

# Wyoming Basin & Water Supply Outlook Report

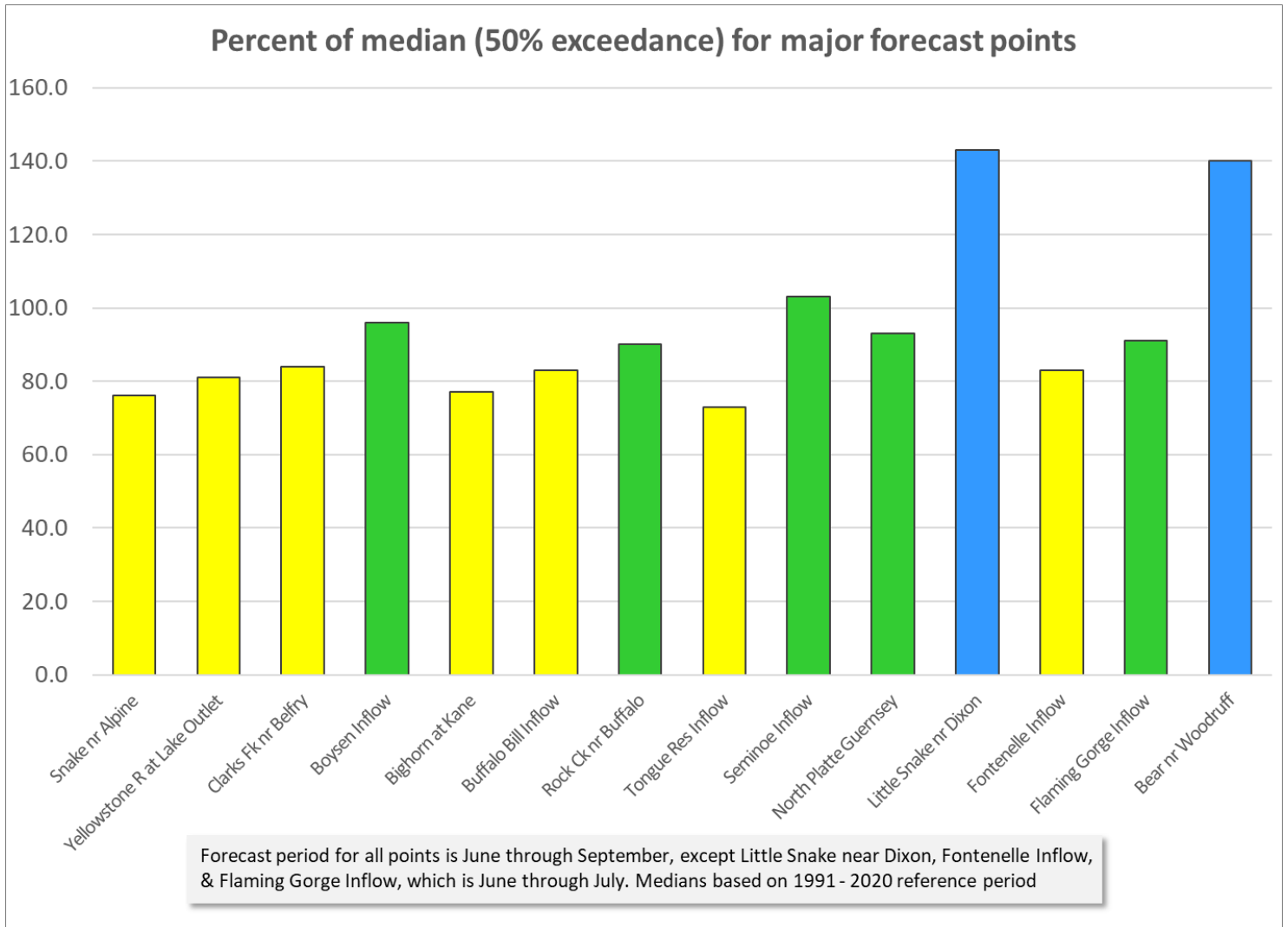
## June 1, 2023

**Natural  
Resources  
Conservation  
Service**



Cottonwood Creek, Photo by NRCS

## Forecasted stream flows for June 1<sup>st</sup>, 2023



Only three of the above major forecast points have a 50% exceedance probability of being above median stream flow volume.

# 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) 233-6787    [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

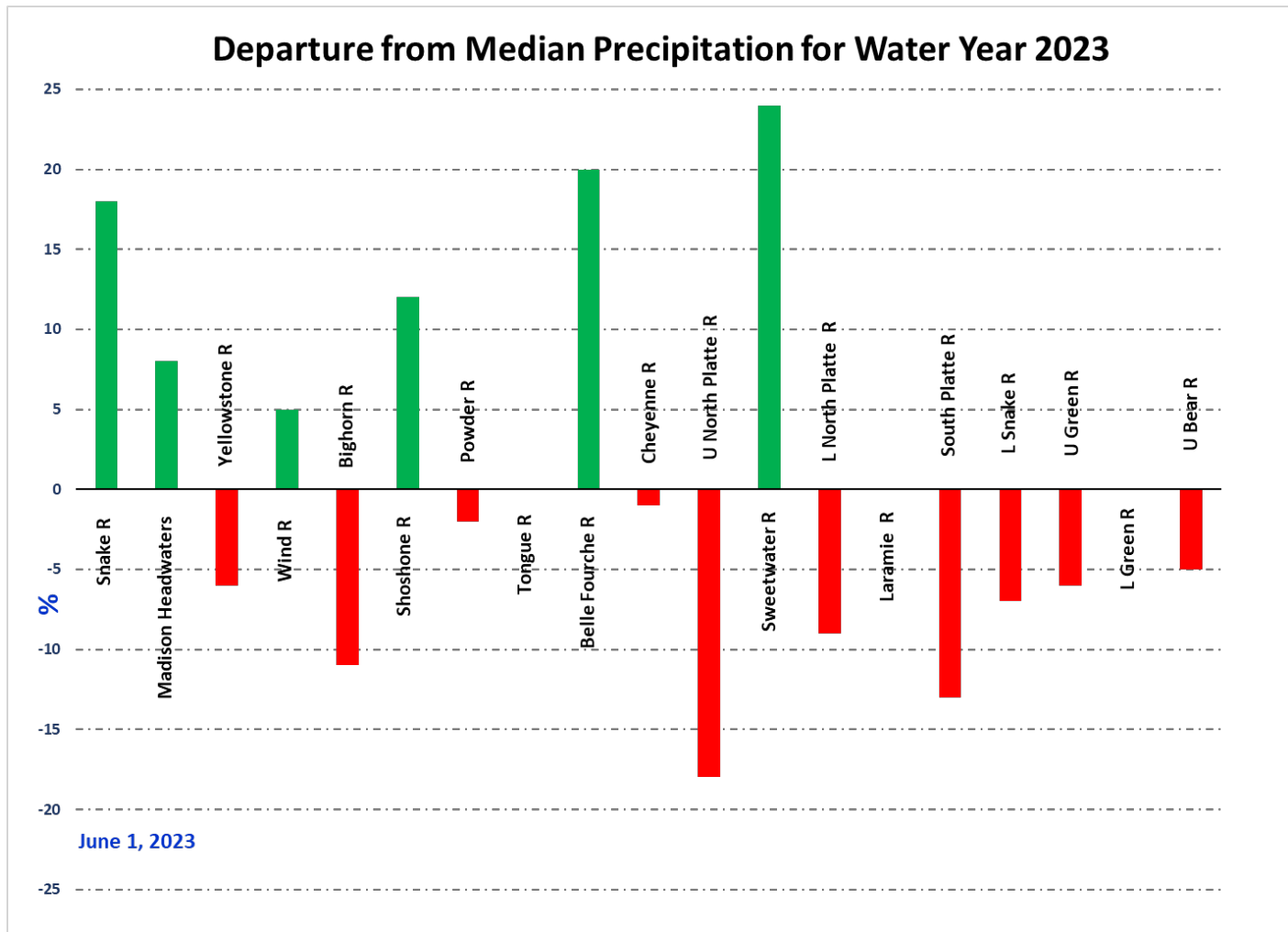
## Snowpack

Snow water equivalent (SWE) across Wyoming for June 1<sup>st</sup> was at 80% of median. SWE in the Upper Bear River Basin was the highest at 229% of median and lowest for the Tongue River Basin at 0% of median. *See the map on page 6 and the Appendix for further information.*

## Precipitation

The Belle Fourche River Basin had the highest precipitation for the month at 107% of median. The Little Snake River Basin had the lowest precipitation amount for the month at 33% of median. The following graph displays the precipitation in major river basins and their departure from median for the water year beginning October 1, 2022.

*See Appendix for further information.*



## Streams

Forecast median streamflow yields for June thru September in Wyoming basins (except Green, Little Snake and Cheyenne) average 93%. Forecast median stream flow yields for June thru July in Green, Little Snake, and Cheyenne average 112%. The Snake River and Yellowstone River in Wyoming, basins should yield about 90% and 83% of median. Yields from the Wind and Bighorn River basins should be about 97% and 80% of median. Yields from the Shoshone River basin should be 82% of median. Yields from the Powder and Tongue River basins should be about 90% and 76% of median respectively. Yield for the Cheyenne River basin should be about 107% of median. Yields for the Sweetwater, Upper North Platte, Lower North Platte, and Laramie Rivers of Wyoming should be about 108%, 104%, 97%, and 84% of median, respectively. Yields for the Little Snake and Green River should be 157% and 101%.

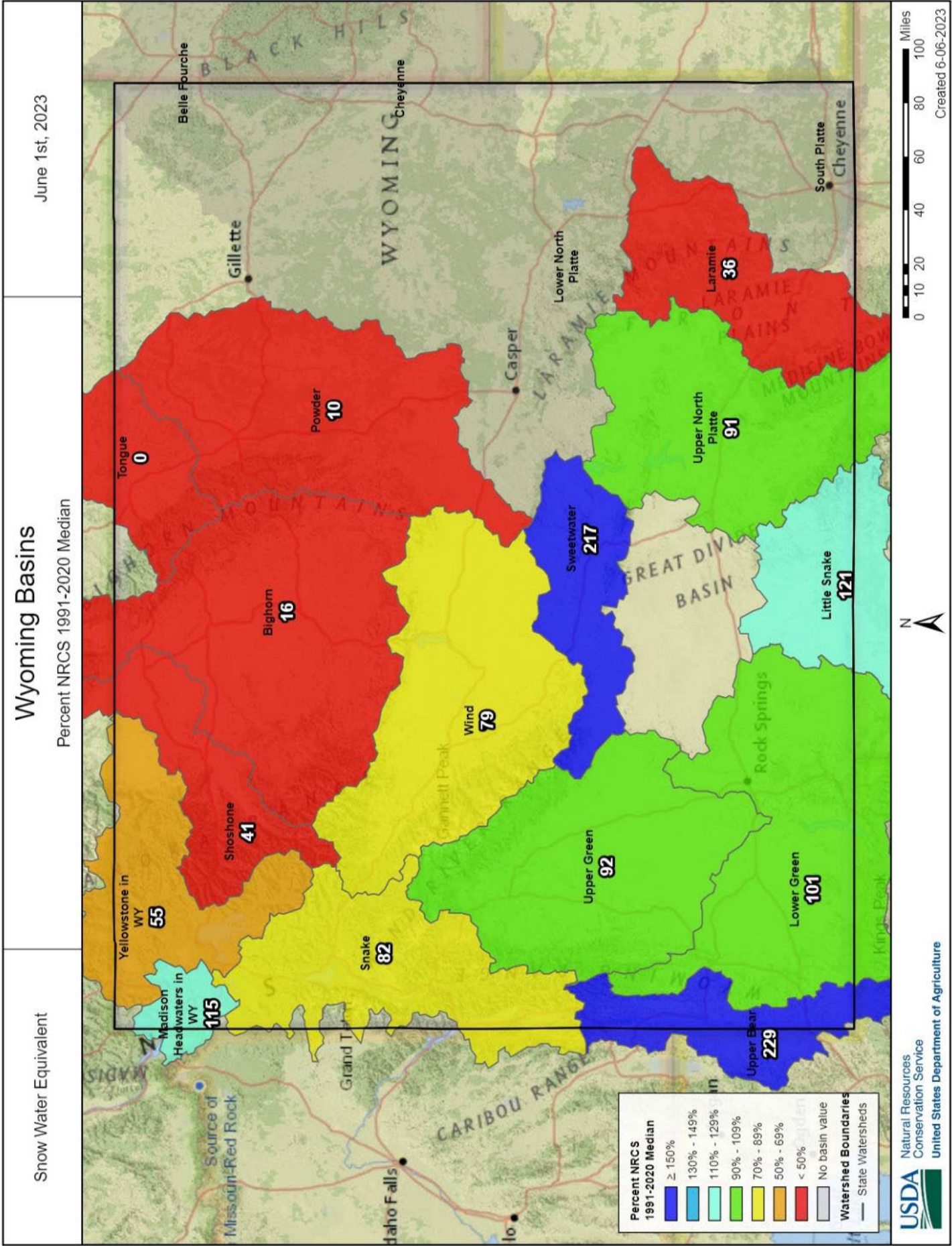
## Reservoirs

Reservoir storage was 96% of median across the entire state. Reservoirs in the Snake River basin are below median at 72%. Reservoirs in the Wind River basin are above median at 111%. Reservoirs on the Bighorn are 98% of median. The Buffalo Bill Reservoir on the Shoshone is near median at 116%. Reservoirs in the Belle Fourche and Cheyenne River basins are below median at 94% and 86% respectively. Reservoirs on the Upper and Lower North Platte River are near median at 95%. Reservoirs on the Upper Green River are at 131% of median. Reservoirs on the Lower Green River are below median at 93%. Reservoirs in the Little Snake, Upper Bear, and Laramie Basins are 107%, 125%, and 111% of median. *See below for further information.*

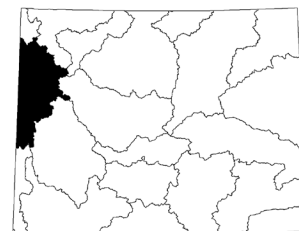
### Wyoming Reservoir Levels

	Reservoir Storage Summary For the End of May 2023									
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median	
Alcova	181.2	180.7	180.2	184.3	98%	98%	98%	101%	100%	
Angostura	87.2	89.4	111.7	122.1	71%	73%	91%	78%	80%	
Belle Fourche	166.6	160.0	162.3	178.4	93%	90%	91%	103%	99%	
Big Sandy	36.2	17.9	30.3	38.3	94%	47%	79%	119%	59%	
Bighorn Lake	844.2	849.5	862.1	1356.0	62%	63%	64%	98%	99%	
Boysen	569.6	550.2	509.6	596.0	96%	92%	86%	112%	108%	
Buffalo Bill	521.4	396.3	447.7	646.6	81%	61%	69%	116%	89%	
Bull Lake	106.4	103.5	95.7	151.8	70%	68%	63%	111%	108%	
Deerfield	15.2	15.5	15.3	15.2	100%	102%	101%	99%	101%	
Flaming Gorge Res.	2917.4	2769.2	3144.0	3749.0	78%	74%	84%	93%	88%	
Fontenelle	249.9	158.3	188.1	344.8	72%	46%	55%	133%	84%	
Glendo	450.4	419.4	482.7	506.4	89%	83%	95%	93%	87%	
Grassy Lake	14.7	14.0	15.1	15.2	97%	92%	99%	98%	93%	
Guernsey	28.2	29.1	30.9	45.6	62%	64%	68%	91%	94%	
High Savery Res.	22.8		21.3	22.4	102%		95%	107%		
Jackson Lake	532.8	245.9	741.6	847.0	63%	29%	88%	72%	33%	
Keyhole	131.5	132.6	153.3	193.8	68%	68%	79%	86%	87%	
Meeks Cabin Res.	29.9	28.4	27.0	32.5	92%	88%	83%	111%	105%	
Pactola	55.2	55.6	55.7	55.0	100%	101%	101%	99%	100%	
Pathfinder	547.7	702.5	637.5	1016.5	54%	69%	63%	86%	110%	
Pilot Butte	25.0	23.8	24.0	31.6	79%	75%	76%	104%	99%	
Seminole	724.9	437.5	709.1	1016.7	71%	43%	70%	102%	62%	
Stateline Res.	14.2	12.8	11.1	12.0	118%	107%	93%	128%	115%	
Tongue River Res	81.5	75.9	78.6	79.1	103%	96%	99%	104%	97%	
Viva Naughton Res	36.1	43.2	42.2	42.4	85%	102%	100%	86%	102%	
Wheatland #2	66.6		60.2	98.9	67%		61%	111%		
Woodruff Creek	4.0	3.0	4.0	4.0	101%	75%	100%	101%	75%	
Woodruff Narrows Res.	63.4	38.8	49.8	57.3	111%	68%	87%	127%	78%	





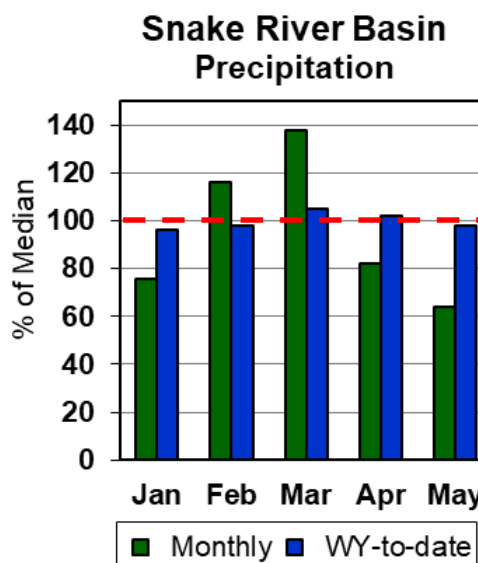
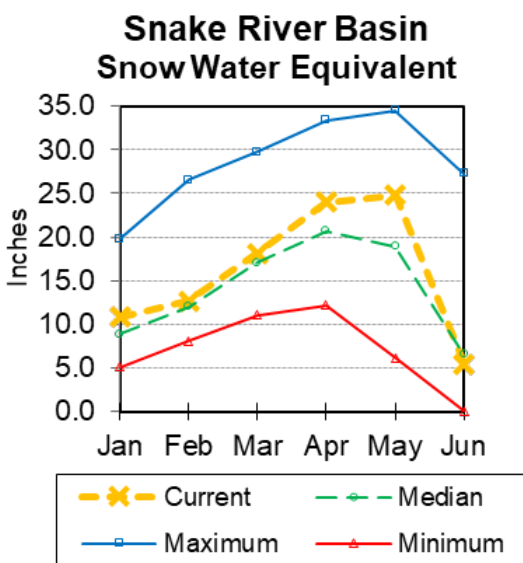
# Snake River Basin



## Snow

The overall Snake River basin SWE (portion above Palisades dam) is 82% of median. SWE in the Snake River Basin above Jackson Lake is 87% of median. Pacific Creek basin SWE is 72% of median. Buffalo Fork SWE is 41% of median. Gros Ventre River basin SWE is 35% of median. SWE in the Hoback River drainage is 73% of median. SWE in the Greys River drainage is 103% of median. Salt River Basin SWE is 102% 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 64% of median. Water-year-to-date precipitation is 98% of median.

## Reservoirs

Current reservoir storage is 72% of median for the two storage reservoirs in the basin.

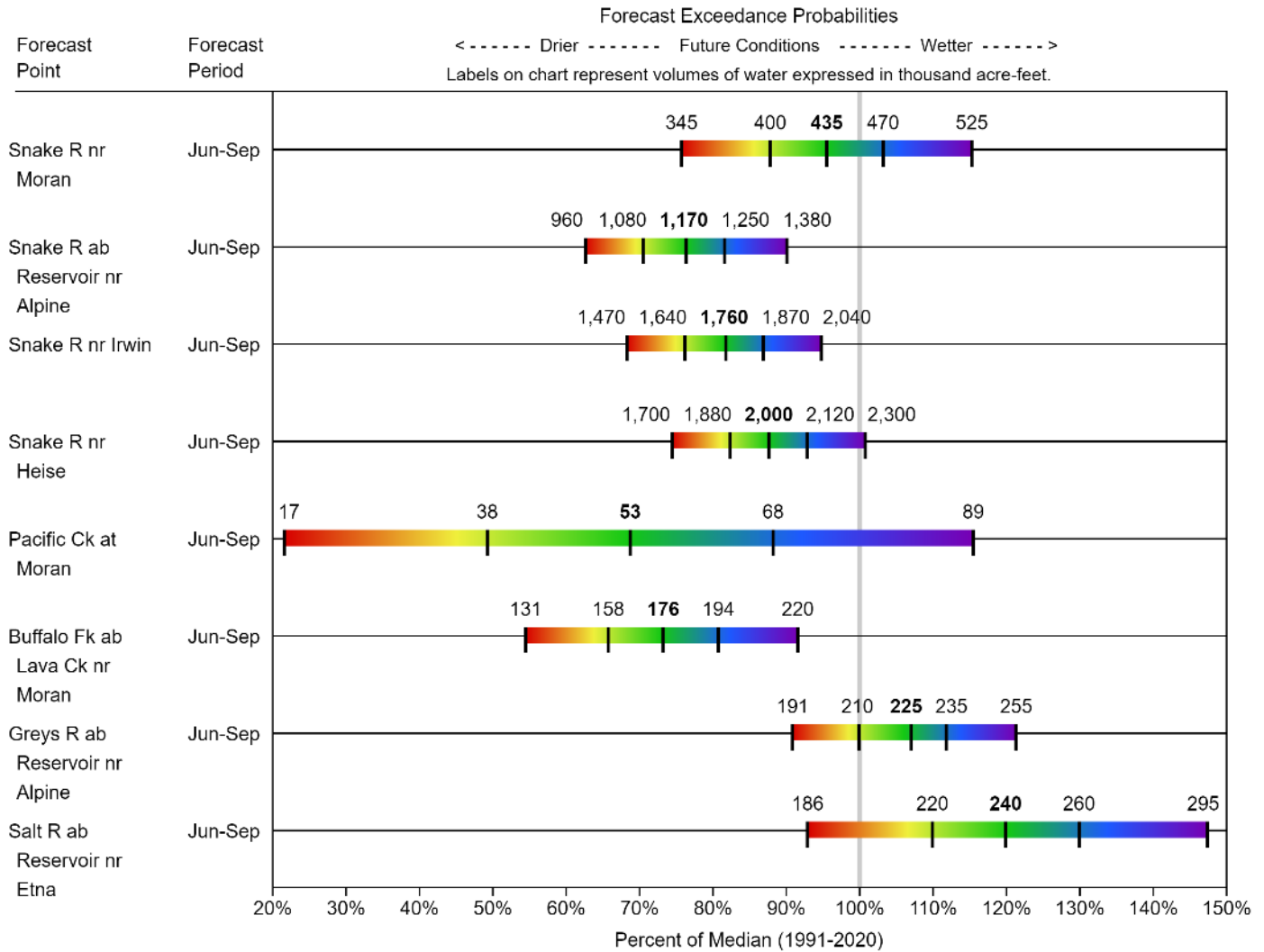
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Jackson Lake	532.8	245.9	741.6	847.0	63%	29%	88%	72%	33%
Grassy Lake	14.7	14.0	15.1	15.2	97%	92%	99%	98%	93%
<b>Basin Index</b>					<b>64%</b>	<b>30%</b>	<b>88%</b>	<b>72%</b>	<b>34%</b>
# of reservoirs					2	2	2	2	2

## Streamflow

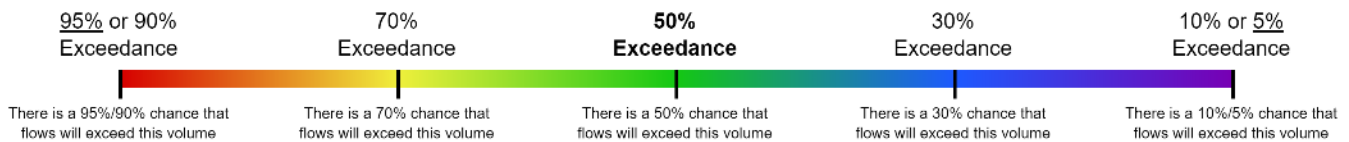
The 50% exceedance forecasts for June through September are below median for this basin. The Snake near Moran yield should be 96% of median. Snake River above reservoir near Alpine will yield about 76%. Pacific Creek near Moran yield will be around 69%. Buffalo Fork above Lava near Moran will be around 73% of median. Greys River above reservoir near Alpine should yield about 107%. Salt River near Etna yield will be about 120%.

See the following graph for further information.

**SNAKE RIVER BASIN**  
**Water Supply Forecasts**  
 June 1, 2023



**Legend**



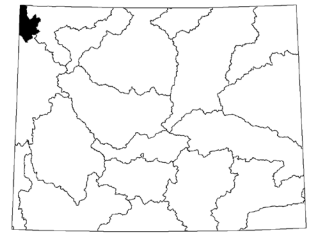
When selected, the following historic streamflow values and statistics will be shown.

<i>Period of Record Minimum Streamflow KAF (Year)</i>	<i>1991-2020 Normal Streamflow KAF</i>	<i>Observed Streamflow KAF</i>	<i>Period of Record Maximum Streamflow KAF (Year)</i>

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

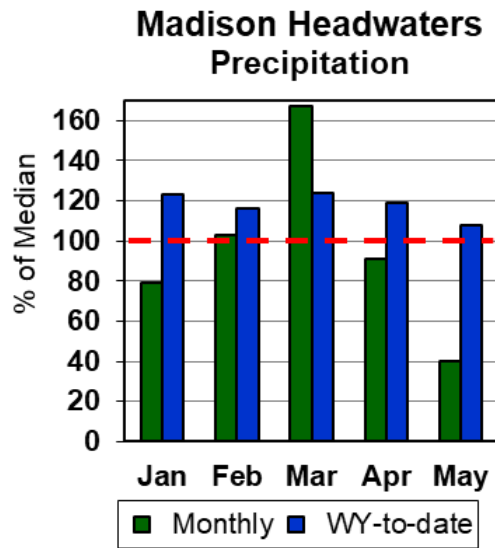
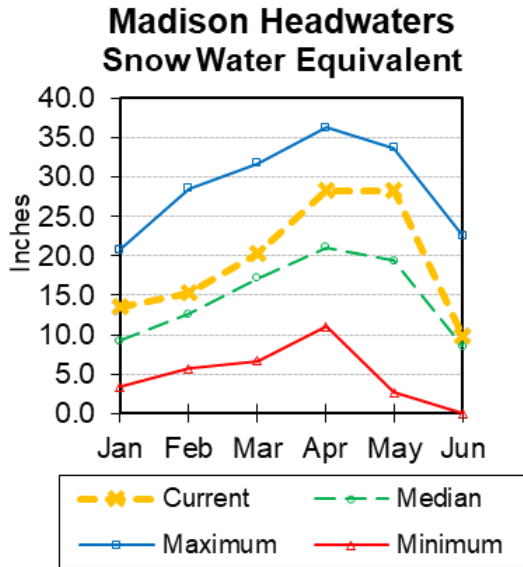


# Madison Headwaters in Wyoming



## Snow

SWE is 115% 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 40% of median. Water-year-to-date precipitation is at 108% of median.

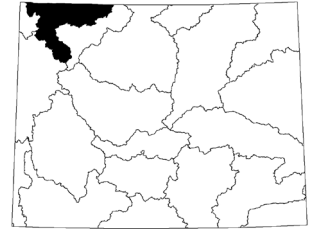
## Reservoirs

No reservoir data.

## Streamflow

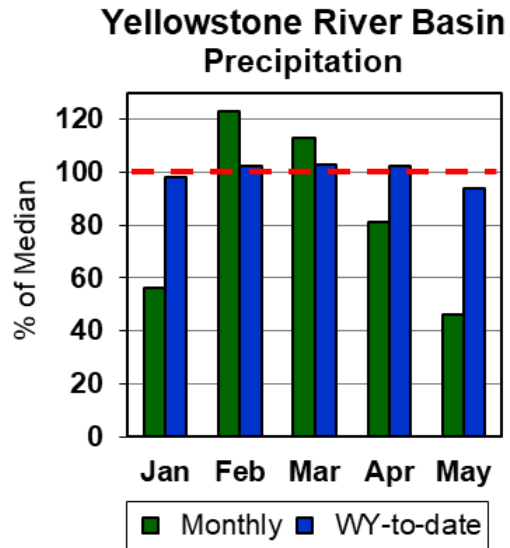
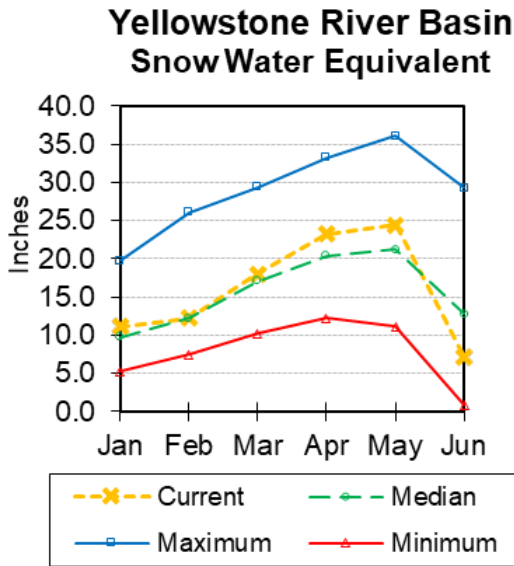
There are no streamflow forecast points for the basin.

# Yellowstone River Basin



## Snow

SWE in the Yellowstone River Basin is 55% of median. SWE in the Clarks Fork Drainage of the Yellowstone River basin in Wyoming is 59% 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 46% of median. Water-year-to-date precipitation is 94% of median.

## Reservoirs

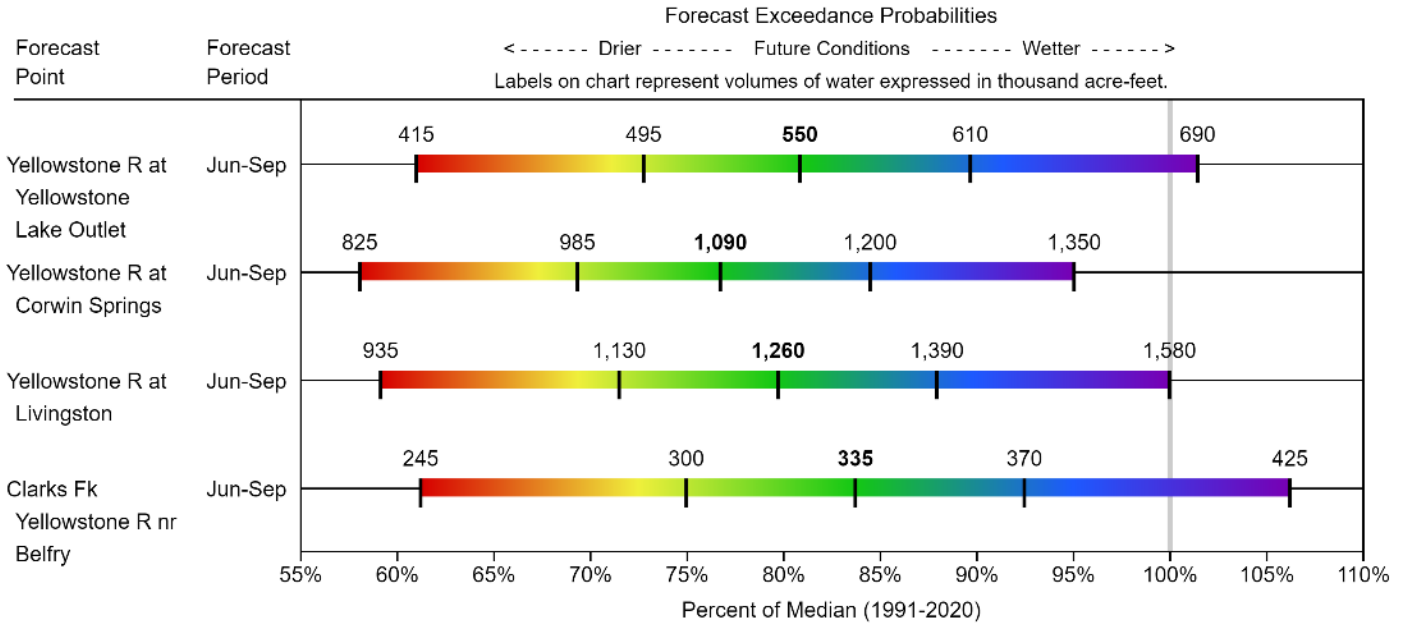
No reservoir data.

## Streamflow

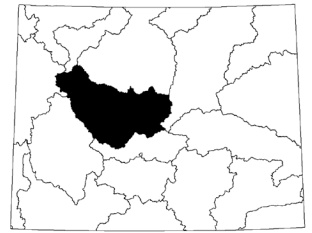
The 50% exceedance forecasts for June through September are below normal for the basin. Yellowstone at Lake Outlet will yield around 81% of median. Clarks Fork of the Yellowstone near Belfry will yield around 84%.

*See the following graph for detailed information.*

**YELLOWSTONE RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**

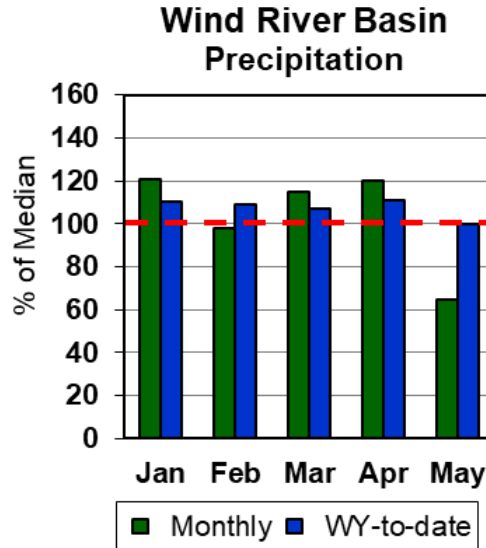
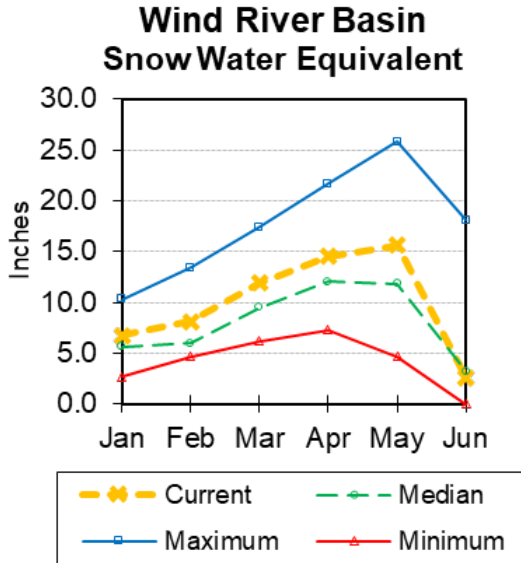


# Wind River Basin



## Snow

Wind River basin SWE (above Boysen Reservoir) is 79% of median. SWE in the Wind River above Dubois is 41% of median. Little Wind SWE is 111% of median, and Popo Agie drainage SWE is 157% 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 65% of median. Water year-to-date precipitation is 100% of median.

## Reservoirs

Current storage is 111% of median in the basin.

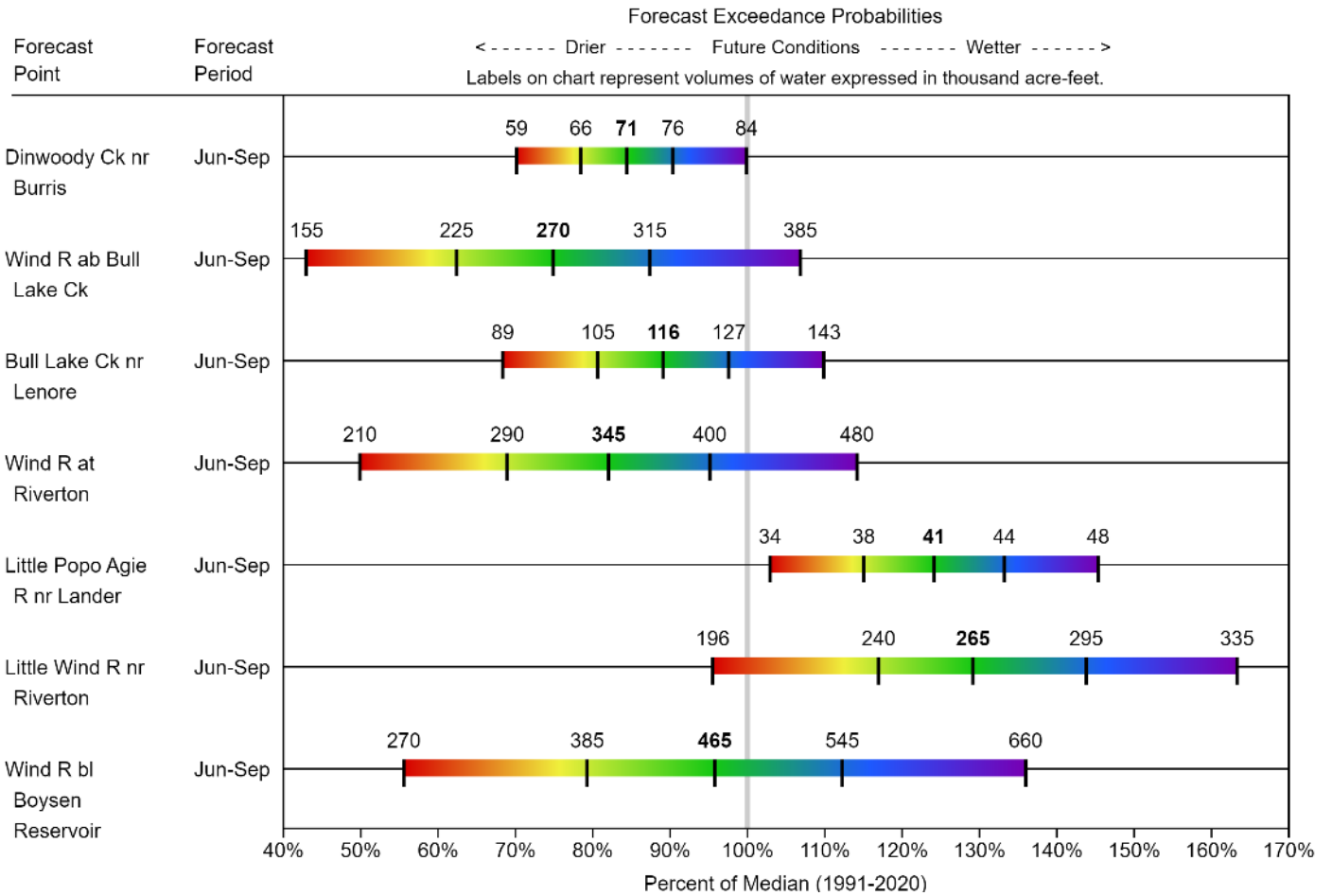
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pilot Butte	25.0	23.8	24.0	31.6	79%	75%	76%	104%	99%
Boysen	569.6	550.2	509.6	596.0	96%	92%	86%	112%	108%
Bull Lake	106.4	103.5	95.7	151.8	70%	68%	63%	111%	108%
<b>Basin Index</b>					<b>90%</b>	<b>87%</b>	<b>81%</b>	<b>111%</b>	<b>108%</b>
# of reservoirs					3	3	3	3	3

## Streamflow

The 50% exceedance forecasts for the June through September runoff period should yield slightly below normal for the Wind River. The Wind River above Bull Lake Creek will yield about 75% of median. Little Popo Agie River near Lander should yield around 124% of median. Little Wind River near Riverton will yield around 129% of median. Boysen Reservoir inflow will yield about 96% of median. *See the following graph for detailed runoff volumes.*



**WIND RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**

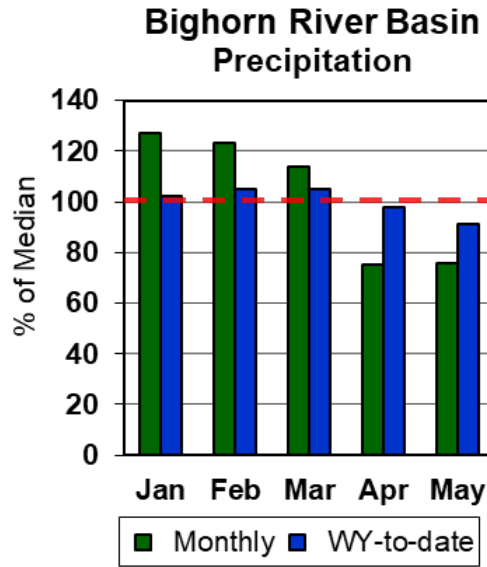
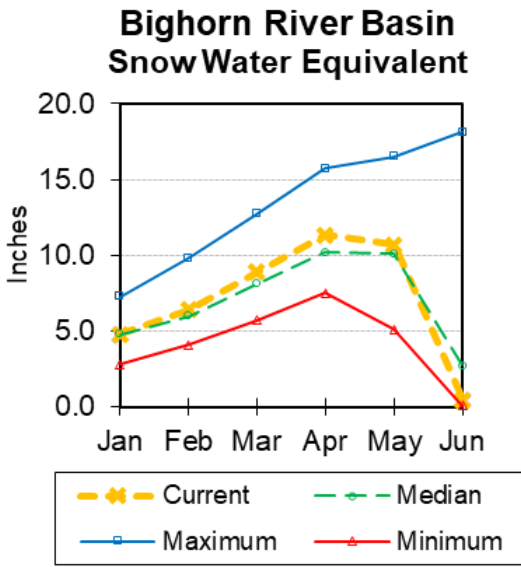


# Bighorn River Basin



## Snow

The Bighorn River Basin SWE (above Bighorn Reservoir) is 16% of median. The Greybull River SWE is at 0% of median. Shell Creek SWE is at 16% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 76% of median. Year-to-date precipitation is 91% of median.

## Reservoirs

Current reservoir storage in the basin is 98% of median.

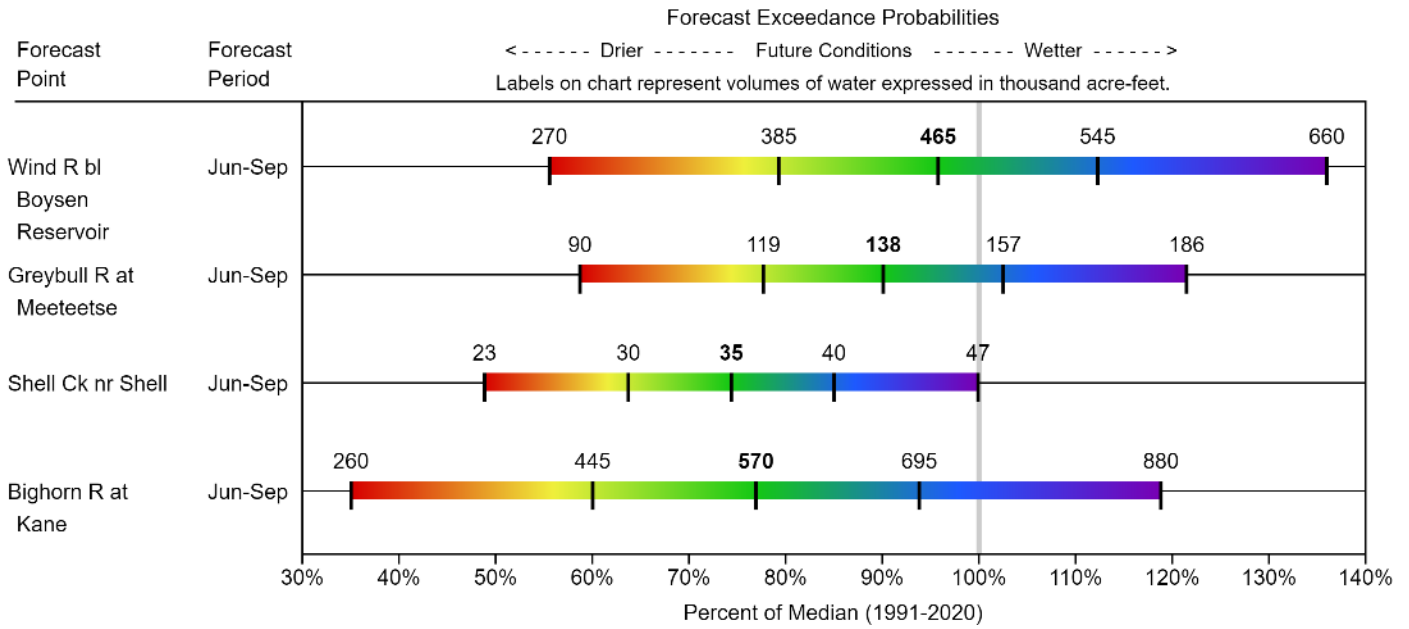
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Bighorn Lake	844.2	849.5	862.1	1356.0	62%	63%	64%	98%	99%
<b>Basin Index</b>					<b>62%</b>	<b>63%</b>	<b>64%</b>	<b>98%</b>	<b>99%</b>
# of reservoirs					1	1	1	1	1

## Streamflow

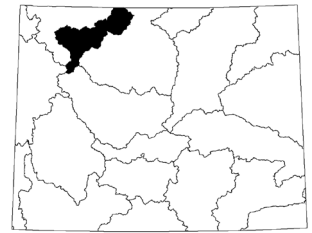
The 50% exceedance forecasts for the June through September runoffs are below normal. The Greybull River near Meeteetse should yield 90% of median. Shell Creek near Shell should yield around 74% of median. The Bighorn River at Kane should yield around 77% of median.

*See the following graph for detailed runoff volumes.*

**BIGHORN RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**

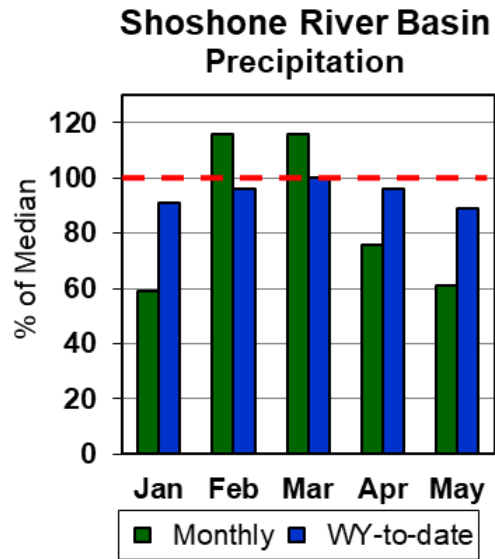
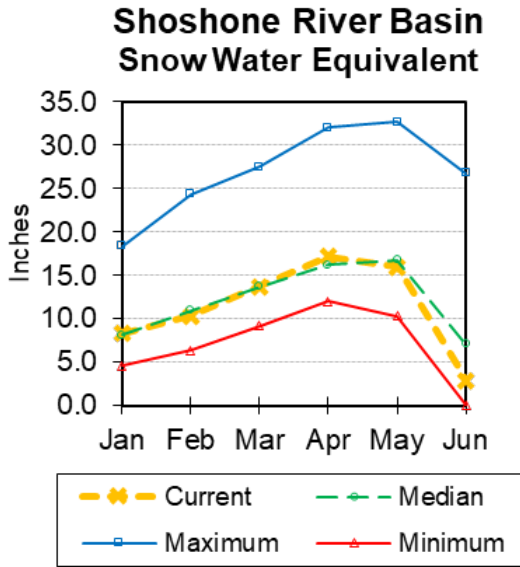


# Shoshone River Basin



## Snow

Snow Water Equivalent (SWE) is 41% 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 61% of median. The basin year-to-date precipitation is now 89% of median.

## Reservoirs

Current storage in Buffalo Bill Reservoir is about 116% of median.

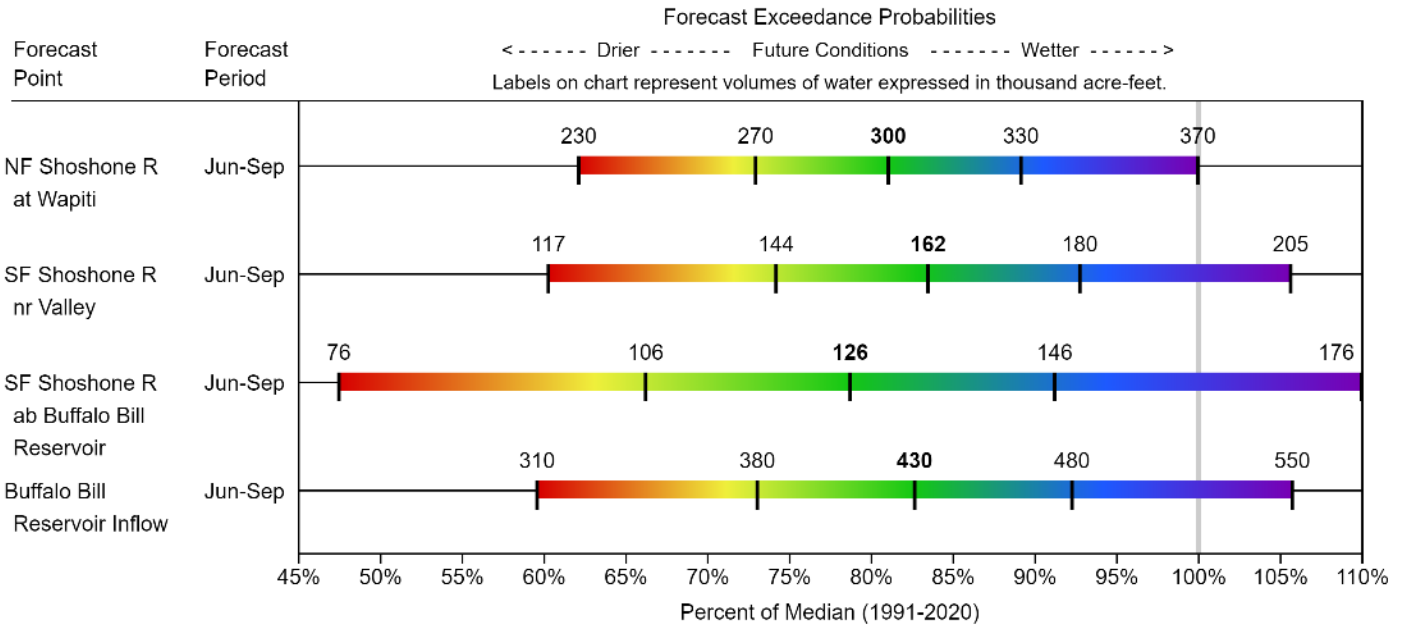
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Buffalo Bill	521.4	396.3	447.7	646.6	81%	61%	69%	116%	89%
<b>Basin Index</b>					<b>81%</b>	<b>61%</b>	<b>69%</b>	<b>116%</b>	<b>89%</b>
# of reservoirs					1	1	1	1	1

## Streamflow

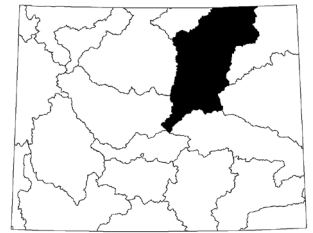
The 50% exceedance forecasts for the June through September period are below normal for the basin. The North Fork Shoshone River at Wapiti should yield 81% of median. The South Fork of the Shoshone River near Valley should yield 84% of median. The Buffalo Bill Reservoir inflow should yield 79% of median. *See the following graph for detailed runoff volumes.*



**SHOSHONE RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**

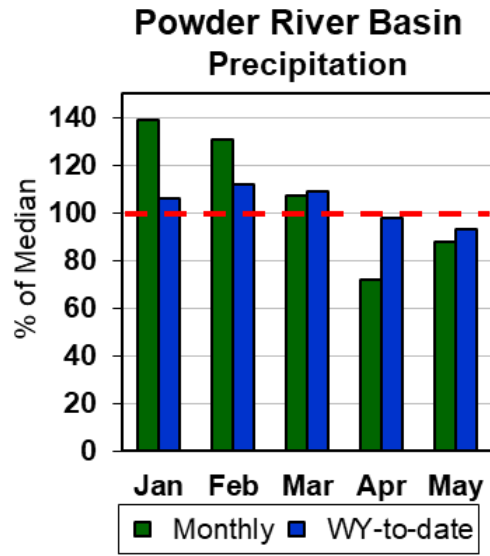
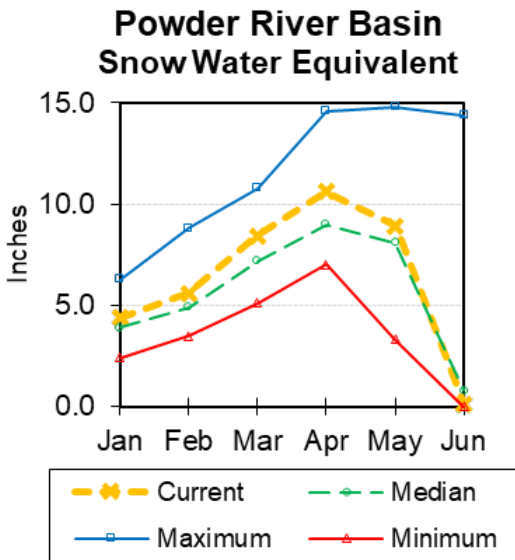


# Powder River Basin



## Snow

Powder River Basin SWE is at 10% of median. SWE in the Clear Creek drainage is 10% of median. *See appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 88% of median in the basin. Year-to-date precipitation is 93% of median.

## Reservoirs

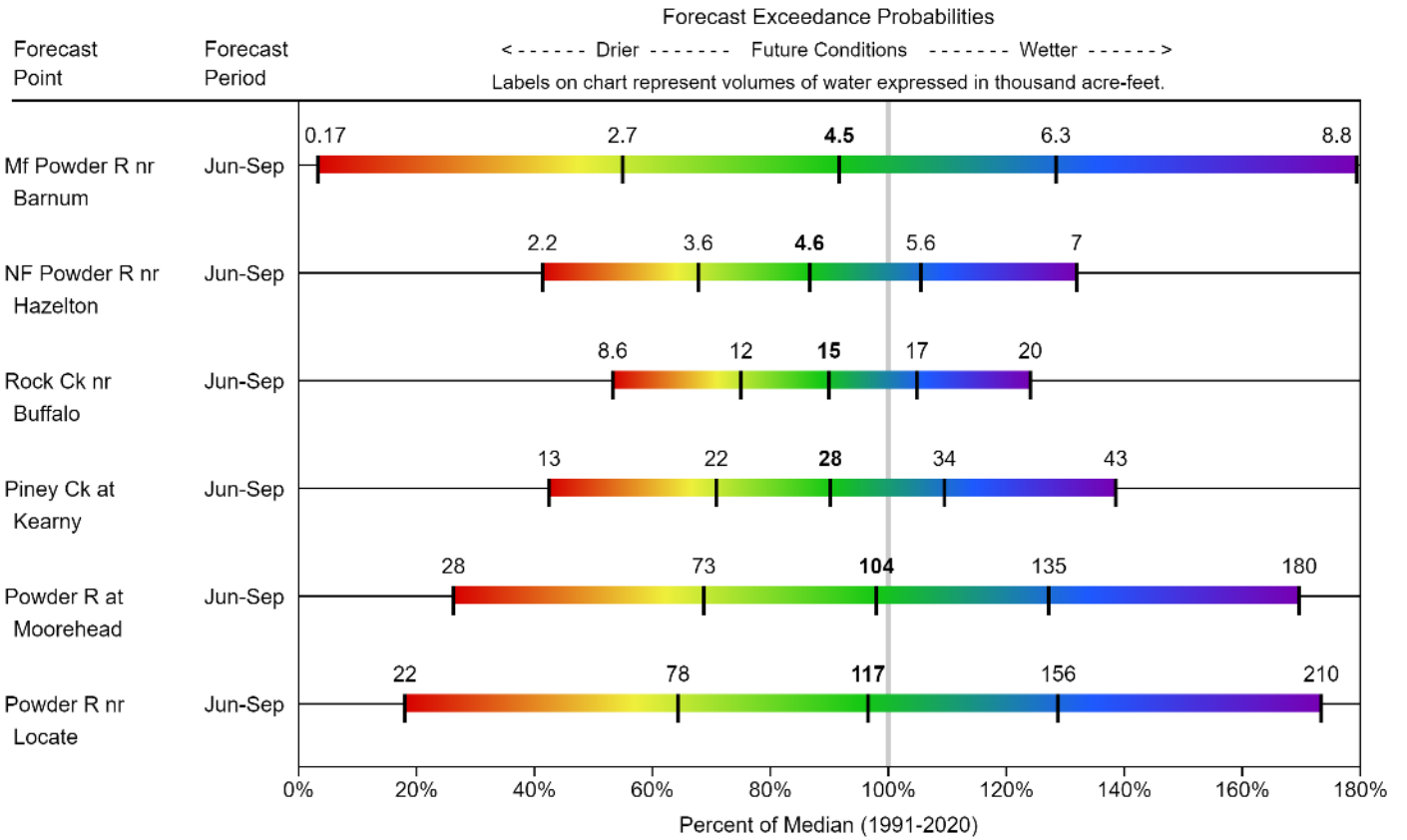
No reservoir data for this basin.

## Streamflow

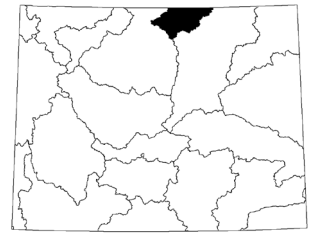
The 50% exceedance forecasts for the June through September period are slightly below normal for the basin. The Middle Fork of the Powder River near Barnum should yield around 92% of median. The North Fork of the Powder River near Hazelton to yield around 87% of median.

*See the following graph for detailed runoff volumes.*

**POWDER RIVER BASIN**  
**Water Supply Forecasts**  
 June 1, 2023

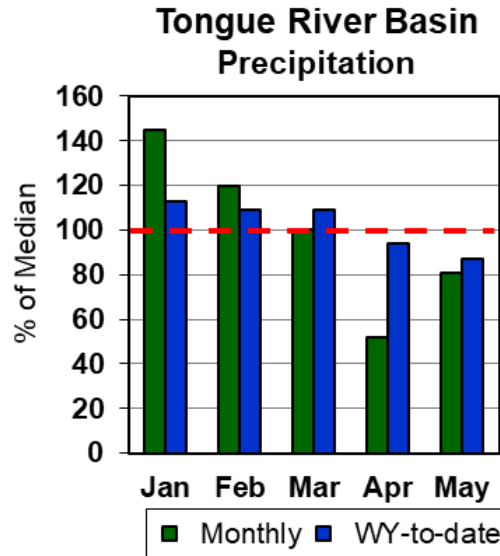
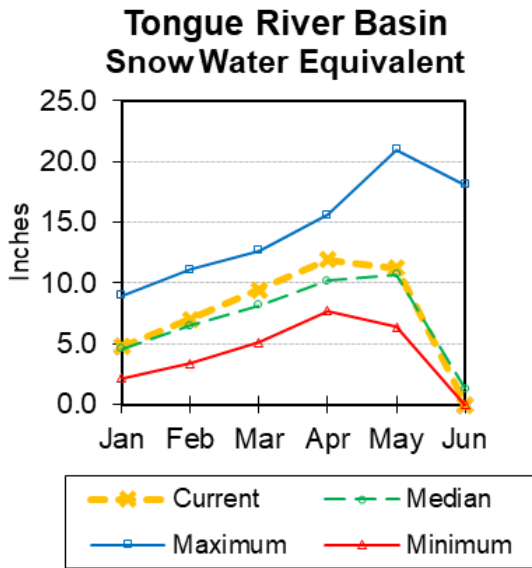


# Tongue River Basin



## Snow

Upper Tongue River drainage SWE is at 0% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 81% of median. Year-to-date precipitation is 87% of median in the basin.

## Reservoirs

Current storage in Tongue River Reservoir is about 104% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Tongue River Res	81.5	75.9	78.6	79.1	103%	96%	99%	104%	97%
<b>Basin Index</b>					<b>103%</b>	<b>96%</b>	<b>99%</b>	<b>104%</b>	<b>97%</b>
# of reservoirs					1	1	1	1	1

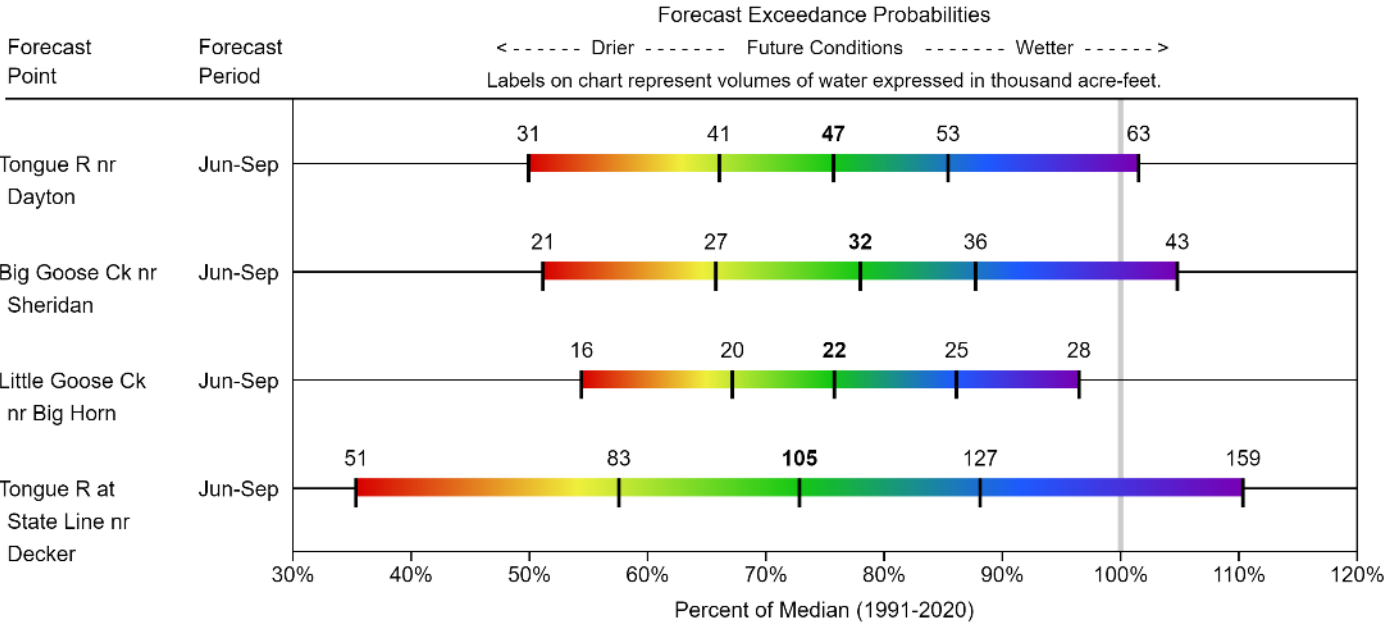
## Streamflow

The 50% exceedance forecasts for the June through September period are well below normal for the basin. The yield for Tongue River near Dayton is forecasted to be 76% of median. Big Goose Creek near Sheridan should yield around 78%. Little Goose Creek near Bighorn should yield 76% of median. The Tongue River Reservoir Inflow should yield 73% of median.

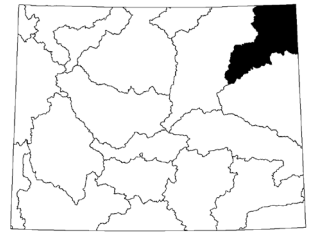
*See below for detailed runoff volumes.*



**TONGUE RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**

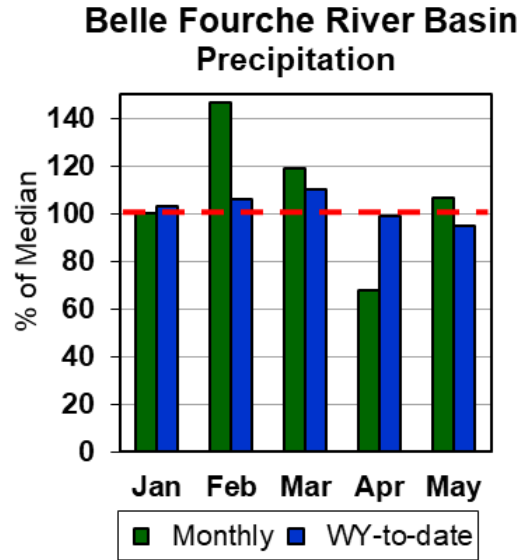
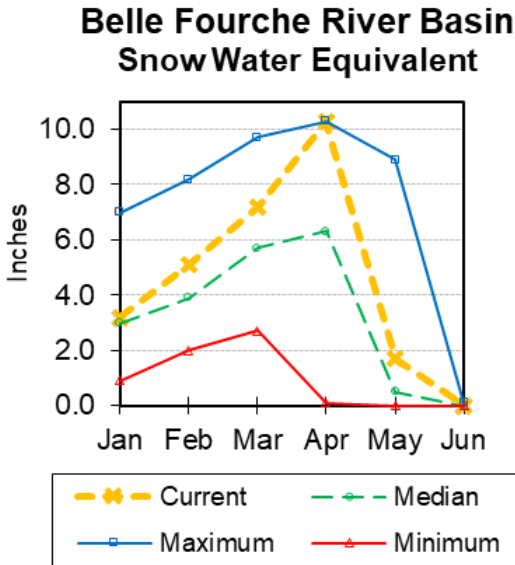


# Belle Fourche River Basin



## Snow

Currently the Belle Fourche River Basin SWE is 0. See Appendix at the end of this report for a detailed listing of snow course information.



## Precipitation

Precipitation for last month was 107% of median in the Belle Fourche basin. Year-to-date precipitation is 95% of median.

## Reservoirs

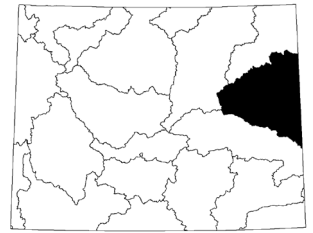
Combined storage for the 2 reservoirs in the basin is at 94% of median.

Belle Fourche	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Keyhole	131.5	132.6	153.3	193.8	68%	68%	79%	86%	87%
Belle Fourche	166.6	160.0	162.3	178.4	93%	90%	91%	103%	99%
<b>Basin Index</b>					<b>80%</b>	<b>79%</b>	<b>85%</b>	<b>94%</b>	<b>93%</b>
# of reservoirs					2	2	2	2	2

## Streamflow

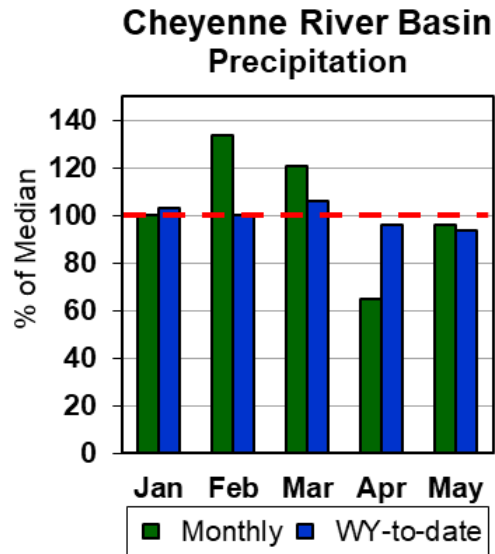
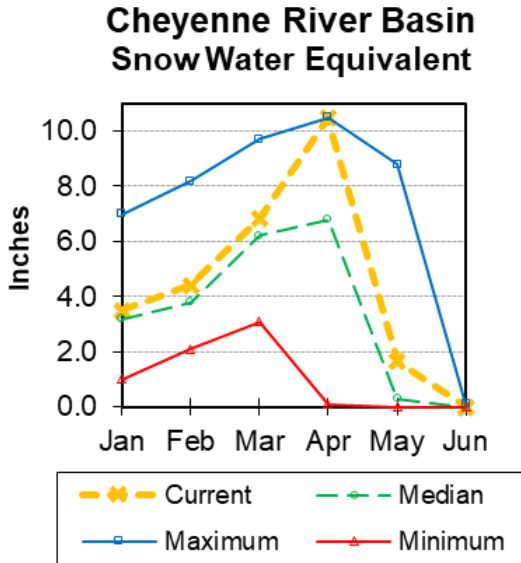
There are no streamflow forecast points for the basin.

# Cheyenne River Basin



## Snow

Currently SWE for sites in the Cheyenne River Basin is 0. *See Appendix at the end of this report for a detailed listing.*



## Precipitation

Precipitation for last month was 96% of median. Year-to-date precipitation is 94% of median.

## Reservoirs

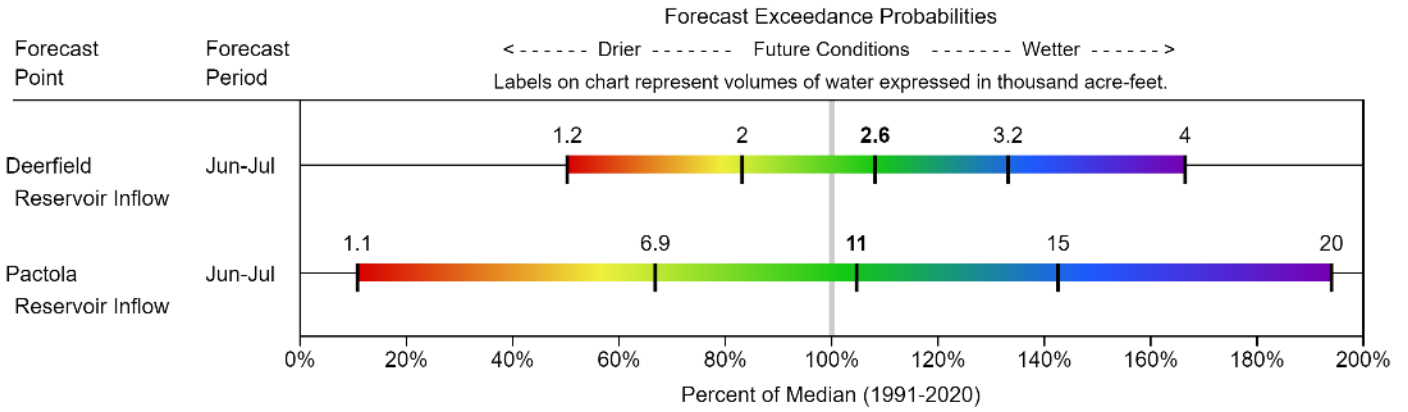
Combined storage for the 3 reservoirs in the basin is at 86% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pactola	55.2	55.6	55.7	55.0	100%	101%	101%	99%	100%
Deerfield	15.2	15.5	15.3	15.2	100%	102%	101%	99%	101%
Angostura	87.2	89.4	111.7	122.1	71%	73%	91%	78%	80%
<b>Basin Index</b>					<b>82%</b>	<b>83%</b>	<b>95%</b>	<b>86%</b>	<b>88%</b>
# of reservoirs					3	3	3	3	3

## Streamflow

The 50% exceedance forecasts for the June through July period are near normal. The Deerfield Reservoir Inflow yield is forecasted at 108% of median. Pactola Reservoir Inflow yield should be 105% of median. *See the following graph for detailed runoff volumes.*

**CHEYENNE RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**



# Upper North Platte River Basin

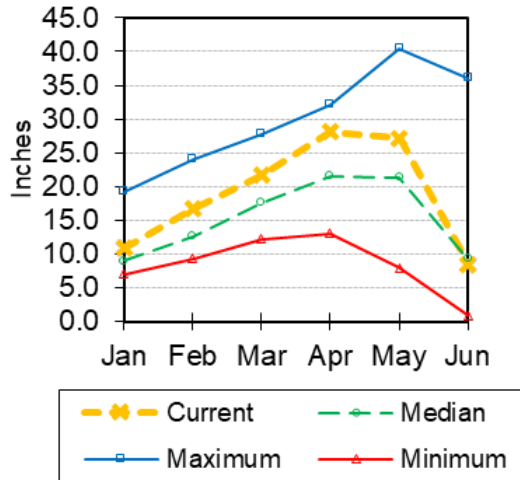


## Snow

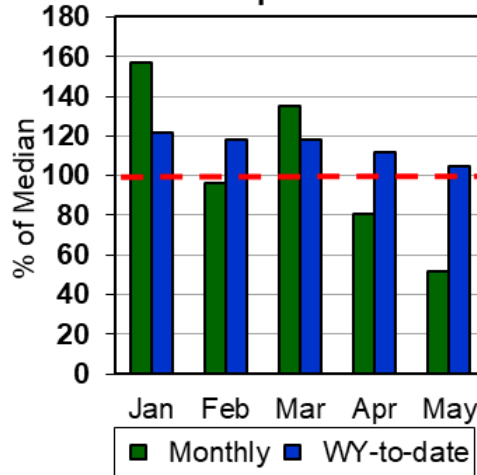
The Upper North Platte River basin SWE is 91% of median. North Platte above Northgate SWE is 97% of median. Encampment River SWE is 98% of median. Medicine Bow and Rock Creek SWE are 90% of median.

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

**Upper North Platte Basin  
Snow Water Equivalent**



**Upper North Platte Basin  
Precipitation**



## Precipitation

Last month's precipitation was 52% of median. Total water-year-to-date precipitation is 105% of median.

## Reservoirs

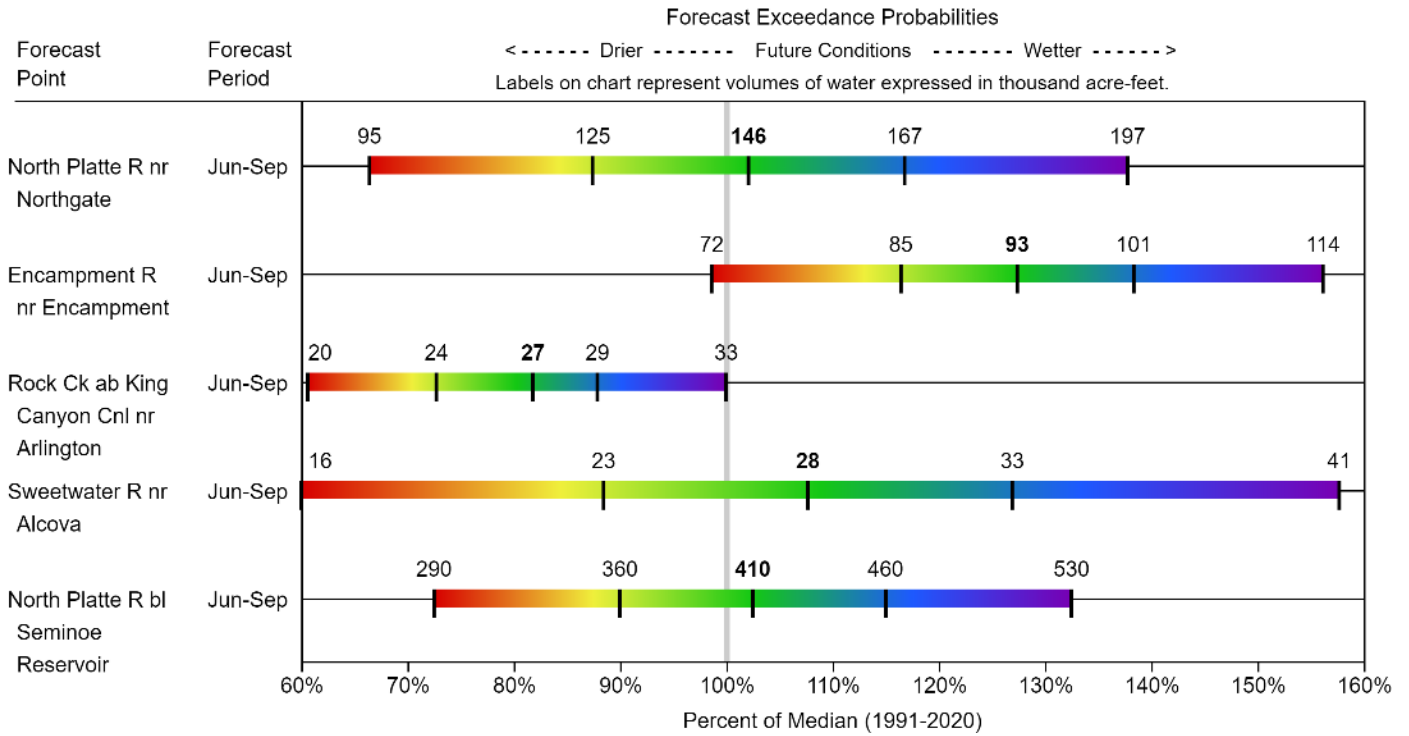
Combined storage for reservoirs in the Upper North Platte River Basin is at 95% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pathfinder	547.7	702.5	637.5	1016.5	54%	69%	63%	86%	110%
Seminole	724.9	437.5	709.1	1016.7	71%	43%	70%	102%	62%
<b>Basin Index</b>					<b>63%</b>	<b>56%</b>	<b>66%</b>	<b>95%</b>	<b>85%</b>
# of reservoirs					2	2	2	2	2

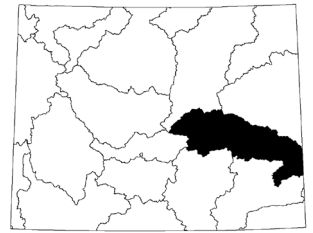
## Streamflow

The 50% exceedance forecasts for the June through September period are near normal for the Upper North Platte River Basin. The yield for the North Platte River near Northgate will be around 102% of median. The Encampment River near Encampment yield will be about 127%. Rock Creek near Arlington yield will be around 82%. Seminole Reservoir inflow should be about 103% of median. *See the following page for more detailed information on projected runoff.*

**UPPER NORTH PLATTE RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**

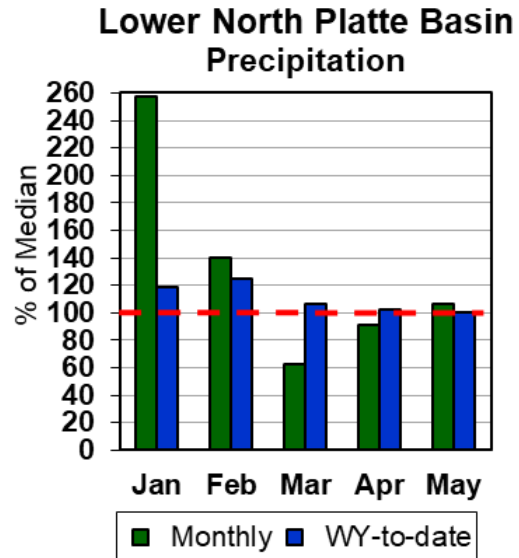
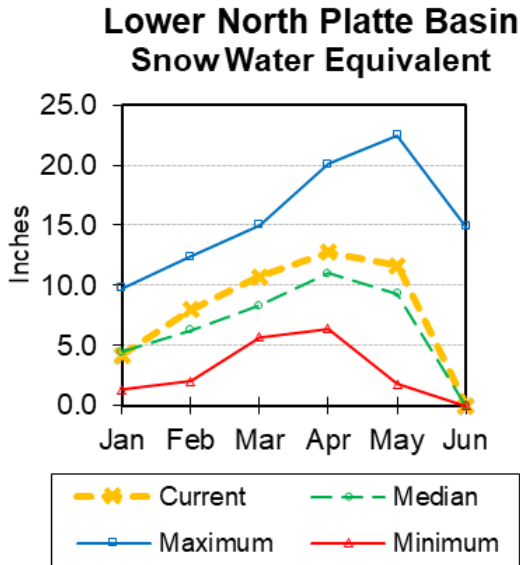


# Lower North Platte River Basin



## Snow

Currently, SWE in the Lower North Platte River Basin is 0. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 106% of median. The water year-to-date precipitation for the basin is currently 100% of median.

## Reservoirs

Combined storage for the 3 reservoirs in the basin is at 95% of median.

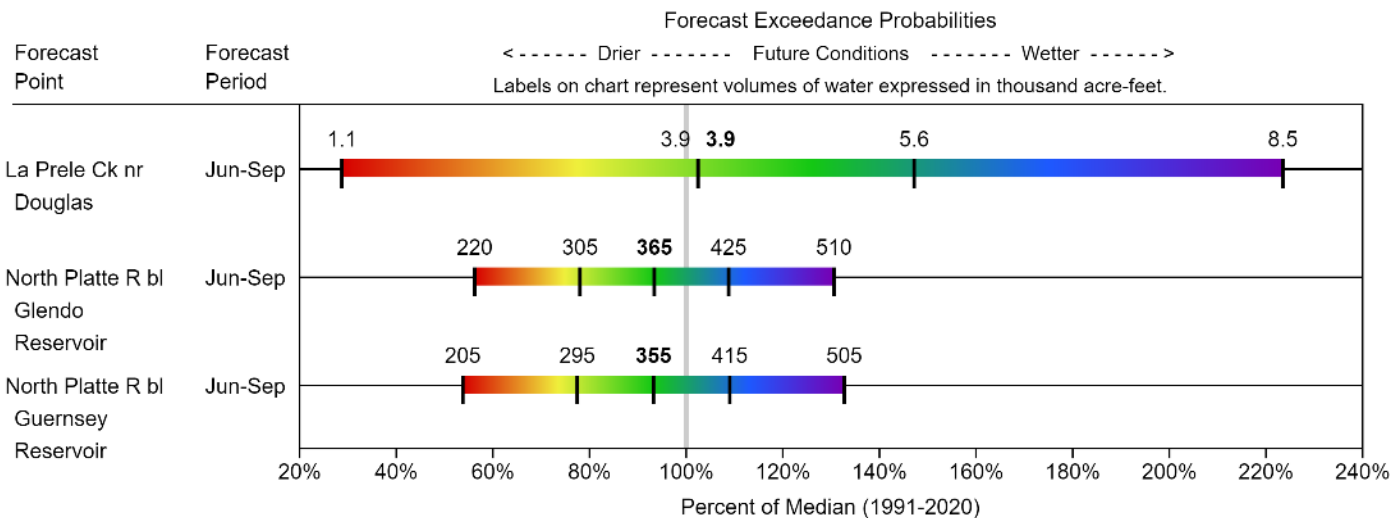
Lower North Platte	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Alcova	181.2	180.7	180.2	184.3	98%	98%	98%	101%	100%
Glendo	450.4	419.4	482.7	506.4	89%	83%	95%	93%	87%
Guernsey	28.2	29.1	30.9	45.6	62%	64%	68%	91%	94%
<b>Basin Index</b>					<b>90%</b>	<b>85%</b>	<b>94%</b>	<b>95%</b>	<b>91%</b>
# of reservoirs					3	3	3	3	3

## Streamflow

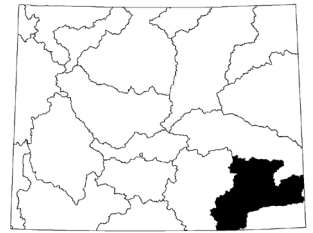
The 50% exceedance forecasts for the June through September period should be slightly below normal. LaPrele Creek near Douglas is forecasted to yield 103% of median. North Platte River below Guernsey Reservoir should yield around 93% of median. *See the following for more detailed information on projected runoff.*



**LOWER NORTH PLATTE RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**

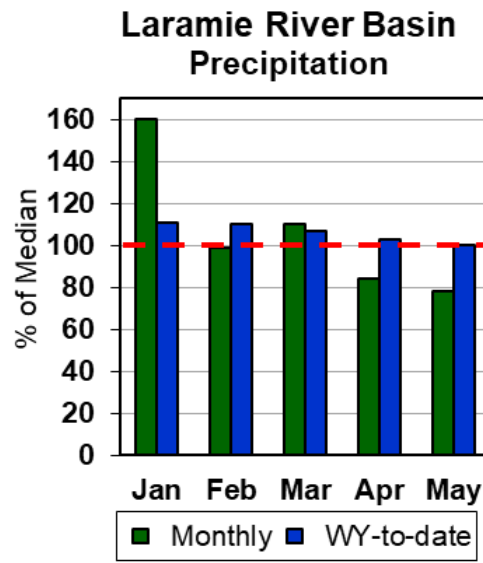
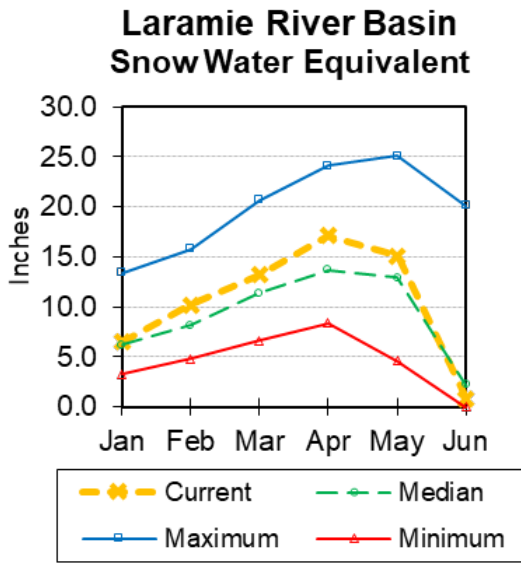


# Laramie River Basin



## Snow

SWE for the entire Laramie River Basin (above mouth entering North Platte) is 36% of median. SWE for the Laramie River above Laramie is 57% of median. SWE for the Little Laramie River is 3% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 78% of median. The water year-to-date precipitation for the basin is currently 100% of median.

## Reservoirs

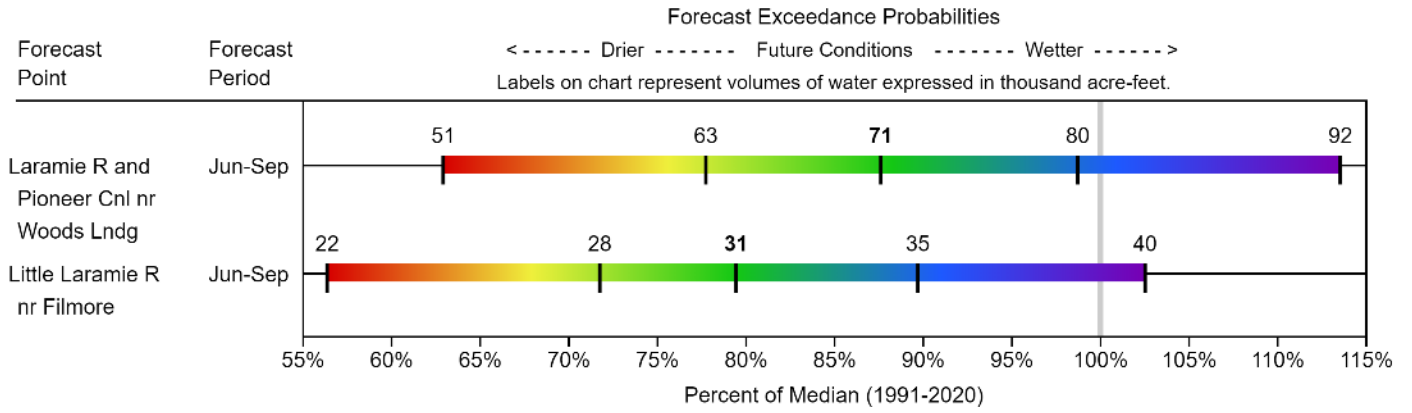
Reservoir storage in this basin is 111% of median.

Laramie	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Wheatland #2	66.6		60.2	98.9	67%		61%	111%	
<b>Basin Index</b>					<b>67%</b>		<b>61%</b>	<b>111%</b>	
# of reservoirs					1	0	1	1	0

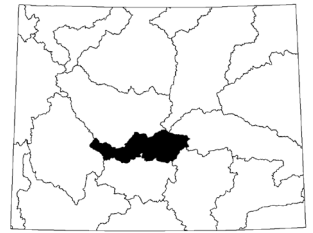
## Streamflow

The 50% exceedance forecasts for the June through September period at Laramie River near Woods Landing should yield around 88% of median. The Little Laramie near Filmore should produce about 79% of median. *See the following graph for detailed runoff volumes.*

**LARAMIE RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**

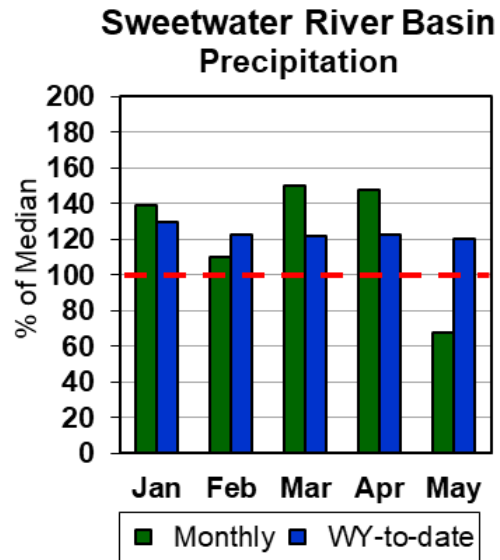
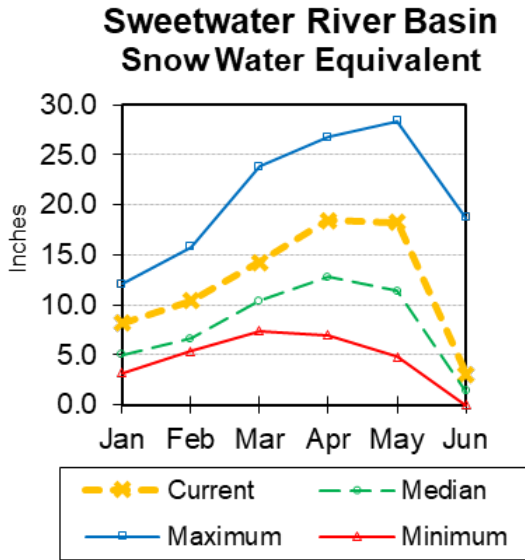


# Sweetwater River Basin



## Snow

Sweetwater River Basin SWE is at 217% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Last month's precipitation was 68% of median. The water year-to-date precipitation for the basin is currently 120% of median.

## Reservoirs

No reservoir data for the basin.

## Streamflow

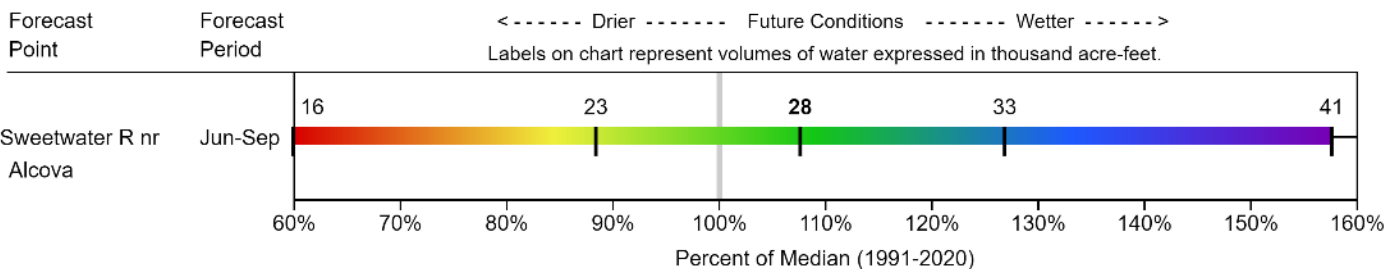
The 50% exceedance forecasts for the June through September period in the Sweetwater Basin is slightly above normal. The Sweetwater River near Alcova will yield about 108% of median. *See below for detailed information on projected runoff.*

### SWEETWATER RIVER BASIN

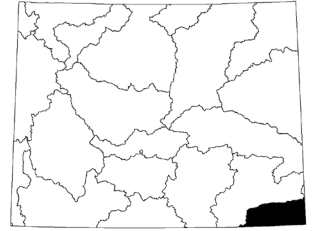
#### Water Supply Forecasts

June 1, 2023

#### Forecast Exceedance Probabilities

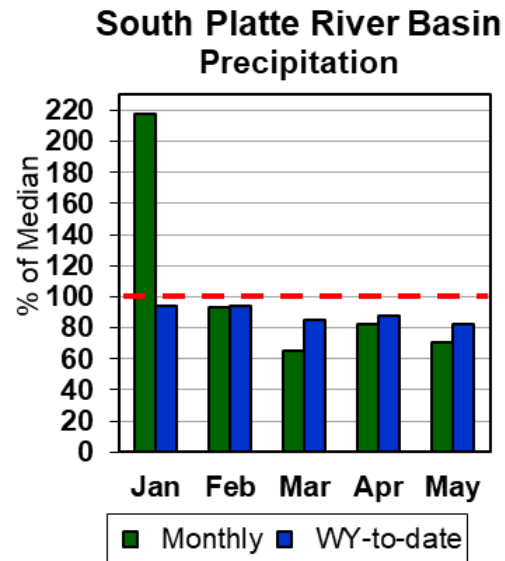
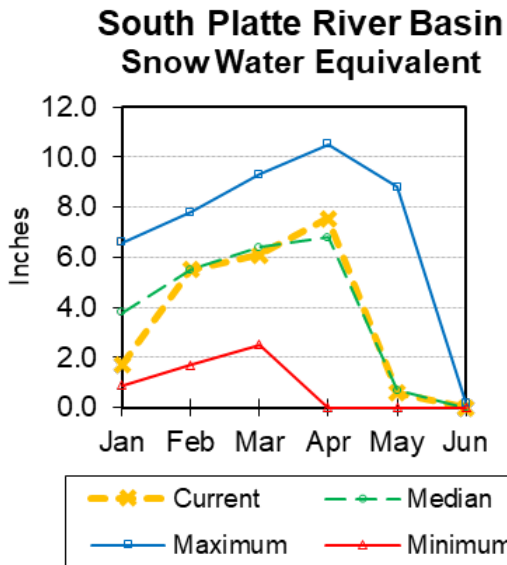


## South Platte River Basin (WY)



### Snow

The median SWE for sites in the South Platte River Basin is 0. *See Appendix at the end of this report for a detailed listing of snow course information.*



### Precipitation

Last month's precipitation was 71% of median. The water year-to-date precipitation for the basin is currently 82% of median.

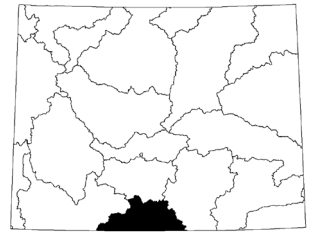
### Reservoirs

No reservoir data for the basin.

### Streamflow

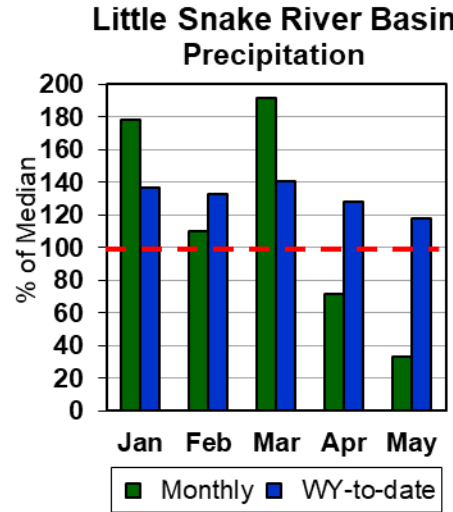
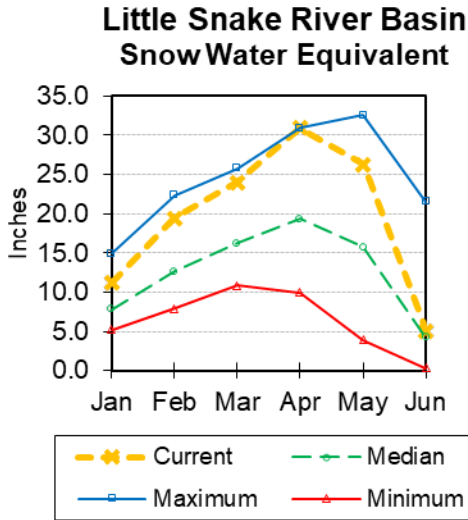
There are no streamflow forecast points for the basin.

# Little Snake River Basin



## Snow

Little Snake River drainage SWE is 121% of median. See *Appendix at the end of this report for a detailed listing of snow course information.*



## Precipitation

Precipitation across the basin was 33% of median. The Little Snake River Basin water-year-to-date precipitation is currently 118% of median.

## Reservoirs

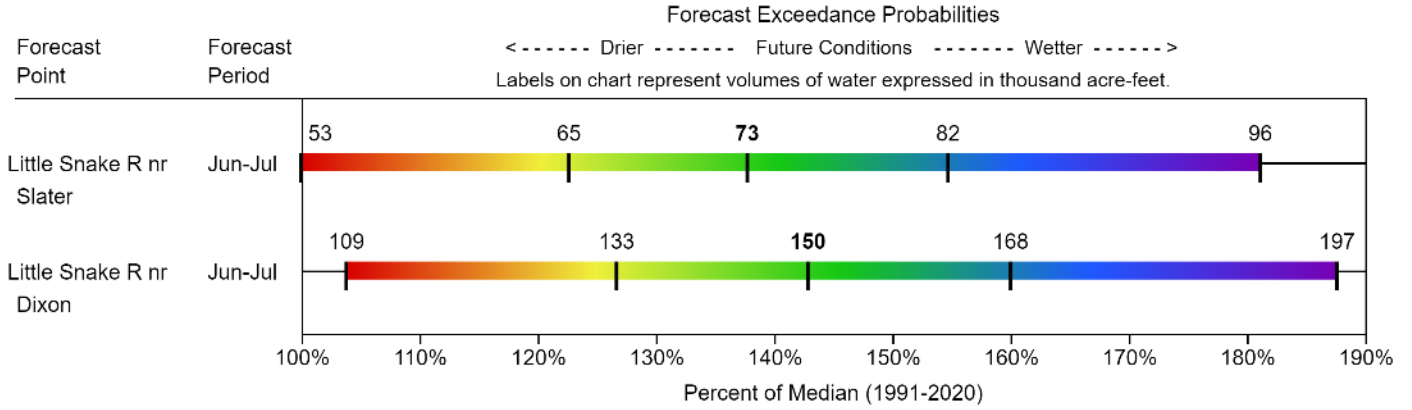
Reservoir storage in this basin is 107% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
High Savery Res.	22.8		21.3	22.4	102%		95%	107%	
<b>Basin Index</b>					<b>102%</b>		<b>95%</b>	<b>107%</b>	
# of reservoirs					1	0	1	1	0

## Streamflow

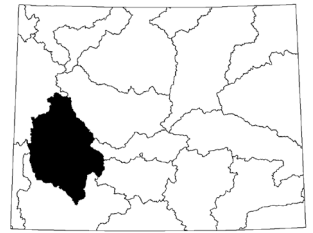
The 50% exceedance forecasts for the June through July period will be well above normal. The Little Snake River near Slater is forecasted to yield around 138% of median. *See below for detailed information on projected runoff.*

**LITTLE SNAKE RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**



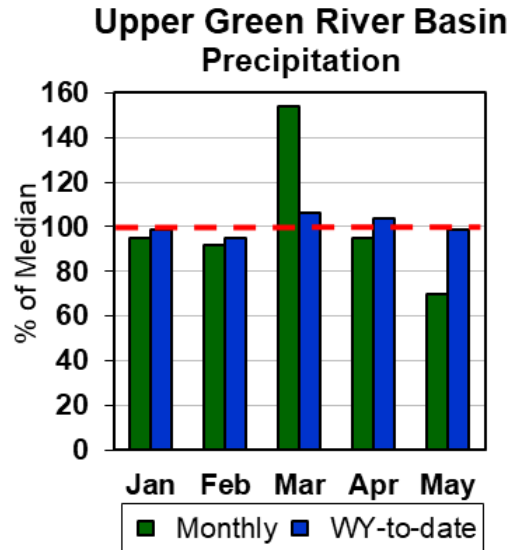
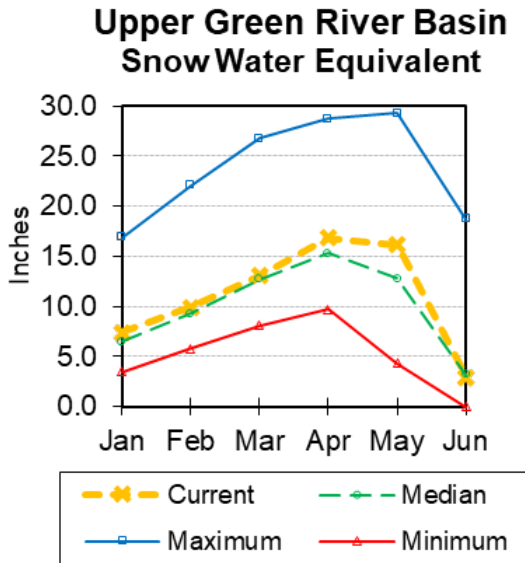


# Upper Green River Basin



## Snow

The Upper Green River Basin SWE (above Fontenelle Reservoir) is 92% of median. Green River Basin above Warren Bridge SWE is 9% of median. West Side of Upper Green River Basin SWE is 103% 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 70% of median last month. Water year-to-date precipitation is 99% of median.

## Reservoir

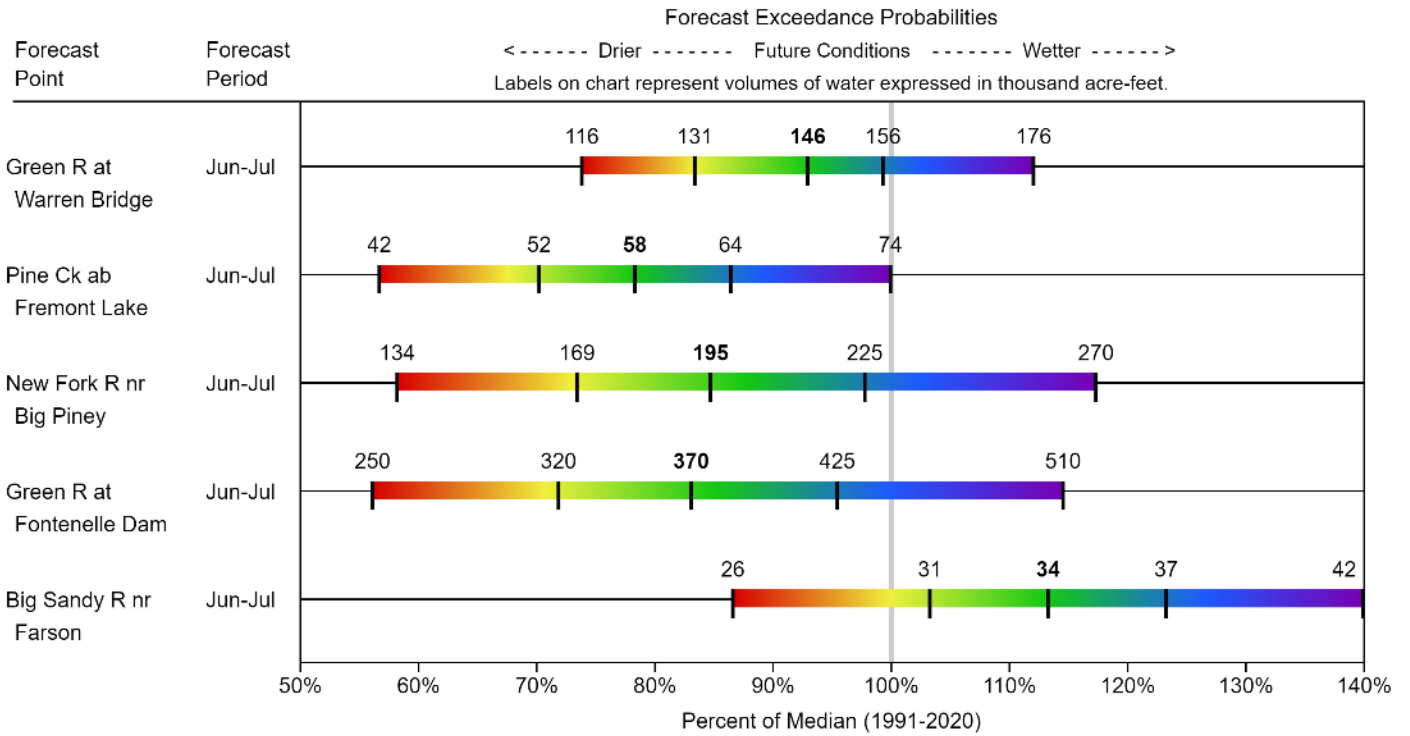
Combined water storage in the basin was at 131% of median for the 2 reservoirs.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Fontenelle	249.9	158.3	188.1	344.8	72%	46%	55%	133%	84%
Big Sandy	36.2	17.9	30.3	38.3	94%	47%	79%	119%	59%
<b>Basin Index</b>					<b>75%</b>	<b>46%</b>	<b>57%</b>	<b>131%</b>	<b>81%</b>
# of reservoirs					2	2	2	2	2

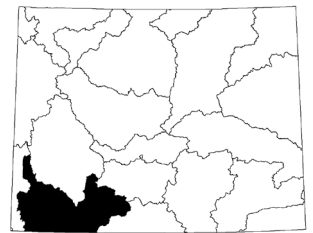
## Streamflow

The 50% exceedance forecasts for the June through July period will be slightly below normal. The yield on the Green River at Warren Bridge is about 93% of median. New Fork River near Big Piney yield will be around 85% of median. Green River at Fontenelle Dam is estimated to be about 83% of median. *See the following for a more detailed forecast.*

**UPPER GREEN RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**



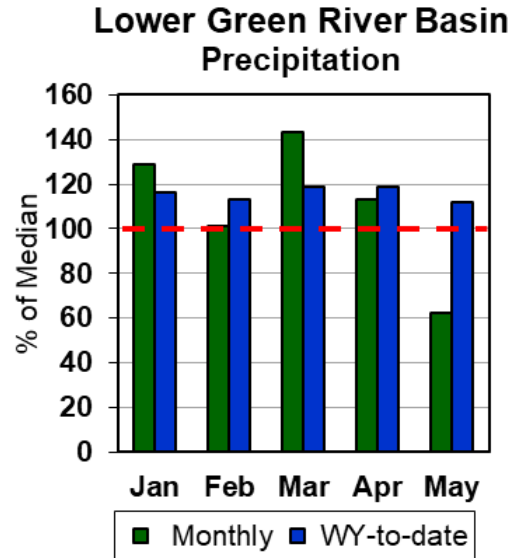
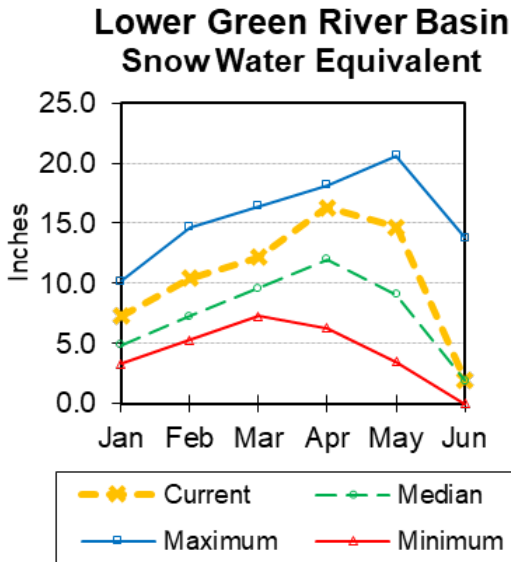
# Lower Green River Basin



## Snow

Lower Green River Basin SWE is at 101% of median. Hams Fork drainage SWE is 99% of median. Blacks Fork drainage SWE is 103% of median.

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



## Precipitation

Precipitation for the basin last month was 62% of median. The basin year-to-date precipitation is currently 112% of median.

## Reservoirs

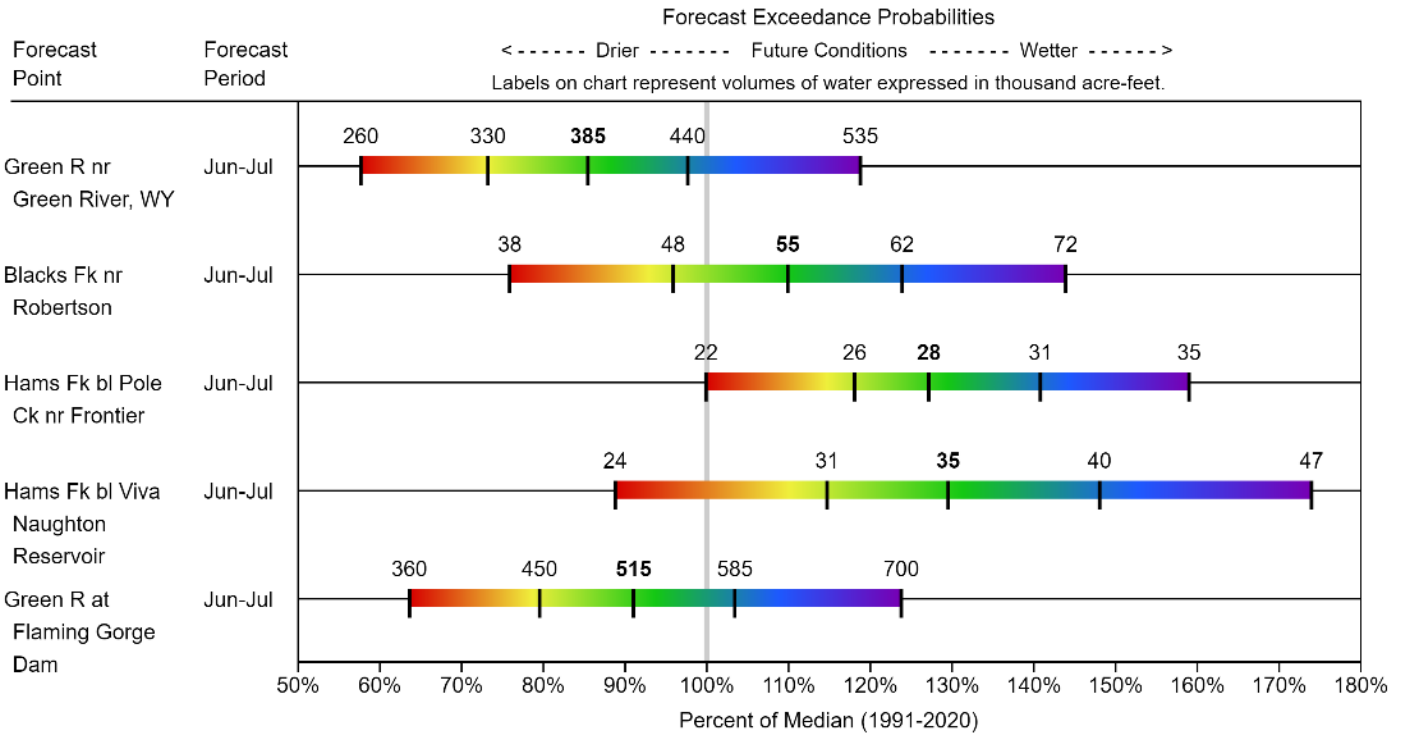
Combined storage for the 4 reservoirs in the basin was at 93% of median at the end of last month.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Stateline Res.	14.2	12.8	11.1	12.0	118%	107%	93%	128%	115%
Meeks Cabin Res.	29.9	28.4	27.0	32.5	92%	88%	83%	111%	105%
Flaming Gorge Res.	2917.4	2769.2	3144.0	3749.0	78%	74%	84%	93%	88%
Viva Naughton Res.	36.1	43.2	42.2	42.4	85%	102%	100%	86%	102%
<b>Basin Index</b>					<b>78%</b>	<b>74%</b>	<b>84%</b>	<b>93%</b>	<b>89%</b>
# of reservoirs					4	4	4	4	4

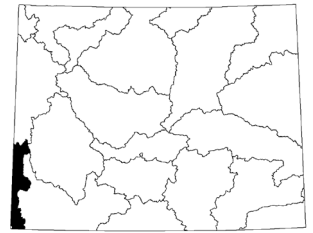
## Streamflow

The following are the 50% exceedance forecasts for the June through July period. The Green River near Green River will yield about 86% of median. The Flaming Gorge Reservoir inflow will be about 91% of median. *See the following page for more detailed information on projected runoff.*

**LOWER GREEN RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**



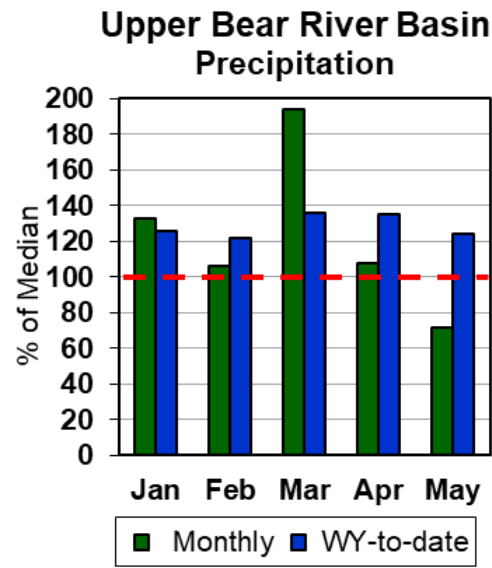
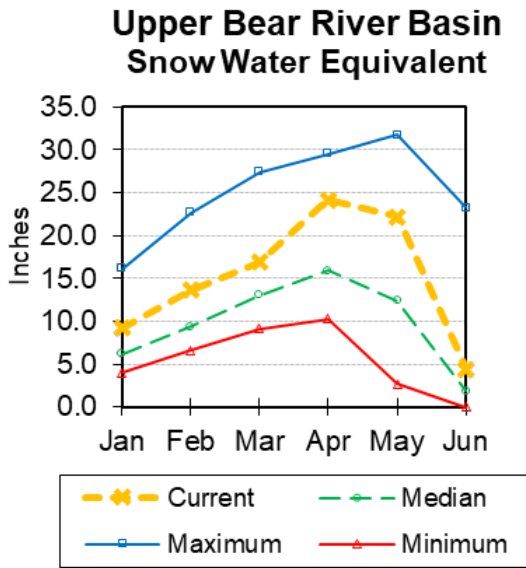
# Upper Bear River Basin



## Snow

SWE in the Upper Bear River Basin of Utah is 337% of median. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 126% of median.

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



## Precipitation

Precipitation for last month was 72% of median in the basin. The year-to-date precipitation for the basin is 124% of median.

## Reservoirs

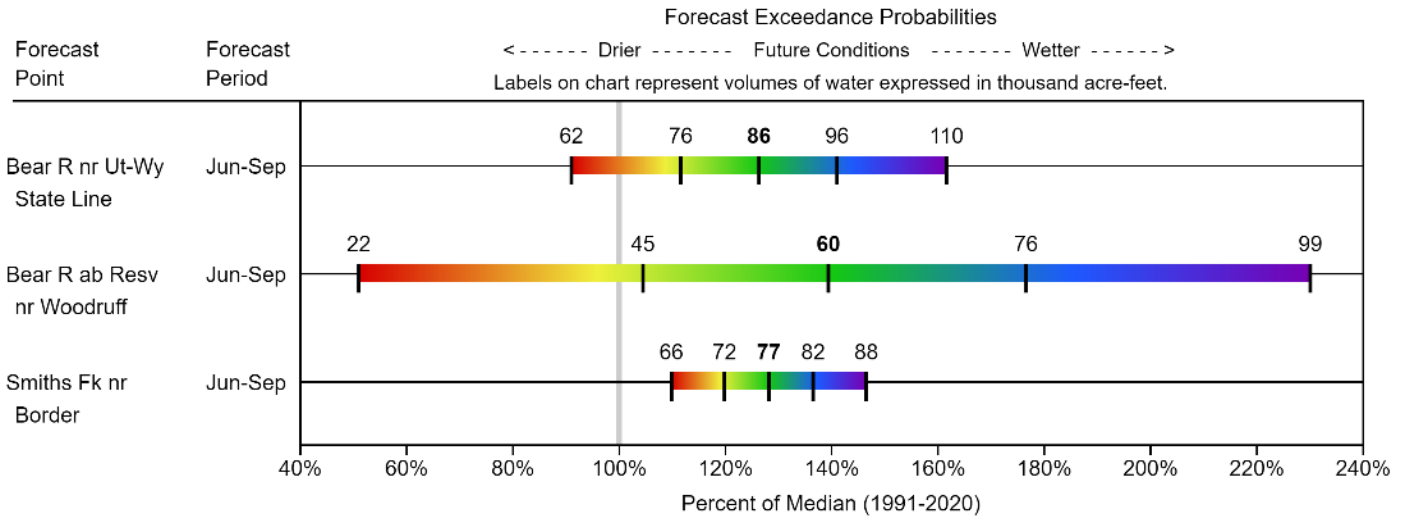
Combined reservoir storage in this basin is at 125% of median.

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	4.0	3.0	4.0	4.0	101%	75%	100%	101%	75%
Woodruff Narrows Res.	63.4	38.8	49.8	57.3	111%	68%	87%	127%	78%
<b>Basin Index</b>					<b>110%</b>	<b>68%</b>	<b>88%</b>	<b>125%</b>	<b>78%</b>
# of reservoirs					2	2	2	2	2

## Streamflow

The 50% exceedance forecasts for the June through September period are well above normal. The Bear River above Reservoir near Woodruff should yield around 140% of median. The Smiths Fork River near Border Jct. will yield around 128%. *See the following page for more detailed information on projected runoff.*

**UPPER BEAR RIVER BASIN**  
**Water Supply Forecasts**  
**June 1, 2023**



# 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