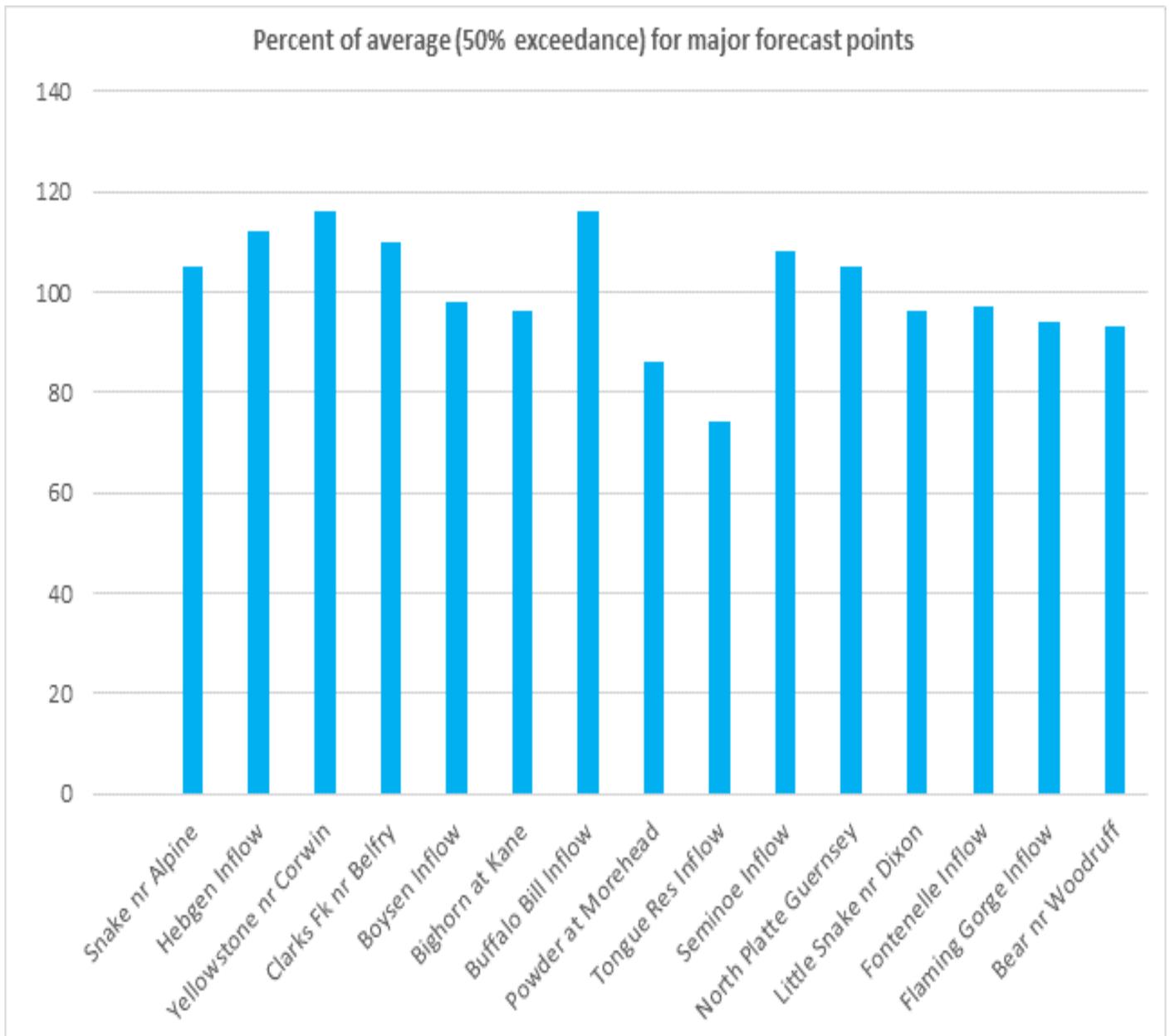


# Wyoming Basin & Water Supply Outlook Report

## March 1, 2019

**Natural  
 Resources  
 Conservation  
 Service**



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

# Basin Outlook Reports

## And

### Federal - State - Private Cooperative Snow Surveys

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#### *How forecasts are made*

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. 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 March 1<sup>st</sup> was at 108% of median. SWE in the Madison-Gallatin River Basin was the highest at 128% of median, while SWE in the Tongue River Basin was the lowest at 83% of median. *See the map on page 5 and the Appendix for further information.*

## Precipitation

Last month's precipitation was well above average in the western half of Wyoming. The Madison-Gallatin Basin had the highest precipitation for the month at 319% of average. The Tongue River Basin had the lowest precipitation amount at 53% 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	+133%	Upper North Platte River	+13%
Madison-Gallatin	+219%	Sweetwater River	+71%
Yellowstone River	+122%	Lower North Platte River	-35%
Wind River	+69%	Laramie River	-9%
Bighorn River	-3%	North Platte River (Total)	+6%
Shoshone River	+90%	South Platte River	-20%
Powder River	-37%	Little Snake River	+20%
Tongue River	-47%	Upper Green River	+81%
Belle Fourche River	-12%	Lower Green River	+4%
Cheyenne River	-21%	Upper Bear River	+59%

## Streams

Stream flow yields for April thru September across Wyoming average 104%. The Snake River, Madison, and Upper Yellowstone River Basins should yield about 105%, 112% and 116% of average, respectively. Yields from the Wind and Bighorn River Basins should be about 98% and 96% of average. Yields from the Shoshone and Clarks Fork River Basins of Wyoming should be about 116% and 110% of average. Yields from the Powder and Tongue River Basins should be about 86% and 74% of average. Yield for the Cheyenne River Basin should be about 81% of average. Yields for the Sweetwater, Upper North Platte, Lower North Platte, and Laramie Rivers of Wyoming should be about 91%, 108%, 105%, and 106% of average, respectively. Yields for the Little Snake, Green River, Bear River, and Smith's Fork of Wyoming should be 96%, 94%, 93%, and 84% respectively.

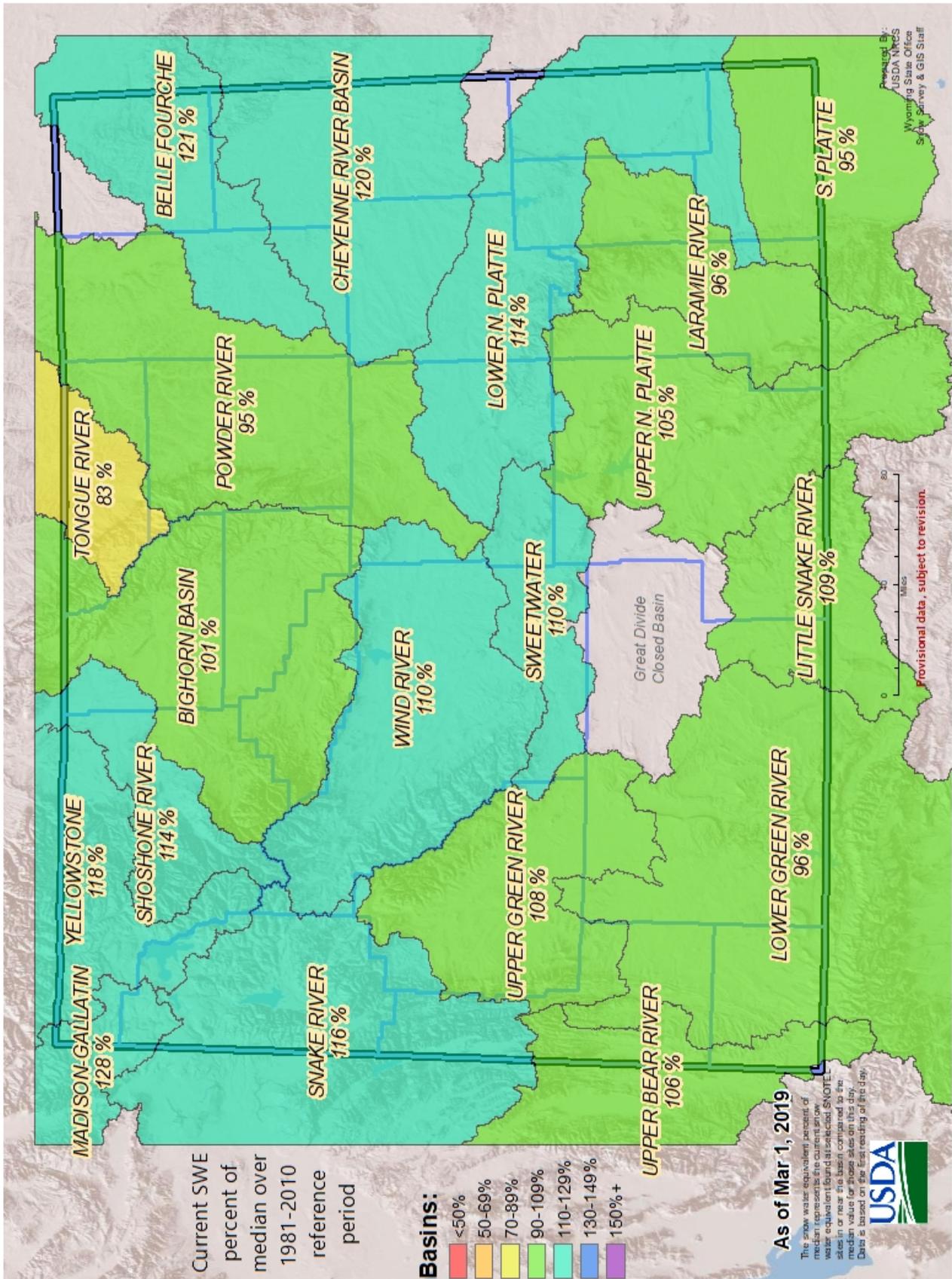
## Reservoirs

Reservoir storage was above average at 113% across the entire state. Reservoirs in the Snake River Basin are above average at 138%. Reservoirs in the Madison-Gallatin Basin are above average at 113%. Reservoirs in the Wind River Basin are above average at 108%. Reservoirs on the Big Horn are above average at 102%. The Buffalo Bill Reservoir on the Shoshone is above average at 126%. The Tongue River Basin Reservoir is above average at 184%. Reservoirs in the Belle Fourche and Cheyenne River Basins are above average at 143% & 113% respectively. Reservoirs on the Upper and Lower North Platte River are above average at 124% and 104% respectively. Reservoirs on the Laramie and Little Snake River basins are below average at 84% and 57% respectively. Reservoirs on the Upper Green River are below average at 94%. Reservoirs on the Lower Green River Basin are above average at 104% and are below average on the Upper Bear River Basin at 69%. *See below for further information.*

## Wyoming Reservoir Levels

Reservoir Storage Summary for the end of February 2019									
	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Alcova	157.3	156.1	155.8	184.3	85%	85%	85%	101%	100%
Angostura	98.7	88.4	87.6	122.1	81%	72%	72%	113%	101%
Belle Fourche	135.3	98.6	119.4	178.4	76%	55%	67%	113%	83%
Big Sandy	16.5	31.6	17.7	38.3	43%	83%	46%	93%	179%
Bighorn Lake	785.8	782.2	797.1	1356.0	58%	58%	59%	99%	98%
Boysen	534.4	575.8	495.8	596.0	90%	97%	83%	108%	116%
Buffalo Bill	443.4	467.4	350.7	646.6	69%	72%	54%	126%	133%
Bull Lake	80.7	103.6	75.4	151.8	53%	68%	50%	107%	137%
Deerfield	15.0	14.6	13.9	15.2	99%	96%	91%	108%	105%
Ennis Lake	28.9	32.1	29.8	41.0	70%	78%	73%	97%	108%
Flaming Gorge Reservoir	3148.8	3194.0	3014.0	3749.0	84%	85%	80%	104%	106%
Fontenelle	120.0	130.9	127.6	344.8	35%	38%	37%	94%	103%
Glendo	334.3	297.3	342.9	506.4	66%	59%	68%	97%	87%
Grassy Lake	13.1	13.6	12.1	15.2	86%	90%	80%	109%	112%
Guernsey	15.6	21.7	15.2	45.6	34%	48%	33%	102%	143%
Hebgen Lake	315.6	307.0	274.6	378.8	83%	81%	72%	115%	112%
High Savery Reservoir	6.8	10.9	12.0	22.4	30%	49%	53%	57%	91%
Jackson Lake	672.4	656.6	434.7	847.0	79%	78%	51%	155%	151%
Keyhole	159.5	119.3	90.6	193.8	82%	62%	47%	176%	132%
PactoLa	51.9	52.1	45.6	55.0	94%	95%	83%	114%	114%
Palisades Reservoir	1213.7	1334.8	925.7	1400.0	87%	95%	66%	131%	144%
Pathfinder	636.4	838.5	582.4	1016.5	63%	82%	57%	109%	144%
Pilot Butte	24.0	24.2	23.3	31.6	76%	77%	74%	103%	104%
Seminole	609.8	805.5	493.1	1016.7	60%	79%	49%	124%	163%
Shadehill	68.8	33.4	45.1	81.4	84%	41%	55%	153%	74%
Tongue River Res	51.8	49.5	28.2	79.1	65%	63%	36%	184%	176%
Viva Naughton Res	26.9	30.4	28.8	42.4	63%	72%	68%	93%	106%
Wheatland #2	36.9	62.3	43.9	98.9	37%	63%	44%	84%	142%
Woodruff Narrows Reservoir	22.0	51.6	31.6	57.3	38%	90%	55%	69%	163%

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

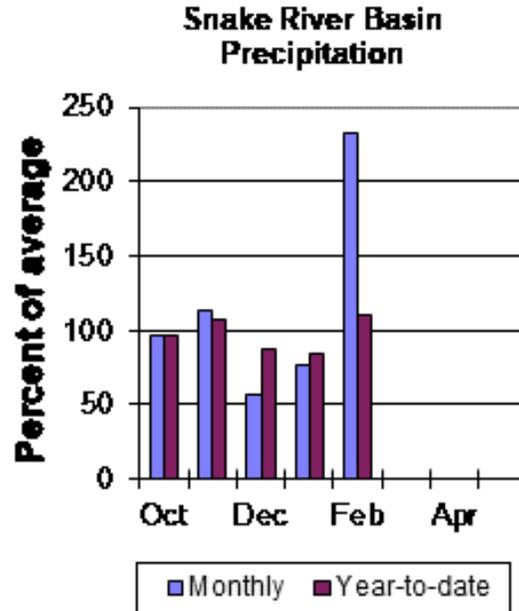
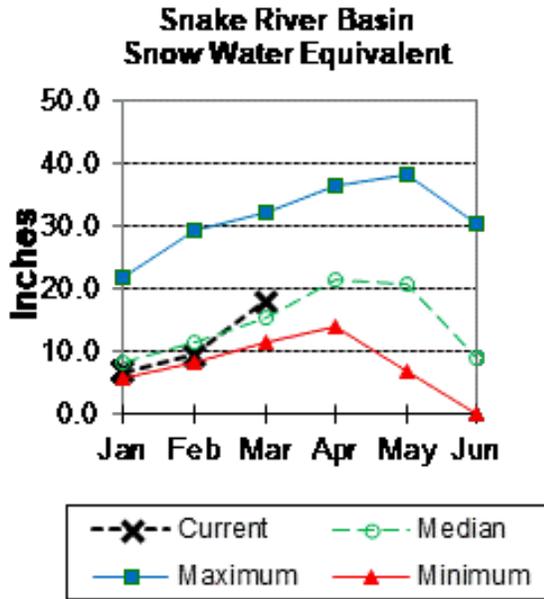


# Snake River Basin

## Snow

The overall Snake River Basin SWE (portion above Palisades dam) is 116% of median. SWE in the Snake River Basin above Jackson Lake is 120% of median. Pacific Creek Basin SWE is 124% of median. Buffalo Fork SWE is 128% of median. Gros Ventre River Basin SWE is 113% of median. SWE in the Hoback River drainage is 118% of median. SWE in the Greys River drainage is 99% of median. Salt River Basin SWE is 88% 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 233% of average. Water-year-to-date precipitation is 111% of average.

## Reservoirs

Current reservoir storage is 138% 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	13.1	13.6	12.1	15.2	86%	90%	80%	109%	112%
Jackson Lake	672.4	656.6	434.7	847.0	79%	78%	51%	155%	151%
Palisades Reservoir	1213.7	1334.8	925.7	1400.0	87%	95%	66%	131%	144%
<b>Basin-wide Total</b>	<b>1899.2</b>	<b>2005.0</b>	<b>1372.5</b>	<b>2262.2</b>	<b>84%</b>	<b>89%</b>	<b>61%</b>	<b>138%</b>	<b>146%</b>
# of reservoirs	3	3	3	3	3	3	3	3	3

## Streamflow

The 50% exceedance forecasts for April through September are above average for this basin. The Snake near Moran yield is 115% of average. Snake River above Reservoir near Alpine will yield about 105%. Pacific Creek near Moran Yield will be around 108%. Buffalo Fork above Lava near Moran yield will be around 108% of average. Greys River above Palisades Reservoir yield about 96%. Salt River near Etna yield will be about 105%.

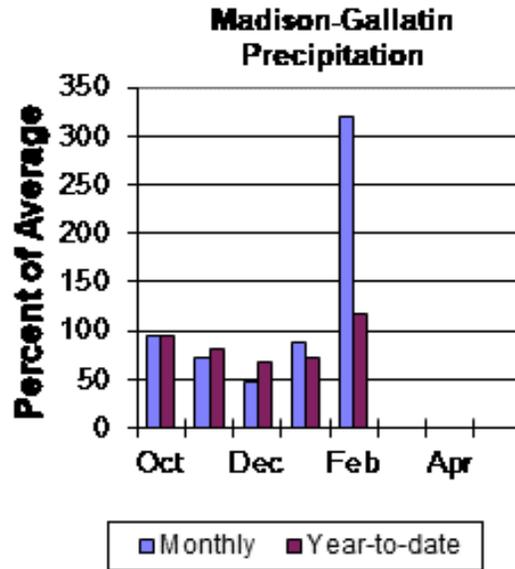
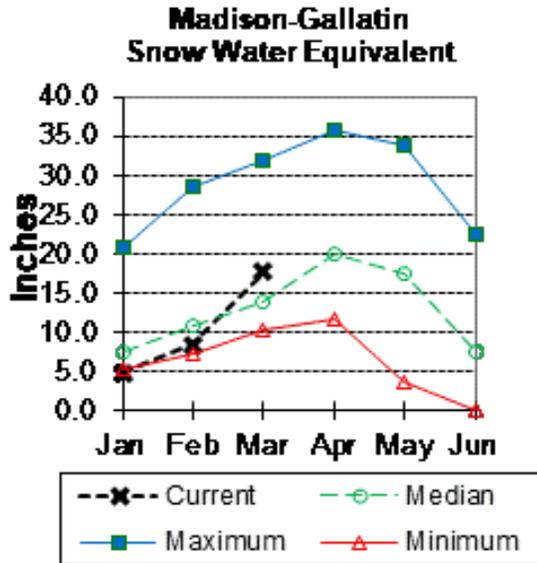
*See the following page for further information.*

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	705	810	880	115%	950	1060	765
	APR-SEP	775	890	970	115%	1050	1170	845
Snake R ab Reservoir nr Alpine <sup>2</sup>								
	APR-JUL	1880	2130	2300	106%	2470	2720	2170
	APR-SEP	2140	2430	2630	105%	2830	3130	2500
Snake R nr Irwin <sup>2</sup>								
	APR-JUL	2560	2930	3180	106%	3440	3810	3010
	APR-SEP	2940	3380	3680	105%	3980	4420	3500
Snake R nr Heise <sup>2</sup>								
	APR-JUL	2740	3140	3410	105%	3680	4080	3240
	APR-SEP	3190	3660	3980	105%	4300	4770	3780
Pacific Ck at Moran								
	APR-JUL	127	156	176	107%	196	225	164
	APR-SEP	135	165	186	108%	205	235	173
Buffalo Fk ab Lava Ck nr Moran								
	APR-JUL	245	280	305	109%	330	365	280
	APR-SEP	275	315	345	108%	375	415	320
Greys R ab Reservoir nr Alpine								
	APR-JUL	230	270	295	97%	325	365	305
	APR-SEP	265	315	345	96%	375	425	360
Salt R ab Reservoir nr Etna								
	APR-JUL	205	275	320	107%	370	435	300
	APR-SEP	255	335	390	105%	445	530	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 128% 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 319% of average. Water-year-to-date precipitation is at 117% of average.

## Reservoirs

Current reservoir storage is 113% 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	32.1	29.8	41.0	70%	78%	73%	97%	108%
Hebgen Lake	315.6	307.0	274.6	378.8	83%	81%	72%	115%	112%
Basin-wide Total	344.5	339.2	304.4	419.8	82%	81%	73%	113%	111%
# of reservoirs	2	2	2	2	2	2	2	2	2

## Streamflow

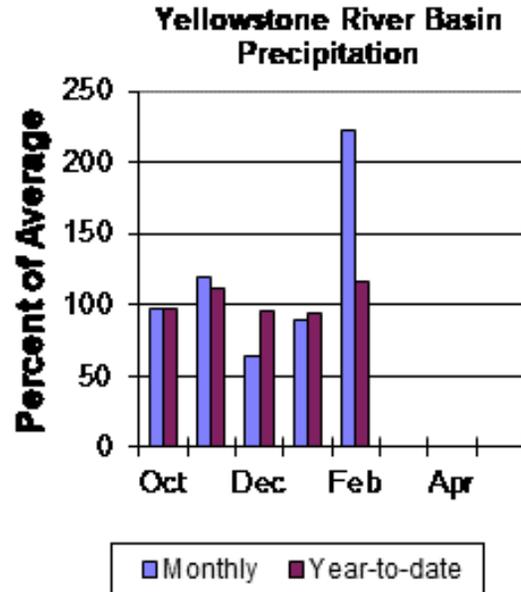
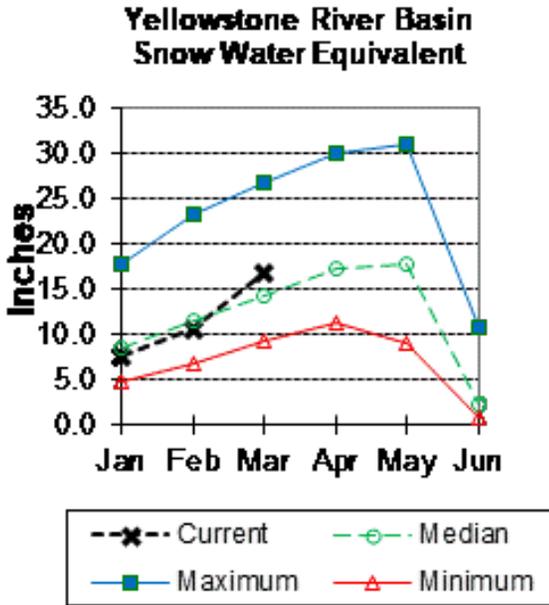
The 50% exceedance forecast for April through September is above average for the basin. Hebgen Reservoir inflow 112% of average. *See below for detailed runoff volumes.*

		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	340	385	415	112%	450	495	370
	APR-SEP	435	490	525	112%	560	615	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 118% of median. SWE in the Clarks Fork Drainage of the Yellowstone River Basin in Wyoming is 116% 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 222% of average. Water-year-to-date precipitation is 116% of average.

**Reservoirs** No reservoir data

## Streamflow

The 50% exceedance forecasts for April through September are above average for the basin. Yellowstone at Lake Outlet will yield around 117% of average. Yellowstone at Corwin Springs will yield around 116%. Clarks Fork of the Yellowstone near Belfry will yield around 110%.

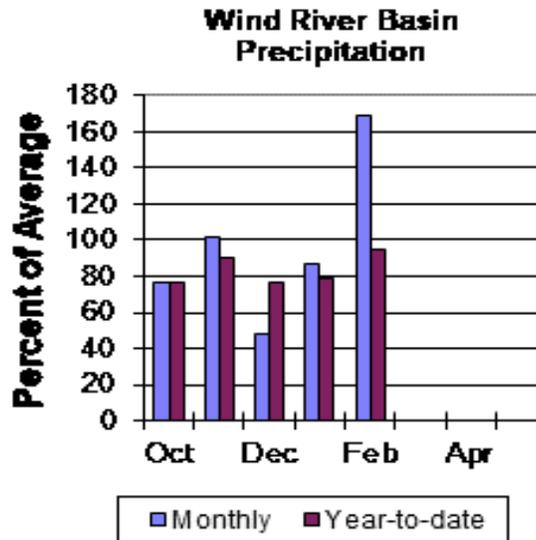
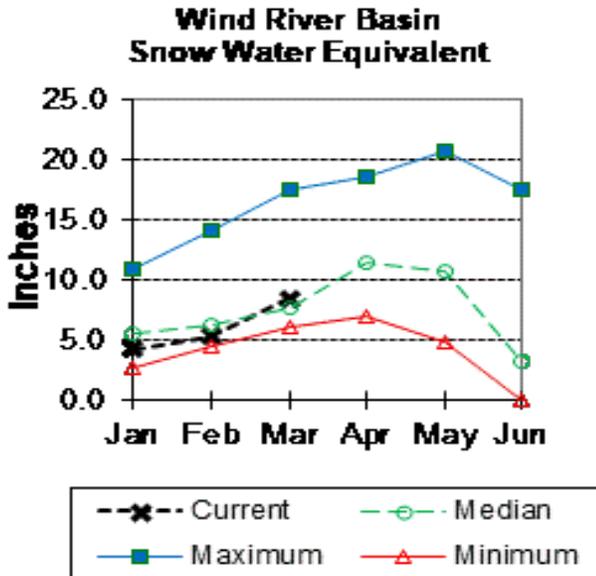
*See the following for further information.*

		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	550	625	675	117%	725	800	575
	APR-SEP	725	830	900	117%	970	1080	770
Yellowstone R at Corwin Springs								
	APR-JUL	1540	1730	1850	116%	1980	2160	1590
	APR-SEP	1820	2040	2190	116%	2340	2560	1880
Yellowstone R at Livingston								
	APR-JUL	1720	1960	2120	118%	2280	2510	1800
	APR-SEP	2040	2320	2510	117%	2700	2980	2140
Clarks Fk Yellowstone R nr Belfry <sup>2</sup>								
	APR-JUL	435	510	560	110%	610	680	510
	APR-SEP	470	550	605	110%	660	745	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 110% of median. SWE in the Wind River above Dubois is 114% of median. Little Wind SWE is 102% of median, and Popo Agie drainage SWE is 112% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation for the basin was 169% of average. Water year-to-date precipitation is 95% 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	80.7	103.6	75.4	151.8	53%	68%	50%	107%	137%
Boysen	534.4	575.8	495.8	596.0	90%	97%	83%	108%	116%
Pilot Butte	24.0	24.2	23.3	31.6	76%	77%	74%	103%	104%
Basin-wide Total	639.1	703.7	594.5	779.4	82%	90%	76%	108%	118%
# of reservoirs	3	3	3	3	3	3	3	3	3

## Streamflow

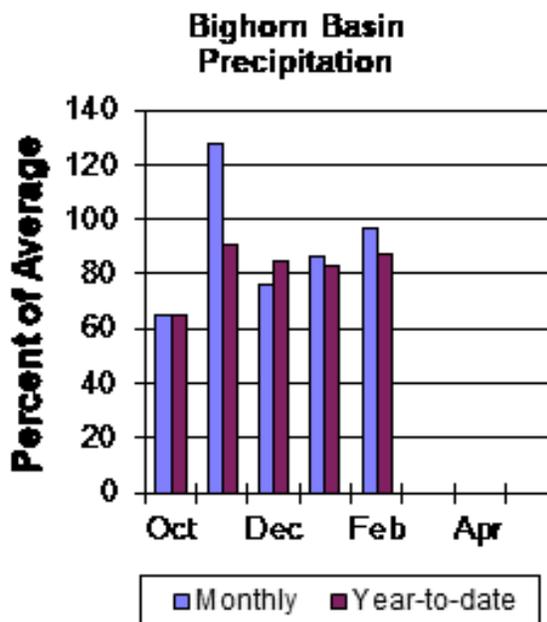
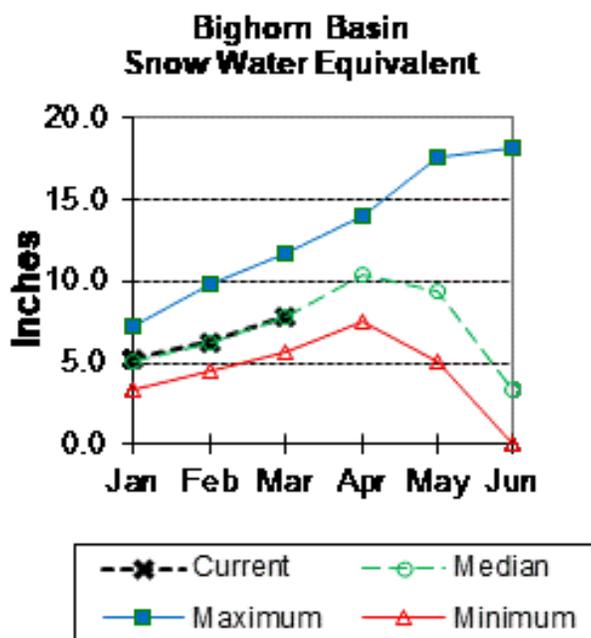
The 50% exceedance forecasts for the April through September runoff period are near average. The Wind River above Bull Lake Creek will yield about 102% of average. Little Popo Agie River near Lander should yield around 90% of average. Little Wind River near Riverton will yield around 95% of average. Boysen Reservoir inflow will yield about 98% 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	55	63	68	103%	73	81	66
	APR-SEP	79	88	94	102%	100	109	92
Wind R Ab Bull Lake Ck								
	APR-JUL	325	410	470	103%	525	610	455
	APR-SEP	340	435	500	102%	565	660	490
Bull Lake Ck nr Lenore								
	APR-JUL	100	120	134	96%	148	168	139
	APR-SEP	119	144	161	95%	178	205	169
Wind R at Riverton								
	APR-JUL	325	420	485	102%	555	650	475
	APR-SEP	380	490	560	102%	635	745	550
Little Popo Agie R nr Lander								
	APR-JUL	19.1	30	38	90%	46	57	42
	APR-SEP	24	36	44	90%	52	64	49
Little Wind R nr Riverton								
	APR-JUL	81	185	255	94%	325	430	270
	APR-SEP	95	205	280	95%	350	460	295
Boysen Reservoir Inflow								
	APR-JUL	245	465	610	100%	760	975	610
	APR-SEP	265	500	655	98%	815	1040	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 101% of median. The Nowood River is at 102% of median. The Greybull River SWE is at 111% of median. Shell Creek SWE is at 96% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Last month's precipitation was 96% of average. Year-to-date precipitation is 87% of average.

### Reservoirs

Current reservoir storage in the basin is 102% 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	534.4	575.8	495.8	596.0	90%	97%	83%	108%	116%
Bighorn Lake	785.8	782.2	797.1	1356.0	58%	58%	59%	99%	98%
Basin-wide Total	1320.3	1358.0	1292.9	1952.0	68%	70%	66%	102%	105%
# of reservoirs	2	2	2	2	2	2	2	2	2

### Streamflow

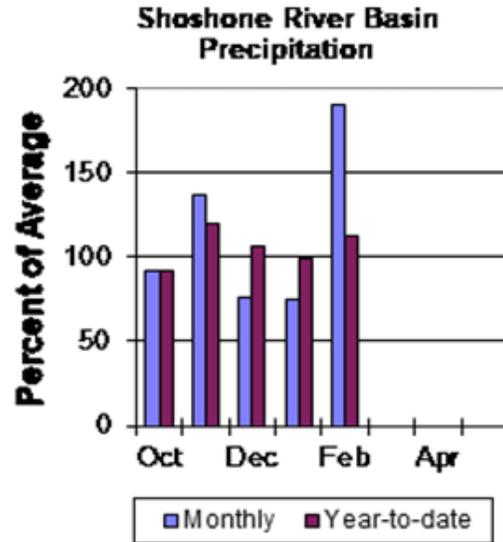
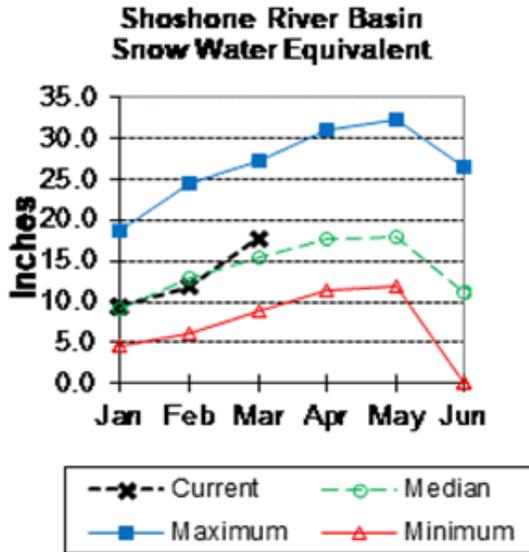
The 50% exceedance forecasts for the April through September runoffs are near average. Boysen Reservoir inflow has a forecasted yield 98% of average; the Greybull River near Meeteetse yielding around 99% of average; Shell Creek near Shell yielding around 91% of average and the Bighorn River at Kane to yield around 96% 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	245	465	610	100%	760	975	610
	APR-SEP	265	500	655	98%	815	1040	665
Greybull R at Meeteetse								
	APR-JUL	69	105	129	98%	154	190	131
	APR-SEP	103	145	175	99%	205	245	177
Shell Ck nr Shell								
	APR-JUL	33	43	49	89%	55	65	55
	APR-SEP	43	53	60	91%	67	77	66
Bighorn R at Kane								
	APR-JUL	275	595	815	97%	1040	1360	840
	APR-SEP	280	630	870	96%	1110	1450	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 115% 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 190% of average. The basin year-to-date precipitation is now 113% of average.

## Reservoirs

Current storage in Buffalo Bill Reservoir is about 126% 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	443.4	467.4	350.7	646.6	69%	72%	54%	126%	133%
Basin-wide Total	443.4	467.4	350.7	646.6	69%	72%	54%	126%	133%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

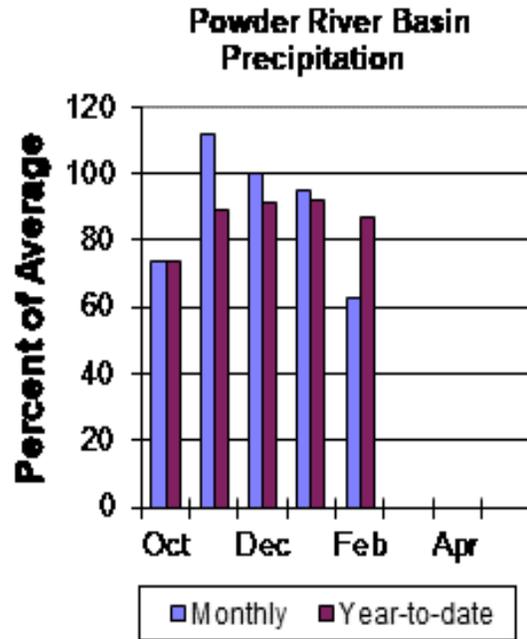
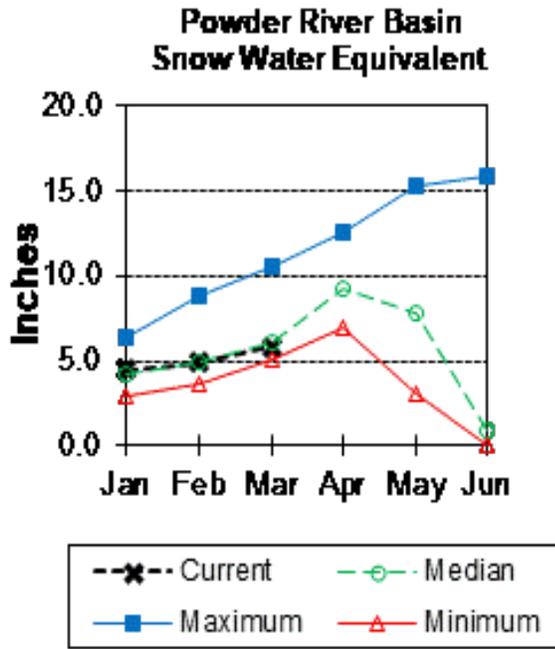
The 50% exceedance forecasts for the April through September period are above average for the basin. The North Fork Shoshone River at Wapiti will yield 118% of average. The South Fork of the Shoshone River near Valley would yield 110% of average. The Buffalo Bill Reservoir inflow to yield 116%. *See 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	445	510	550	120%	590	655	460
	APR-SEP	495	565	610	118%	660	730	515
SF Shoshone R nr Valley								
	APR-JUL	183	215	235	109%	260	290	215
	APR-SEP	210	245	270	110%	300	335	245
SF Shoshone R ab Buffalo Bill Reservoir								
	APR-JUL	134	184	220	114%	250	300	193
	APR-SEP	136	191	230	115%	265	320	200
Buffalo Bill Reservoir Inflow <sup>2</sup>								
	APR-JUL	595	710	785	116%	865	980	675
	APR-SEP	655	780	865	116%	950	1070	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 95% of median. Upper Powder River drainage is 100% of median. SWE in the Clear Creek drainage is 88% of median. Crazy Woman Creek drainage SWE is at 97%. *See appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 63% of average in the basin. Year-to-date precipitation is 87% of average.

## Reservoirs

No reservoir data for this basin.

## Streamflow

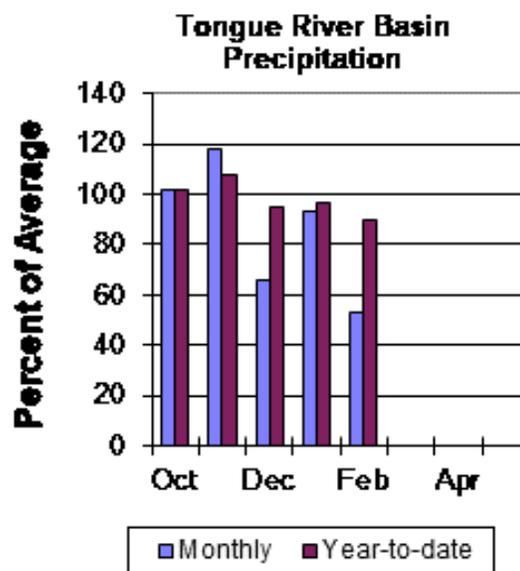
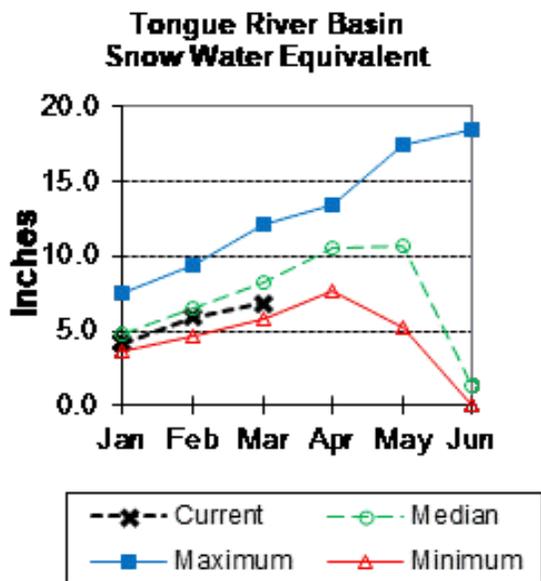
The 50% exceedance forecasts for the April through September period are below average for the basin. The Middle Fork of the Powder River near Barnum should yield around 82% of average. The North Fork of the Powder River near Hazelton to yield around 90%. The Powder River near Morehead to yield around 86% 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	6.2	10.4	13.2	82%	16	20	16.1
	APR-SEP	6.8	11.1	14	82%	16.9	21	17
NF Powder R nr Hazelton								
	APR-JUL	4.4	6.7	8.3	91%	9.9	12.2	9.1
	APR-SEP	4.9	7.3	8.9	90%	10.6	13	9.9
Rock Ck nr Buffalo								
	APR-JUL	6.6	12.6	16.7	90%	21	27	18.6
	APR-SEP	9.3	15.8	20	91%	25	31	22
Piney Ck at Kearny								
	APR-JUL	6.6	25	37	84%	49	67	44
	APR-SEP	8.1	27	39	83%	52	70	47
Powder R at Moorhead								
	APR-JUL	7.6	94	153	86%	210	300	177
	APR-SEP	20	109	169	86%	230	320	196
Powder R nr Locate								
	APR-JUL	14.3	109	174	87%	240	335	199
	APR-SEP	22	122	190	86%	260	360	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 83% of median. The Goose Creek drainage SWE is also 83% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 53% of average. Year-to-date precipitation is 90% of average in the basin.

## Reservoirs

The Tongue River Reservoir is at 184% 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	51.8	49.5	28.2	79.1	65%	63%	36%	184%	176%
Basin-wide Total	51.8	49.5	28.2	79.1	65%	63%	36%	184%	176%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

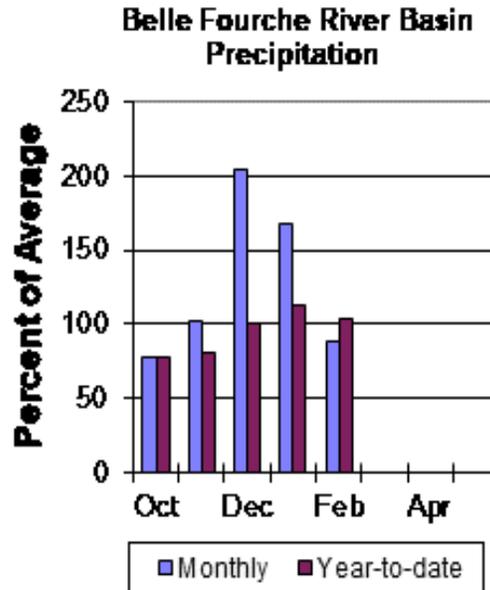
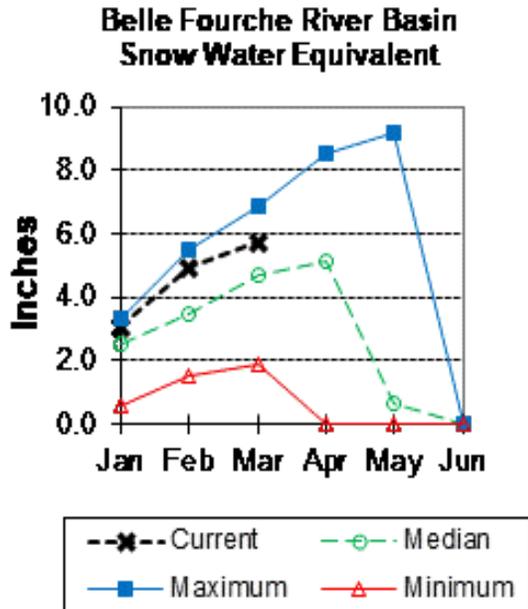
The 50% exceedance forecasts for the April through September period are below average for the basin. The yield for Tongue River near Dayton is forecasted to be 80% of average. Big Goose Creek near Sheridan to yield around 81%. Little Goose Creek near Bighorn yielding 87% of average. The Tongue River Reservoir Inflow will be about 74% 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	36	55	67	78%	80	98	86
	APR-SEP	44	64	78	80%	91	111	98
Big Goose Ck nr Sheridan								
	APR-JUL	15.8	28	37	80%	46	58	46
	APR-SEP	22	35	44	81%	52	65	54
Little Goose Ck nr Big Horn								
	APR-JUL	13.4	21	27	87%	32	40	31
	APR-SEP	19.9	29	34	87%	40	49	39
Tongue River Reservoir Inflow								
	APR-JUL	32	97	142	74%	185	250	193
	APR-SEP	45	113	160	74%	205	275	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 121% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Precipitation for last month was 88% of average in the Belle Fourche basin. Year-to-date precipitation is 121% of average.

### Reservoirs

Combined storage for the 3 reservoirs in the basin is at 143% 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	135.3	98.6	119.4	178.4	76%	55%	67%	113%	83%
Keyhole	159.5	119.3	90.6	193.8	82%	62%	47%	176%	132%
Shadehill	68.8	33.4	45.1	81.4	84%	41%	55%	153%	74%
Basin-wide Total	363.5	251.4	255.1	453.6	80%	55%	56%	143%	99%
# of reservoirs	3	3	3	3	3	3	3	3	3

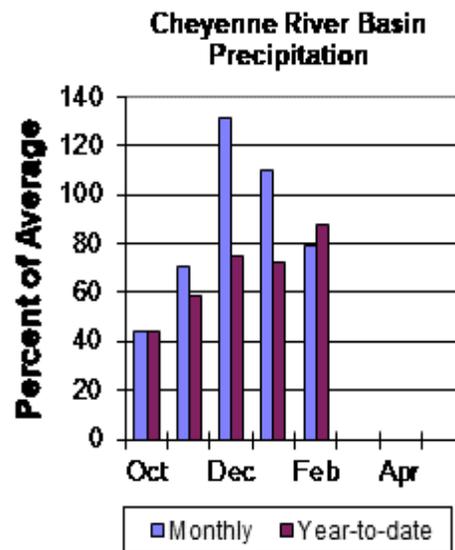
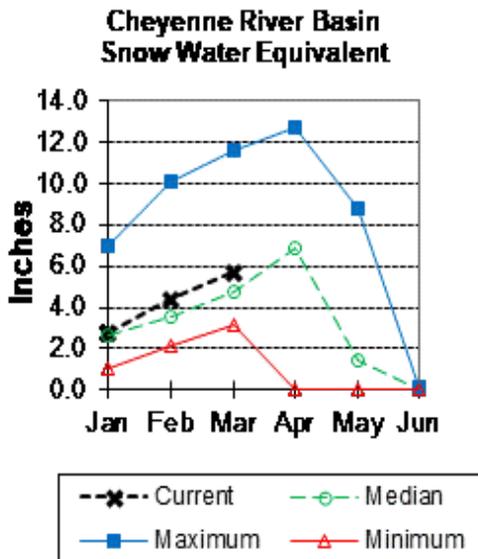
### Streamflow

There are no streamflow forecast points for the basin.

# Cheyenne River Basin

## Snow

Cheyenne River Basin SWE is at 120% of median. *See Appendix at the end of this report for a detailed listing.*



## Precipitation

Precipitation for last month was 79% of average. Year-to-date precipitation is 88%.

## Reservoirs

Combined storage for the 3 reservoirs in the basin is at 113% 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	98.7	88.4	87.6	122.1	81%	72%	72%	113%	101%
Deerfield	15.0	14.6	13.9	15.2	99%	96%	91%	108%	105%
Pactola	51.9	52.1	45.6	55.0	94%	95%	83%	114%	114%
<b>Basin-wide Total</b>	<b>165.5</b>	<b>155.1</b>	<b>147.1</b>	<b>192.3</b>	<b>86%</b>	<b>81%</b>	<b>76%</b>	<b>113%</b>	<b>105%</b>
# of reservoirs	3	3	3	3	3	3	3	3	3

## Streamflow

The Deerfield Reservoir Inflow yield is forecasted at 92% of average. Pactola Reservoir Inflow yield is 81% of average. *See the following for detailed runoff volumes.*

CHEYENNE 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)
<b>Deerfield Reservoir Inflow</b>								
	MAR-JUL	2.2	4.4	5.9	95%	7.4	9.5	6.2
	APR-JUL	1.44	3.4	4.8	92%	6.1	8.1	5.2
<b>Pactola Reservoir Inflow</b>								
	MAR-JUL	5.1	14.6	21	84%	27	37	25
	APR-JUL	2.7	11.7	17.9	81%	24	33	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

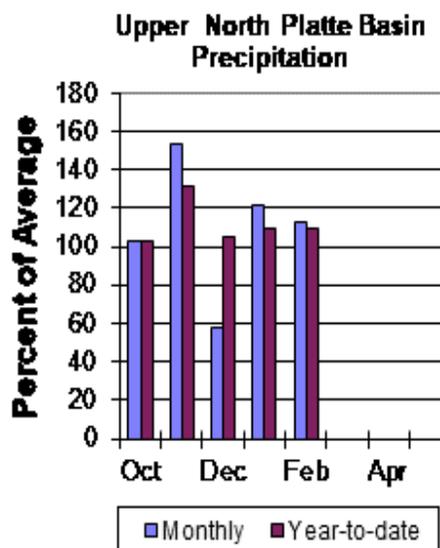
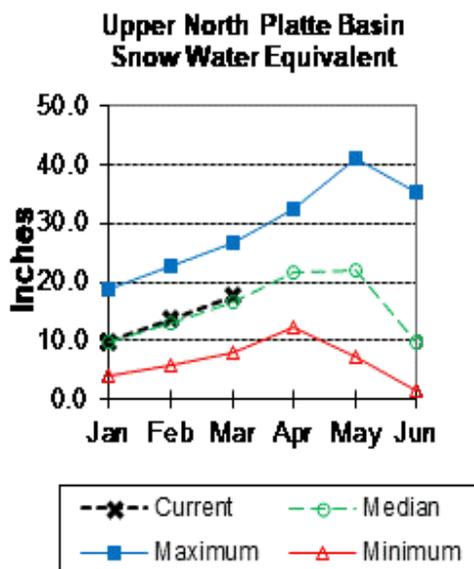
3) Median value used in place of average

# Upper North Platte River Basin

## Snow

The Upper North Platte River Basin SWE above Seminoe Reservoir is 105% of median. North Platte above Northgate SWE is 104% of median. Encampment River SWE is 112% of median. Brush Creek SWE is 101% of median. Medicine Bow and Rock Creek SWE are 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 113% of average. Total water-year-to-date precipitation is 109% of average.

## Reservoirs

Seminoe Reservoir storage is at 124% 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	609.8	805.5	493.1	1016.7	60%	79%	49%	124%	163%
Basin-wide Total	609.8	805.5	493.1	1016.7	60%	79%	49%	124%	163%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

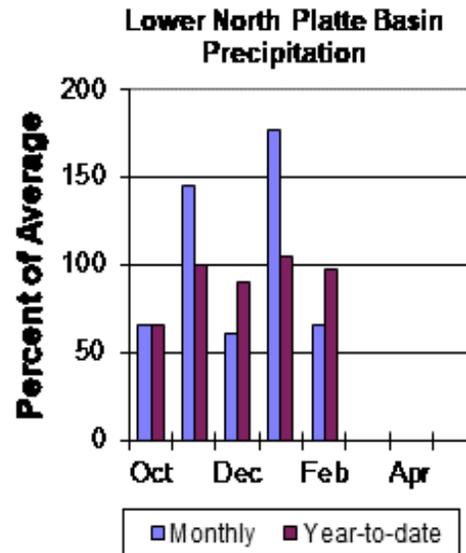
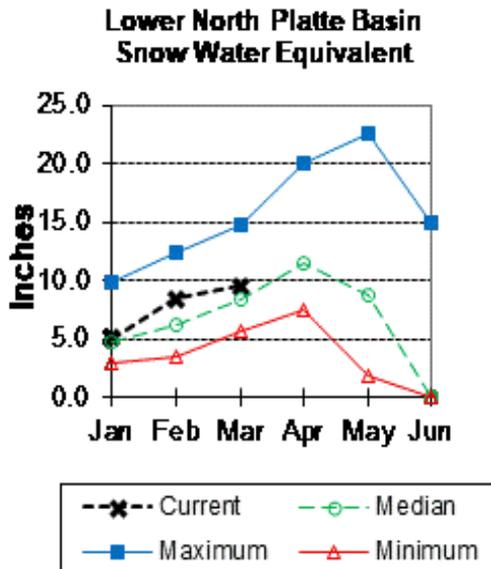
The 50% exceedance forecasts for the April through September period are above average for the Upper North Platte River Basin. The yield for the North Platte River near Northgate will be around 108% of average. The Encampment River near Encampment yield will be about 112%. Rock Creek near Arlington yield will be around 102%. Seminoe Reservoir inflow should be about 108%. *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	118	194	245	109%	295	370	225	
	APR-SEP	128	210	270	108%	325	410	250	
Encampment R nr Encampment <sup>2</sup>									
	APR-JUL	88	122	145	112%	168	200	129	
	APR-SEP	95	131	155	112%	179	215	138	
Rock Ck ab King Canyon Cnl nr Arlington									
	APR-JUL	33	44	51	104%	58	68	49	
	APR-SEP	35	46	53	102%	61	72	52	
Sweetwater R nr Alcova									
	APR-JUL	21	41	54	92%	67	87	59	
	APR-SEP	23	44	58	91%	72	93	64	
Seminole Reservoir Inflow									
	APR-JUL	410	625	775	108%	925	1140	715	
	APR-SEP	445	675	830	108%	985	1210	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 114% of median. Deer Creek and LaPrele Creek SWE is at 115%. SWE total for the entire North Platte River Basin above Torrington, WY is 104% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Last month's precipitation was 65% of average. The water year-to-date precipitation for the basin is currently 97% of average.

### Reservoirs

Combined storage for the 4 reservoirs in the basin is at 104% 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	157.3	156.1	155.8	184.3	85%	85%	85%	101%	100%
Glendo	334.3	297.3	342.9	506.4	66%	59%	68%	97%	87%
Guernsey	15.6	21.7	15.2	45.6	34%	48%	33%	102%	143%
Pathfinder	636.4	838.5	582.4	1016.5	63%	82%	57%	109%	144%
Basin-wide Total	1143.6	1313.7	1096.3	1752.8	65%	75%	63%	104%	120%
# of reservoirs	4	4	4	4	4	4	4	4	4

### Streamflow

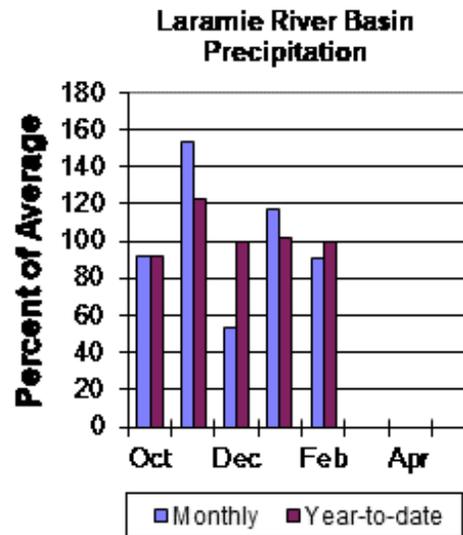
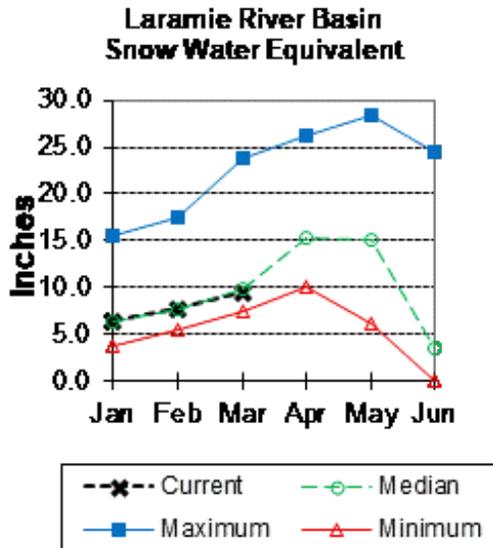
The 50% exceedance forecasts for the April through September period will be slightly above average. LaPrele Creek above LaPrele Reservoir is forecasted to yield 106% of average. North Platte River below Guernsey Reservoir to yield around 105% of average. *See the following for more detailed information 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	3.7	14.2	21	106%	28	39	19.9
	APR-SEP	3.3	13.8	21	106%	28	39	19.9
North Platte R bl Glendo Reservoir								
	APR-JUL	355	660	865	105%	1070	1370	820
	APR-SEP	370	685	895	105%	1110	1420	850
North Platte R bl Guernsey Reservoir								
	APR-JUL	345	660	870	106%	1080	1390	820
	APR-SEP	355	675	895	105%	1110	1430	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 96% of median. SWE for the Laramie River above Laramie is 92% of median. SWE for the Little Laramie River is 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 91% of average. The water year-to-date precipitation for the basin is currently 100% of average.

## Reservoirs

Wheatland #2 is storing at 84% 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	36.9	62.3	43.9	98.9	37%	63%	44%	84%	142%
Basin-wide Total	36.9	62.3	43.9	98.9	37%	63%	44%	84%	142%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

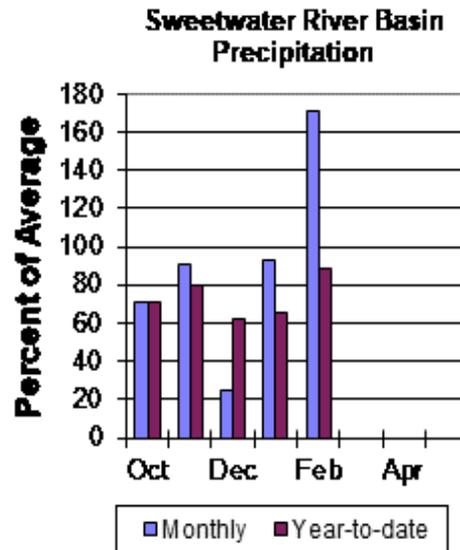
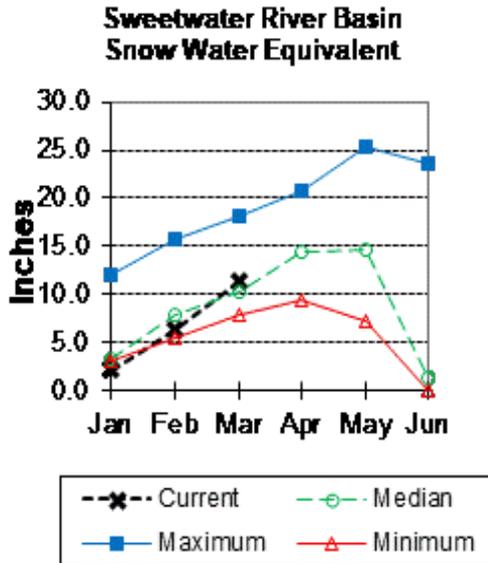
The 50% exceedance forecasts for the April through September period will be above average. Laramie River near Woods Landing should yield around 106% of average. The Little Laramie near Filmore should produce about 109% of average. *See below for detailed information on projected runoff.*

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>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	65	99	122	106%	146	180	115
	APR-SEP	71	109	134	106%	159	197	126
Little Laramie R nr Filmore								
	APR-JUL	34	47	56	110%	65	78	51
	APR-SEP	36	50	60	109%	70	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 110% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 171% of average. The water year-to-date precipitation for the basin is currently 89% of average.

## Reservoirs

Pathfinder is storing at 109% 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	636.4	838.5	582.4	1016.5	63%	82%	57%	109%	144%
Basin-wide Total	636.4	838.5	582.4	1016.5	63%	82%	57%	109%	144%
# 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 91% of average.

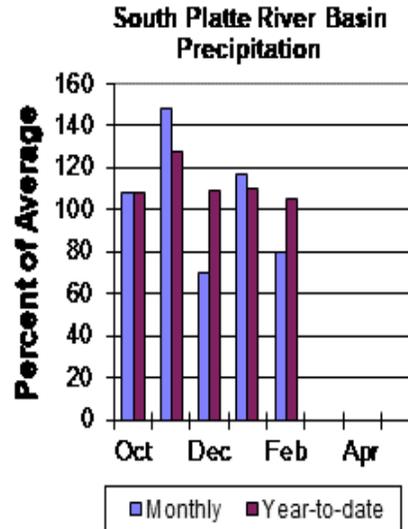
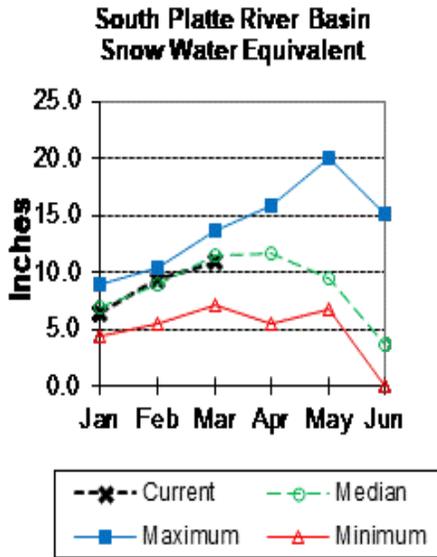
SWEETWATER RIVER BASIN	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast							30yr Avg (KAF)
		90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)		
Sweetwater R nr Alcova									
	APR-JUL	21	41	54	92%	67	87	59	
	APR-SEP	23	44	58	91%	72	93	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 95% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Last month's precipitation was 80% of average. The water year-to-date precipitation for the basin is currently 105%.

### Reservoirs

No reservoir data for the basin.

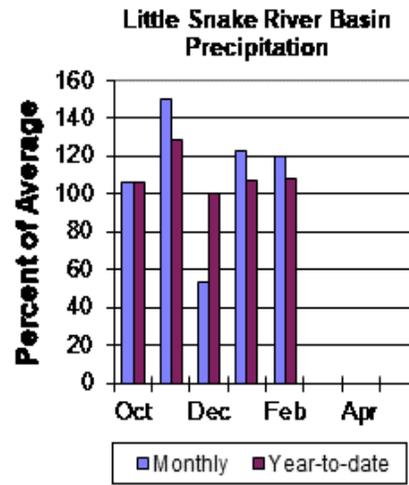
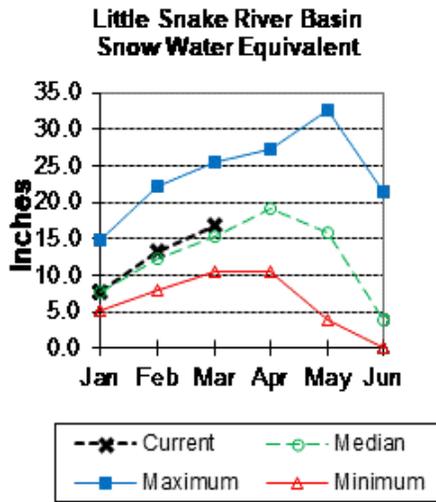
### Streamflow

There are no streamflow forecast points for the basin.

# Little Snake River Basin

## Snow

Little Snake River drainage SWE is 109% of median. See *Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation across the basin was 120% of average. The Little Snake River Basin water-year-to-date precipitation is currently 108% of average.

## Reservoirs

High Savery Dam was storing 57% 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	6.8	10.9	12.0	22.4	30%	49%	53%	57%	91%
Basin-wide Total	6.8	10.9	12.0	22.4	30%	49%	53%	57%	91%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

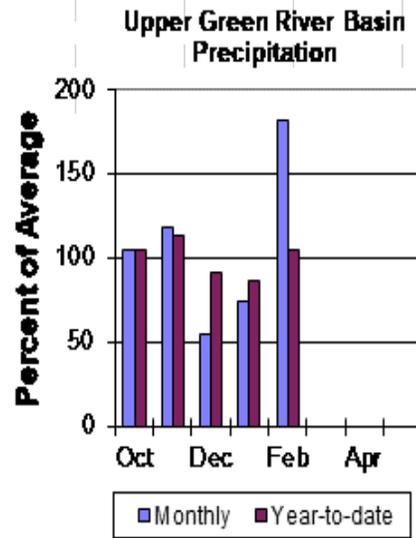
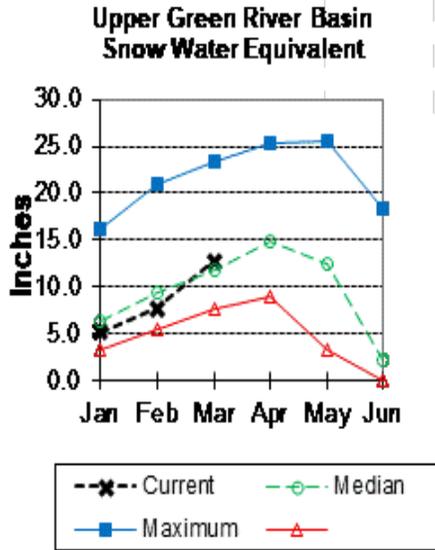
The 50% exceedance forecasts for the April through July period will be slightly below average. The Little Snake River near Slater is forecasted to yield around 96% of average. See below for detailed information on projected runoff.

		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	105	131	150	96%	170	205	156
Little Snake R nr Dixon <sup>2</sup>								
	APR-JUL	191	270	330	96%	395	505	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 108% of median. Green River Basin above Warren Bridge SWE is 107% of median. West Side of Upper Green River Basin SWE is 109% of median. New Fork River SWE is 117% of median. Big Sandy-Eden Valley Basin SWE is 114% 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 181% of average last month. Water year-to-date precipitation is 104% of average.

## Reservoir

Combined water storage in the basin was at 94% 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	16.5	31.6	17.7	38.3	43%	83%	46%	93%	179%
Fontenelle	120.0	130.9	127.6	344.8	35%	38%	37%	94%	103%
Basin-wide Total	136.4	162.5	145.3	383.1	36%	42%	38%	94%	112%
# of reservoirs	2	2	2	2	2	2	2	2	2

## Streamflow

The 50% exceedance forecasts for the April through July period will be near average. The yield on the Green River at Warren Bridge is about 96% of average. New Fork River near Big Piney yield will be around 99% of average. Fontenelle Reservoir Inflow is estimated to be about 97% of average. *See the following for a more detailed forecast.*

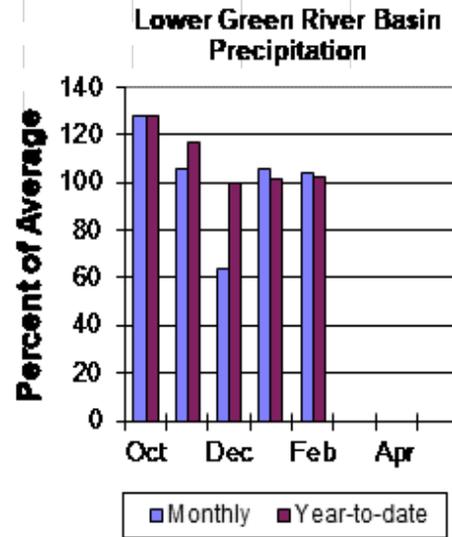
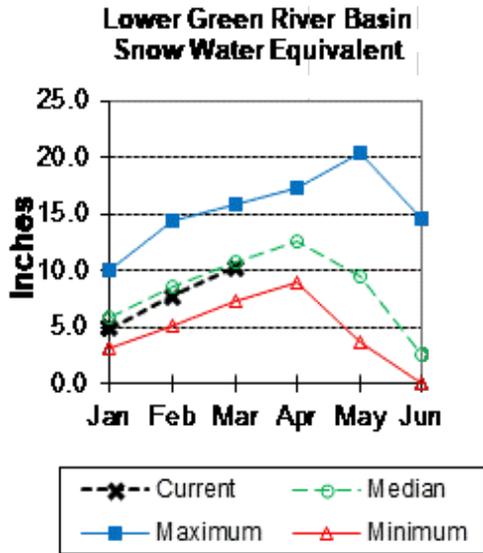
		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
<b>UPPER GREEN RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Green R at Warren Bridge								
	APR-JUL	175	210	235	96%	255	290	245
Pine Ck ab Fremont Lake								
	APR-JUL	82	92	98	100%	104	114	98
New Fork R nr Big Piney								
	APR-JUL	230	300	350	99%	400	470	355
Fontenelle Reservoir Inflow								
	APR-JUL	440	595	700	97%	805	960	725
Big Sandy R nr Farson								
	APR-JUL	33	43	50	96%	57	68	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 96% of median. Hams Fork drainage SWE is 94% of median. Blacks Fork drainage SWE is 102% of median. Henrys Fork SWE is 96% of median. SWE for the entire Green River Basin (above Flaming Gorge) is at 105% 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 104% 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	120.0	130.9	127.6	344.8	35%	38%	37%	94%	103%
Flaming Gorge Reservoir	3148.8	3194.0	3014.0	3749.0	84%	85%	80%	104%	106%
Viva Naughton Res	26.9	30.4	28.8	42.4	63%	72%	68%	93%	106%
Basin-wide Total	3295.7	3355.2	3170.4	4136.2	80%	81%	77%	104%	106%
# of reservoirs	3	3	3	3	3	3	3	3	3

### Streamflow

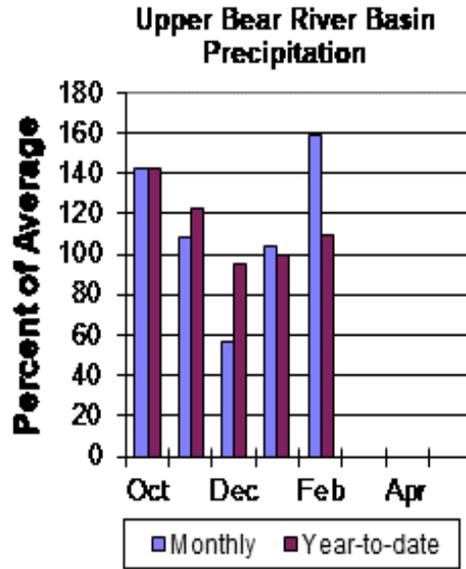
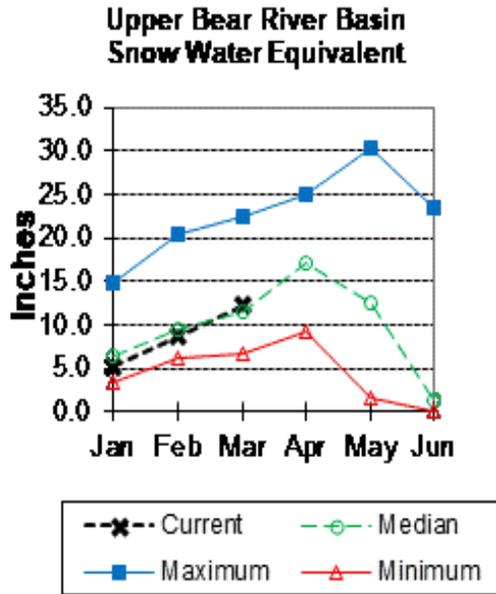
The following are the 50% exceedance forecasts for the April through July period. The Green River near Green River will yield about 97% of average. The Flaming Gorge Reservoir inflow will be about 94% of average. *See the following page for more detailed information on projected runoff.*

		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	430	595	710	97%	825	990	730
Blacks Fk nr Robertson								
	APR-JUL	66	83	95	110%	107	124	86
EF of Smiths Fork nr Robertson <sup>2</sup>								
	APR-JUL	17.4	23	27	100%	32	39	27
Hams Fk bl Pole Ck nr Frontier								
	APR-JUL	21	33	40	74%	48	60	54
Viva Naughton Reservoir Inflow								
	APR-JUL	19.6	39	53	72%	66	86	74
Flaming Gorge Reservoir Inflow <sup>2</sup>								
	APR-JUL	485	745	925	94%	1100	1370	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 104% 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 106% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation for last month was 159% 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 69% 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	22.0	51.6	31.6	57.3	38%	90%	55%	69%	163%
Basin-wide Total	22.0	51.6	31.6	57.3	38%	90%	55%	69%	163%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

The 50% exceedance forecasts for the April through September period will be below average. The Bear River above Reservoir near Woodruff to yield around 93% of average. The Smiths Fork River near Border Jct. will yield around 84%. *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	69	90	105	94%	120	141	112
	APR-SEP	73	98	114	93%	130	155	123
Bear R ab Resv nr Woodruff								
	APR-JUL	29	77	113	93%	141	189	121
	APR-SEP	31	83	119	93%	155	205	128
Smiths Fk nr Border								
	APR-JUL	48	65	76	85%	87	104	89
	APR-SEP	55	74	87	84%	100	119	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

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**Basinwide Summary: March 1, 2019**  
(Averages/Medians based on 1981-2010 reference period)

Snowpack Summary for March 1, 2019
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<b>SNAKE above Jackson Lake</b>			Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Aster Creek	SC	7750					21.6		26.7	124%
Glade Creek	SC	7040					18.6	111%	21.0	113%
Grassy Lake	SNOTEL	7265	107	28.9	26.2	110%	26.2	100%	26.2	100%
Huckleberry Divide	SC	7300					16.8		17.1	102%
Lewis Lake Divide	SNOTEL	7850	115	30.4	25.2	121%	32.1	127%	31.5	127%
Moran	SC	6750					10.4		9.3	89%
Snake River Station	SNOTEL	6920	75	18.0	14.2	127%	15.6	110%	15.6	110%
Thumb Divide	SNOTEL	7980	74	16.1	12.3	131%	15.3	124%	15.3	124%
Two Ocean Plateau	SNOTEL	9240	97	26.3	21.6	122%	31.5	146%	31.5	146%
<b>Basin Index</b>								<b>120%</b>		<b>120%</b>
# of sites								5		5
<b>PACIFIC CREEK</b>			Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Base Camp	SNOTEL	7030	73	17.2	13.5	127%	15.7	116%	15.7	116%
Moran	SC	6750					10.4		9.3	89%
Two Ocean Plateau	SNOTEL	9240	97	26.3	21.6	122%	31.5	146%	31.5	146%
<b>Basin Index</b>								<b>124%</b>		<b>134%</b>
# of sites								2		2
<b>BUFFALO FORK</b>			Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Four Mile	SC	6900	42	9.2	6.0	153%	6.8	113%	6.8	113%
Togwotee Pass	SNOTEL	9580	84	21.1	17.7	119%	24.9	141%	24.9	141%
Turpin Meadows	SC	6900					8.2		9.8	120%
Younts Peak	SNOTEL	8350	54	12.4	11.7	106%				
<b>Basin Index</b>								<b>128%</b>		<b>134%</b>
# of sites								2		2
<b>GROS VENTRE RIVER</b>			Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Elbo Ranch	SC	7100	46	11.5	8.6	134%	7.2	84%	7.2	84%
Gros Ventre Summit	SNOTEL	8750	41	8.5	9.7	88%	11.1	114%	11.1	114%
Gunsight Pass	SNOTEL	9820	56	11.4	10.6	108%	12.4	117%	12.4	117%
Togwotee Pass	SNOTEL	9580	84	21.1	17.7	119%	24.9	141%	24.9	141%
<b>Basin Index</b>								<b>113%</b>		<b>127%</b>
# of sites								4		4
<b>HOBACK RIVER</b>			Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Blind Bull Sum	SNOTEL	8650	84	19.4	17.9	108%	26.4	147%	26.4	147%
East Rim Divide	SNOTEL	7930	48	9.5	8.1	117%	9.9	122%	9.9	122%
Granite Creek	SNOTEL	6770	73	17.1	13.8	124%	14.9	108%	14.9	108%
Hoback GS	SC	6664					8.2		7.5	91%
Snow King Mountain	SC	7660	55	14.0	11.2	125%	8.2	73%	8.2	73%
<b>Basin Index</b>								<b>118%</b>		<b>129%</b>
# of sites								4		4

## Appendix - Precipitation Data

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**Basinwide Summary: March 1, 2019**  
(Averages/Medians based on 1981-2010 reference period)

		Monthly Total Precipitation for February 2019						Water Year to Date Precipitation through February 2019					
	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	
<b>SNAKE above Jackson Lake</b>													
Grassy Lake	SNOTEL	7265	12.6	5.3	238%	6.6	125%	32	29.4	106%	29.3	100%	
Lewis Lake Divide	SNOTEL	7850	11.9	5.5	216%	8.6	156%	30.3	28.8	105%	33.4	116%	
Snake River Station	SNOTEL	6620	8.4	3	280%	4	133%	22.6	18.6	122%	19.9	107%	
Thumb Divide	SNOTEL	7980	7.1	2.4	296%	2.8	117%	15.9	14.6	109%	15.5	106%	
Two Ocean Plateau	SNOTEL	9240	7.9	4.2	188%	5	119%	21.2	21.6	98%	23.8	110%	
<b>Basin Index</b>					<b>235%</b>		<b>132%</b>			<b>108%</b>		<b>108%</b>	
# of sites					5		5			5		5	
<b>PACIFIC CREEK</b>													
Base Camp	SNOTEL	7080	8	3.1	258%	3.4	110%	19.1	17.2	111%	17	99%	
Two Ocean Plateau	SNOTEL	9240	7.9	4.2	188%	5	119%	21.2	21.6	98%	23.8	110%	
<b>Basin Index</b>					<b>218%</b>		<b>115%</b>			<b>104%</b>		<b>105%</b>	
# of sites					2		2			2		2	
<b>BUFFALO FORK</b>													
Togwolee Pass	SNOTEL	9580	6.6	3.5	189%	5.4	154%	20.9	19.4	108%	25.5	131%	
Younts Peak	SNOTEL	8350	4.7	2.1	224%			11.2	12.6	89%			
<b>Basin Index</b>					<b>189%</b>		<b>154%</b>			<b>108%</b>		<b>131%</b>	
# of sites					1		1			1		1	
<b>GROS VENTRE RIVER</b>													
Gros Ventre Summit	SNOTEL	8750	4.3	1.8	239%	1.7	94%	10.1	10.1	100%	10.8	107%	
Gunsight Pass	SNOTEL	9820	4.3	2	215%	2.5	125%	13.3	10.9	122%	12.3	113%	
Togwolee Pass	SNOTEL	9580	6.6	3.5	189%	5.4	154%	20.9	19.4	108%	25.5	131%	
<b>Basin Index</b>					<b>208%</b>		<b>132%</b>			<b>110%</b>		<b>120%</b>	
# of sites					3		3			3		3	
<b>HOBACK RIVER</b>													
Blind Bull Sum	SNOTEL	8650	6.6	3.1	213%	3.9	126%	15.8	16	99%	16	100%	
East Rim Divide	SNOTEL	7930	4	1.9	211%	2.5	132%	9.8	9.6	102%	9.8	102%	
Granite Creek	SNOTEL	6770	7.4	2.8	264%	3.7	132%	18.2	16.5	110%	16.9	102%	
<b>Basin Index</b>					<b>231%</b>		<b>129%</b>			<b>104%</b>		<b>101%</b>	
# of sites					3		3			3		3	
<b>GREYS RIVER</b>													
Blind Bull Sum	SNOTEL	8650	6.6	3.1	213%	3.9	126%	15.8	16	99%	16	100%	
Cottonwood Creek	SNOTEL	7670	6.2	3.7	168%	3.7	100%	20.8	19.6	106%	19.2	98%	
Spring Creek Divide	SNOTEL	9000	6.1	3.9	156%	4.4	113%	20.1	18.3	104%	19.8	103%	
Triple Peak	SNOTEL	8500	7.4	4.1	180%	7.2	176%	21.7	20.2	107%	25.1	124%	
Willow Creek	SNOTEL	8080	9.6	5.1	188%	5.9	116%	28.6	26.8	107%	28.1	105%	
<b>Basin Index</b>					<b>180%</b>		<b>126%</b>			<b>105%</b>		<b>106%</b>	
# of sites					5		5			5		5	
<b>SALT RIVER</b>													
Cottonwood Creek	SNOTEL	7670	6.2	3.7	168%	3.7	100%	20.8	19.6	106%	19.2	98%	
Salt River Summit	SNOTEL	7940	4.2	2.7	156%	2	74%	13	13.4	97%	10.1	75%	
Willow Creek	SNOTEL	8080	9.6	5.1	188%	5.9	116%	28.6	26.8	107%	28.1	105%	
<b>Basin Index</b>					<b>174%</b>		<b>101%</b>			<b>104%</b>		<b>96%</b>	
# of sites					3		3			3		3	
<b>SNAKE RIVER BASIN</b>													
Afton	COOP	8210	2.08	1.09	191%	1.29	118%	8.77	8.85	128%	7.6	111%	
Alta 1 NW	COOP	8430	4.59	1.87	246%	1.05	56%	12.79	10.83	118%	9.11	84%	
Base Camp	SNOTEL	7080	8	3.1	258%	3.4	110%	19.1	17.2	111%	17	99%	
Bedford 3 SE	COOP	8430	5.11	1.76	290%			14.77	9.51	155%			
Black Bear	SNOTEL	8170	18.3	5.8	316%	7.9	136%	38	30.8	123%	33.6	109%	
Blind Bull Sum	SNOTEL	8650	6.6	3.1	213%	3.9	126%	15.8	16	99%	16	100%	
Bondurant	COOP	8620	4.2	1.52	278%	1.96	129%	10.56	9.26	114%	9.82	106%	
Cottonwood Creek	SNOTEL	7670	6.2	3.7	168%	3.7	100%	20.8	19.6	106%	19.2	98%	
Darwin Ranch	COOP	8160	2.55	0.94	271%	1.65	176%	6.09	5.69	107%	9.14	161%	
East Rim Divide	SNOTEL	7930	4	1.9	211%	2.5	132%	9.8	9.6	102%	9.8	102%	
Grand Targhee	SNOTEL	9280	7	4.1	171%	4.4	107%	27.8	24.8	112%	24	97%	
Granite Creek	SNOTEL	6770	7.4	2.8	264%	3.7	132%	18.2	16.5	110%	16.9	102%	
Grassy Lake	SNOTEL	7265	12.6	5.3	238%	6.6	125%	32	29.4	109%	29.3	100%	
Gros Ventre Summit	SNOTEL	8750	4.3	1.8	239%	1.7	94%	10.1	10.1	100%	10.8	107%	
Gunsight Pass	SNOTEL	9820	4.3	2	215%	2.5	125%	13.3	10.9	122%	12.3	113%	
Jackson	COOP	8230	3.53	0.98	360%	1.31	134%	8.11	6.64	122%	7.53	113%	
Lewis Lake Divide	SNOTEL	7850	11.9	5.5	216%	8.6	156%	30.3	28.8	105%	33.4	116%	
Loomis Park	SNOTEL	8240	5.7	2.7	211%	4.3	159%	14.8	14	106%	14.9	106%	

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**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