

# Wyoming Basin & Water Supply Outlook Report

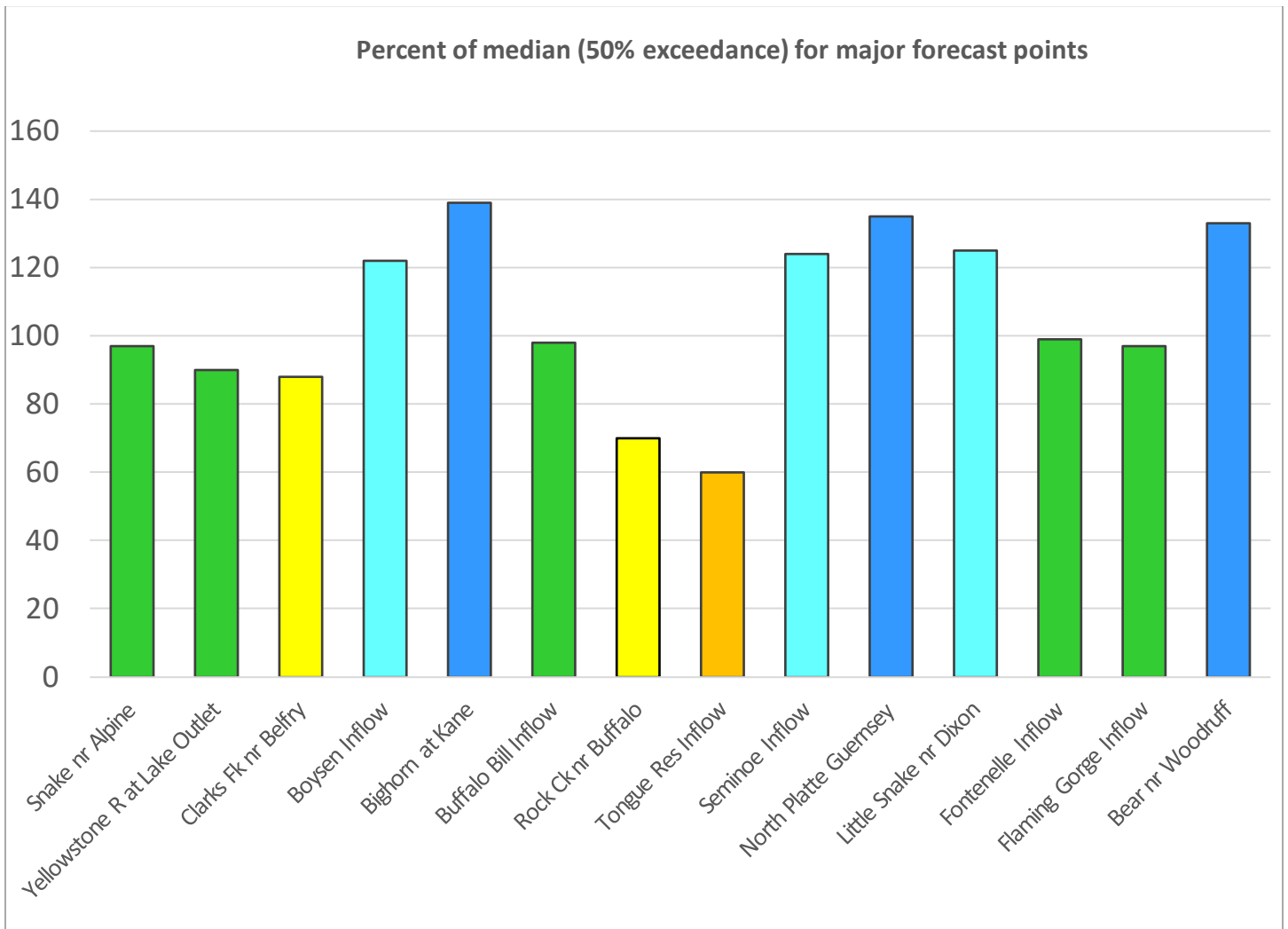
## April 1, 2024

**Natural  
Resources  
Conservation  
Service**



Owl Creek Basin March 4<sup>th</sup>, 2024, photo credit USDA-NRCS Wyoming taken by Jeff Coyle.

## Forecasted stream flows for April 1<sup>st</sup>, 2024



Fifty percent exceedance probability for 6 out of 14 major forecast points above are expected to be above 100% of normal. Fifty percent exceedance probability for 5 out of 14 major forecast points above are expected to be near 100% of normal. The highest is the Bighorn at Kane and is expected to be 139% of normal. Fifty percent exceedance probability for 3 major forecast points listed above are expected to be below 90% of normal.

# Basin Outlook Reports

## And

### Federal - State - Private Cooperative Snow Surveys

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*For more information, contact:*

**Jeff Coyle**  
100 East "B" Street, Casper, WY 82601  
(307) 233-6768     [jeffrey.coyle@usda.gov](mailto:jeffrey.coyle@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.

Note: The median is the official normal for snowpack (SWE), precipitation, reservoir storage, and streamflow calculations. Please refer to the **Appendix** of this report for more detailed information.

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# Wyoming Basin & Water Supply Outlook Report

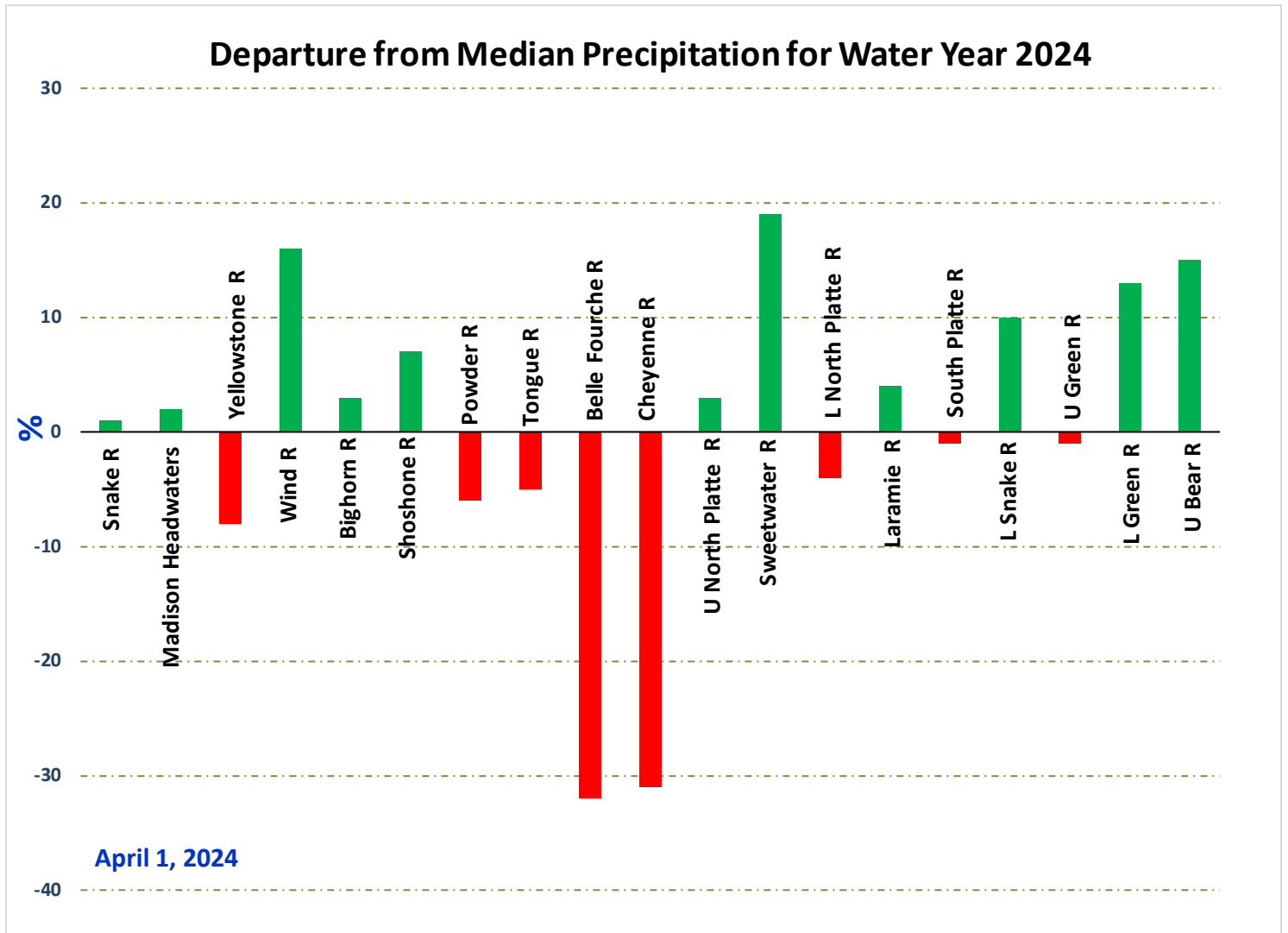
## Snowpack

Snow water equivalent (SWE) across Wyoming for April 1<sup>st</sup> was at 90% of median. SWE in the Laramie River Basin was the highest at 125% of median and lowest for the Cheyenne River Basin at 19% of median. On April 1<sup>st</sup>, 2024, the following basins were below 90% of median SWE recorded for the 1991 - 2020 interval: Belle Fourche, Cheyenne, Powder, Tongue, Bighorn, Yellowstone, Lower North Platte, and Madison Headwaters in WY. *See the map on page 6 and the Appendix for further information.*

## Precipitation

The Sweetwater Basin had the highest precipitation for the month at 205% of median. The Cheyenne River Basin had the lowest precipitation amount for the month at 67% of median. The following graph displays the precipitation in major river basins and their departure from median for the water year beginning October 1<sup>st</sup>, 2023.

*See Appendix for further information.*



## Streams

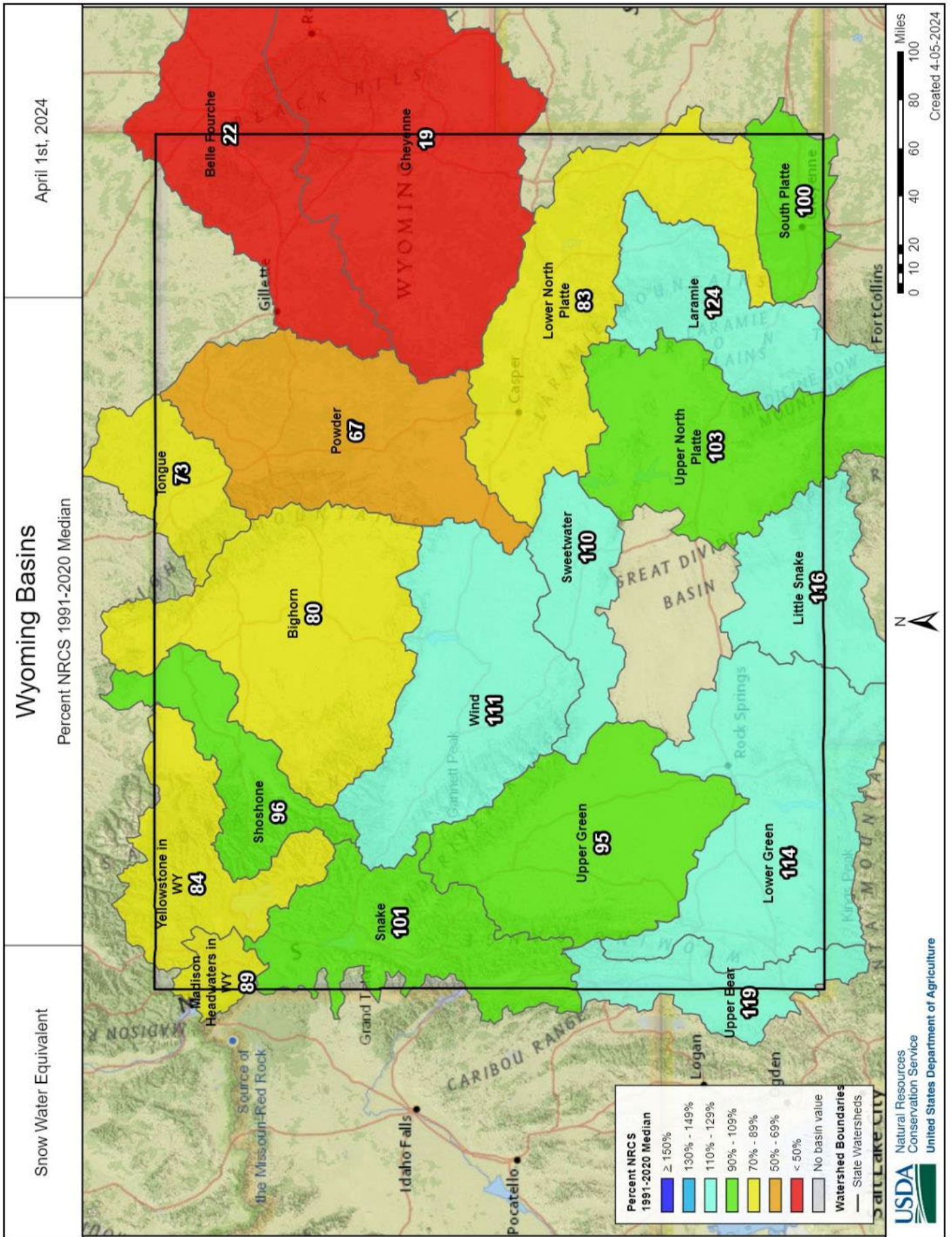
Forecast median streamflow yields for April thru September in Wyoming basins (except Green, Little Snake and Cheyenne) average 102%. Forecast median stream flow yields for April thru July in Green, Little Snake, and Cheyenne average 103%, 124%, and 79%. The Snake River and Yellowstone River in Wyoming, basins should yield about 101% and 89% of median. Yields from the Wind and Bighorn River basins should be about 124% and 110% of median. Yields from the Shoshone River basin should be 97% of median. Yields from the Powder and Tongue River basins should be about 78% and 71% of median. Yield for the Cheyenne River basin should be about 79% of median. Yields for the Sweetwater, Upper North Platte, Lower North Platte, and Laramie Rivers of Wyoming should be about 169%, 113%, 118%, and 109% of median, respectively.

## Reservoirs

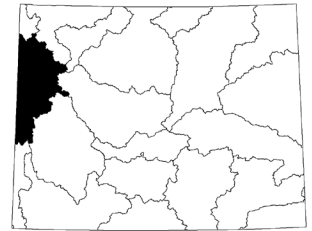
Reservoir storage was 104% of median across the entire state. Reservoirs in the Snake River basin are near median at 101%. Reservoirs in the Wind River basin are near median at 105%. Reservoirs on the Bighorn are 101% of median. The Buffalo Bill Reservoir on the Shoshone is near median at 112%. Reservoirs in the Belle Fourche and Cheyenne River basins are near median at 97% and 98% respectively. Reservoirs on the Upper and Lower North Platte River are above median at 115% and 101% respectively. Reservoirs on the Upper Green River are at 101% of median. Reservoirs on the Lower Green River are near median at 100%. *See below for further information.*

### Wyoming Reservoir Levels

	Reservoir Storage Summary For the End of March 202								
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Alcova	157.5	157.8	157.7	184.3	85%	86%	86%	100%	100%
Angostura	105.3	70.7	107.5	122.1	86%	58%	88%	98%	66%
Belle Fourche	156.4	148.7	147.7	178.4	88%	83%	83%	106%	101%
Big Sandy	41.7	9.3	20.6	38.3	109%	24%	54%	202%	45%
Bighorn Lake	805.6	766.2	798.4	1356.0	59%	57%	59%	101%	96%
Boysen	586.0	529.2	541.5	596.0	98%	89%	91%	108%	98%
Buffalo Bill	484.4	454.9	432.8	646.6	75%	70%	67%	112%	105%
Bull Lake	71.5	75.2	81.0	151.8	47%	50%	53%	88%	93%
Deerfield	14.8	14.7	14.9	15.2	98%	97%	98%	100%	98%
Flaming Gorge Res	3154.3	2465.2	3162.0	3749.0	84%	66%	84%	100%	78%
Fontenelle	103.8	112.6	122.9	344.8	30%	33%	36%	84%	92%
Glendo	379.5	340.8	375.2	506.4	75%	67%	74%	101%	91%
Grassy Lake	13.4	12.0	13.2	15.2	88%	79%	87%	102%	91%
Guernsey	21.7	18.9	18.6	45.6	47%	42%	41%	116%	102%
High Savery Res	14.9	7.2	11.7	22.4	67%	32%	52%	127%	61%
Jackson Lake	630.4	199.6	627.0	847.0	74%	24%	74%	101%	32%
Keyhole	129.0	125.9	147.3	193.8	67%	65%	76%	88%	85%
Meeks Cabin Res	19.6	11.4	12.0	32.5	60%	35%	37%	163%	95%
Pactola	52.1	50.4	53.8	55.0	95%	92%	98%	97%	94%
Pathfinder	712.0	351.7	595.5	1016.5	70%	35%	59%	120%	59%
Pilot Butte	25.3	24.6	25.2	31.6	80%	78%	80%	100%	98%
Seminole	645.4	434.9	589.8	1016.7	63%	43%	58%	109%	74%
Steline Res	8.6	6.7	5.7	12.0	72%	56%	48%	152%	118%
Viva Naughton Res	34.1	28.8	28.5	42.4	81%	68%	67%	120%	101%
Wheatland #2	63.4	40.0	57.4	98.9	64%	40%	58%	110%	70%
Woodruff Creek	3.5	2.8	3.8	4.0	88%	70%	95%	92%	74%
Woodruff Narrows Reservoir	48.8	16.3	49.8	57.3	85%	28%	87%	98%	33%



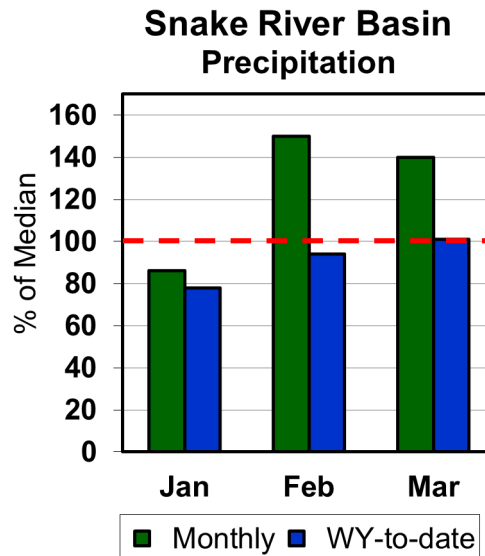
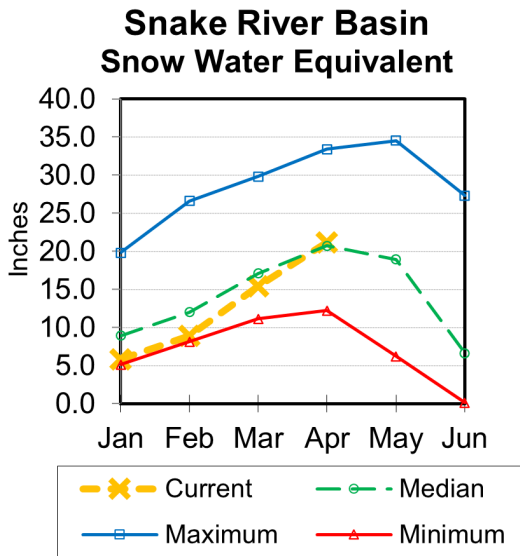
# Snake River Basin



## Snow

The overall Snake River basin SWE (portion above Palisades dam) is 102% of median. SWE in the Snake River Basin above Jackson Lake is 97% of median. Pacific Creek basin SWE is 101% of median. Buffalo Fork SWE is 91% of median. Gros Ventre River basin SWE is 90% of median. SWE in the Hoback River drainage is 97% of median. SWE in the Greys River drainage is 104% of median. Salt River Basin SWE is 120% 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 140% of median. Water-year-to-date precipitation is 101% of median.

## Reservoirs

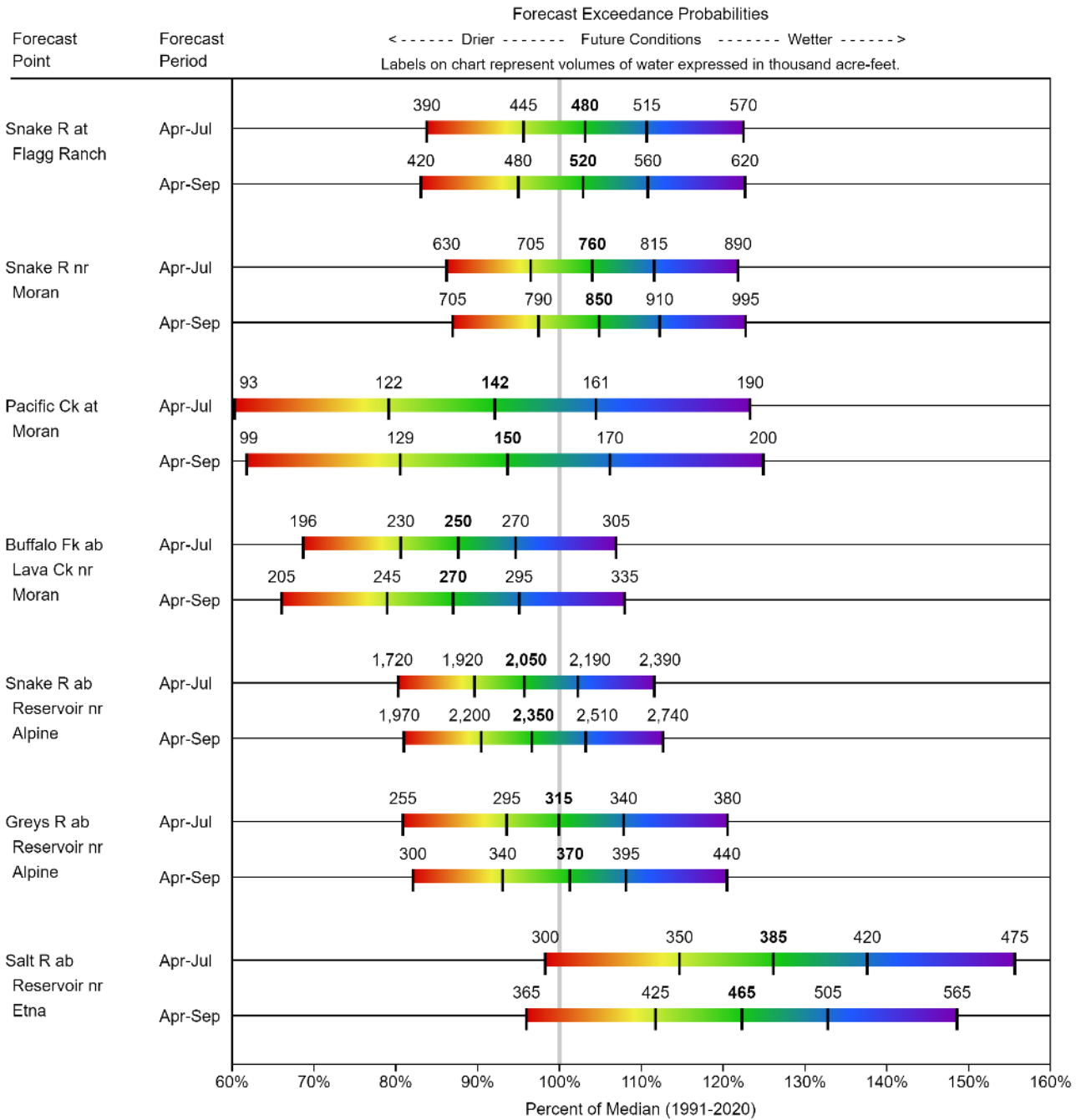
Current reservoir storage is 101% of median for the two storage reservoirs in the basin.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Grassy Lake	13.4	12.0	13.2	15.2	88%	79%	87%	102%	91%
Jackson Lake	630.4	199.6	627.0	847.0	74%	24%	74%	101%	32%
<b>Basin Index</b>					75%	25%	74%	101%	33%
# of reservoirs					2	2	2	2	2

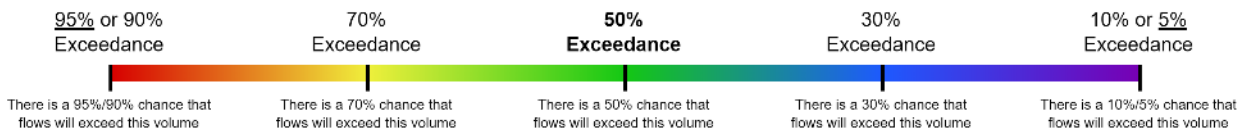
## Streamflow

The 50% exceedance forecasts for April through September are near median for this basin. The Snake near Moran yield should be 105% of median. Snake River above reservoir near Alpine will yield about 97%. Pacific Creek near Moran yield will be around 94%. Buffalo Fork above Lava near Moran will be around 87% of median. Greys River above reservoir near Alpine should yield about 101%. Salt River near Etna yield will be about 122%. *See the following graph for further information.*

**SNAKE**  
**Water Supply Forecasts**  
**April 1, 2024**



**.egend**



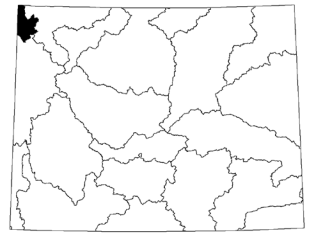
When selected, the following historic streamflow values and statistics will be shown.

| *Period of Record Minimum Streamflow KAF (Year)*     
 | *1991-2020 Normal Streamflow KAF*     
 | *Observed Streamflow KAF*     
 | *Period of Record Maximum Streamflow KAF (Year)*

Some forecasts may be for volumes that are regulated or influenced by diversions and water management.

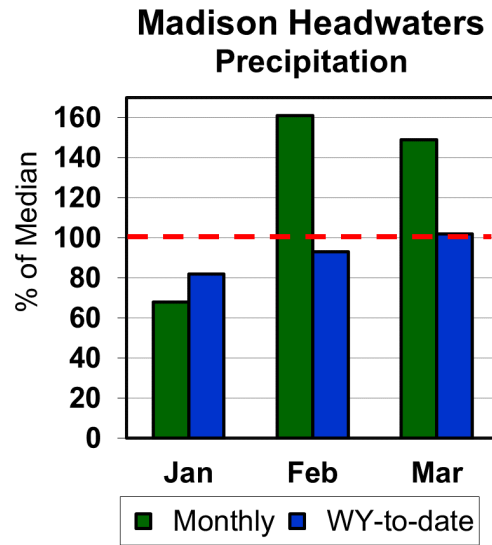
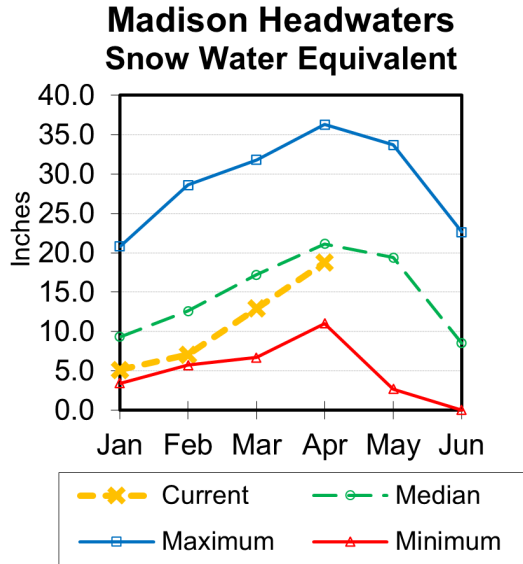


# Madison Headwaters in Wyoming



## Snow

SWE is 89% of median in the Madison Headwaters in Wyoming drainage. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month precipitation in the Madison Headwaters drainage was 149% of median. Water-year-to-date precipitation is at 102% of median.

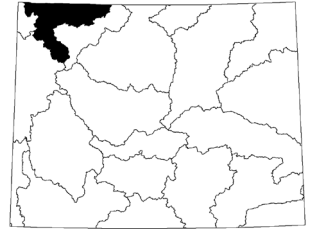
## Reservoirs

No reservoir data.

## Streamflow

There are no streamflow forecast points for the basin.

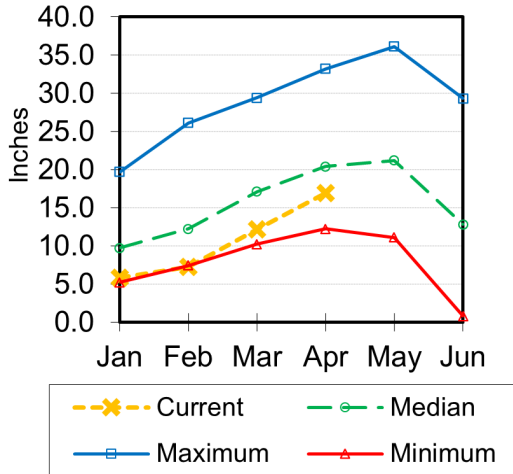
# Yellowstone River Basin



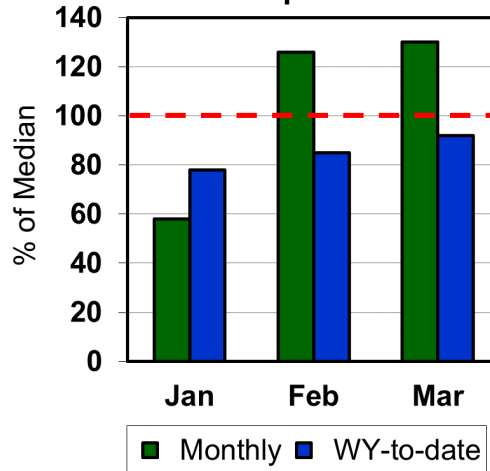
## Snow

SWE in the Yellowstone River Basin is 83% of median. SWE in the Clarks Fork Drainage of the Yellowstone River basin in Wyoming is 79% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*

**Yellowstone River Basin  
Snow Water Equivalent**



**Yellowstone River Basin  
Precipitation**



## Precipitation

Last month's precipitation in the Yellowstone River Basin was 130% of median. Water-year-to-date precipitation is 92% of median.

## Reservoirs

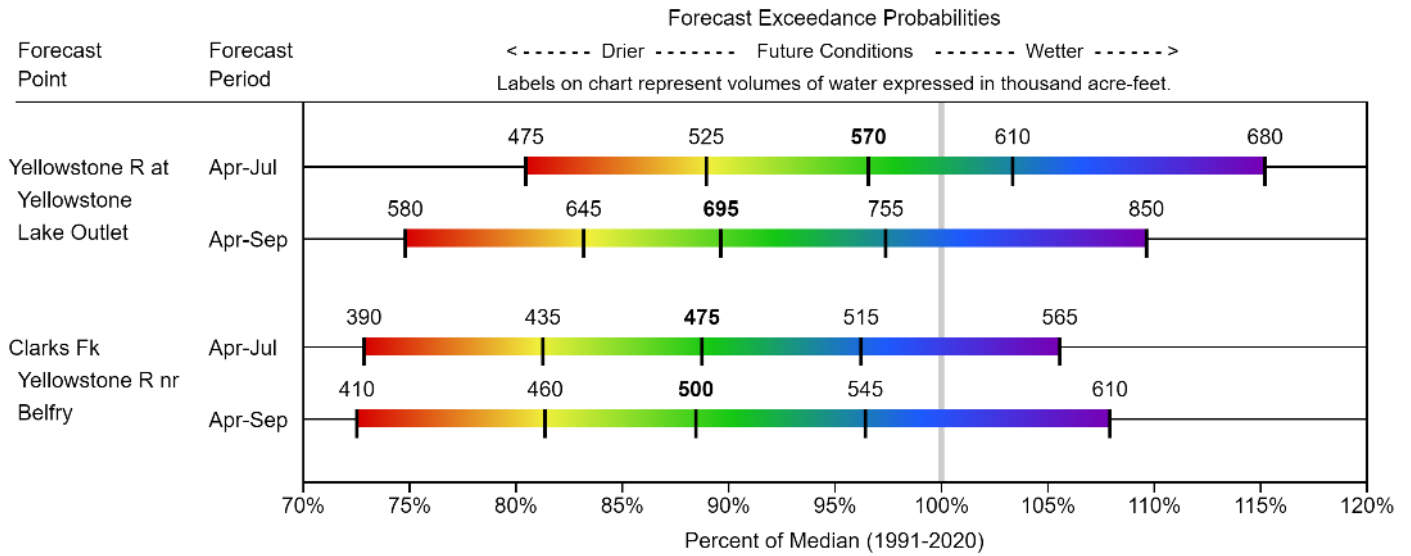
No reservoir data.

## Streamflow

The 50% exceedance forecasts for April through September are below normal for the basin. Yellowstone at Lake Outlet will yield around 90% of median. Clarks Fork of the Yellowstone near Belfry will yield around 88%.

*See the following graph for detailed information.*

**YELLOWSTONE IN WY**  
**Water Supply Forecasts**  
**April 1, 2024**

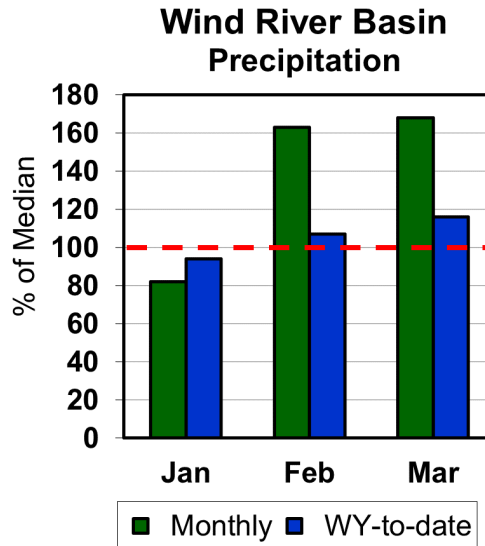
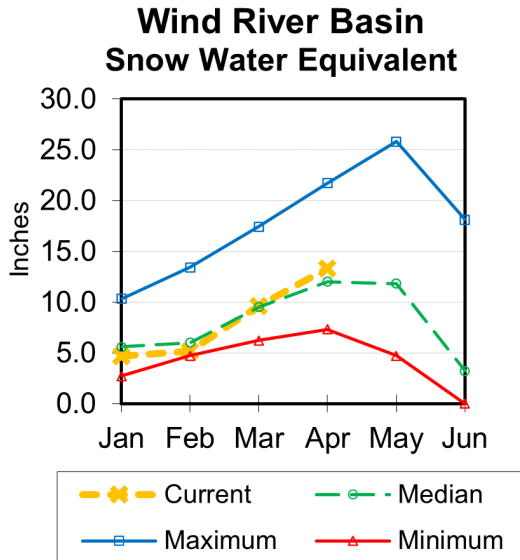


# Wind River Basin



## Snow

Wind River basin SWE (above Boysen Reservoir) is 111% of median. SWE in the Wind River above Dubois is 96% of median. Little Wind SWE is 120% of median, and Popo Agie drainage SWE is 122% 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 basin was 168% of median. Water year-to-date precipitation is 116% of median.

## Reservoirs

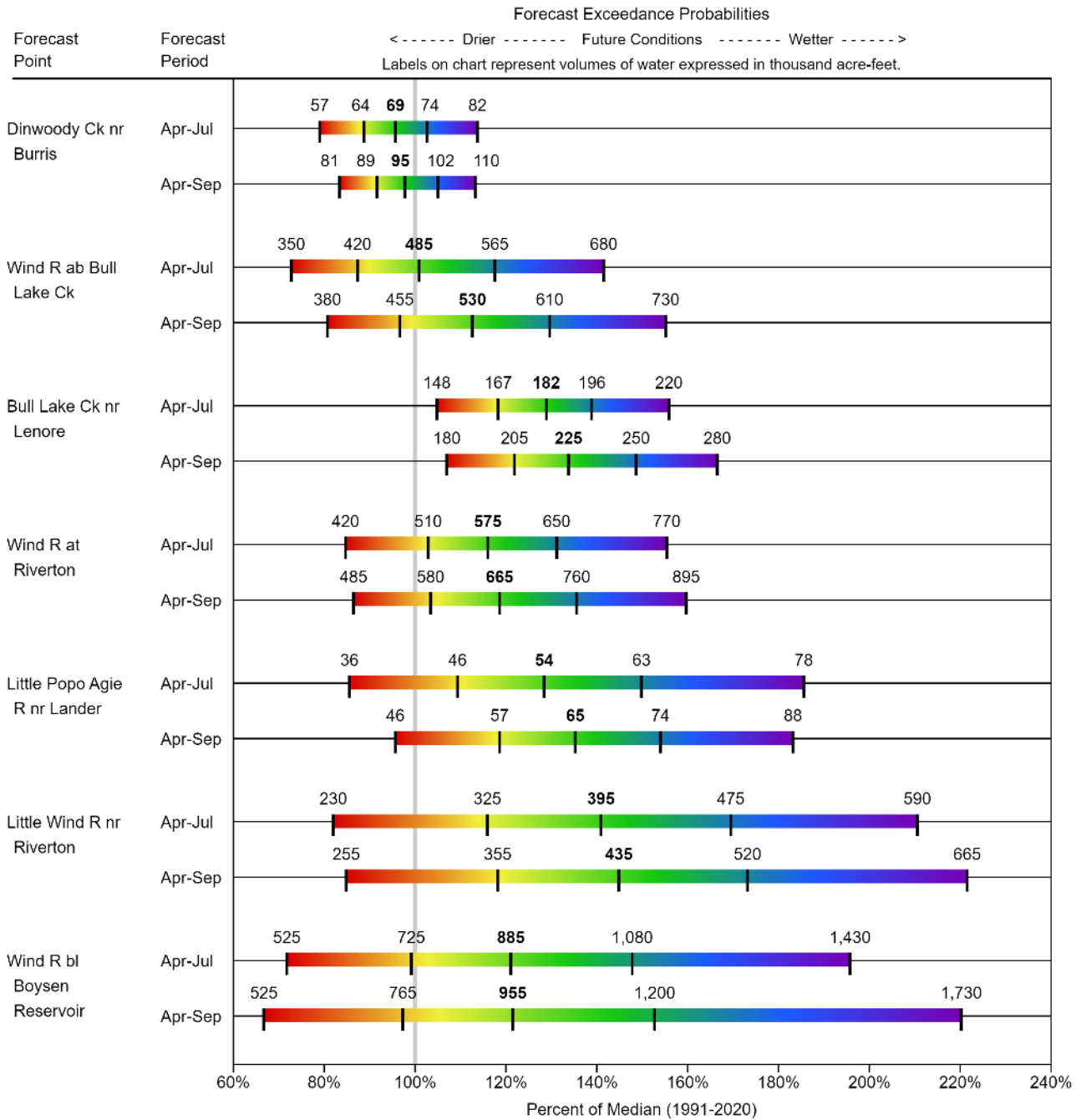
Current storage is 105% of median in the basin.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pilot Butte	25.3	24.6	25.2	31.6	80%	78%	80%	100%	98%
Boysen	586.0	529.2	541.5	596.0	98%	89%	91%	108%	98%
Bull Lake	71.5	75.2	81.0	151.8	47%	50%	53%	88%	93%
<b>Basin Index</b>					<b>88%</b>	<b>81%</b>	<b>83%</b>	<b>105%</b>	<b>97%</b>
# of reservoirs					3	3	3	3	3

## Streamflow

The 50% exceedance forecasts for the April through September runoff period are above normal for the Wind River. The Wind River above Bull Lake Creek will yield about 113% of median. Little Popo Agie River near Lander should yield around 135% of median. Little Wind River near Riverton will yield around 145% of median. Boysen Reservoir inflow will yield about 122% of median. *See the following graph for detailed runoff volumes.*

**WIND**  
**Water Supply Forecasts**  
**April 1, 2024**

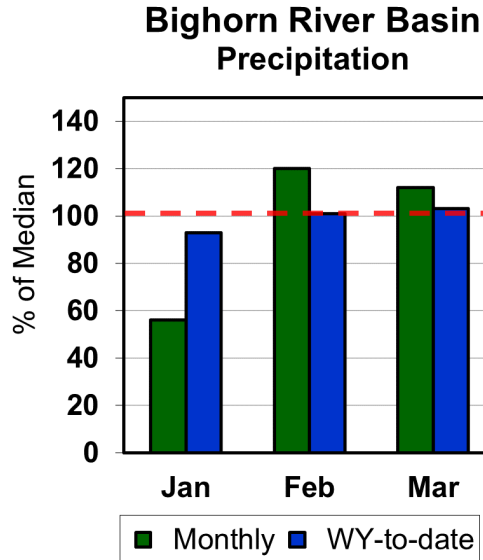
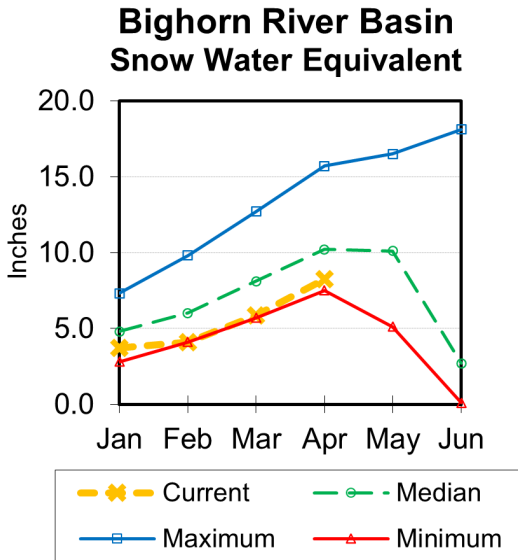


# Bighorn River Basin



## Snow

The Bighorn River Basin SWE (above Bighorn Reservoir) is 81% of median. The Greybull River SWE is at 154% of median. Shell Creek SWE is at 71% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 112% of median. Year-to-date precipitation is 103% of median.

## Reservoirs

Current reservoir storage in the basin is 101% of median.

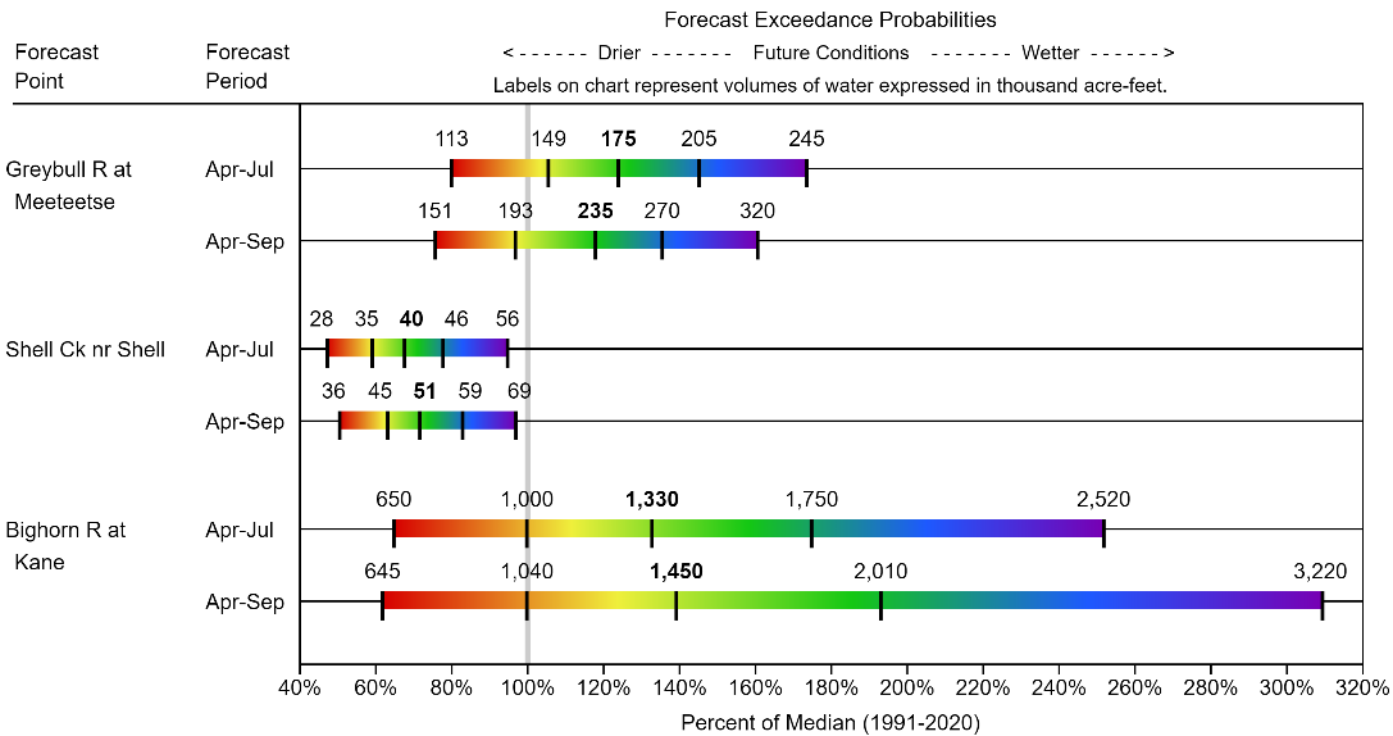
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Bighorn Lake	805.6	766.2	798.4	1356.0	59%	57%	59%	101%	96%
<b>Basin Index</b>					59%	57%	59%	101%	96%
# of reservoirs					1	1	1	1	1

## Streamflow

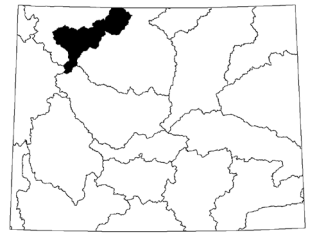
The 50% exceedance forecasts for the April through September runoffs are above normal. The Greybull River near Meeteetse should yield 118% of median. Shell Creek near Shell should yield around 72% of median. The Bighorn River at Kane should yield around 139% of median.

*See the following graph for detailed runoff volumes.*

**BIGHORN**  
**Water Supply Forecasts**  
**April 1, 2024**

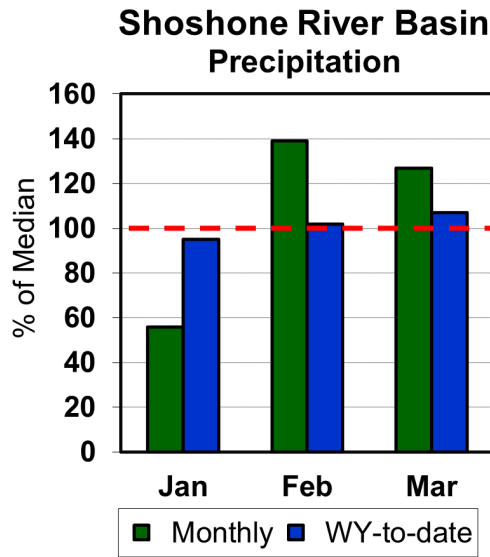
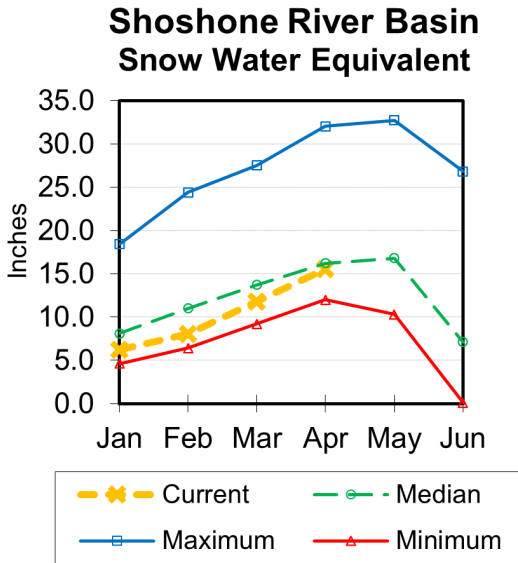


# Shoshone River Basin



## Snow

Snow Water Equivalent (SWE) is 96% 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 127% of median. The basin year-to-date precipitation is now 107% of median.

## Reservoirs

Current storage in Buffalo Bill Reservoir is about 112% of median.

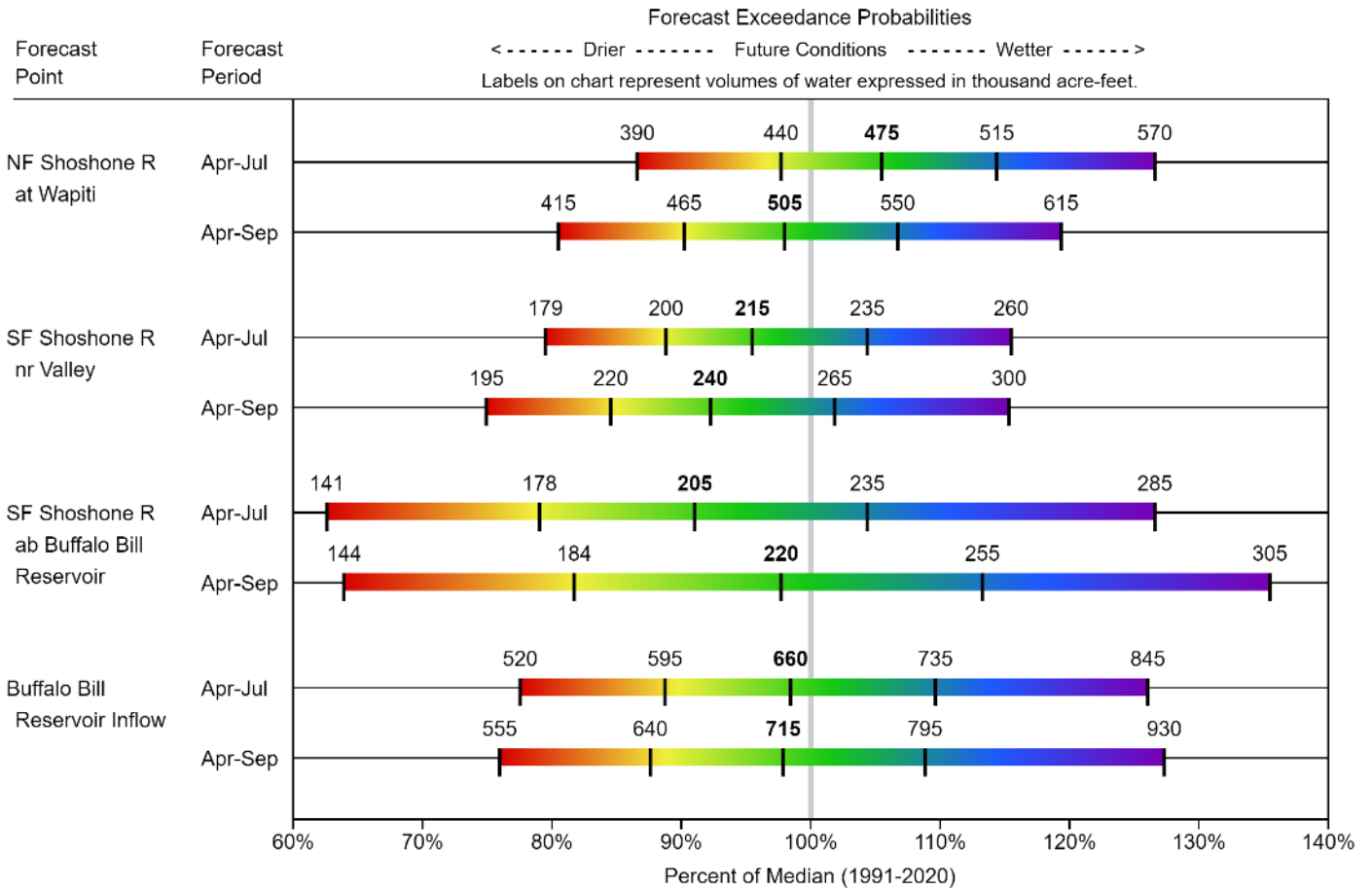
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Buffalo Bill	484.4	454.9	432.8	646.6	75%	70%	67%	112%	105%
<b>Basin Index</b>					75%	70%	67%	112%	105%
# of reservoirs					1	1	1	1	1

## Streamflow

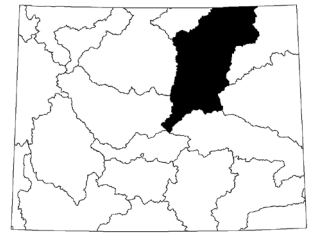
The 50% exceedance forecasts for the April through September period are near normal for the basin. The North Fork Shoshone River at Wapiti should yield 98% of median. The South Fork of the Shoshone River near Valley should yield 92% of median. The Buffalo Bill Reservoir inflow should yield 98% of median. *See the following graph for detailed runoff volumes.*



## SHOSHONE Water Supply Forecasts April 1, 2024

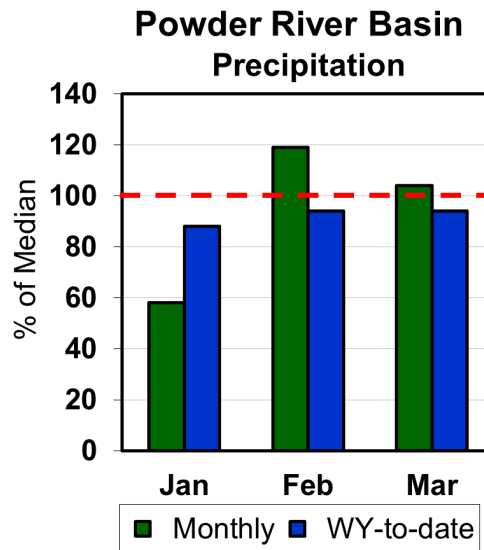
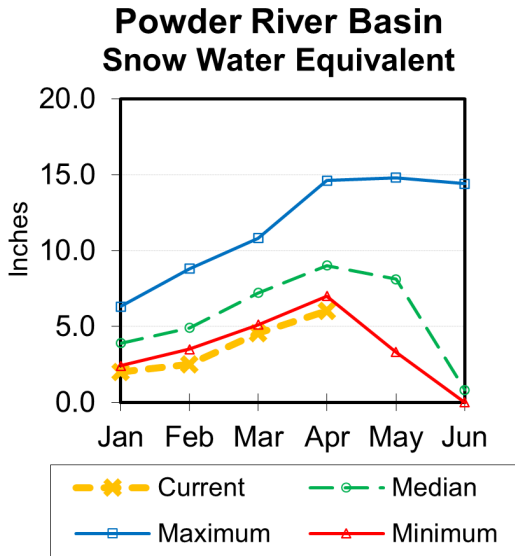


# Powder River Basin



## Snow

Powder River Basin SWE is at 67% of median. SWE in the Clear Creek drainage is 77% of median. *See appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 104% of median in the basin. Year-to-date precipitation is 94% of median.

## Reservoirs

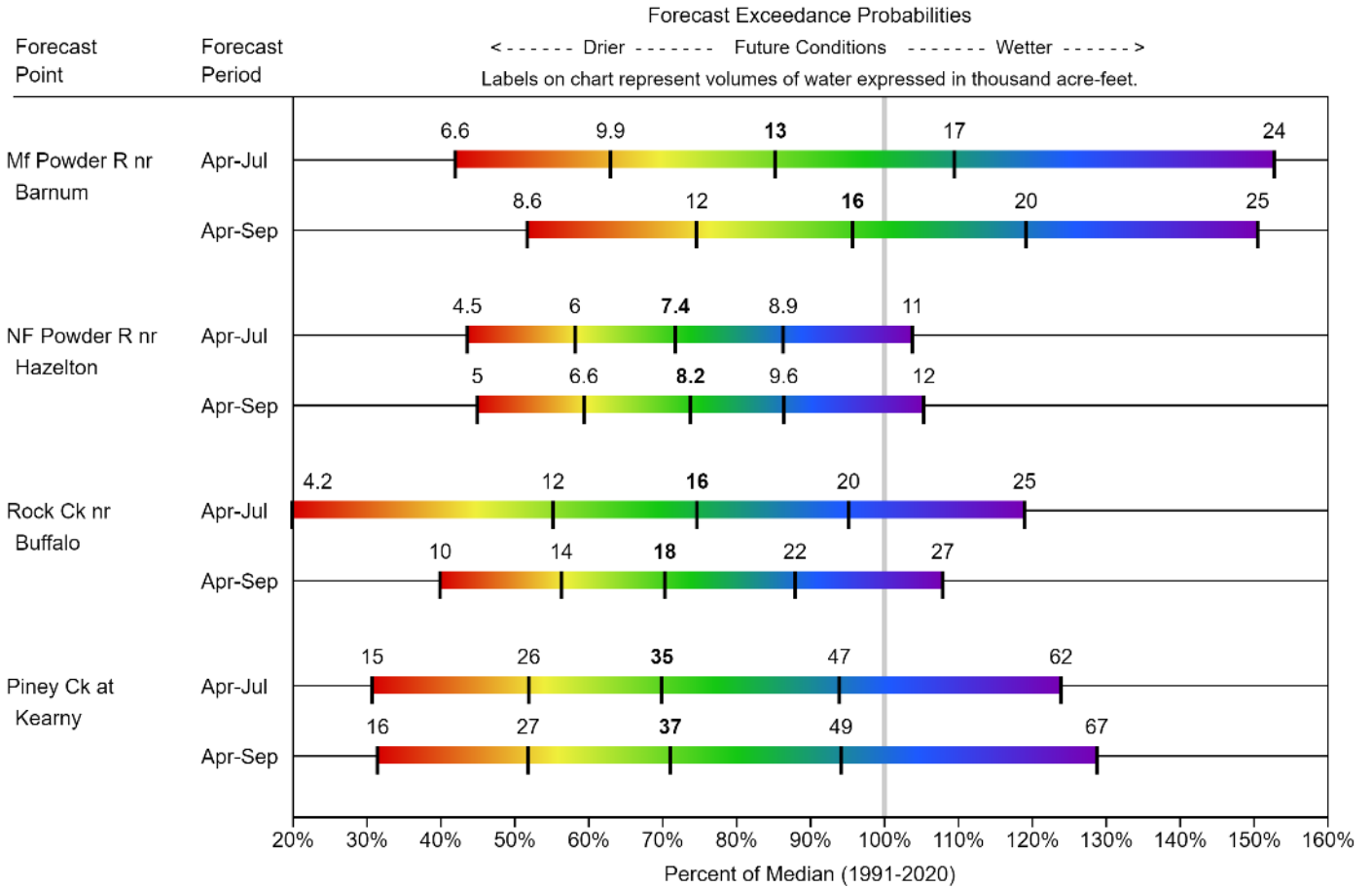
No reservoir data for this basin.

## Streamflow

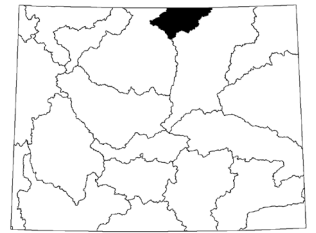
The 50% exceedance forecasts for the April through September period are below normal for the basin. The Middle Fork of the Powder River near Barnum should yield around 96% of median. The North Fork of the Powder River near Hazelton to yield around 74% of median.

*See the following graph for detailed runoff volumes.*

**POWDER**  
**Water Supply Forecasts**  
**April 1, 2024**

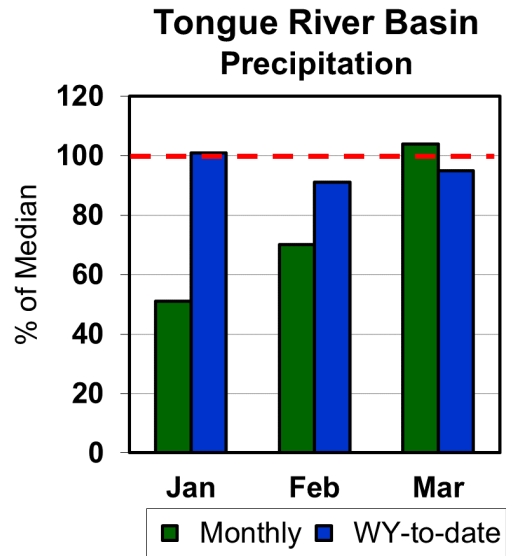
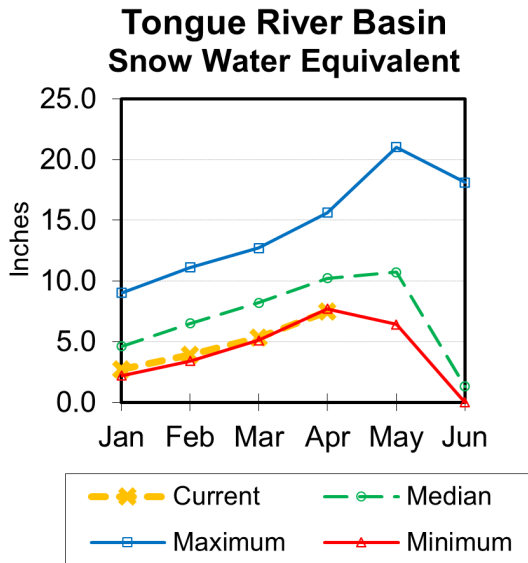


# Tongue River Basin



## Snow

Upper Tongue River drainage SWE is at 73% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 104% of median. Year-to-date precipitation is 95% of median in the basin.

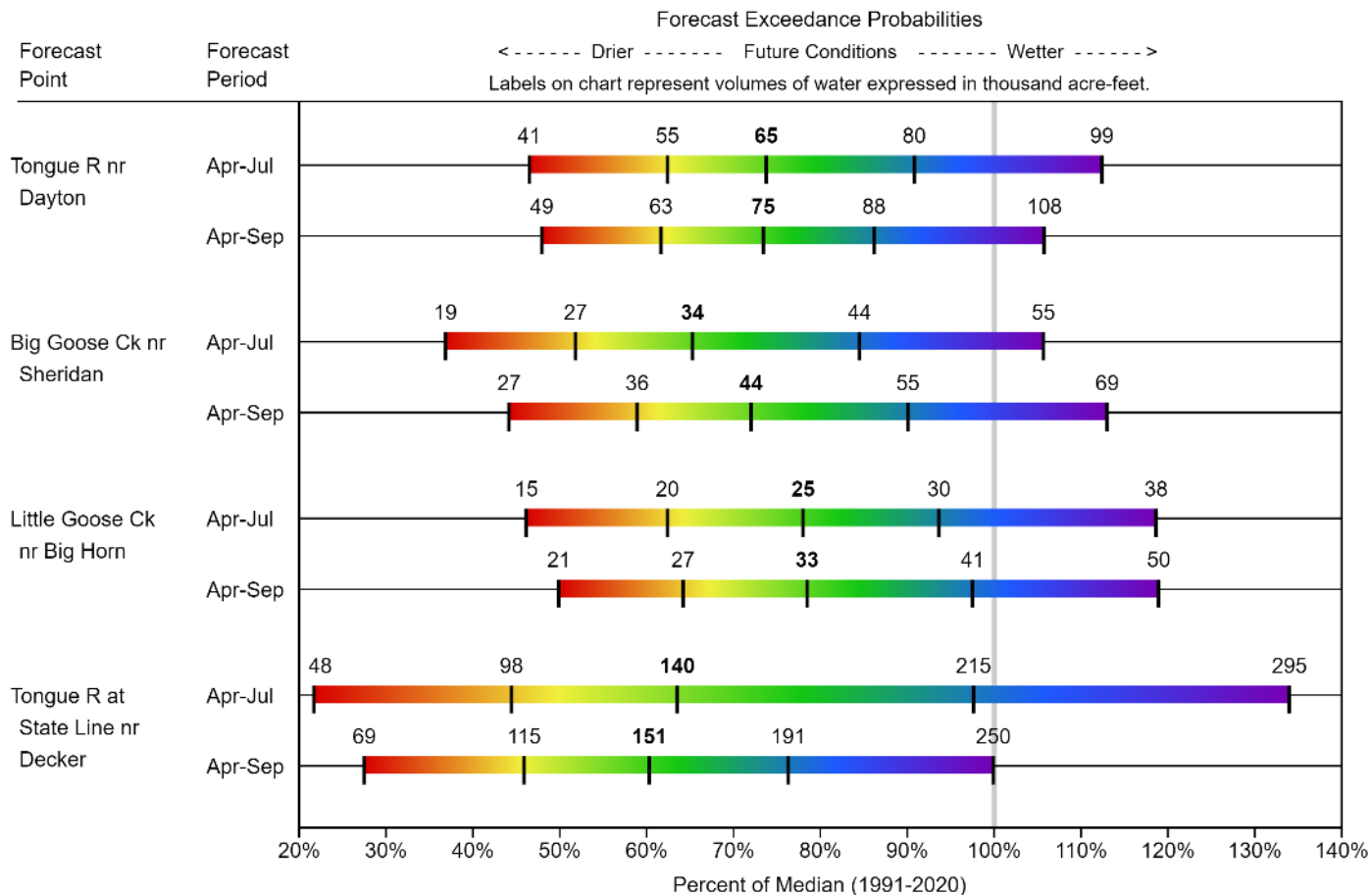
## Reservoirs

No reservoir data for the basin.

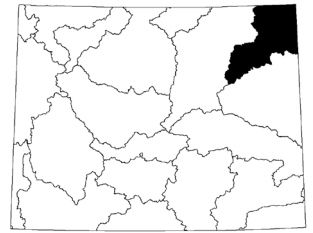
## Streamflow

The 50% exceedance forecasts for the April through September period are below normal for the basin. The yield for Tongue River near Dayton is forecasted to be 74% of median. Big Goose Creek near Sheridan should yield around 72%. Little Goose Creek near Bighorn should yield 79% of median. The Tongue River Reservoir Inflow should yield 60% of median. *See below for detailed runoff volumes.*

## TONGUE Water Supply Forecasts April 1, 2024

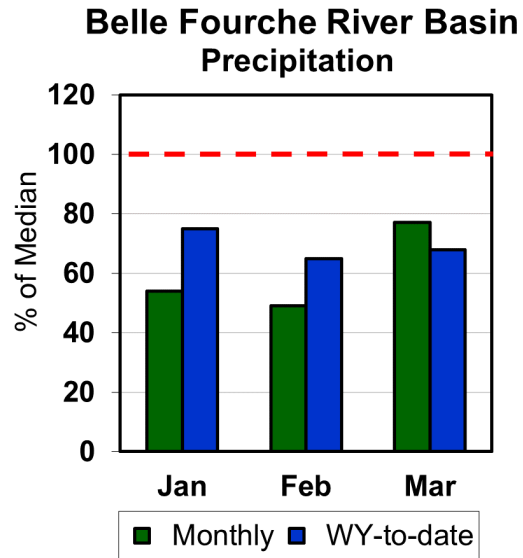
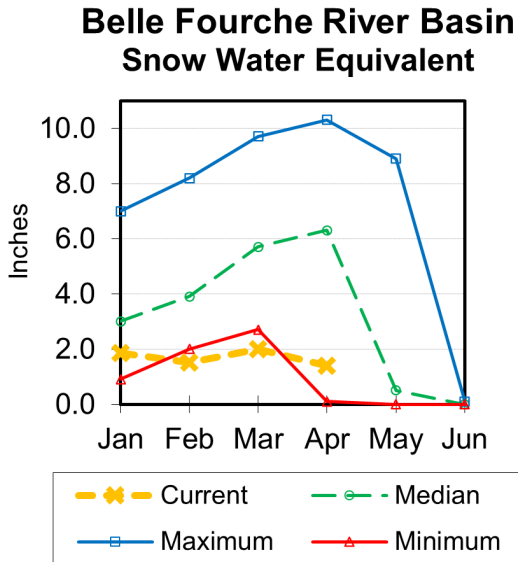


# Belle Fourche River Basin



## Snow

Currently the Belle Fourche River Basin SWE is at 22% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation for last month was 77% of median in the Belle Fourche basin. Year-to-date precipitation is 68% of median.

## Reservoirs

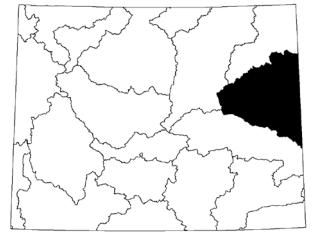
Combined storage for the 2 reservoirs in the basin is at 97% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Belle Fourche	156.4	148.7	147.7	178.4	88%	83%	83%	106%	101%
Keyhole	129.0	125.9	147.3	193.8	67%	65%	76%	88%	85%
<b>Basin Index</b>					<b>77%</b>	<b>74%</b>	<b>79%</b>	<b>97%</b>	<b>93%</b>
# of reservoirs					2	2	2	2	2

## Streamflow

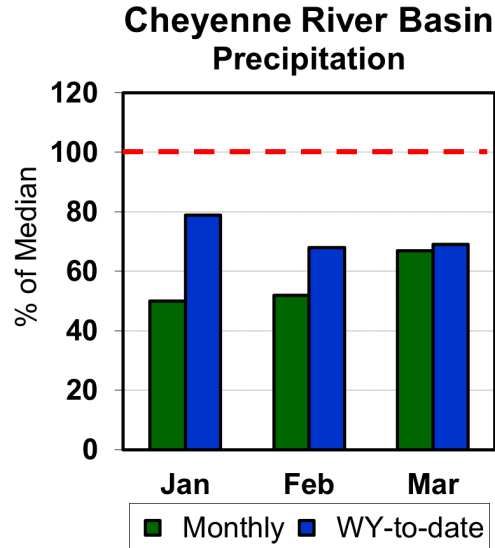
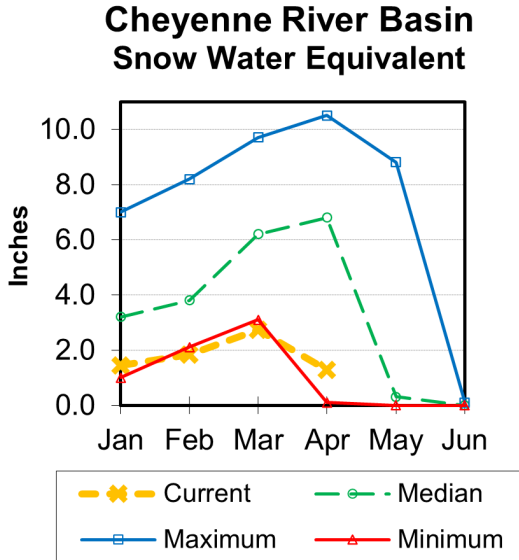
There are no streamflow forecast points for the basin.

# Cheyenne River Basin



## Snow

Currently SWE for sites in the Cheyenne River Basin are at 19% of median. *See Appendix at the end of this report for a detailed listing.*



## Precipitation

Precipitation for last month was 67% of median. Year-to-date precipitation is 69% of median.

## Reservoirs

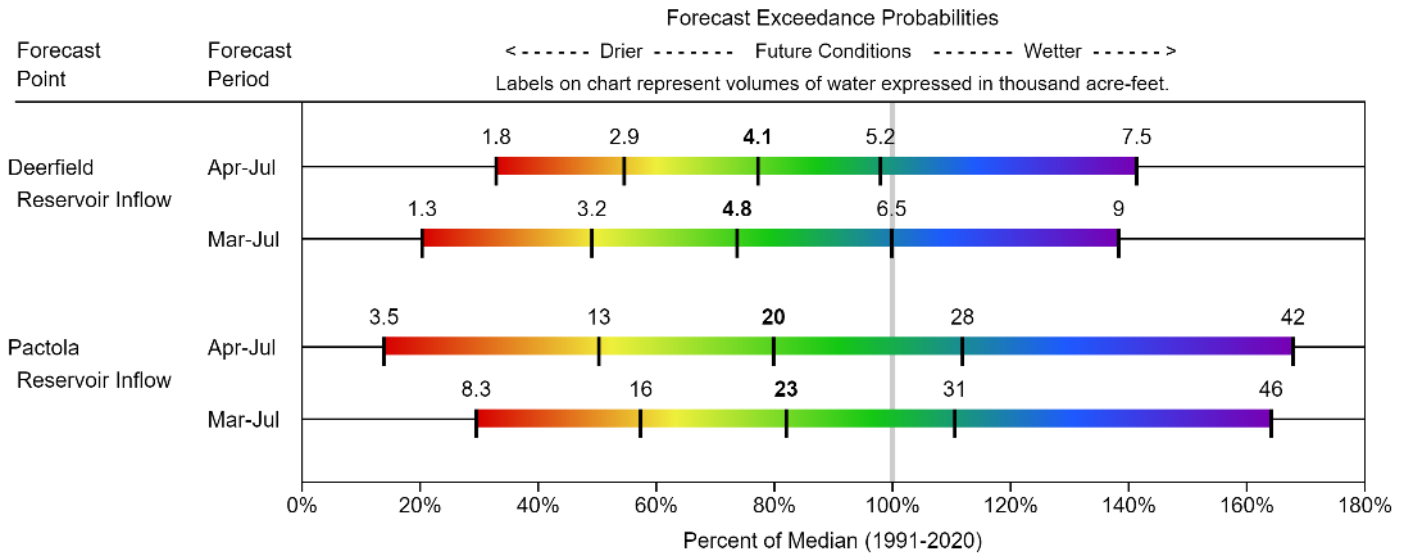
Combined storage for the 3 reservoirs in the basin is at 98% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Deerfield	14.8	14.7	14.9	15.2	98%	97%	98%	100%	98%
Pactola	52.1	50.4	53.8	55.0	95%	92%	98%	97%	94%
Angostura	105.3	70.7	107.5	122.1	86%	58%	88%	98%	66%
<b>Basin Index</b>					<b>90%</b>	<b>71%</b>	<b>92%</b>	<b>98%</b>	<b>77%</b>
# of reservoirs					3	3	3	3	3

## Streamflow

The 50% exceedance forecasts for the April through July period are below normal. The Deerfield Reservoir Inflow yield is forecasted at 77% of median. Pactola Reservoir Inflow yield should be 80% of median. *See the following graph for detailed runoff volumes.*

**CHEYENNE**  
**Water Supply Forecasts**  
**April 1, 2024**





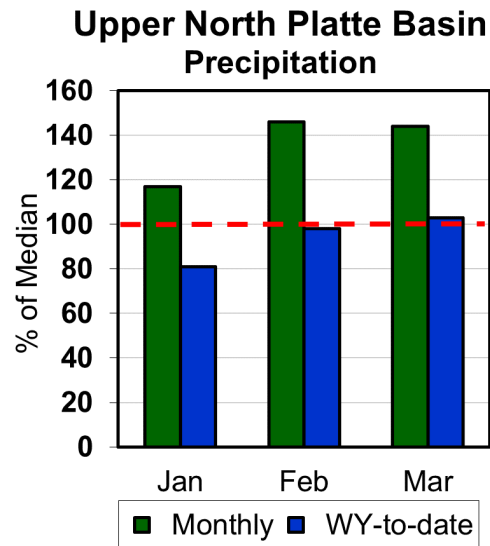
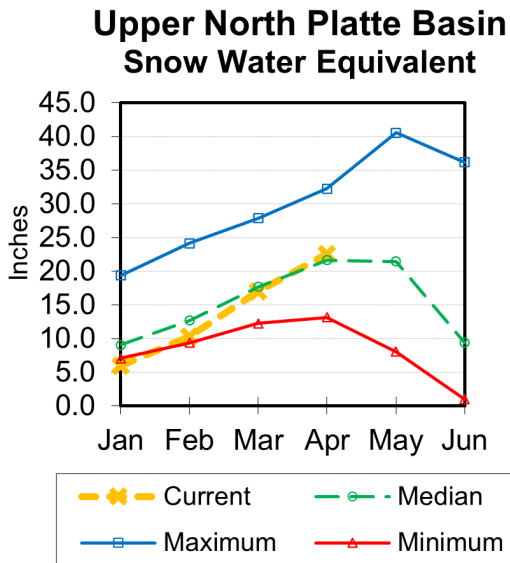
# Upper North Platte River Basin



## Snow

The Upper North Platte River basin SWE is 104% of median. North Platte above Northgate SWE is 101% of median. Encampment River SWE is 113% of median. Medicine Bow and Rock Creek SWE are 101% of median.

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



## Precipitation

Last month's precipitation was 144% of median. Total water-year-to-date precipitation is 103% of median.

## Reservoirs

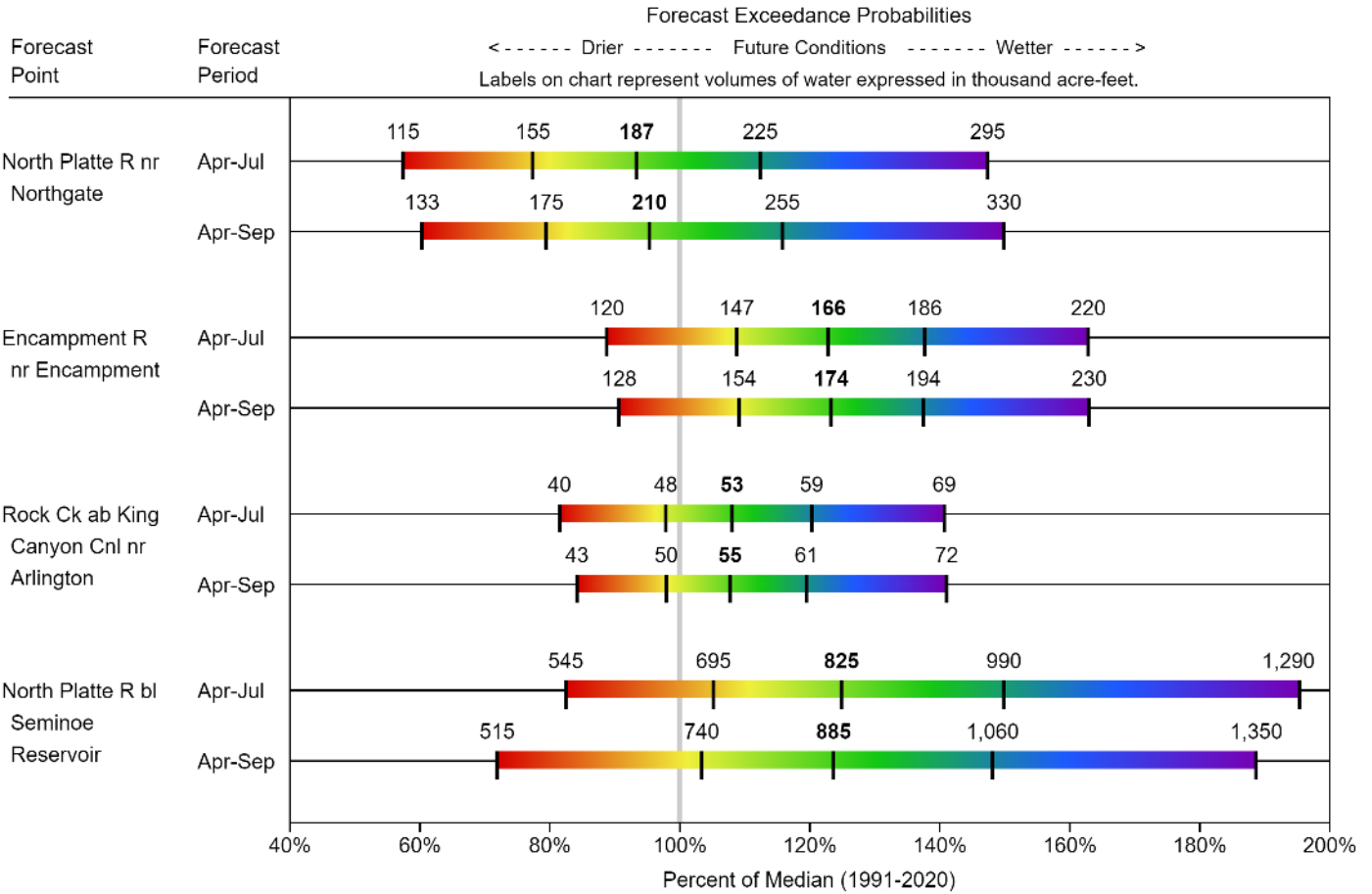
Combined storage for reservoirs in the Upper North Platte River Basin is at 115% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Seminole	645.4	434.9	589.8	1016.7	63%	43%	58%	109%	74%
Pathfinder	712.0	351.7	595.5	1016.5	70%	35%	59%	120%	59%
<b>Basin Index</b>					67%	39%	58%	115%	66%
# of reservoirs					2	2	2	2	2

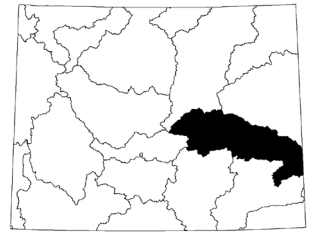
## Streamflow

The 50% exceedance forecasts for the April through September period are above normal for the Upper North Platte River Basin. The yield for the North Platte River near Northgate will be around 95% of median. The Encampment River near Encampment yield will be about 123%. Rock Creek near Arlington yield will be around 108%. Seminoe Reservoir inflow should be about 124% of median. *See the following page for more detailed information on projected runoff*

**UPPER NORTH PLATTE**  
**Water Supply Forecasts**  
**April 1, 2024**

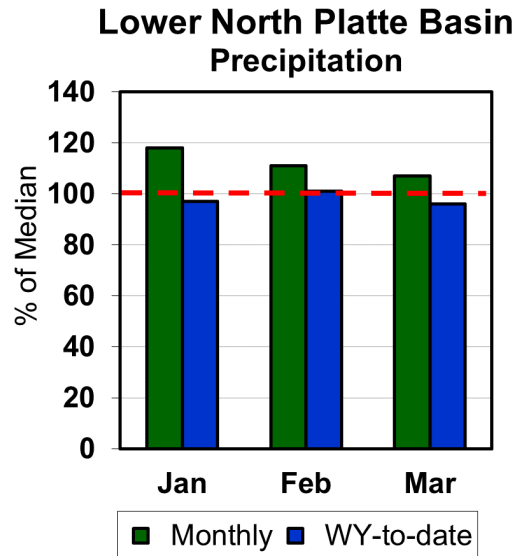
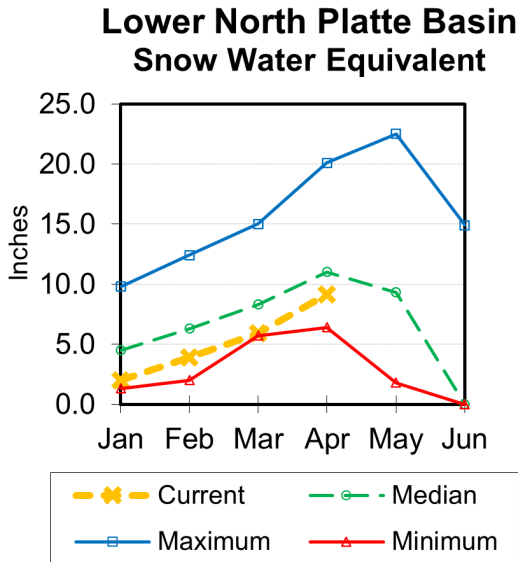


# Lower North Platte River Basin



## Snow

Currently, SWE in the Lower North Platte River Basin is 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 107% of median. The water year-to-date precipitation for the basin is currently 96% of median.

## Reservoirs

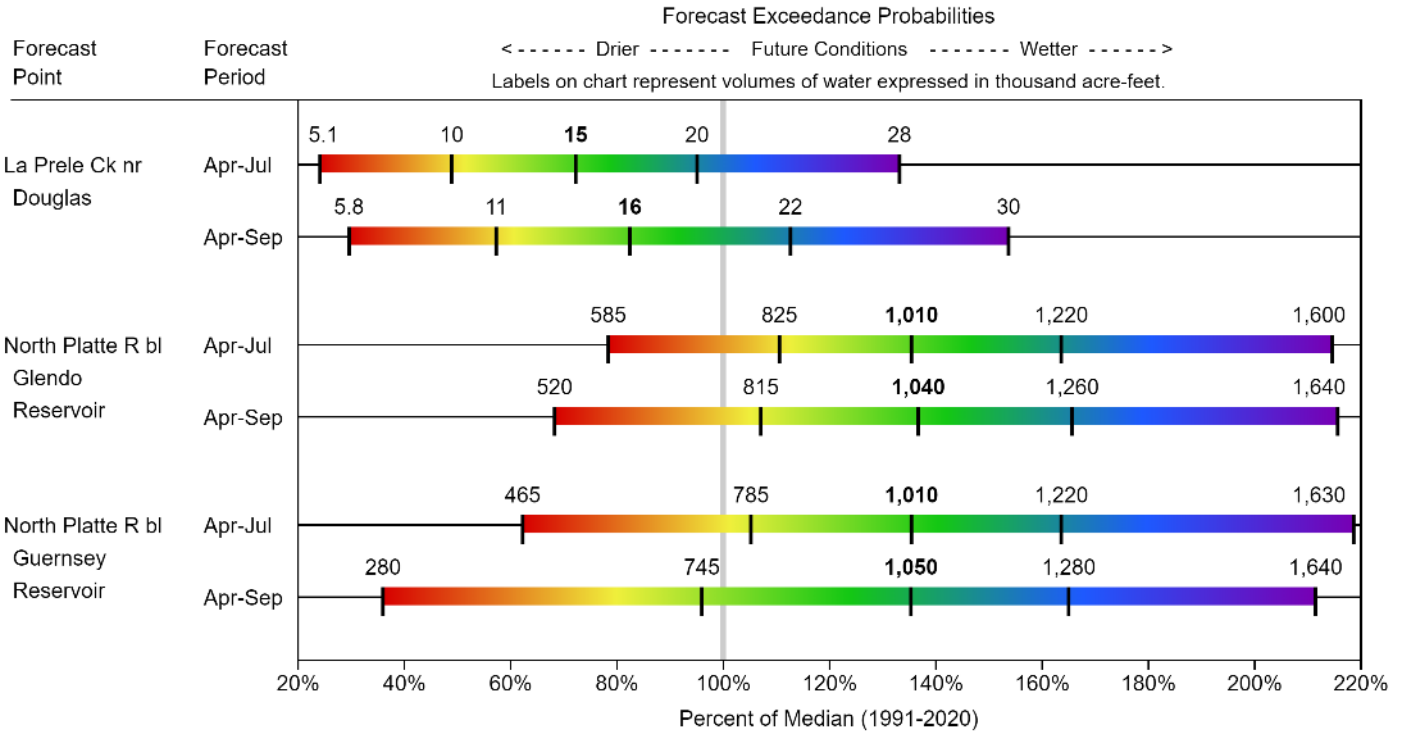
Combined storage for the 3 reservoirs in the basin is at 101% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Guernsey	21.7	18.9	18.6	45.6	47%	42%	41%	116%	102%
Glendo	379.5	340.8	375.2	506.4	75%	67%	74%	101%	91%
Alcova	157.5	157.8	157.7	184.3	85%	86%	86%	100%	100%
<b>Basin Index</b>					<b>76%</b>	<b>70%</b>	<b>75%</b>	<b>101%</b>	<b>94%</b>
# of reservoirs					3	3	3	3	3

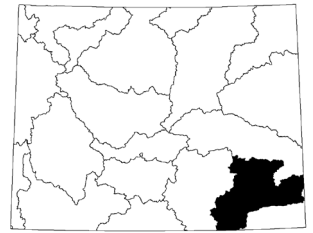
## Streamflow

The 50% exceedance forecasts for the April through September period are above normal. LaPrele Creek near Douglas is forecasted to yield 83% of median. North Platte River below Guernsey Reservoir should yield around 135% of median. *See the following for more detailed information on projected runoff.*

**LOWER NORTH PLATTE**  
**Water Supply Forecasts**  
**April 1, 2024**

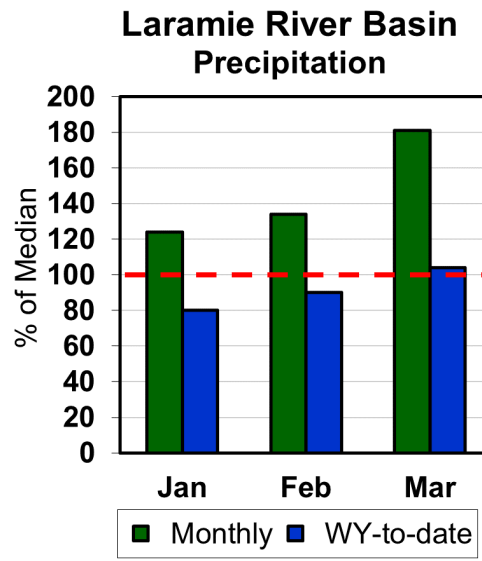
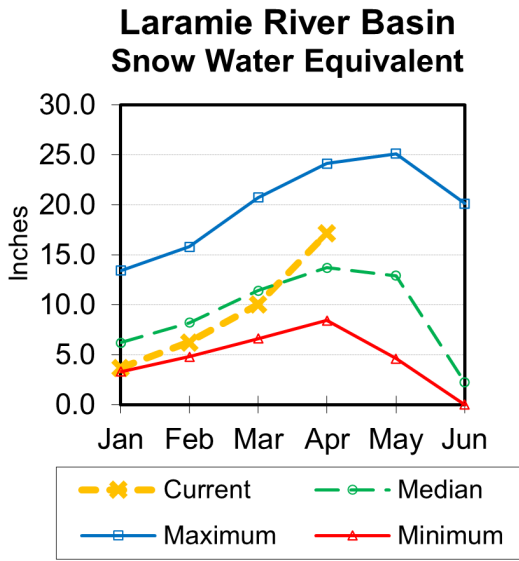


# Laramie River Basin



## Snow

SWE for the entire Laramie River Basin (above mouth entering North Platte) is 125% of median. SWE for the Laramie River above Laramie is 140% of median. SWE for the Little Laramie River is 113% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 181% of median. The water year-to-date precipitation for the basin is currently 104% of median.

## Reservoirs

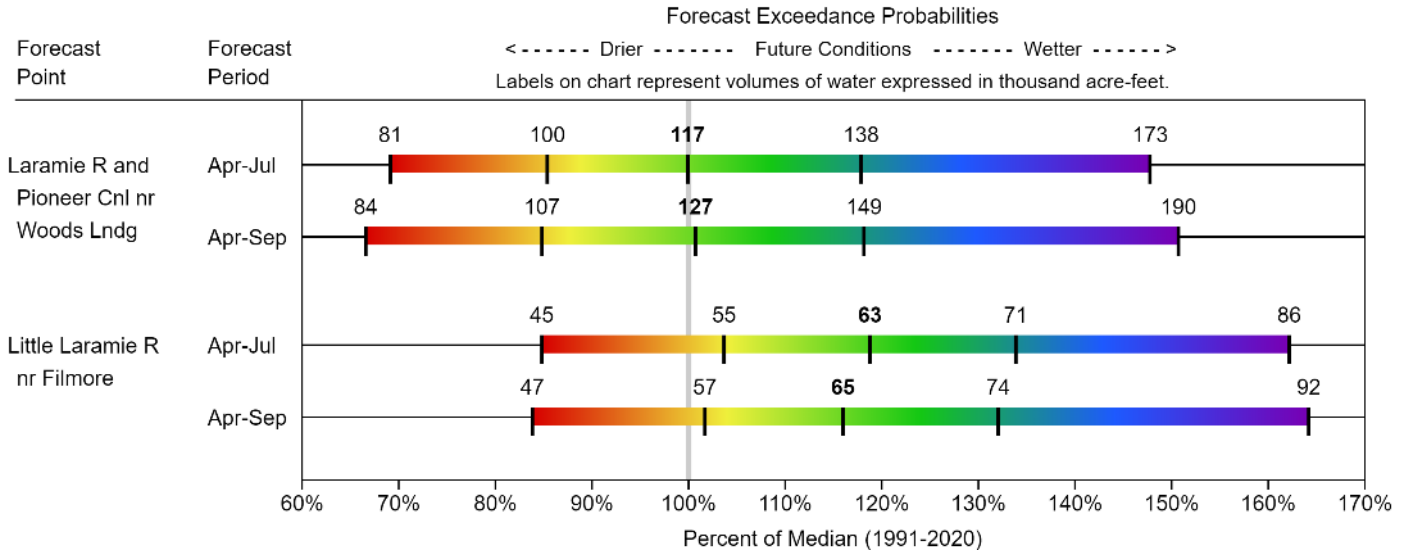
The storage for the reservoir in this basin is at 110% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Wheatland #2	63.4	40.0	57.4	98.9	64%	40%	58%	110%	70%
<b>Basin Index</b>					64%	40%	58%	110%	70%
# of reservoirs					1	1	1	1	1

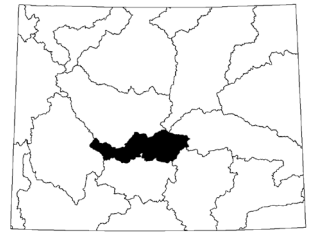
## Streamflow

The 50% exceedance forecasts for the April through September period are above normal. Laramie River near Woods Landing is forecasted to yield around 101% of median. The Little Laramie near Filmore should produce about 116% of median. *See the following graph for detailed runoff volumes.*

**LARAMIE**  
**Water Supply Forecasts**  
**April 1, 2024**

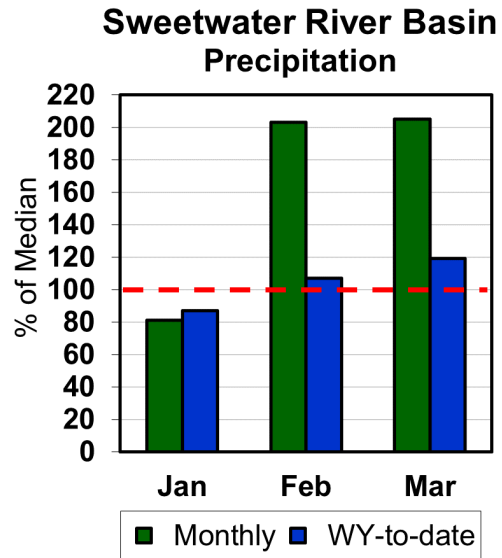
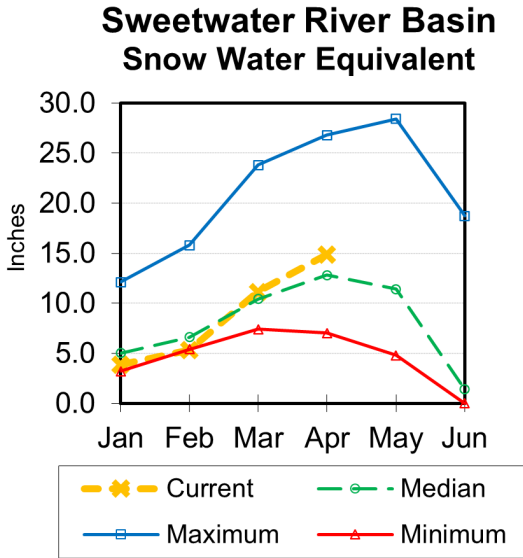


# Sweetwater River Basin



## Snow

Sweetwater River Basin SWE is at 116% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 205% of median. The water year-to-date precipitation for the basin is currently 119% of median.

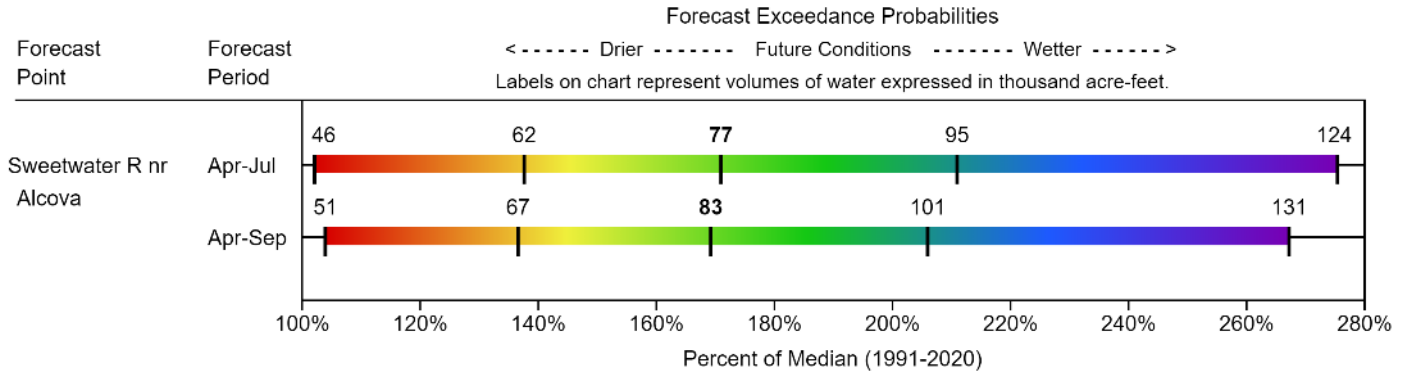
## Reservoirs

No reservoir data for the basin.

## Streamflow

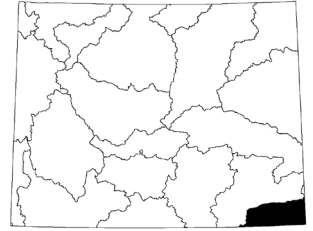
The 50% exceedance forecasts for the April through September period in the Sweetwater Basin is above normal. The Sweetwater River near Alcova will yield about 169% of median. *See below for detailed information on projected runoff.*

**SWEETWATER**  
**Water Supply Forecasts**  
**April 1, 2024**



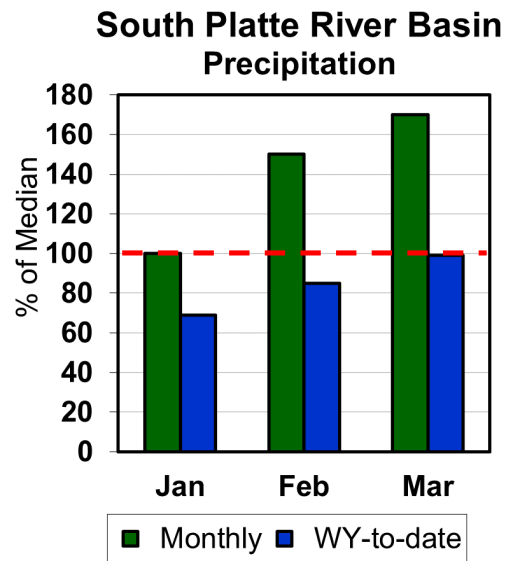
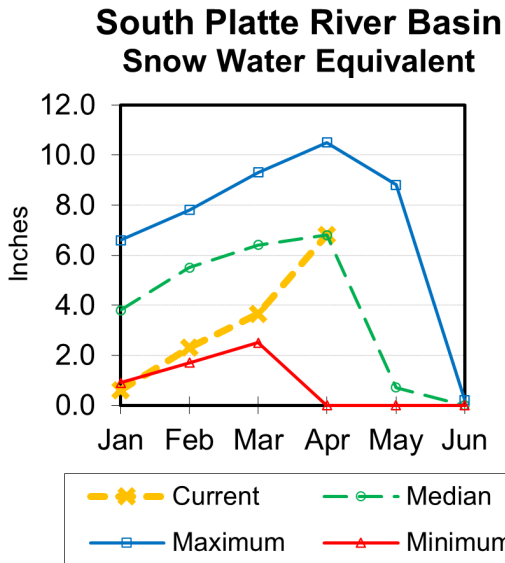


## South Platte River Basin (WY)



### Snow

The median SWE for sites in the South Platte River Basin is 100% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Last month's precipitation was 170% of median. The water year-to-date precipitation for the basin is currently 99% of median.

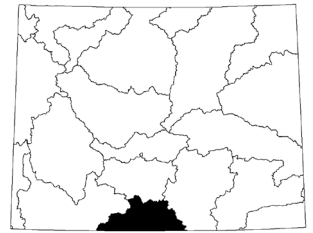
### Reservoirs

No reservoir data for the basin.

### Streamflow

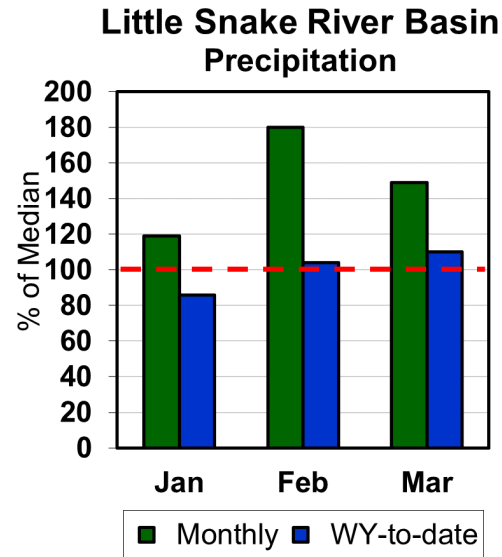
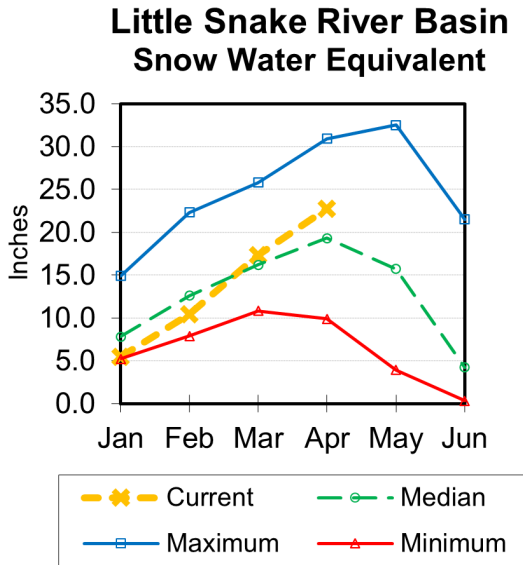
There are no streamflow forecast points for the basin.

# Little Snake River Basin



## Snow

Little Snake River drainage SWE is 118% of median. See *Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation across the basin was 149% of median. The Little Snake River Basin water-year-to-date precipitation is currently 110% of median.

## Reservoirs

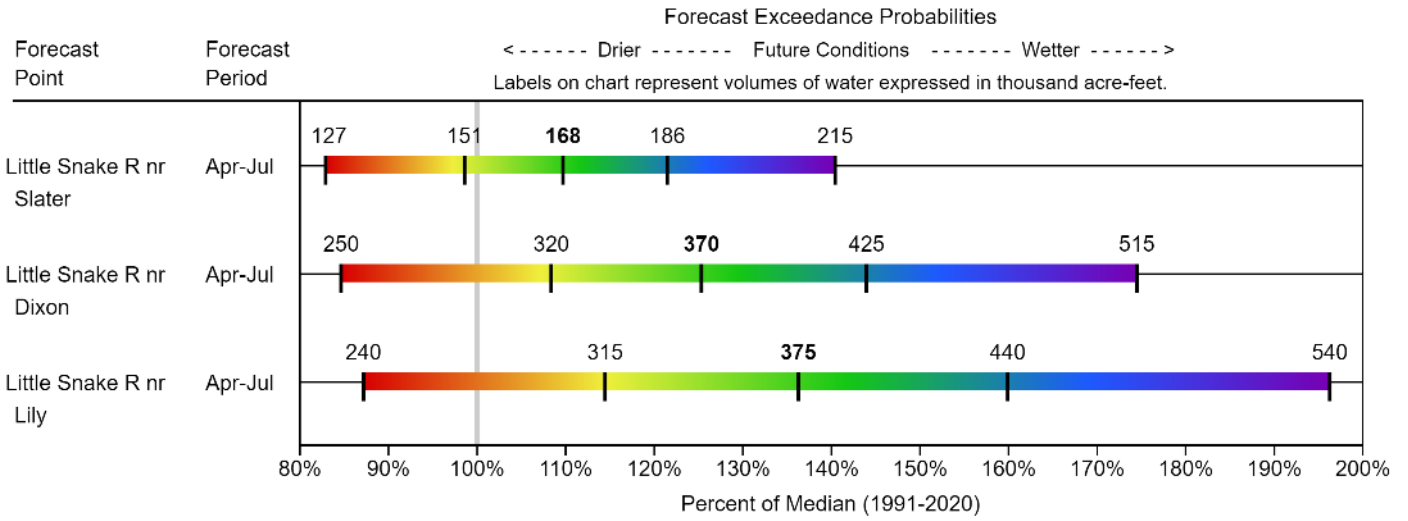
The storage for the reservoir in this basin is at 127% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
High Savery Res	14.9	7.2	11.7	22.4	67%	32%	52%	127%	61%
<b>Basin Index</b>					67%	32%	52%	127%	61%
# of reservoirs					1	1	1	1	1

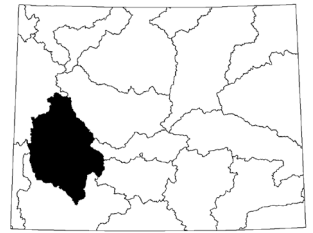
## Streamflow

The 50% exceedance forecasts for the April through July period is above normal. The Little Snake River near Slater is forecasted to yield around 110% of median. *See below for detailed information on projected runoff.*

**LITTLE SNAKE**  
**Water Supply Forecasts**  
**April 1, 2024**

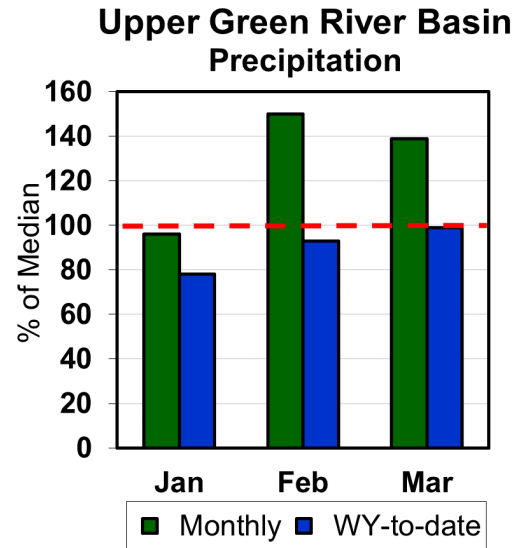
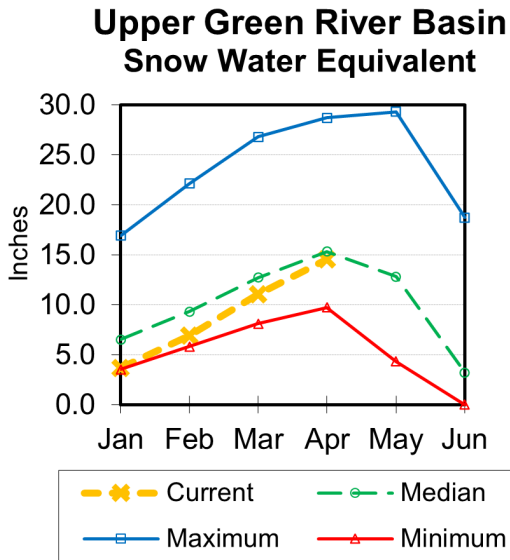


# Upper Green River Basin



## Snow

The Upper Green River Basin SWE (above Fontenelle Reservoir) is 95% of median. Green River Basin above Warren Bridge SWE is 90% of median. West Side of Upper Green River Basin SWE is 96% 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 139% of median last month. Water year-to-date precipitation is 99% of median.

## Reservoir

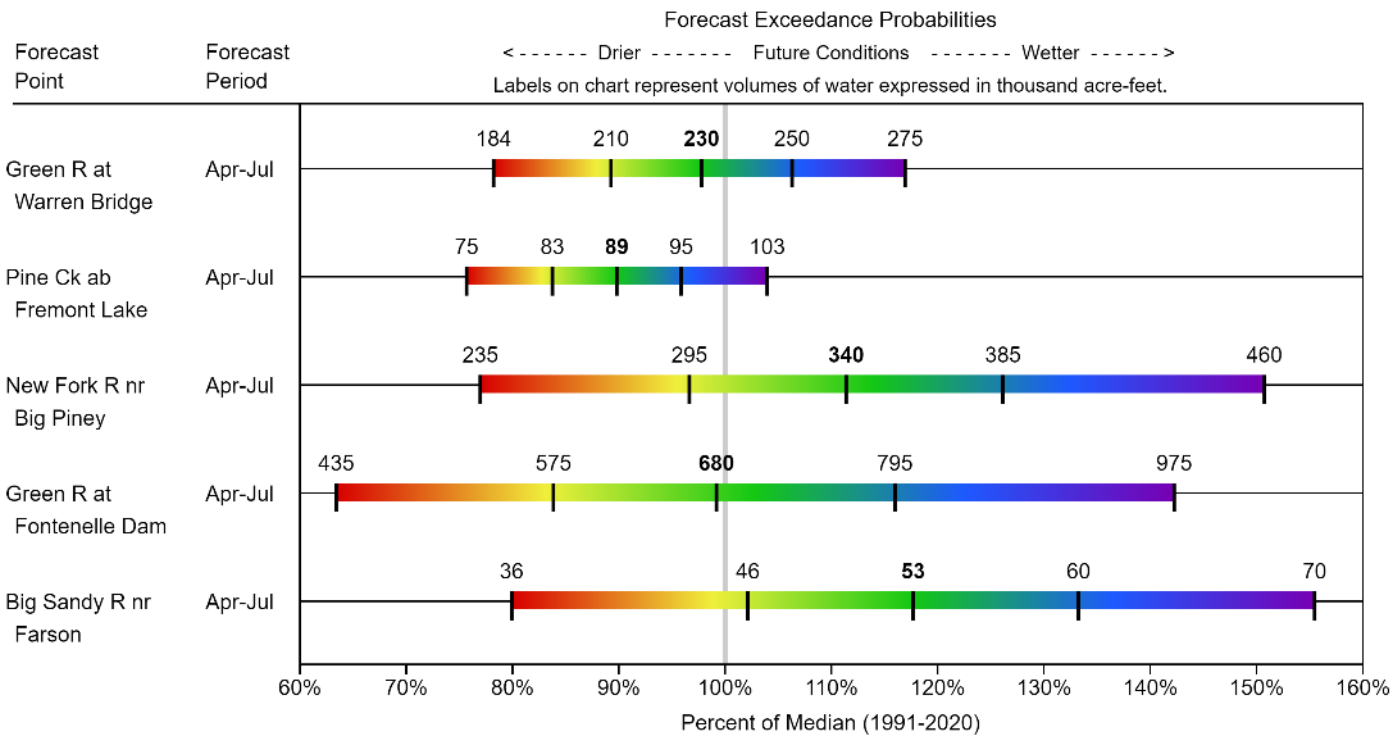
Combined water storage in the basin was at 101% of median for the 2 reservoirs.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Big Sandy	41.7	9.3	20.6	38.3	109%	24%	54%	202%	45%
Fontenelle	103.8	112.6	122.9	344.8	30%	33%	36%	84%	92%
<b>Basin Index</b>					<b>38%</b>	<b>32%</b>	<b>37%</b>	<b>101%</b>	<b>85%</b>
# of reservoirs					2	2	2	2	2

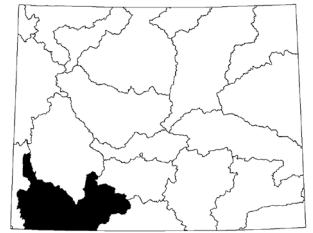
## Streamflow

The 50% exceedance forecasts for the April through July period will be about normal. The yield on the Green River at Warren Bridge is about 98% of median. New Fork River near Big Piney yield will be around 111% of median. Green River at Fontenelle Dam is estimated to be about 99% of median. *See the following for a more detailed forecast.*

**UPPER GREEN**  
**Water Supply Forecasts**  
**April 1, 2024**



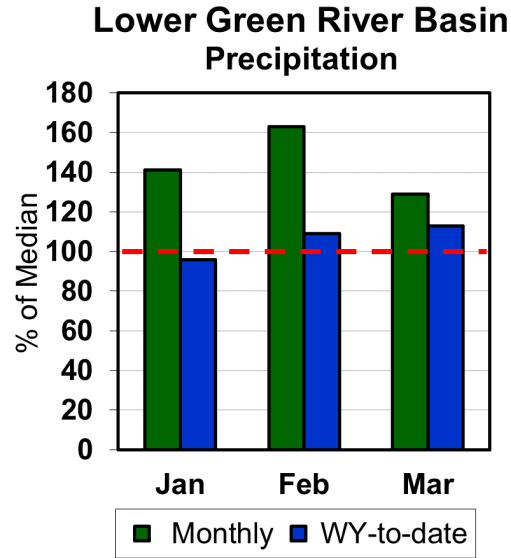
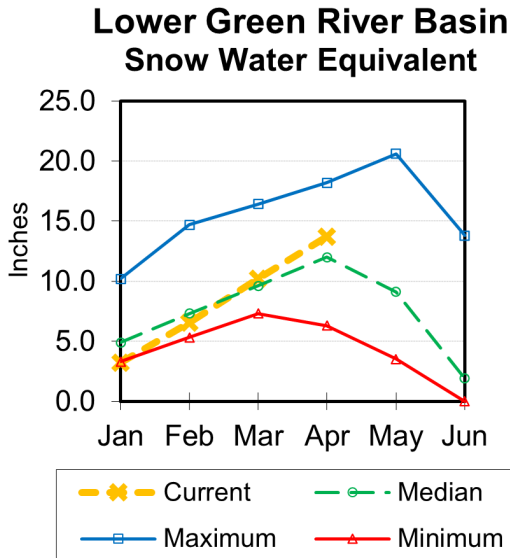
# Lower Green River Basin



## Snow

Lower Green River Basin SWE is at 114% of median. Hams Fork drainage SWE is 100% of median. Blacks-Smiths Forks drainage SWE is 118% 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 129% of median. The basin year-to-date precipitation is currently 113% of median.

## Reservoirs

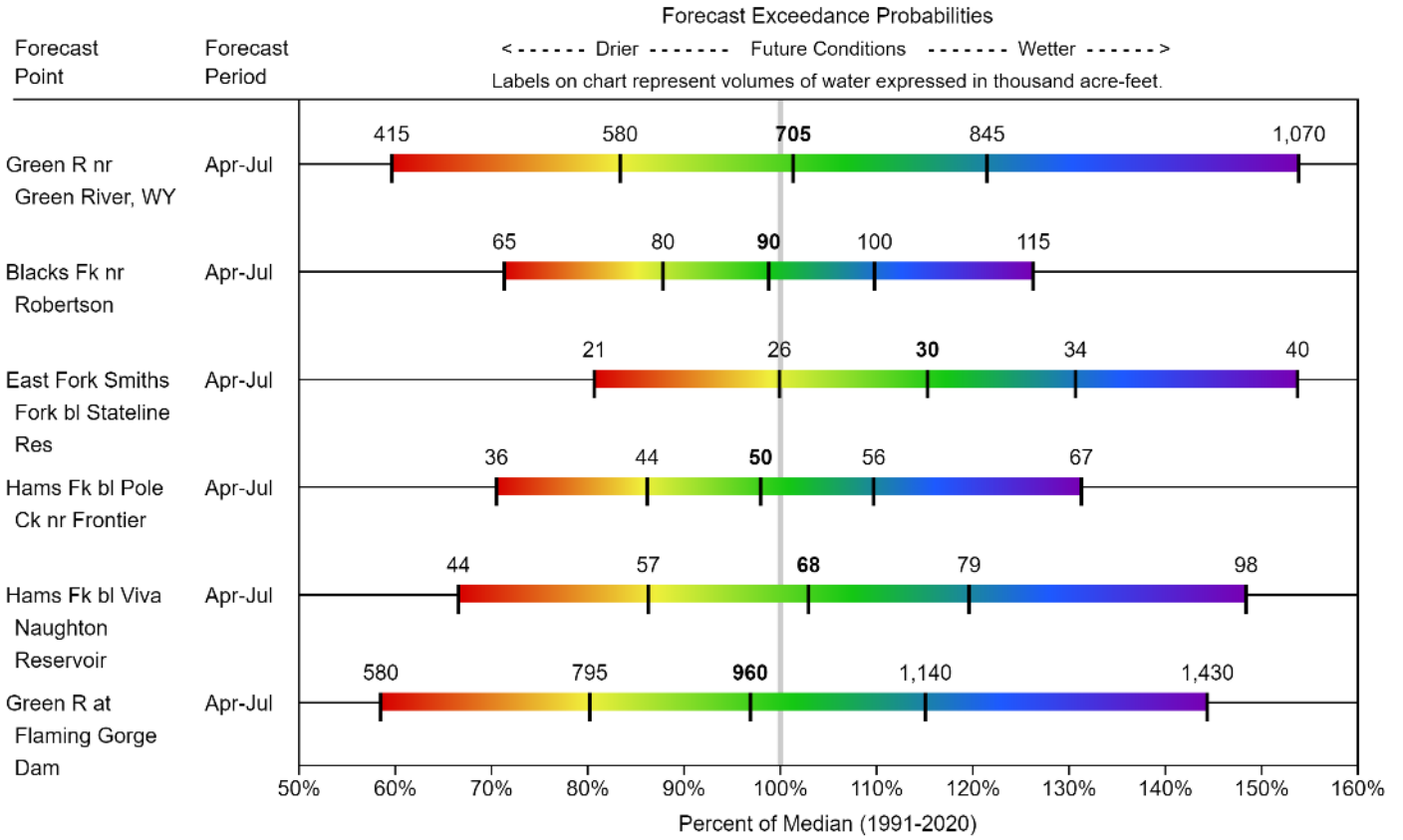
Combined storage for the 4 reservoirs in the basin was at 100% of median at the end of last month.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Viva Naughton Res	34.1	28.8	28.5	42.4	81%	68%	67%	120%	101%
Stateline Res	8.6	6.7	5.7	12.0	72%	56%	48%	152%	118%
Flaming Gorge Res	3154.3	2465.2	3162.0	3749.0	84%	66%	84%	100%	78%
Meeks Cabin Res	19.6	11.4	12.0	32.5	60%	35%	37%	163%	95%
<b>Basin Index</b>					84%	65%	84%	100%	78%
# of reservoirs					4	4	4	4	4

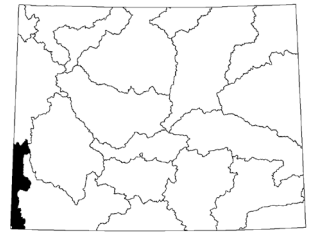
## Streamflow

The following are the 50% exceedance forecasts for the April through July period is about normal. The Green River near Green River will yield about 101% of median. The Flaming Gorge Reservoir inflow will be about 97% of median. *See the following page for more detailed information on projected runoff.*

**LOWER GREEN**  
**Water Supply Forecasts**  
**April 1, 2024**



# Upper Bear River Basin

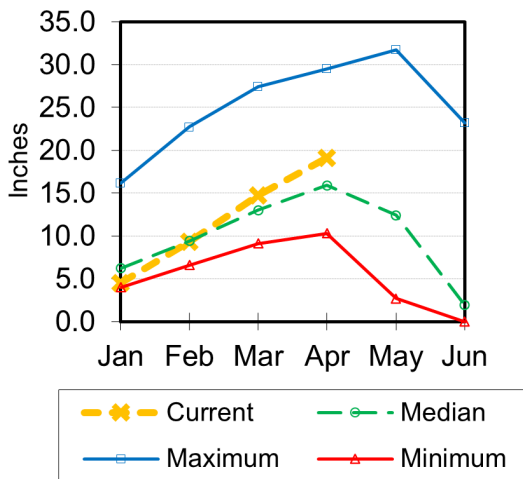


## Snow

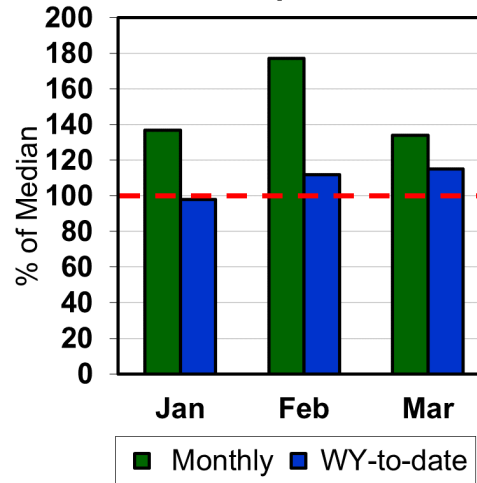
SWE in the Upper Bear River Basin of Utah is 120% of median. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 113% of median.

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

**Upper Bear River Basin  
Snow Water Equivalent**



**Upper Bear River Basin  
Precipitation**



## Precipitation

Precipitation for last month was 134% of median in the basin. The year-to-date precipitation for the basin is 115% of median.

## Reservoirs

Combined reservoir storage in this basin is at 98% of median.

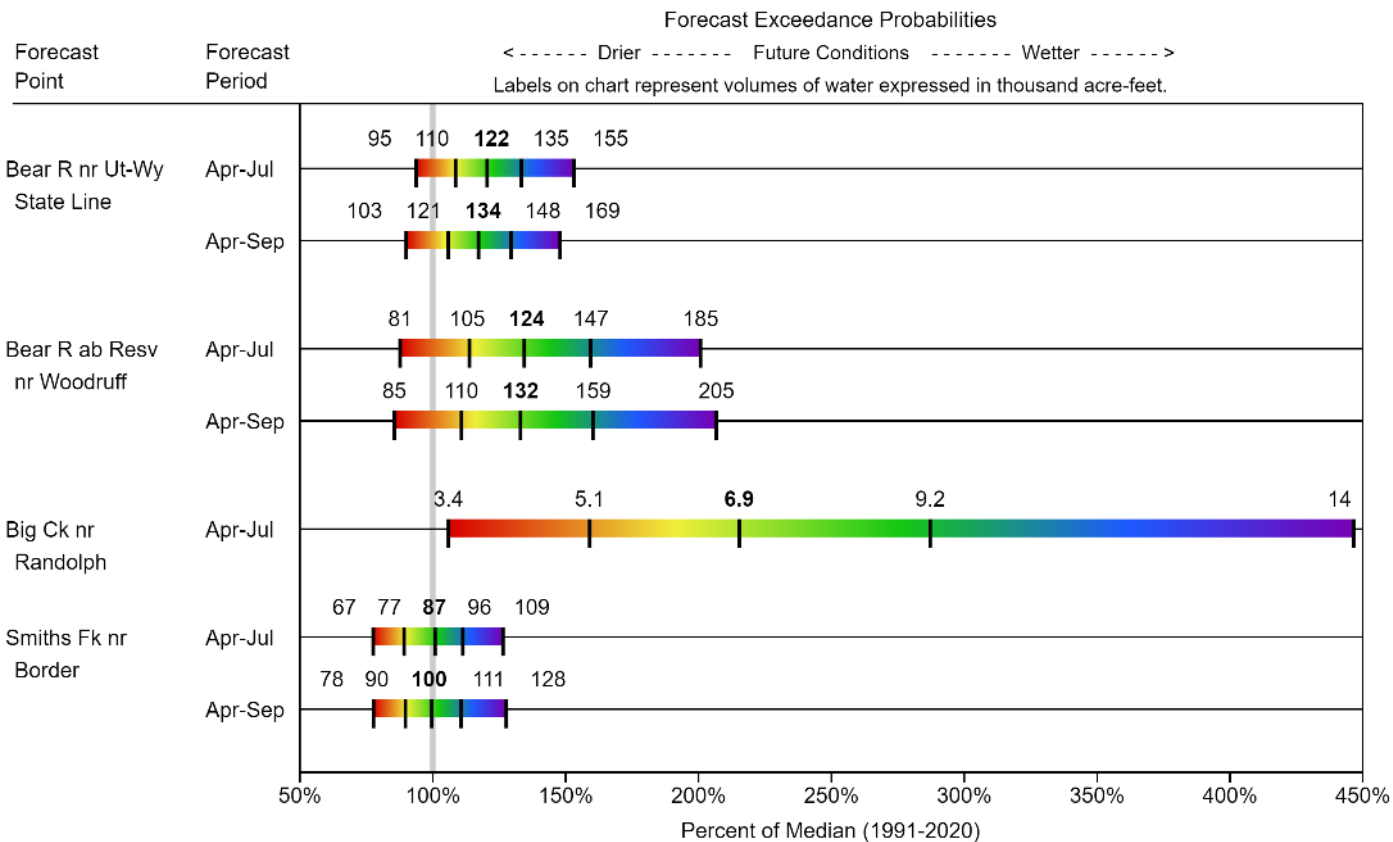
Upper Bear	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Woodruff Creek	3.5	2.8	3.8	4.0	88%	70%	95%	92%	74%
Woodruff Narrows Res	48.8	16.3	49.8	57.3	85%	28%	87%	98%	33%
<b>Basin Index</b>					85%	31%	87%	98%	36%
# of reservoirs					2	2	2	2	2

## Streamflow

The 50% exceedance forecasts for the April through September period are above normal. The Bear River above Reservoir near Woodruff should yield around 133% of median. For April to September the Smiths Fork River near Border Jct. will yield around 100%. *See the following page for more detailed information on projected runoff.*



**UPPER BEAR**  
**Water Supply Forecasts**  
**April 1, 2024**



# Appendix

## MEDIAN INFORMATION

### Transitioning from 1981 – 2010 **Averages** to 1991 – 2020 **Medians**

Starting January 2022, the NRCS will use the 30-year **median** as the official normal for snowpack (SWE), precipitation, reservoir storage, and streamflow calculations. The National Water and Climate Center (NWCC) will continue to publish and distribute 30-year averages for alternate normal calculations.

The 30-yr reference period for median and normal calculations has also been recently updated from 1981-2010 to 1991-2020.

Please refer to this NWCC website or more information about the significant changes in data and forecast computations:

<https://www.nrcs.usda.gov/wps/portal/wcc/home/snowClimateMonitoring/30YearNormals/>

Topics include:

- **1991 – 2020 Median/Averages Overview**
- **Calculation Methods**
- **Differences Between 1991-2020 and Previous Normals**
- **Median vs. Average**
- **Retrieving 1991-2020 Normals**

For specific seasonal streamflow normal comparisons for NRCS forecasted stations, please refer to:

[https://www.wcc.nrcs.usda.gov/ftpref/support/srvo\\_norms\\_comps/](https://www.wcc.nrcs.usda.gov/ftpref/support/srvo_norms_comps/)

## LINKS (for more information/graphics)

### National Water Climate Center (NWCC)

- Interactive maps featuring current conditions of snow, precipitation, reservoir storages:

<https://www.nrcs.usda.gov/wps/portal/wcc/home/quicklinks/predefinedMaps/>

### Water Resources Data System and State Climate Office (WRDS)

- Clearinghouse of hydrological and climatological data for the State of Wyoming:

<http://www.wrds.uwyo.edu/>

### USGS WaterWatch

- Tools and products to monitor streamflow, runoff, drought, and floods:

<https://waterwatch.usgs.gov/index.php>

#### **Appendix - Snowpack Data**

**In Word double click the object below to view entire document**

#### **Appendix - Precipitation Data**

**In Word double click the object below to view entire document**

#### **Appendix - Streamflow Data**

**In Word double click the object below to view entire document**

# Wyoming Basin Outlook Report

## Natural Resources Conservation Service

### Casper, Wyoming

**Issued by:**

Terry Cosby (Chief)  
U.S.D.A.  
Natural Resources Conservation Service  
Washington D.C.

**Released by:**

Jackie Byam  
State Conservationist  
N R C S  
Casper, Wyoming

**The Following Agencies and Organizations Cooperate with the Natural Resources Conservation Service with Snow Surveys and/or with Data:**

**FEDERAL:**

United States Department of the Interior (National Park Service)

United States Department of the Interior (Bureau of Reclamation)

United States Department of Agriculture (Forest Service)

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