107%	138%
Deerfield	15.0	14.7	14.1	15.2	99%	97%	93%	106%	104%
Ennis Lake	28.9	31.8	29.5	41.0	70%	77%	72%	98%	108%
Flaming Gorge Reservoir	3185.0	3184.3	3020.0	3749.0	85%	85%	81%	105%	105%
Fontenelle	95.1	117.4	121.7	344.8	28%	34%	35%	78%	96%
Glendo	381.7	357.4	389.4	506.4	75%	71%	77%	98%	92%
Grassy Lake	13.3	13.8	12.3	15.2	87%	91%	81%	108%	112%
Guernsey	18.0	24.8	20.0	45.6	39%	54%	44%	90%	124%
Hebgen Lake	303.8	287.9	270.4	378.8	80%	76%	71%	112%	106%
High Savery Reservoir	7.3	11.7	13.1	22.4	33%	52%	58%	56%	89%
Jackson Lake	660.7	655.7	430.7	847.0	78%	77%	51%	153%	152%
Keyhole	212.3	157.1	96.8	193.8	110%	81%	50%	219%	162%
Pactola	52.7	53.7	46.4	55.0	96%	98%	84%	114%	116%
Palisades Reservoir	1124.2	1109.4	902.8	1400.0	80%	79%	64%	125%	123%
Pathfinder	642.7	845.3	604.6	1016.5	63%	83%	59%	106%	140%
Pilot Butte	24.0	24.1	24.8	31.6	76%	76%	78%	97%	97%
Seminole	616.0	798.1	481.2	1016.7	61%	78%	47%	128%	166%
Shadehill	142.7	56.4	59.0	81.4	175%	69%	72%	242%	96%
Tongue River Res	69.7	62.4	32.3	79.1	88%	79%	41%	216%	193%
Viva Naughton Res	25.9	30.3	27.2	42.4	61%	71%	64%	95%	111%
Wheatland #2	42.0	69.8	51.0	98.9	42%	71%	52%	82%	137%
Woodruff Narrows Reservoir	25.3	57.9	38.4	57.3	44%	101%	67%	66%	151%

# Wyoming Basins Snow Water Equivalent (SWE) % of Median (includes manual snow courses)

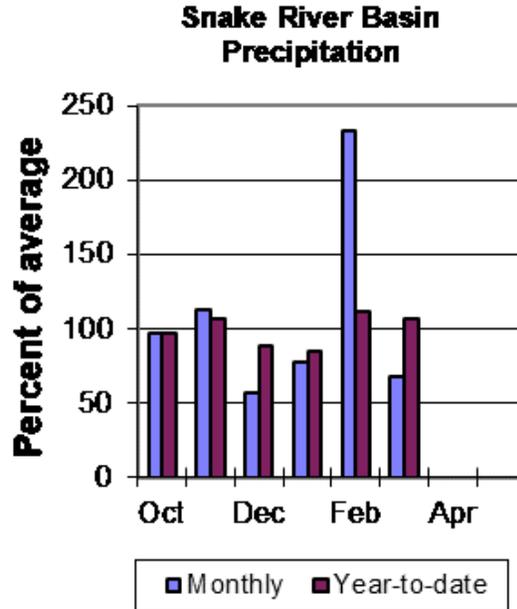
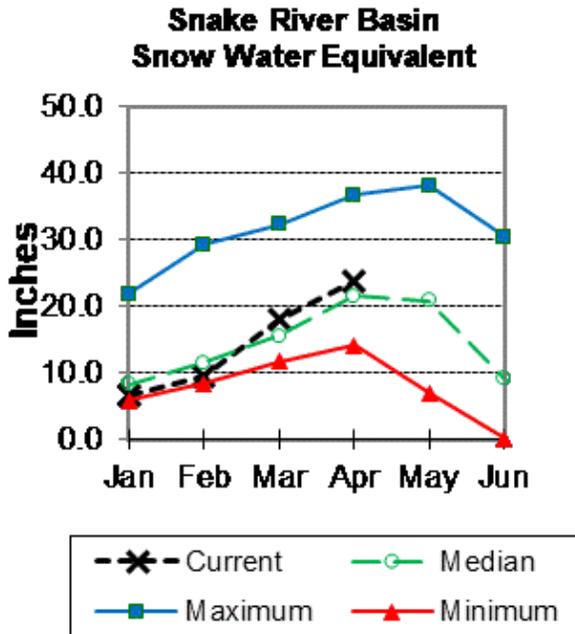


# Snake River Basin

## Snow

The overall Snake River Basin SWE (portion above Palisades dam) is 110% of median. SWE in the Snake River Basin above Jackson Lake is 112% of median. Pacific Creek Basin SWE is 117% of median. Buffalo Fork SWE is 111% of median. Gros Ventre River Basin SWE is 98% of median. SWE in the Hoback River drainage is 115% of median. SWE in the Greys River drainage is 103% of median. Salt River Basin SWE is 107% of median.

*See Appendix 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 67% of average. Water-year-to-date precipitation is 106% of average.

## Reservoirs

Current reservoir storage is 134% of average for the three storage reservoirs in the basin.

Snake River Basin	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Grassy Lake	13.3	13.8	12.3	15.2	87%	91%	81%	108%	112%
Jackson Lake	660.7	655.7	430.7	847.0	78%	77%	51%	153%	152%
Palisades Reservoir	1124.2	1109.4	902.8	1400.0	80%	79%	64%	125%	123%
<b>Basin-wide Total</b>	<b>1798.2</b>	<b>1778.8</b>	<b>1345.8</b>	<b>2262.2</b>	<b>79%</b>	<b>79%</b>	<b>59%</b>	<b>134%</b>	<b>132%</b>
# of reservoirs	3	3	3	3	3	3	3	3	3

## Streamflow

The 50% exceedance forecasts for April through September are near average for this basin. The Snake near Moran yield is 106% of average. Snake River above Reservoir near Alpine will yield about 96%. Pacific Creek near Moran Yield will be around 95%. Buffalo Fork above Lava near Moran yield will be around 98% of average. Greys River above Palisades Reservoir yield about 97%. Salt River near Etna yield will be about 109%.

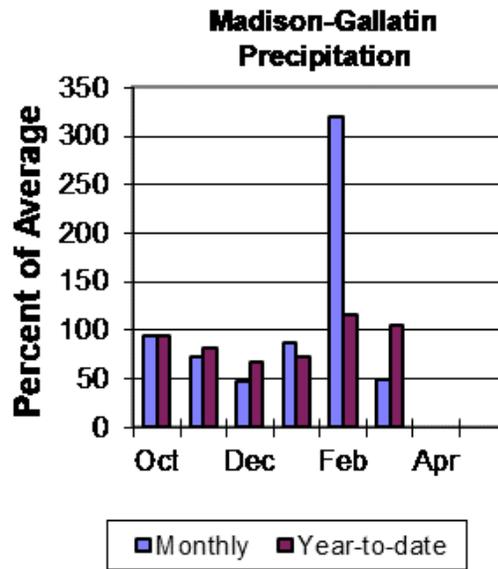
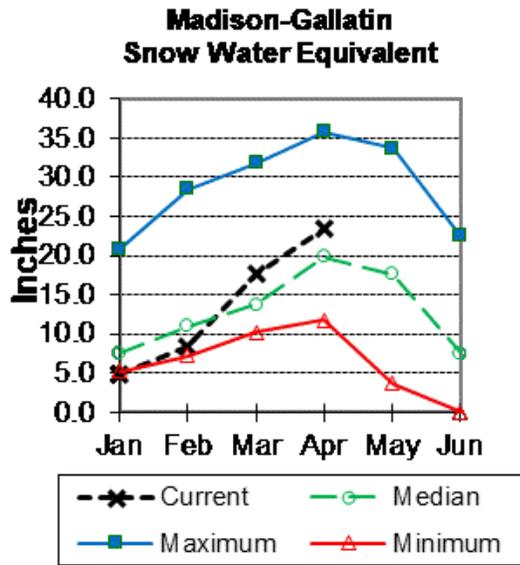
*See the following page for further information.*

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 <sup>2</sup>								
	APR-JUL	680	755	810	106%	860	940	765
	APR-SEP	745	835	895	106%	955	1040	845
Snake R ab Reservoir nr Alpine <sup>2</sup>								
	APR-JUL	1770	1960	2090	96%	2220	2410	2170
	APR-SEP	2010	2240	2390	96%	2550	2780	2500
Snake R nr Irwin <sup>2</sup>								
	APR-JUL	2470	2770	2970	99%	3180	3480	3010
	APR-SEP	2840	3200	3450	99%	3690	4050	3500
Snake R nr Heise <sup>2</sup>								
	APR-JUL	2660	2980	3190	98%	3400	3720	3240
	APR-SEP	3100	3470	3730	99%	3990	4360	3780
Pacific Ck at Moran								
	APR-JUL	111	138	157	96%	175	200	164
	APR-SEP	118	146	165	95%	184	215	173
Buffalo Fk ab Lava Ck nr Moran								
	APR-JUL	225	255	275	98%	295	330	280
	APR-SEP	250	285	315	98%	340	375	320
Greys R ab Reservoir nr Alpine								
	APR-JUL	245	280	300	98%	320	355	305
	APR-SEP	285	325	350	97%	375	415	360
Salt R ab Reservoir nr Etna								
	APR-JUL	230	290	330	110%	370	430	300
	APR-SEP	285	355	405	109%	450	520	370
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Madison-Gallatin Rivers Basin

## Snow

SWE is 118% of median in the Madison-Gallatin drainage. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month precipitation in the Madison-Gallatin drainage was 50% of average. Water-year-to-date precipitation is at 106% of average.

## Reservoirs

Current reservoir storage is 111% of average in the basin.

MADISON-GALLATIN RIVER BASINS	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Ennis Lake	28.9	31.8	29.5	41.0	70%	77%	72%	98%	108%
Hebgen Lake	303.8	287.9	270.4	378.8	80%	76%	71%	112%	106%
Basin-wide Total	332.7	319.6	299.9	419.8	79%	76%	71%	111%	107%
# of reservoirs	2	2	2	2	2	2	2	2	2

## Streamflow

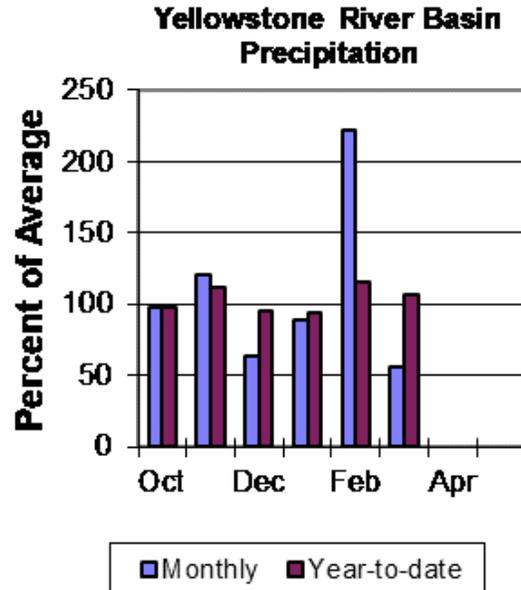
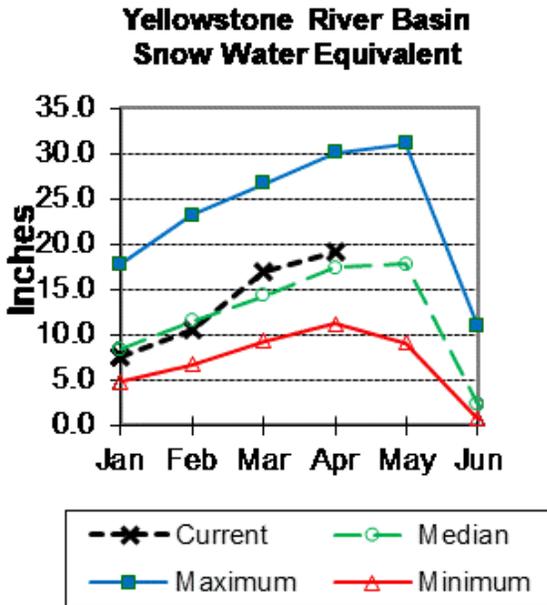
The 50% exceedance forecast for April through September is near average for the basin. Hebgen Reservoir inflow 104% of average. *See below for detailed runoff volumes.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>MADISON-GALLATIN RIVER BASINS</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Hebgen Lake Inflow								
	APR-JUL	320	360	390	105%	420	460	370
	APR-SEP	405	455	490	104%	525	575	470
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Yellowstone River Basin

## Snow

SWE in the Yellowstone River Basin is 110% of median. SWE in the Clarks Fork Drainage of the Yellowstone River Basin in Wyoming is 105% of median. *See Appendix 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 56% of average. Water-year-to-date precipitation is 106% of average.

**Reservoirs** No reservoir data

## Streamflow

The 50% exceedance forecasts for April through September are slightly above average for the basin. Yellowstone at Lake Outlet will yield around 105% of average. Yellowstone at Corwin Springs will yield around 106%. Clarks Fork of the Yellowstone near Belfry will yield around 100%.

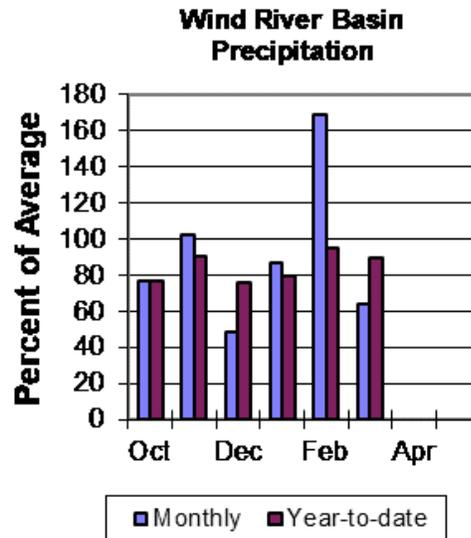
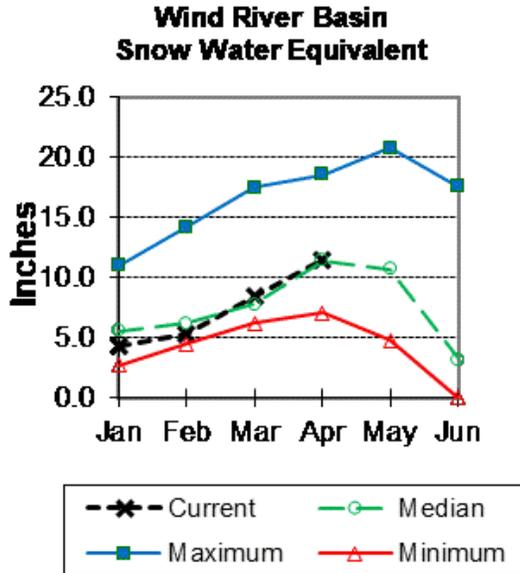
*See the following for further information.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>YELLOWSTONE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Yellowstone R at Yellowstone Lake Outlet								
	APR-JUL	500	565	610	106%	655	720	575
	APR-SEP	660	745	810	105%	870	960	770
Yellowstone R at Corwin Springs								
	APR-JUL	1400	1570	1690	106%	1800	1970	1590
	APR-SEP	1660	1860	1990	106%	2130	2320	1880
Yellowstone R at Livingston								
	APR-JUL	1570	1780	1930	107%	2080	2290	1800
	APR-SEP	1850	2100	2280	107%	2450	2700	2140
Clarks Fk Yellowstone R nr Belfry <sup>2</sup>								
	APR-JUL	415	470	510	100%	545	600	510
	APR-SEP	445	505	550	100%	595	655	550
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Wind River Basin

## Snow

Wind River Basin SWE (above Boysen Reservoir) is 100% of median. SWE in the Wind River above Dubois is 101% of median. Little Wind SWE is 96% of median, and Popo Agie drainage SWE is 103% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation for the basin was 64% of average. Water year-to-date precipitation is 89% of average.

## Reservoirs

Current storage is 108% of average in the basin.

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	80.3	103.7	75.4	151.8	53%	68%	50%	107%	138%
Boysen	531.5	531.3	489.0	596.0	89%	89%	82%	109%	109%
Pilot Butte	24.0	24.1	24.8	31.6	76%	76%	78%	97%	97%
Basin-wide Total	635.8	659.2	589.2	779.4	82%	85%	76%	108%	112%
# of reservoirs	3	3	3	3	3	3	3	3	3

## Streamflow

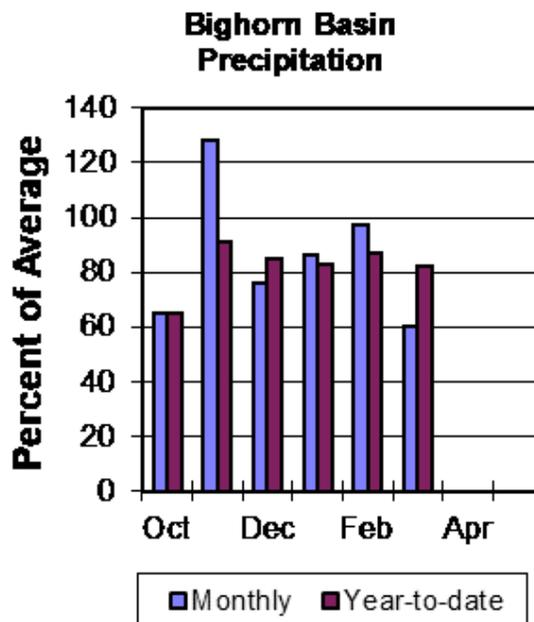
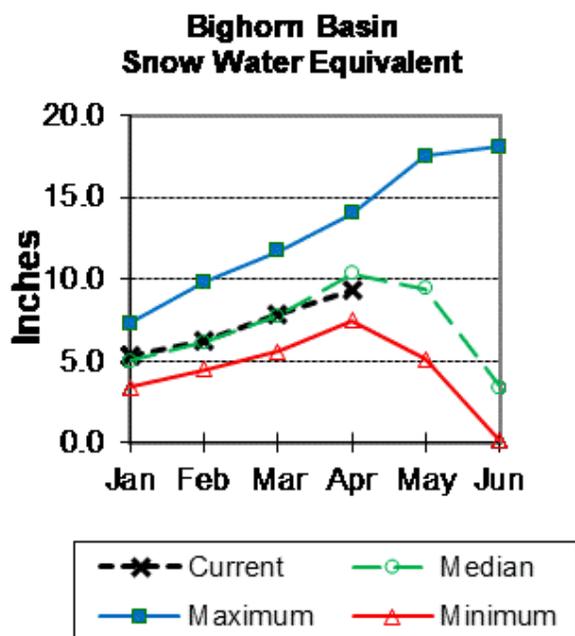
The 50% exceedance forecasts for the April through September runoff period are slightly below average. The Wind River above Bull Lake Creek will yield about 92% of average. Little Popo Agie River near Lander should yield around 86% of average. Little Wind River near Riverton will yield around 92% of average. Boysen Reservoir inflow will yield about 89% of average. *See the following page for detailed runoff volumes.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast							
<b>WIND RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)	
Dinwoody Ck nr Burris									
	APR-JUL	50	58	63	95%	68	76	66	
	APR-SEP	73	82	88	96%	94	103	92	
Wind R Ab Bull Lake Ck									
	APR-JUL	285	370	425	93%	480	565	455	
	APR-SEP	295	385	450	92%	515	605	490	
Bull Lake Ck nr Lenore									
	APR-JUL	101	121	134	96%	147	167	139	
	APR-SEP	123	146	163	96%	179	200	169	
Wind R at Riverton									
	APR-JUL	280	375	435	92%	500	590	475	
	APR-SEP	330	435	505	92%	575	680	550	
Little Popo Agie R nr Lander									
	APR-JUL	16.9	28	36	86%	44	55	42	
	APR-SEP	21	33	42	86%	50	62	49	
Little Wind R nr Riverton									
	APR-JUL	73	175	245	91%	315	415	270	
	APR-SEP	88	196	270	92%	345	450	295	
Boysen Reservoir Inflow									
	APR-JUL	197	410	555	91%	695	910	610	
	APR-SEP	215	440	595	89%	750	975	665	
1) 90% and 10% exceedance probabilities are actually 95% and 5%									
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions									
3) Median value used in place of average									

## Bighorn River Basin

### Snow

The Bighorn River Basin SWE (above Bighorn Reservoir) is 90% of median. The Nowood River is at 93% of median. The Greybull River SWE is at 99% of median. Shell Creek SWE is at 84% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Last month's precipitation was 60% of average. Year-to-date precipitation is 82% of average.

### Reservoirs

Current reservoir storage in the basin is 103% of average.

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	531.5	531.3	489.0	596.0	89%	89%	82%	109%	109%
Bighorn Lake	783.2	761.5	787.5	1356.0	58%	56%	58%	99%	97%
Basin-wide Total	1314.7	1292.8	1276.5	1952.0	67%	66%	65%	103%	101%
# of reservoirs	2	2	2	2	2	2	2	2	2

### Streamflow

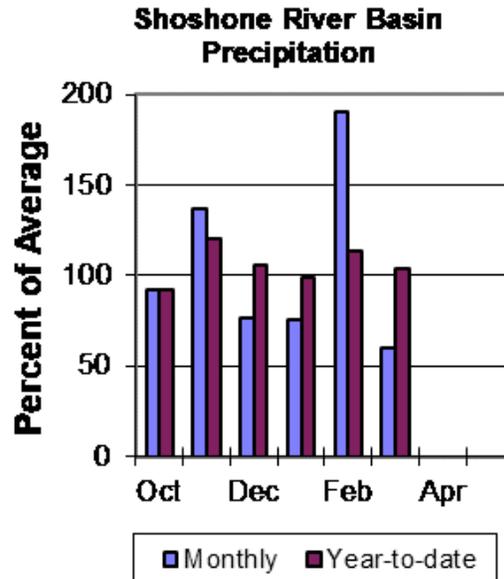
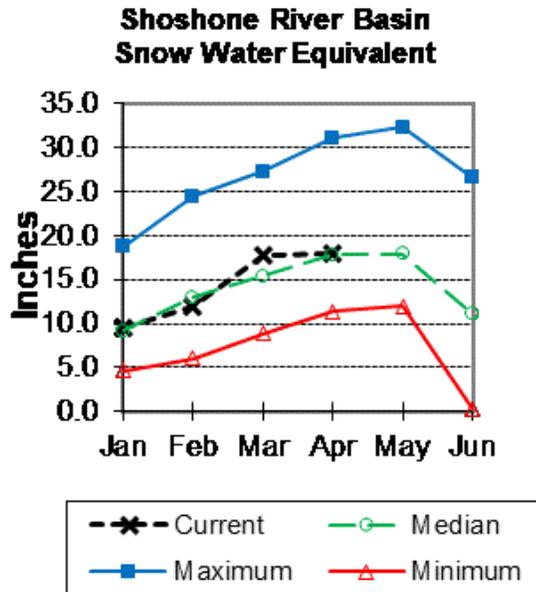
The 50% exceedance forecasts for the April through September runoffs are below average. Boysen Reservoir inflow has a forecasted yield 89% of average; the Greybull River near Meeteetse yielding around 92% of average; Shell Creek near Shell yielding around 80% of average and the Bighorn River at Kane to yield around 83% of average. *See the following for detailed runoff volumes.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>BIGHORN RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Boysen Reservoir Inflow								
	APR-JUL	197	410	555	91%	695	910	610
	APR-SEP	215	440	595	89%	750	975	665
Greybull R at Meeteetse								
	APR-JUL	59	96	121	92%	146	183	131
	APR-SEP	88	132	162	92%	192	235	177
Shell Ck nr Shell								
	APR-JUL	28	37	43	78%	49	58	55
	APR-SEP	37	46	53	80%	60	70	66
Bighorn R at Kane								
	APR-JUL	186	505	720	86%	935	1250	840
	APR-SEP	184	525	755	83%	985	1320	905
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Shoshone River Basin

## Snow

Snow Water Equivalent (SWE) is 101% of median in this basin. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation for last month was 60% of average. The basin year-to-date precipitation is now 104% of average.

## Reservoirs

Current storage in Buffalo Bill Reservoir is about 124% of average.

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	431.0	423.4	348.9	646.6	67%	65%	54%	124%	121%
Basin-wide Total	431.0	423.4	348.9	646.6	67%	65%	54%	124%	121%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

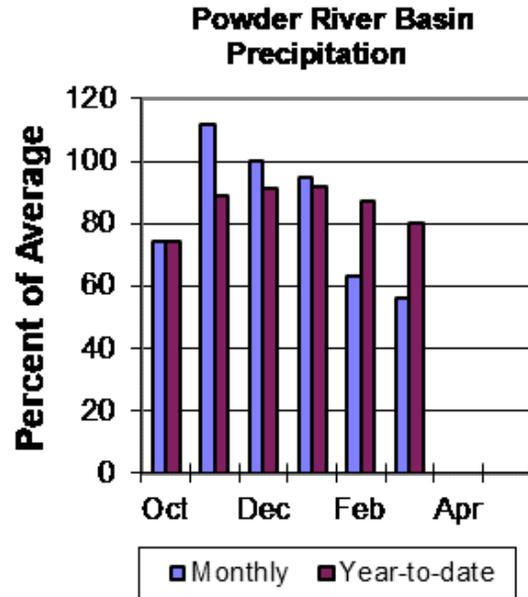
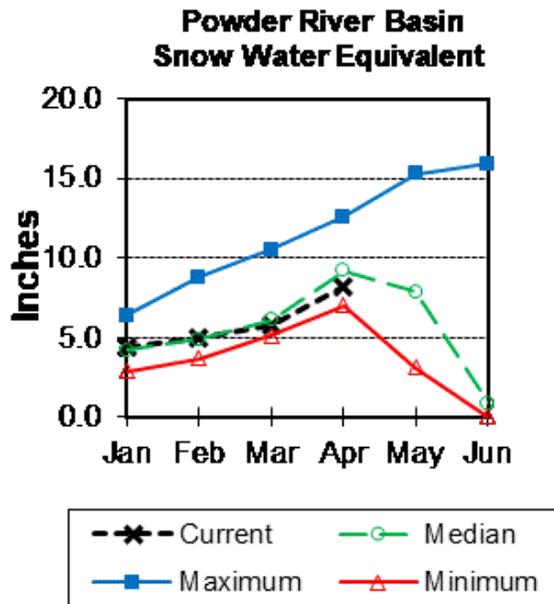
The 50% exceedance forecasts for the April through September period are all above average for the basin. The North Fork Shoshone River at Wapiti will yield 109% of average. The South Fork of the Shoshone River near Valley would yield 102% of average. The Buffalo Bill Reservoir inflow to yield 106%. *See the following for detailed runoff volumes.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>SHOSHONE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
NF Shoshone R at Wapiti								
	APR-JUL	415	465	500	109%	535	585	460
	APR-SEP	460	520	560	109%	600	660	515
SF Shoshone R nr Valley								
	APR-JUL	173	200	220	102%	240	265	215
	APR-SEP	197	230	250	102%	275	305	245
SF Shoshone R ab Buffalo Bill Reservoir								
	APR-JUL	125	168	197	102%	225	270	193
	APR-SEP	123	170	205	103%	235	280	200
Buffalo Bill Reservoir Inflow <sup>2</sup>								
	APR-JUL	555	650	715	106%	780	870	675
	APR-SEP	615	720	790	106%	860	965	745
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Powder River Basin

## Snow

Powder River Basin SWE is at 89% of median. Upper Powder River drainage is 92% of median. SWE in the Clear Creek drainage is 84% of median. Crazy Woman Creek drainage SWE is at 89%. *See appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 56% of average in the basin. Year-to-date precipitation is 80% of average.

## Reservoirs

No reservoir data for this basin.

## Streamflow

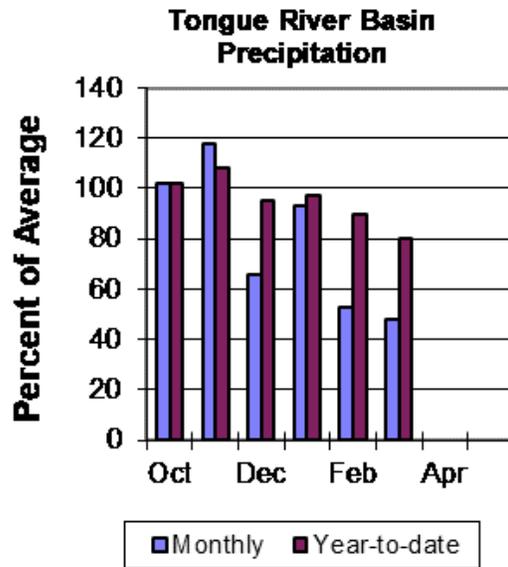
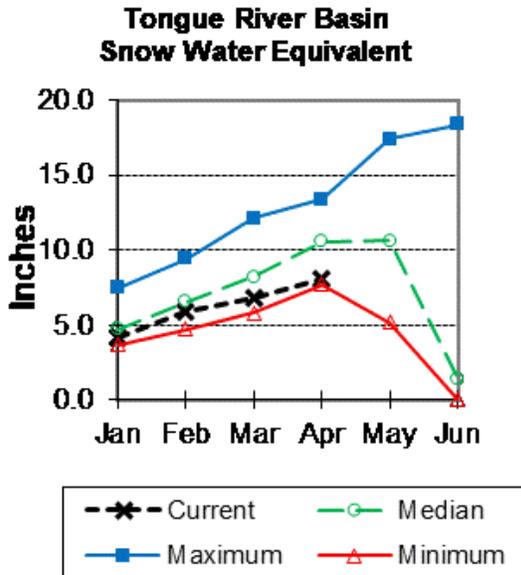
The 50% exceedance forecasts for the April through September period are well below average for the basin. The Middle Fork of the Powder River near Barnum should yield around 69% of average. The North Fork of the Powder River near Hazelton to yield around 76%. The Powder River near Morehead to yield around 77% of average. *See the following for detailed runoff volumes.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>POWDER RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
MF Powder R nr Barnum								
	APR-JUL	4.6	8.5	11.1	69%	13.7	17.6	16.1
	APR-SEP	5.1	9.1	11.8	69%	14.5	18.5	17
NF Powder R nr Hazelton								
	APR-JUL	3.4	5.5	6.9	76%	8.4	10.5	9.1
	APR-SEP	3.9	6	7.5	76%	9	11.2	9.9
Rock Ck nr Buffalo								
	APR-JUL	4.5	10.2	14.1	76%	18	24	18.6
	APR-SEP	7	13	17.1	78%	21	27	22
Piney Ck at Kearny								
	APR-JUL	1	17.6	29	66%	40	57	44
	APR-SEP	2.3	19.6	31	66%	43	60	47
Powder R at Moorhead								
	APR-JUL	1	79	136	77%	194	280	177
	APR-SEP	7	92	150	77%	210	295	196
Powder R nr Locate								
	APR-JUL	1	92	155	78%	220	310	199
	APR-SEP	6.4	103	169	77%	235	330	220
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Tongue River Basin

## Snow

Upper Tongue River drainage SWE is at 76% of median. The Goose Creek drainage SWE is also 76% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 48% of average. Year-to-date precipitation is 80% of average in the basin.

## Reservoirs

The Tongue River Reservoir is at 216% of average for this time of year.

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	69.7	62.4	32.3	79.1	88%	79%	41%	216%	193%
Basin-wide Total	69.7	62.4	32.3	79.1	88%	79%	41%	216%	193%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

The 50% exceedance forecasts for the April through September period are well below average for the basin. The yield for Tongue River near Dayton is forecasted to be 67% of average. Big Goose Creek near Sheridan to yield around 67%. Little Goose Creek near Bighorn yielding 74% of average. The Tongue River Reservoir Inflow will be about 56% of average.

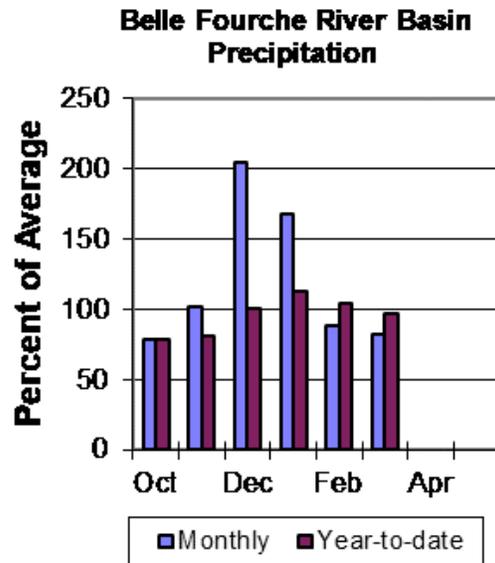
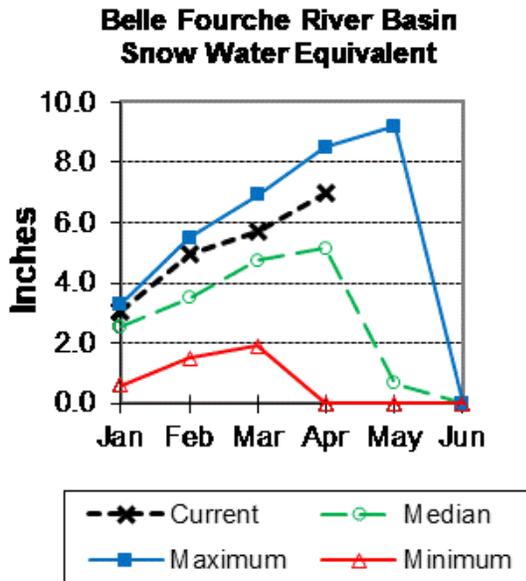
*See below for detailed runoff volumes.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>TONGUE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Tongue R nr Dayton								
	APR-JUL	29	45	56	65%	67	83	86
	APR-SEP	36	54	66	67%	78	96	98
Big Goose Ck nr Sheridan								
	APR-JUL	8.7	20	28	61%	36	48	46
	APR-SEP	16.2	28	36	67%	44	56	54
Little Goose Ck nr Big Horn								
	APR-JUL	10	17.2	22	71%	27	34	31
	APR-SEP	16.2	24	29	74%	35	43	39
Tongue River Reservoir Inflow								
	APR-JUL	2.8	62	103	53%	143	205	193
	APR-SEP	14.8	78	121	56%	163	225	215
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Belle Fourche River Basin

## Snow

Belle Fourche River Basin SWE is at 136% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation for last month was 82% of average in the Belle Fourche basin. Year-to-date precipitation is 97% of average.

## Reservoirs

Combined storage for the 3 reservoirs in the basin is at 175% of average.

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	151.6	132.6	133.5	178.4	85%	74%	75%	114%	99%
Keyhole	212.3	157.1	96.8	193.8	110%	81%	50%	219%	162%
Shadehill	142.7	56.4	59.0	81.4	175%	69%	72%	242%	96%
Basin-wide Total	506.7	346.1	289.3	453.6	112%	76%	64%	175%	120%
# of reservoirs	3	3	3	3	3	3	3	3	3

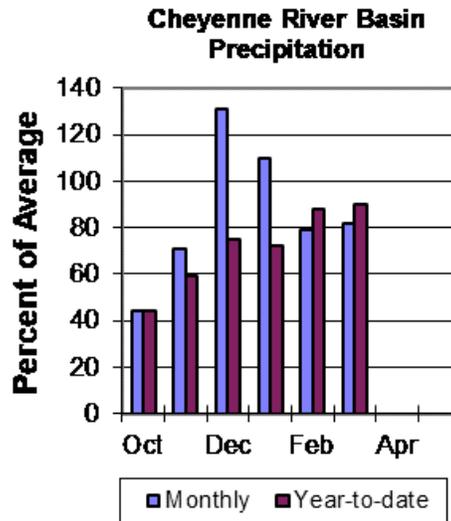
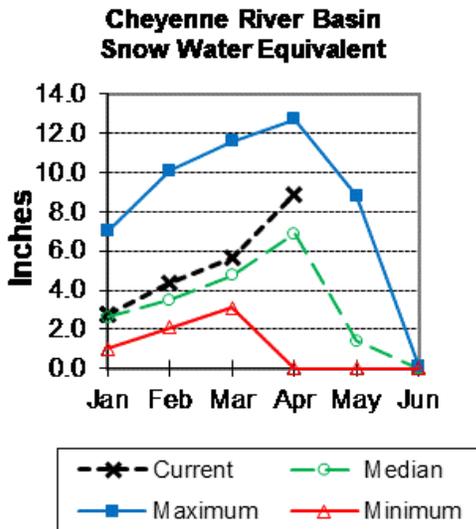
## Streamflow

There are no streamflow forecast points for the basin.

# Cheyenne River Basin

## Snow

Cheyenne River Basin SWE is at 129% of median. *See Appendix at the end of this report for a detailed listing.*



## Precipitation

Precipitation for last month was 82% of average. Year-to-date precipitation is 90%.

## Reservoirs

Combined storage for the 3 reservoirs in the basin is at 112% of average.

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	106.0	112.5	94.3	122.1	87%	92%	77%	112%	119%
Deerfield	15.0	14.7	14.1	15.2	99%	97%	93%	106%	104%
Pactola	52.7	53.7	46.4	55.0	96%	98%	84%	114%	116%
Basin-wide Total	173.8	181.0	154.8	192.3	90%	94%	80%	112%	117%
# of reservoirs	3	3	3	3	3	3	3	3	3

## Streamflow

The Deerfield Reservoir Inflow yield is forecasted at 87% of average. Pactola Reservoir Inflow yield is 80% of average. *See the following for detailed runoff volumes.*

		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								
	APR-JUL	1.53	3.3	4.5	87%	5.7	7.5	5.2
Pactola Reservoir Inflow								
	APR-JUL	4.8	12.4	17.5	80%	23	30	22

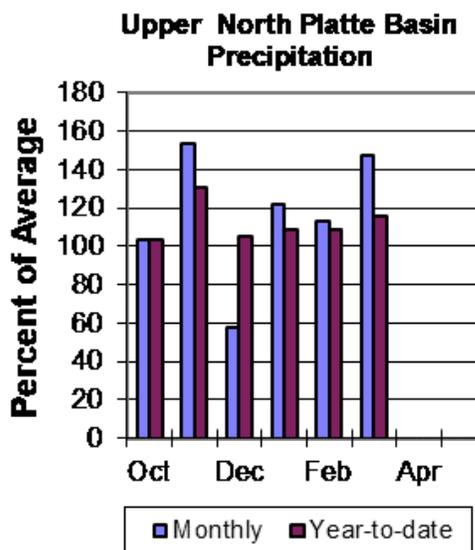
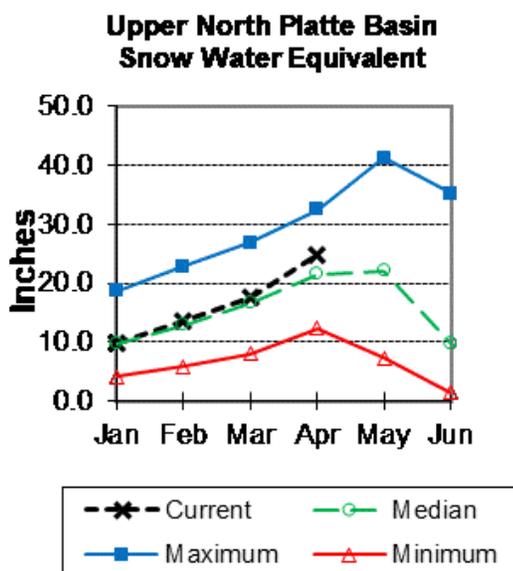
- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

# Upper North Platte River Basin

## Snow

The Upper North Platte River Basin SWE above Seminoe Reservoir is 115% of median. North Platte above Northgate SWE is 118% of median. Encampment River SWE is 120% of median. Brush Creek SWE is 107% of median. Medicine Bow and Rock Creek SWE are 106% of median.

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



## Precipitation

Last month's precipitation was 147% of average. Total water-year-to-date precipitation is 116% of average.

## Reservoirs

Seminoe Reservoir storage is at 128% of average.

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
Seminoe	616.0	798.1	481.2	1016.7	61%	78%	47%	128%	166%
Basin-wide Total	616.0	798.1	481.2	1016.7	61%	78%	47%	128%	166%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

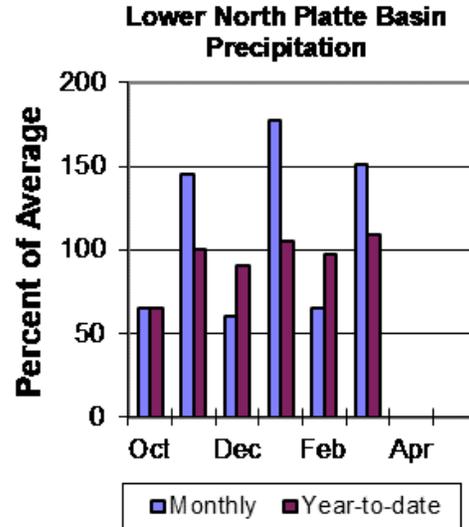
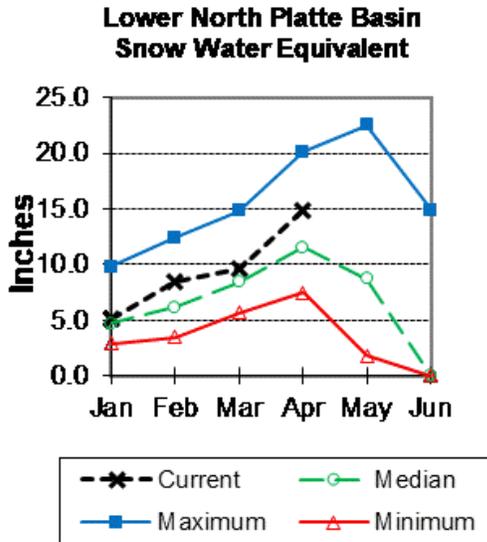
The 50% exceedance forecasts for the April through September period are well above average for the Upper North Platte River Basin. The yield for the North Platte River near Northgate will be around 128% of average. The Encampment River near Encampment yield will be about 134%. Rock Creek near Arlington yield will be around 113%. Seminoe Reservoir inflow should be about 129%. *See the following page for more detailed information on projected runoff.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>UPPER NORTH PLATTE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
North Platte R nr Northgate								
	APR-JUL	173	245	290	129%	335	405	225
	APR-SEP	190	265	320	128%	375	450	250
Encampment R nr Encampment <sup>2</sup>								
	APR-JUL	122	153	174	135%	195	225	129
	APR-SEP	130	163	185	134%	205	240	138
Rock Ck ab King Canyon Cnl nr Arlington								
	APR-JUL	42	50	56	114%	61	70	49
	APR-SEP	44	53	59	113%	65	73	52
Sweetwater R nr Alcova								
	APR-JUL	15.1	34	47	80%	60	78	59
	APR-SEP	16.5	37	50	78%	64	84	64
Seminole Reservoir Inflow								
	APR-JUL	600	795	925	129%	1060	1250	715
	APR-SEP	650	855	995	129%	1140	1340	770
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

## Lower North Platte River Basin

### Snow

Lower North Platte River Basin SWE is 129% of median. Deer Creek and LaPrele Creek SWE is at 131%. SWE total for the entire North Platte River Basin above Torrington, WY is 114% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Last month's precipitation was 151% of average. The water year-to-date precipitation for the basin is currently 109% of average.

### Reservoirs

Combined storage for the 4 reservoirs in the basin is at 102% of average.

LOWER 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
Alcova	157.8	157.9	158.5	184.3	86%	86%	86%	100%	100%
Glendo	381.7	357.4	389.4	506.4	75%	71%	77%	98%	92%
Guernsey	18.0	24.8	20.0	45.6	39%	54%	44%	90%	124%
Pathfinder	642.7	845.3	604.6	1016.5	63%	83%	59%	106%	140%
<b>Basin-wide Total</b>	<b>1200.2</b>	<b>1385.5</b>	<b>1172.5</b>	<b>1752.8</b>	<b>68%</b>	<b>79%</b>	<b>67%</b>	<b>102%</b>	<b>118%</b>
# of reservoirs	4	4	4	4	4	4	4	4	4

### Streamflow

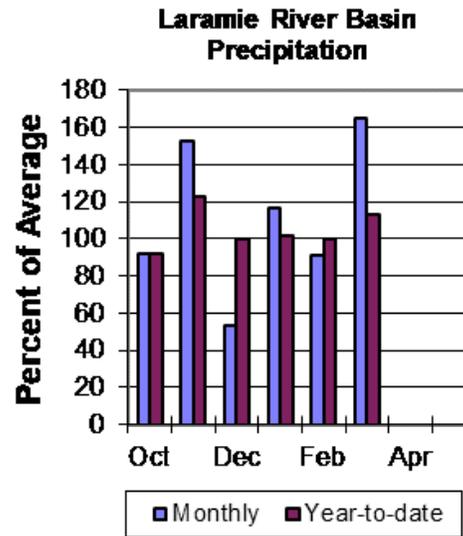
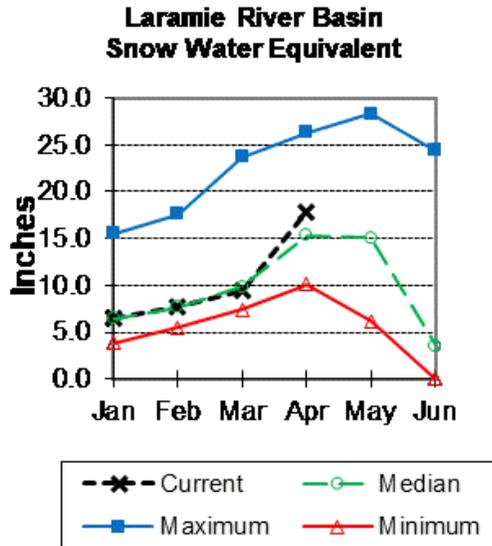
The 50% exceedance forecasts for the April through September period are well above average. LaPrele Creek above LaPrele Reservoir is forecasted to yield 146% of average. North Platte River below Guernsey Reservoir to yield around 124% of average. *See the following for more detailed information on projected runoff.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>LOWER NORTH PLATTE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
La Prele Ck nr Douglas								
	APR-JUL	16.3	24	29	146%	34	42	19.9
	APR-SEP	16	24	29	146%	34	42	19.9
North Platte R bl Glendo Reservoir								
	APR-JUL	545	815	1000	122%	1180	1450	820
	APR-SEP	570	850	1040	122%	1230	1510	850
North Platte R bl Guernsey Reservoir								
	APR-JUL	540	820	1010	123%	1200	1480	820
	APR-SEP	565	850	1050	124%	1240	1530	850
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Laramie River Basin

## Snow

SWE for the entire Laramie River Basin (above mouth entering North Platte) is 117% of median. SWE for the Laramie River above Laramie is 118% of median. SWE for the Little Laramie River is 114% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 165% of average. The water year-to-date precipitation for the basin is currently 113% of average.

## Reservoirs

Wheatland #2 is storing at 82% of average.

LARAMIE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Wheatland #2	42.0	69.8	51.0	98.9	42%	71%	52%	82%	137%
Basin-wide Total	42.0	69.8	51.0	98.9	42%	71%	52%	82%	137%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

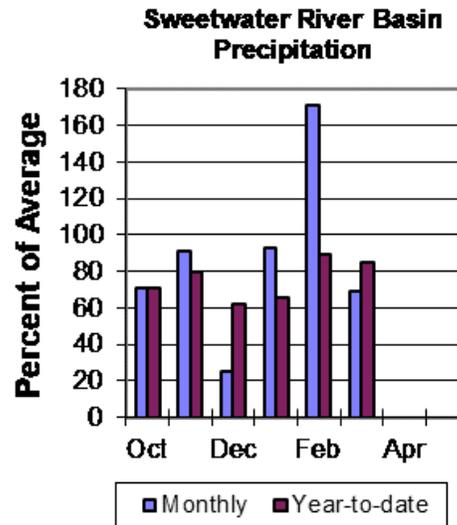
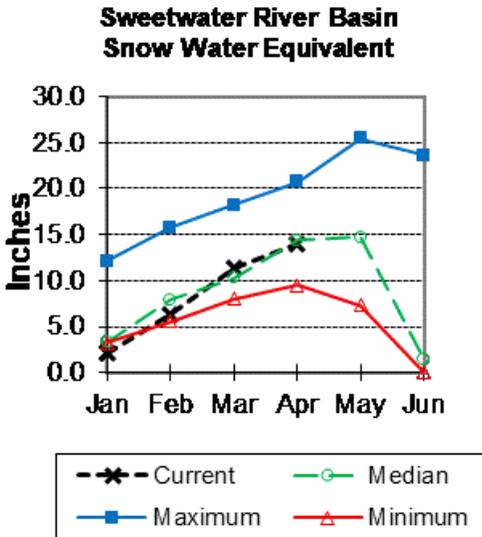
The 50% exceedance forecasts for the April through September period will be well above average. Laramie River near Woods Landing should yield around 134% of average. The Little Laramie near Filmore should produce about 118% of average. *See below for detailed information on projected runoff.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>LARAMIE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Laramie R and Pioneer Cnl nr Woods Lg								
	APR-JUL	105	134	154	134%	175	205	115
	APR-SEP	114	147	169	134%	190	225	126
Little Laramie R nr Filmore								
	APR-JUL	42	53	60	118%	67	78	51
	APR-SEP	46	57	65	118%	73	84	55
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Sweetwater River Basin

## Snow

Sweetwater River Basin SWE is at 98% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 69% of average. The water year-to-date precipitation for the basin is currently 85% of average.

## Reservoirs

Pathfinder is storing at 106% of average for this time of year.

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	642.7	845.3	604.6	1016.5	63%	83%	59%	106%	140%
Basin-wide Total	642.7	845.3	604.6	1016.5	63%	83%	59%	106%	140%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

The following is the streamflow forecast for the April through September period. The Sweetwater River near Pathfinder will yield about 78% of average.

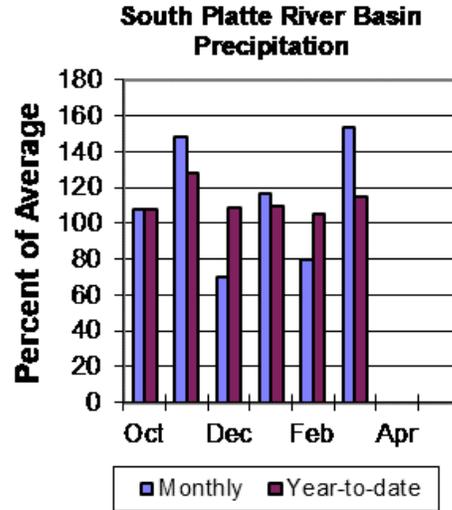
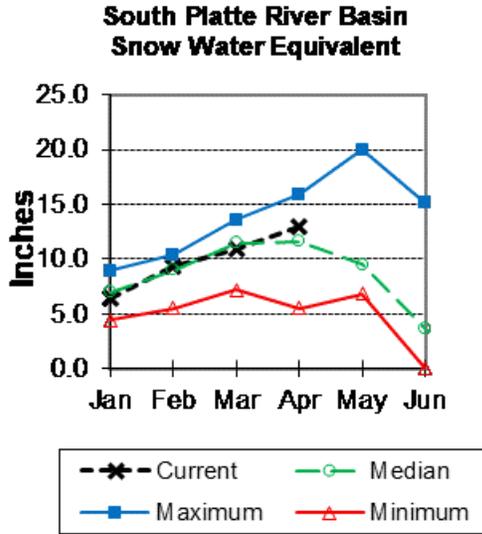
SWEETWATER RIVER BASIN	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
		90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Sweetwater R nr Alcova								
	APR-JUL	15.1	34	47	80%	60	78	59
	APR-SEP	16.5	37	50	78%	64	84	64

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

## South Platte River Basin (WY)

### Snow

South Platte River Basin SWE in WY is 112% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Last month's precipitation was 154% of average. The water year-to-date precipitation for the basin is currently 115%.

### Reservoirs

No reservoir data for the basin.

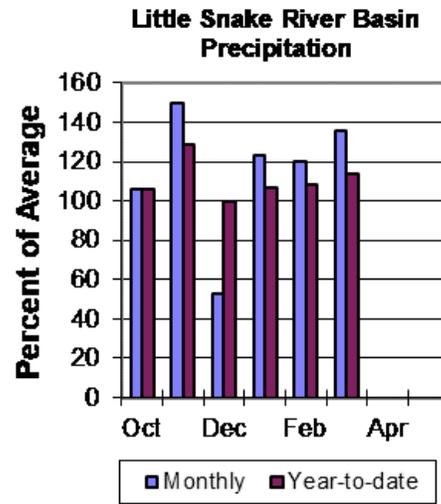
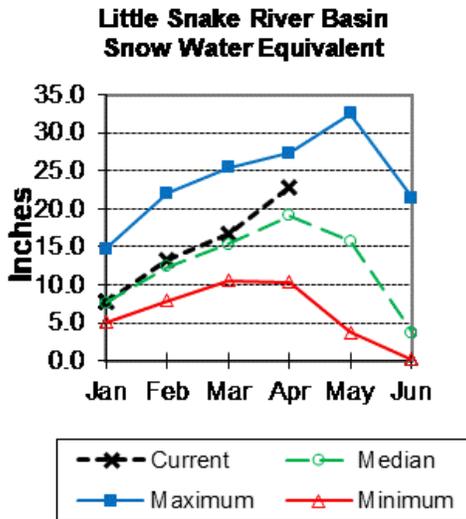
### Streamflow

There are no streamflow forecast points for the basin.

# Little Snake River Basin

## Snow

Little Snake River drainage SWE is 119% of median. See *Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation across the basin was 136% of average. The Little Snake River Basin water-year-to-date precipitation is currently 114% of average.

## Reservoirs

High Savery Dam was storing 56% of average as of the end of last month.

LITTLE SNAKE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
High Savery Reservoir	7.3	11.7	13.1	22.4	33%	52%	58%	56%	89%
Basin-wide Total	7.3	11.7	13.1	22.4	33%	52%	58%	56%	89%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

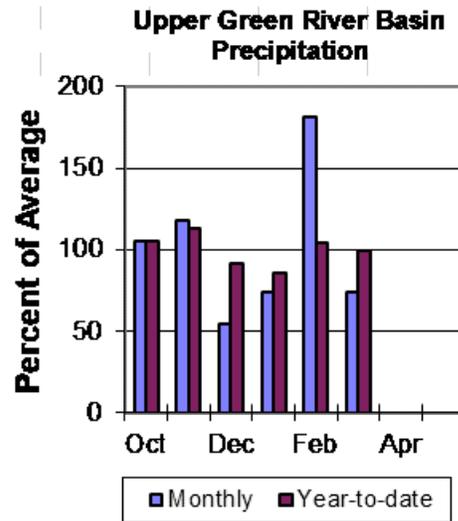
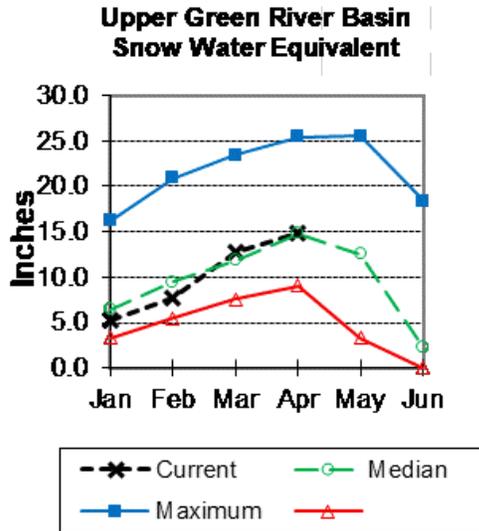
The 50% exceedance forecasts for the April through July period will be above average. The Little Snake River near Slater is forecasted to yield around 109% of average. *See below for detailed information on projected runoff.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>LITTLE SNAKE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Little Snake R nr Slater <sup>2</sup>								
	APR-JUL	127	152	170	109%	189	220	156
Little Snake R nr Dixon <sup>2</sup>								
	APR-JUL	225	310	370	107%	440	550	345
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Upper Green River Basin

## Snow

The Upper Green River Basin SWE (above Fontenelle Reservoir) is 100% of median. Green River Basin above Warren Bridge SWE is 93% of median. West Side of Upper Green River Basin SWE is 99% of median. New Fork River SWE is 121% of median. Big Sandy-Eden Valley Basin SWE is 101% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation for sites in the basin was 74% of average last month. Water year-to-date precipitation is 99% of average.

## Reservoir

Combined water storage in the basin was at 80% of average for the 2 reservoirs.

UPPER GREEN RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Big Sandy	17.6	33.4	19.9	38.3	46%	87%	52%	89%	168%
Fontenelle	95.1	117.4	121.7	344.8	28%	34%	35%	78%	96%
Basin-wide Total	112.7	150.8	141.6	383.1	29%	39%	37%	80%	106%
# of reservoirs	2	2	2	2	2	2	2	2	2

## Streamflow

The 50% exceedance forecasts for the April through July period will be slightly below average. The yield on the Green River at Warren Bridge is about 90% of average. New Fork River near Big Piney yield will be around 92% of average. Fontenelle Reservoir Inflow is estimated to be about 87% of average. *See the following for a more detailed forecast.*

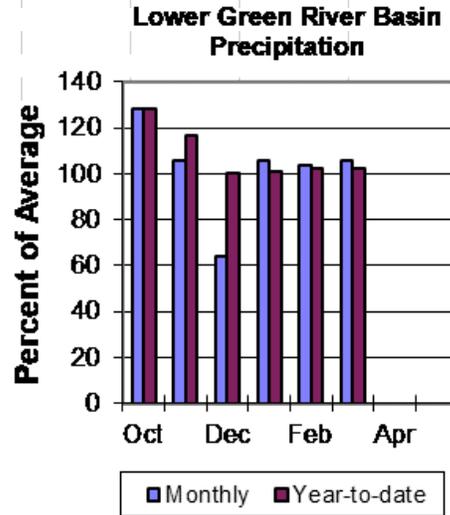
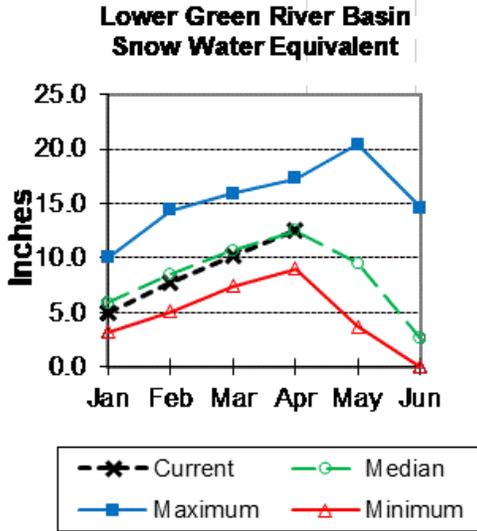
		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>UPPER GREEN RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Green R at Warren Bridge								
	APR-JUL	173	200	220	90%	235	265	245
Pine Ck ab Fremont Lake								
	APR-JUL	80	88	93	95%	99	107	98
New Fork R nr Big Piney								
	APR-JUL	215	280	325	92%	370	435	355
Fontenelle Reservoir Inflow								
	APR-JUL	405	535	630	87%	735	905	725
Big Sandy R nr Farson								
	APR-JUL	29	39	46	88%	52	62	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								

## Lower Green River Basin

### Snow

Lower Green River Basin SWE is at 100% of median. Hams Fork drainage SWE is 96% of median. Blacks Fork drainage SWE is 106% of median. Henrys Fork SWE is 109% of median. SWE for the entire Green River Basin (above Flaming Gorge) is at 101% of median.

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



### Precipitation

Precipitation for the basin last month was 106% of average. The basin year-to-date precipitation is currently 102% of average.

### Reservoirs

Combined storage for the 3 reservoirs in the basin was at 104% of average at the end of last month.

LOWER GREEN RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Fontenelle	95.1	117.4	121.7	344.8	28%	34%	35%	78%	96%
Flaming Gorge Reservoir	3185.0	3184.3	3020.0	3749.0	85%	85%	81%	105%	105%
Viva Naughton Res	25.9	30.3	27.2	42.4	61%	71%	64%	95%	111%
Basin-wide Total	3306.0	3331.9	3168.9	4136.2	80%	81%	77%	104%	105%
# of reservoirs	3	3	3	3	3	3	3	3	3

### Streamflow

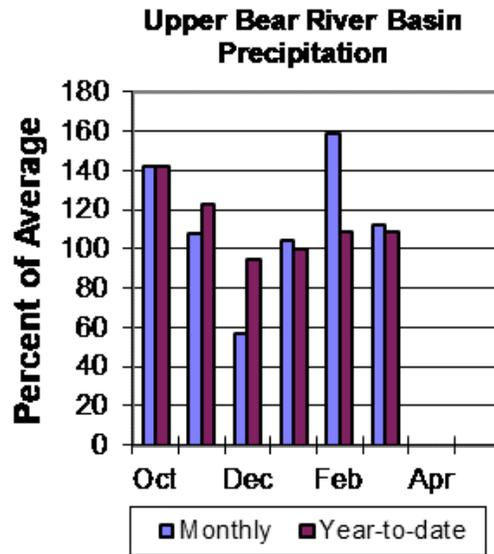
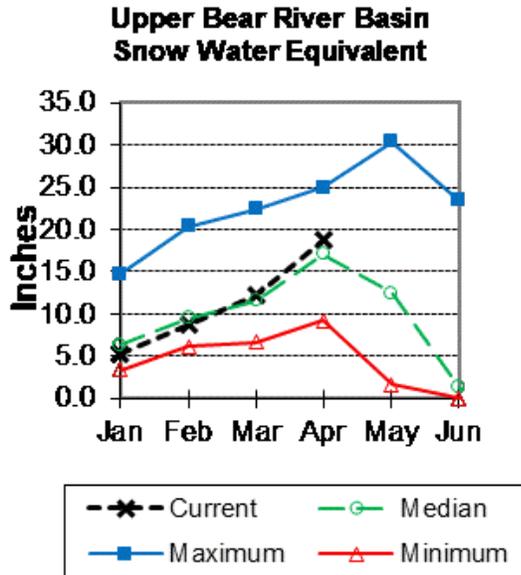
The following are the 50% exceedance forecasts for the April through July period. The Green River near Green River will yield about 88% of average. The Flaming Gorge Reservoir inflow will be about 90% of average. *See the following page for more detailed information on projected runoff.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>LOWER GREEN RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Green R nr Green River, WY <sup>2</sup>								
	APR-JUL	370	535	645	88%	755	920	730
Blacks Fk nr Robertson								
	APR-JUL	73	88	99	115%	111	129	86
EF of Smiths Fork nr Robertson <sup>2</sup>								
	APR-JUL	20	25	29	107%	33	39	27
Hams Fk bl Pole Ck nr Frontier								
	APR-JUL	26	34	41	76%	47	58	54
Viva Naughton Reservoir Inflow								
	APR-JUL	33	45	55	74%	66	83	74
Flaming Gorge Reservoir Inflow <sup>2</sup>								
	APR-JUL	520	725	885	90%	1060	1350	980
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

# Upper Bear River Basin

## Snow

SWE in the Upper Bear River Basin of Utah is 109% of median. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 100% of median. Bear River Basin SWE, above the Idaho State line, is 110% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation for last month was 112% of average in the basin. The year-to-date precipitation for the basin is 109% of average.

## Reservoirs

Storage in Woodruff Narrows Reservoir was at 66% of average for the end of last month.

UPPER BEAR RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Woodruff Narrows Reservoir	25.3	57.9	38.4	57.3	44%	101%	67%	66%	151%
Basin-wide Total	25.3	57.9	38.4	57.3	44%	101%	67%	66%	151%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

The 50% exceedance forecasts for the April through September period will be above average. The Bear River above reservoir near Woodruff to yield around 115% of average. The Smiths Fork River near Border Jct. will yield around 110%. *See below for detailed information on projected runoff.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>UPPER BEAR RIVER BASIN</b>	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	93	112	125	112%	138	157	112
	APR-SEP	104	125	140	114%	155	176	123
Bear R ab Resv nr Woodruff								
	APR-JUL	62	107	137	113%	167	210	121
	APR-SEP	66	114	147	115%	180	230	128
Smiths Fk nr Border								
	APR-JUL	72	87	97	109%	107	122	89
	APR-SEP	86	103	114	110%	125	142	104
1) 90% and 10% exceedance probabilities are actually 95% and 5%								
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions								
3) Median value used in place of average								

## Appendix - Snowpack Data

In Word double click the object below to view entire document

Report Created: 4/4/2019 7:17:24 AM

Basinwide Summary: April 1, 2019 (Averages/Medians based on 1981-2010 reference period)				Snowpack Summary for April 1, 2019					
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	60	21.4	25.7	83%	31.3	122%	
Glade Creek	SC	7040	70	25.2	21.2	119%	25.2	119%	
Grassy Lake	SNOTEL	7285	86	32.7	31.6	103%	31.3	99%	
Huckleberry Divide	SC	7300	59	22.4	18.5	121%	20.4	110%	
Lewis Lake Divide	SNOTEL	7850	90	33.8	29.5	115%	38.3	130%	
Moran	SC	6750	39	13.8	10.6	130%	10.5	99%	
Snake River Station	SNOTEL	6920	52	19.5	15.5	126%	18.5	119%	
Thumb Divide	SNOTEL	7980	52	18.2	14.9	122%	18.9	127%	
Two Ocean Plateau	SNOTEL	9240	76	28.6	25.6	112%	36.0	141%	
<b>Basin Index</b>						<b>112%</b>		<b>119%</b>	
# of sites						9		9	
PACIFIC CREEK	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Base Camp	SNOTEL	7060	52	17.4	14.8	118%	17.3	117%	
Moran	SC	6750	39	13.8	10.6	130%	10.5	99%	
Two Ocean Plateau	SNOTEL	9240	76	28.6	25.6	112%	36.0	141%	
<b>Basin Index</b>						<b>117%</b>		<b>125%</b>	
# of sites						3		3	
BUFFALO FORK	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Four Mile	SC	6900	40	9.9	7.0	141%	9.4	134%	
Togwotee Pass	SNOTEL	9580	68	22.7	21.6	105%	30.8	143%	
Turpin Meadows	SC	6900	34	9.3	9.0	103%	10.9	121%	
Younts Peak	SNOTEL	8350	41	13.4	14.1	95%			
<b>Basin Index</b>						<b>111%</b>		<b>136%</b>	
# of sites						3		3	
GROS VENTRE RIVER	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median	
Elbo Ranch	SC	7100	40	13.1	10.2	128%	9.2	90%	
Gros Ventre Summit	SNOTEL	8750	31	8.6	12.9	67%	15.3	119%	
Gunsight Pass	SNOTEL	9820	45	12.3	13.4	92%	16.3	122%	
Togwotee Pass	SNOTEL	9580	68	22.7	21.6	105%	30.8	143%	
<b>Basin Index</b>						<b>98%</b>		<b>123%</b>	
# 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	69	22.6	22.4	101%	31.8	142%	
East Rim Divide	SNOTEL	7930	41	10.9	10.0	109%	12.0	120%	
Granite Creek	SNOTEL	6770	53	18.6	14.9	125%	17.9	120%	
Hoback GS	SC	6664	33	10.2	8.5	120%	9.7	114%	
Snow King Mountain	SC	7660	48	16.7	13.0	128%	13.6	105%	
<b>Basin Index</b>						<b>115%</b>		<b>124%</b>	
# 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	69	22.6	22.4	101%	31.8	142%	

## Appendix - Precipitation Data

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Report Created: 4/4/2019 7:17:24 AM

Basinwide Summary: April 1, 2019 (Averages/Medians based on 1981-2010 reference period)												
	Network	Elevation (ft)	Monthly Total Precipitation for March 2019					Water Year to Date Precipitation through March 2019				
			Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg
<b>SNAKE above Jackson Lake</b>												
Grassy Lake	SNOTEL	7265	3.3	5.2	63%	4.9	94%	35.3	34.6	102%	34.2	99%
Lewis Lake Divide	SNOTEL	7850	2.7	5.3	51%	4	75%	35.9	34.1	105%	37.4	110%
Snake River Station	SNOTEL	6920	1.7	3	57%	3	100%	24.3	21.6	113%	22.9	106%
Thumb Divide	SNOTEL	7980	1.9	3.2	59%	3.8	113%	17.9	17.8	101%	19.1	107%
Two Ocean Plateau	SNOTEL	9240	2.6	4.6	57%	4.4	96%	24.1	26.2	92%	26.2	106%
<b>Basin Index</b>												
# of sites						5		5		102%		106%
<b>PACIFIC CREEK</b>												
Base Camp	SNOTEL	7060	1.5	3	50%	3	100%	20.6	20.2	102%	20	99%
Two Ocean Plateau	SNOTEL	9240	2.6	4.6	57%	4.4	96%	24.1	26.2	92%	26.2	106%
<b>Basin Index</b>												
# of sites						2		2		99%		104%
<b>BUFFALO FORK</b>												
Togwotee Pass	SNOTEL	9550	2.5	3.9	64%	5.8	144%	23.4	23.3	100%	31.1	133%
Younts Peak	SNOTEL	8350	1.4	2.8	54%			12.6	15.2	83%		
<b>Basin Index</b>												
# of sites						1		1		100%		133%
<b>GROS VENTRE RIVER</b>												
Gros Ventre Summit	SNOTEL	8750	1.5	2.3	65%	3.7	161%	11.8	12.4	94%	14.5	117%
Gunsight Pass	SNOTEL	9520	1.3	2.3	57%	3.5	152%	14.8	13.2	111%	15.8	120%
Togwotee Pass	SNOTEL	9560	2.5	3.9	64%	5.8	144%	23.4	23.3	100%	31.1	133%
<b>Basin Index</b>												
# of sites						3		3		101%		126%
<b>HOBACK RIVER</b>												
Blind Bull Sum	SNOTEL	8650	2.2	2.8	79%	3	107%	18	18.8	96%	19	101%
East Rim Divide	SNOTEL	7930	1.4	1.7	82%	2.2	129%	11.2	11.3	99%	12	106%
Granite Creek	SNOTEL	6770	1.5	2.6	56%	3.6	138%	19.7	19.1	103%	20.5	107%
<b>Basin Index</b>												
# of sites						3		3		99%		105%
<b>GREYS RIVER</b>												
Blind Bull Sum	SNOTEL	8650	2.2	2.8	79%	3	107%	18	18.8	96%	19	101%
Cottonwood Creek	SNOTEL	7870	3.6	4.1	88%	5.4	132%	24.4	23.7	103%	24.8	104%
Spring Creek Divide	SNOTEL	9000	2.5	3.8	69%	4.4	122%	22.6	22.9	99%	24.2	106%
Triple Peak	SNOTEL	8500	2.6	4.2	62%	4.9	117%	24.3	24.4	100%	30	123%
Willow Creek	SNOTEL	8080	4.4	5.4	81%	6	111%	33	32.2	102%	34.1	106%
<b>Basin Index</b>												
# of sites						5		5		100%		106%
<b>SALT RIVER</b>												
Cottonwood Creek	SNOTEL	7870	3.6	4.1	88%	5.4	132%	24.4	23.7	103%	24.8	104%
Salt River Summit	SNOTEL	7840	2.4	2.8	92%	2.8	100%	15.4	16	96%	12.7	79%
Willow Creek	SNOTEL	8080	4.4	5.4	81%	6	111%	33	32.2	102%	34.1	106%
<b>Basin Index</b>												
# of sites						3		3		101%		99%
<b>SNAKE RIVER BASIN</b>												
Afton	COOP	6210	2.69	1.4	192%	2.29	164%	11.46	8.25	139%	8.69	120%
Alta 1 NW	COOP	6430	0.89	1.91	47%	2.88	151%	13.66	12.74	107%	11.69	94%
Base Camp	SNOTEL	7060	1.5	3	50%	3	100%	20.6	20.2	102%	20	99%
Bedford 3 SE	COOP	6430	3.04	1.88	161%	3.16	168%	17.81	11.19	159%	9.59	86%
Black Bear	SNOTEL	8170	2.9	5.8	50%	6.3	109%	40.9	36.8	112%	39.9	109%
Blind Bull Sum	COOP	8650	2.2	2.8	79%	3	107%	18	18.8	96%	19	101%
Bonduant	COOP	6920	0.9	1.41	64%			11.46	10.67	107%		
Cottonwood Creek	SNOTEL	7870	3.6	4.1	88%	5.4	132%	24.4	23.7	103%	24.8	104%
Darwin Ranch	COOP	8160	0.8	1.22	66%	2.51	208%	8.69	6.91	100%	11.65	169%
East Rim Divide	SNOTEL	7930	1.4	1.7	82%	2.2	129%	11.2	11.3	99%	12	106%
Grand Targhee	SNOTEL	9260	2.3	4.6	50%	4.5	98%	30.1	29.4	102%	28.5	97%
Granite Creek	SNOTEL	6770	1.5	2.6	56%	3.6	138%	19.7	19.1	103%	20.5	107%
Grassy Lake	SNOTEL	7265	3.3	5.2	63%	4.9	94%	35.3	34.6	102%	34.2	99%
Gros Ventre Summit	SNOTEL	8750	1.5	2.3	65%	3.7	161%	11.8	12.4	94%	14.5	117%
Gunsight Pass	SNOTEL	9520	1.3	2.3	57%	3.5	152%	14.8	13.2	111%	15.8	120%
Jackson	COOP	6230	1.04	1.24	84%	2.72	219%	9.15	7.88	116%	10.25	130%
Lewis Lake Divide	SNOTEL	7850	2.7	5.3	51%	4	75%	35.9	34.1	105%	37.4	110%
Loomis Park	SNOTEL	8240	1.5	2.7	56%	3	111%	16.3	16.7	98%	17.9	107%
Moose	COOP	6470	0.78	1.62	48%	2.89	178%	15.28	12.8	119%	12.65	100%
Moran 5 WNW	COOP	6790	0.92	2.12	43%	2.77	131%	15.71	14.67	107%	15.21	104%

**Issued by:**

Matthew Lohr (Chief)  
U.S.D.A.  
Natural Resources Conservation Service  
Washington D.C.

**Released by:**

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

**The Following Agencies and Organizations Cooperate with the Natural Resources Conservation Service on the Snow Survey Work.**

**FEDERAL:**

United States Department of the Interior (National Park Service) United States Department of Agriculture  
(Forest Service)

United States Department of the Interior (Bureau of Reclamation)

United States Department of Commerce NOAA (National Weather Service)

**State:**

The Wyoming State Engineer's Office

The University of Wyoming

**Local:**

The City of Cheyenne

The City of Rawlins