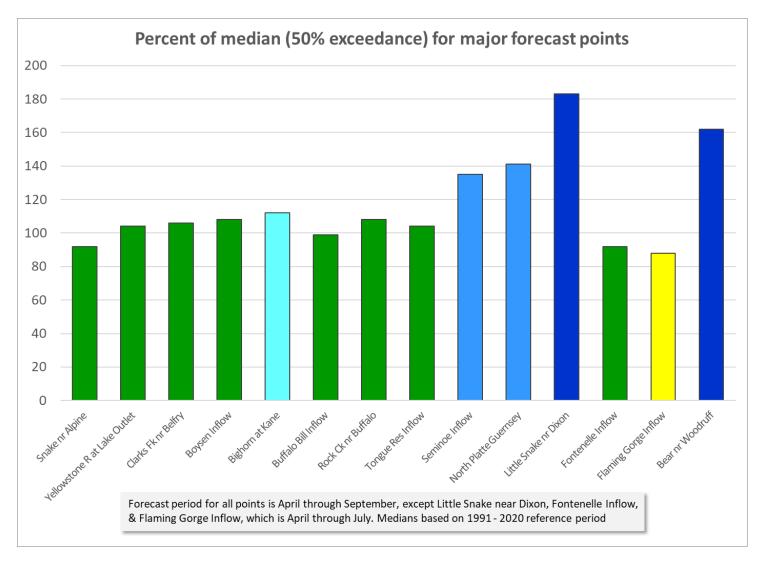


Wyoming Basin & Water Supply Outlook Report March 1, 2023

Natural Resources Conservation Service





Forecasted stream flows for March 1st, 2023

Basin Outlook Reports And Federal - State - Private Cooperative Snow Surveys

For more information, contact:

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

<u>Note</u>: 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

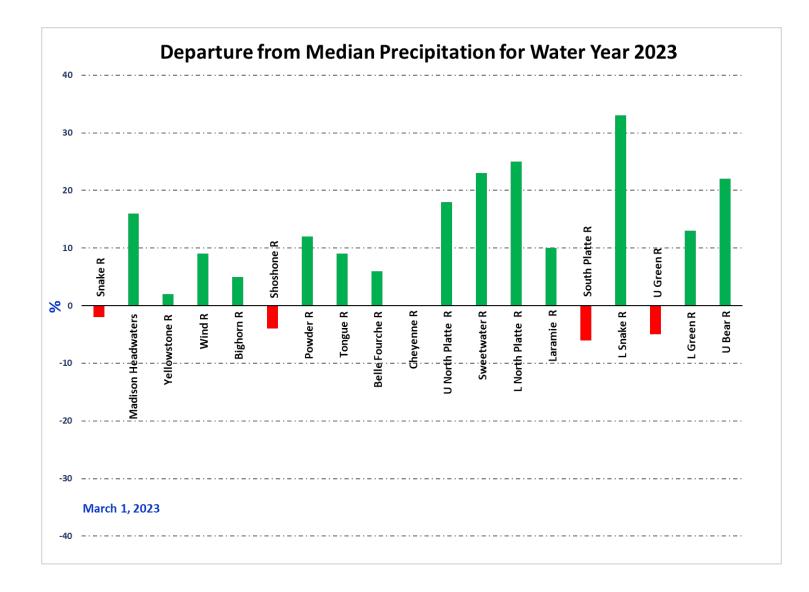
Snowpack

Snow water equivalent (SWE) across Wyoming for March 1^{st} was at 117% of median. SWE in the Little Snake River Basin was the highest at 148% of median and lowest for the South Platte River Basin at 95% 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 147% of median. The Upper Green River Basin had the lowest precipitation amount at 92% 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

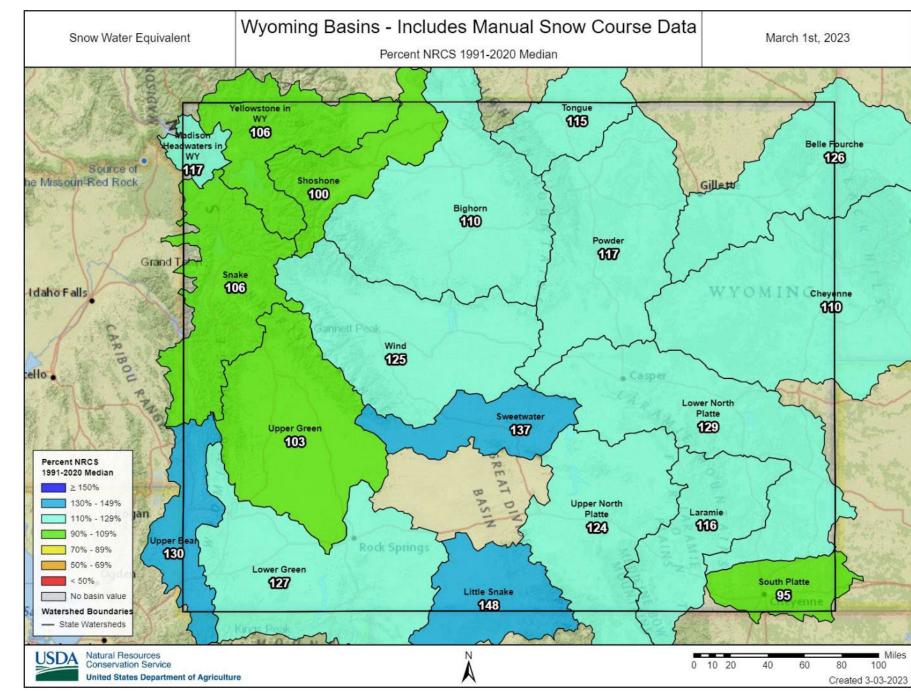
Forecast median streamflow yields for April thru September in Wyoming basins (except Green, Little Snake and Cheyenne) average 118%. Forecast median stream flow yields for April thru July in Green, Little Snake, and Cheyenne average 119%. The Snake River and Yellowstone River in Wyoming, basins should yield about 99% and 105% of median. Yields from the Wind and Bighorn River basins should be about 112% and 109% of median. Yields from the Shoshone River basin should be 97% of median. Yields from the Powder and Tongue River basins should be about 111% and 103% of median. 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 147%, 138%, 141%, and 111% of median, respectively. Yields for the Little Snake and Green River should be 181% and 94%.

Reservoirs

Reservoir storage was 88% of median across the entire state. Reservoirs in the Snake River basin are much below median at 31%. Reservoirs in the Wind River basin are near median at 98%. Reservoirs on the Bighorn are slightly below median at 95%. The Buffalo Bill Reservoir on the Shoshone is near median at 105%. The Tongue River Reservoir is at 112% of median. Reservoirs in the Belle Fourche and Cheyenne River basins are near and below median at 100% and 78% respectively. Reservoirs on the Upper and Lower North Platte River are below median and near median at 69% and 94% respectively. Reservoirs on the Upper Green River are below median. Reservoirs on the Lower Green River are below median at 79%. *See below for further information*.

Wyoming Reservoir Levels

	Reservoir Storage Summary For the End of February 2023										
(Medians based On 1991-	Current	Last Year	Median	Capacity	Current %	Last Year %	Median %	Current %	Last Year %		
2020 reference period)	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Median	Median		
Alcova	157.3	157.3	156.6	184.3	85%	85%	85%	100%	100%		
Angostura	65.3	82.0	98.1	122.1	53%	67%	80%	67%	84%		
Belle Fourche	134.2	116.2	134.8	178.4	75%	65%	76%	100%	86%		
Big Sandy	8.3	6.8	18.4	38.3	22%	18%	48%	45%	37%		
Bighorn Lake	776.2	785.8	815.7	1356.0	57%	58%	60%	95%	96%		
Boysen	544.2	579.2	547.6	596.0	91%	97%	92%	99%	106%		
Buffalo Bill	466.1	384.9	441.9	646.6	72%	60%	68%	105%	87%		
Bull Lake	74.4	87.5	80.9	151.8	49%	58%	53%	92%	108%		
Deerfield	14.6	14.8	14.8	15.2	96%	97%	97%	99%	100%		
Flaming Gorge Res	2457.3	2905.1	3107.0	3749.0	66%	77%	83%	79%	94%		
Fontenelle	141.4	156.6	131.1	344.8	41%	45%	38%	108%	119%		
Glendo	288.3	317.8	320.8	506.4	57%	63%	63%	90%	99%		
Grassy Lake	11.6	10.5	12.9	15.2	77%	69%	85%	90%	82%		
Guernsey	15.9	0.0	15.8	45.6	35%	0%	35%	101%	0%		
Jackson Lake	185.9	174.1	626.4	847.0	22%	21%	74%	30%	28%		
Keyhole	118.6	128.4	119.1	193.8	61%	66%	61%	100%	108%		
Meeks Cabin Res	10.3	11.4	10.8	32.5	32%	35%	33%	95%	106%		
Pactola	50.2	52.4	52.8	55.0	91%	95%	96%	95%	99%		
Pathfinder	359.3	654.3	579.7	1016.5	35%	64%	57%	62%	113%		
Pilot Butte	24.6	21.0	25.1	31.6	78%	67%	79%	98%	84%		
Seminoe	438.1	279.8	579.6	1016.7	43%	28%	57%	76%	48%		
Stateline Res	6.4	5.7	5.7	12.0	53%	47%	48%	112%	100%		
Tongue River Res	49.2	46.8	43.9	79.1	62%	59%	55%	112%	107%		
Viva Naughton Res	30.5	26.2	29.5	42.4	72%	62%	70%	103%	89%		
WoodruffCreek	2.4	1.8	2.4	4.0	60%	44%	60%	100%	73%		
Woodruff Narrows Res	13.5	12.8	38.4	57.3	24%	22%	67%	35%	33%		



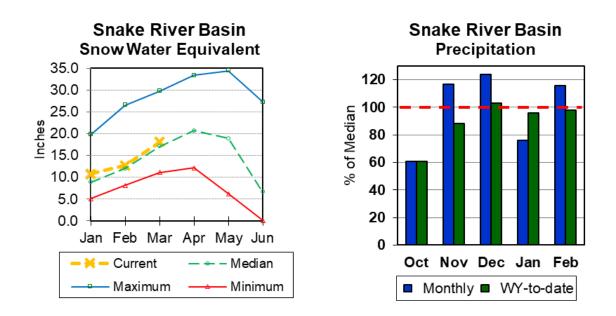
Snake River Basin

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Snow

The overall Snake River basin SWE (portion above Palisades dam) is 106% of median. SWE in the Snake River Basin above Jackson Lake is 105% of median. Pacific Creek basin SWE is 102% of median. Buffalo Fork SWE is 97% of median. Gros Ventre River basin SWE is 96% of median. SWE in the Hoback River drainage is 95% of median. SWE in the Greys River drainage is 107% of median. Salt River Basin SWE is 123% 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 116% of median. Water-year-todate precipitation is 98% of median.

Reservoirs

Current reservoir storage is 31% of median for the two storage reservoirs in the basin.

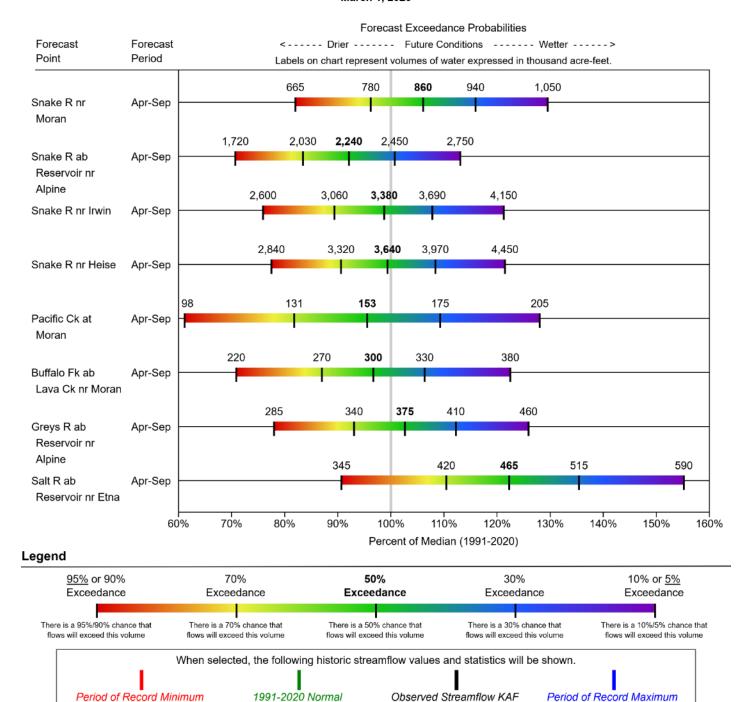
Snake	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Jackson Lake	185.9	174.1	626.4	847.0	22%	21%	74%	30%	28%
Grassy Lake	11.6	10.5	12.9	15.2	77%	69%	85%	90%	82%
Basin Index					23%	21%	74%	31%	29%
# 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 106% of median. Snake River above reservoir near Alpine will yield about 103%. Pacific Creek near Moran yield will be around 96%. Buffalo Fork above Lava near Moran will be around 97% of median. Greys River above reservoir near Alpine should yield about 103%. Salt River near Etna yield will be about 122%.

See the following graph for further information .

SNAKE RIVER BASIN Water Supply Forecasts March 1, 2023



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

Streamflow KAF

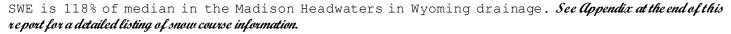
Streamflow KAF (Year)

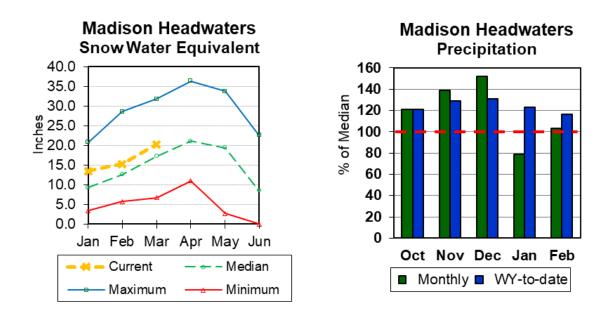
Streamflow KAF (Year)

Madison Headwaters in Wyoming



Snow





Precipitation

Last month precipitation in the Madison Headwaters drainage was 103% of median. Wateryear-to-date precipitation is at 116% of median.

Reservoirs

No reservoir data.

Streamflow

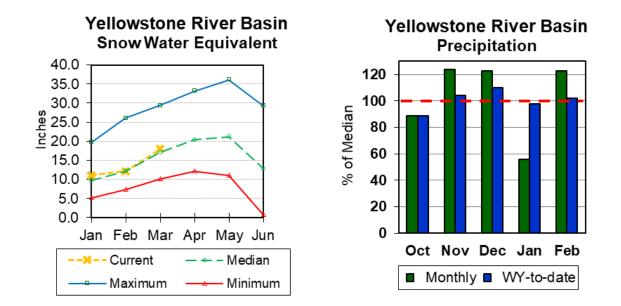
There are no streamflow forecast points for the basin.

Yellowstone River Basin



Snow

SWE in the Yellowstone River Basin is 105% of median. SWE in the Clarks Fork Drainage of the Yellowstone River basin in Wyoming is 101% 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 123% of median. Water-year-to-date precipitation is 102% of median.

Reservoirs

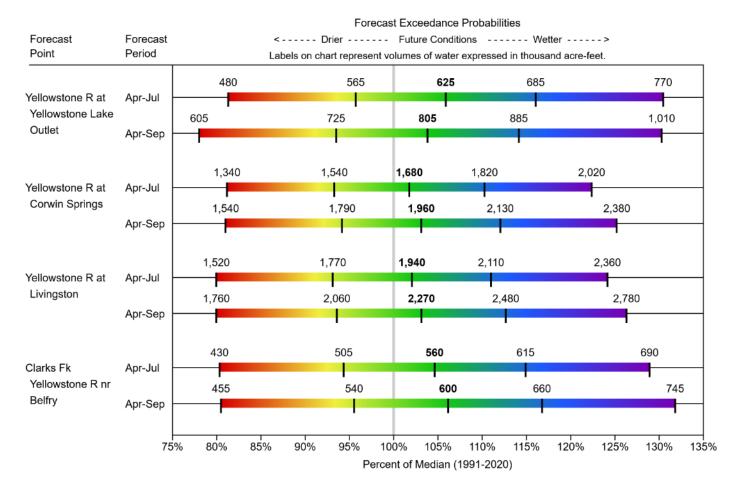
No reservoir data.

Streamflow

The 50% exceedance forecasts for April through September are near normal for the basin. Yellowstone at Lake Outlet will yield around 104% of median. Clarks Fork of the Yellowstone near Belfry will yield around 106%.

See the following graph for detailed information.

YELLOWSTONE RIVER BASIN Water Supply Forecasts March 1, 2023

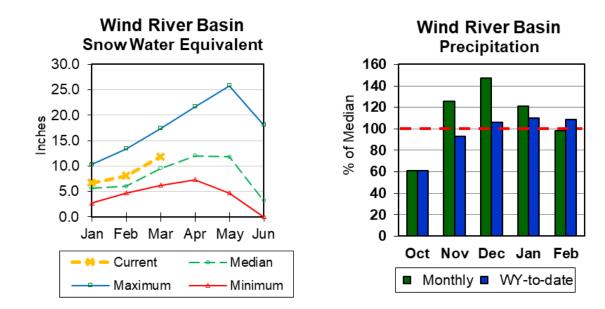


Wind River Basin



Snow

Wind River basin SWE (above Boysen Reservoir) is 125% of median. SWE in the Wind River above Dubois is 107% of median. Little Wind SWE is 119% of median, and Popo Agie drainage SWE is 150% 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 98% of median. Water year-to-date precipitation is 109% of median.

Reservoirs

Current storage is 98% of median in the basin.

Wind	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pilot Butte	24.6	21.0	25.1	31.6	78%	67%	79%	98%	84%
Boysen	544.2	579.2	547.6	596.0	91%	97%	92%	99%	106%
Bull Lake	74.4	87.5	80.9	151.8	49%	58%	53%	92%	108%
Basin Index					83%	88%	84%	98%	105%
# of reservoirs					3	3	3	3	3

Streamflow

The 50% exceedance forecasts for the April through September runoff period should yield 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 129% of median. Little Wind River near Riverton will yield around 137% of median. Boysen Reservoir inflow will yield about 108% of median. *See the following graph for detailed runoff volumes.*

WIND RIVER BASIN Water Supply Forecasts March 1, 2023

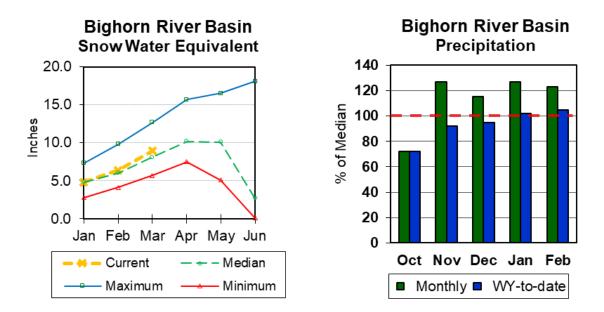
Point Period Labels on chart represent volumes of water expressed in thousand acre-feet. Jinwoody Ck nr Apr-Sep Apr-Jul Apr-Sep 54 62 68 74 82 Vind R ab Bull Lake Ck nr Apr-Sep Apr-Jul Apr-Sep 340 430 495 560 650 Vind R ab Bull Lake Ck nr Apr-Sep Apr-Jul Apr-Sep 340 445 515 585 690 Vind R at Riverton Apr-Jul Apr-Sep 340 445 515 585 690 Vind R at Riverton Apr-Jul Apr-Sep 340 445 515 585 690 Vind R at Riverton Apr-Jul Apr-Sep 340 445 515 585 690 Vind R at Riverton Apr-Jul Apr-Sep 34 47 56 65 78 Ittle Vind R nr Riverton Apr-Jul Apr-Sep 34 47 56 65 78 Und R bil Boysen Apr-Jul Apr-Sep 360 375 450 56 445 685 850 1,010 1,260 400	araaat	Foreact	-				ce Probabilities	-	
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Boysen 445 685 850 1,010 1,260			400	630	785	940	1,170		
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Reservoir	Boysen Reservoir		445	685	850	1,010	1,260		
Reservoir Apr-Sep	6361 1011	Apr-Sep							

Bighorn River Basin



Snow

The Bighorn River Basin SWE (above Bighorn Reservoir) is 110% of median. The Greybull River SWE is at 103% of median. Shell Creek SWE is at 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 123% of median. Year-to-date precipitation is 105% of median.

Reservoirs

Current reservoir storage in the basin is 95% of median.

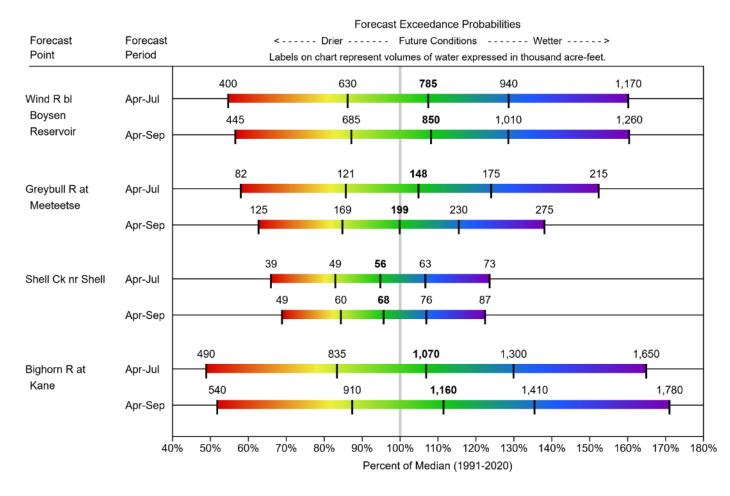
Bighorn	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Bighorn Lake	776.2	785.8	815.7	1356.0	57%	58%	60%	95%	96%
Basin Index					57%	58%	60%	95%	96%
# of reservoirs					1	1	1	1	1

Streamflow

The 50% exceedance forecasts for the April through September runoffs are slightly above normal. The Greybull River near Meeteetse should yield 100% of median. Shell Creek near Shell should also yield around 96% of median. The Bighorn River at Kane should yield around 112% of median.

See the following graph for detailed runoff volumes.

BIGHORN RIVER BASIN Water Supply Forecasts March 1, 2023

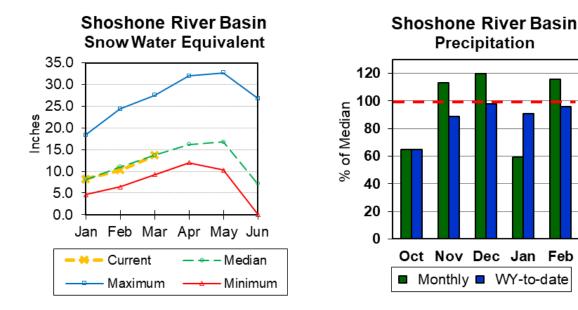


Shoshone River Basin



Snow

Snow Water Equivalent (SWE) is 100% 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 116% of median. The basin year-to-date precipitation is now 96% of median.

Reservoirs

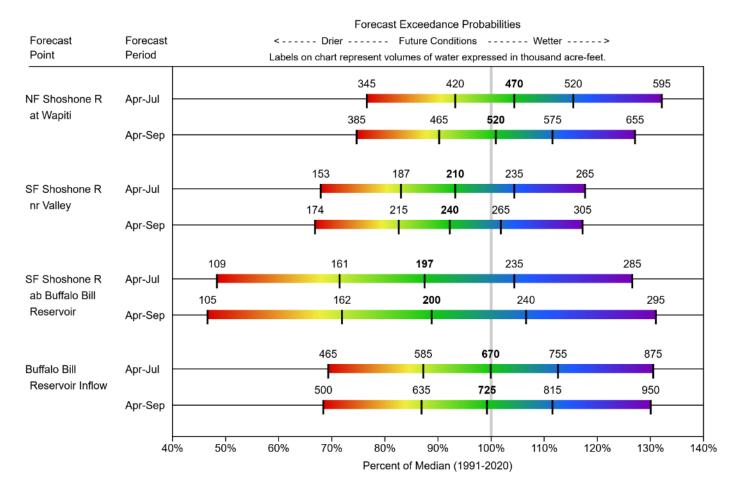
Current storage in Buffalo Bill Reservoir is about 105% of median.

Shoshone	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Buffalo Bill	466.1	384.9	441.9	646.6	72%	60%	68%	105%	87%
Basin Index # of reservoirs					72% 1	60% 1	68% 1	105% 1	87% 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 101% of median. The South Fork of the Shoshone River near Valley should yield 92% of median. The Buffalo Bill Reservoir inflow should yield 99% of median. *See the following graph for detailed runoff volumes.*

SHOSHONE RIVER BASIN Water Supply Forecasts March 1, 2023

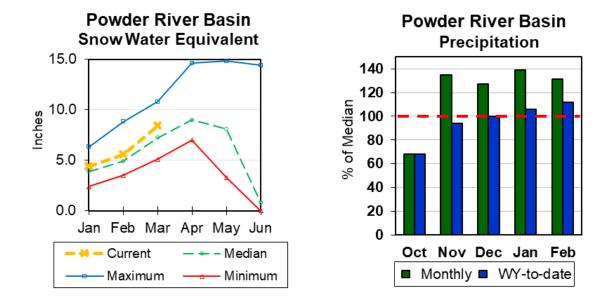


Powder River Basin



Snow





Precipitation

Last month's precipitation was 131% of median in the basin. Year-to-date precipitation is 112% of median.

Reservoirs

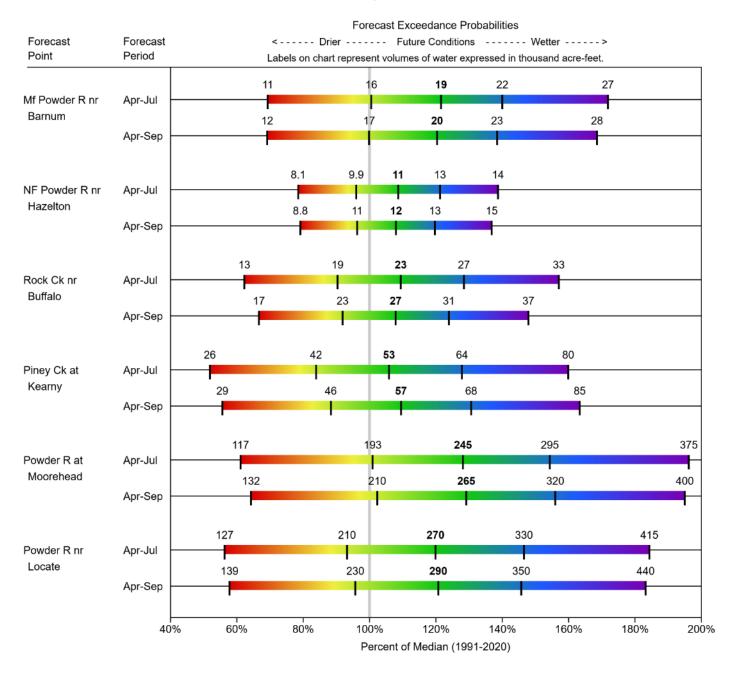
No reservoir data for this basin.

Streamflow

The 50% exceedance forecasts for the April through September period are above normal for the basin. The Middle Fork of the Powder River near Barnum should yield around 120% of median. The North Fork of the Powder River near Hazelton to yield around 108% of median.

See the following graph for detailed runoff volumes.

POWDER RIVER BASIN Water Supply Forecasts March 1, 2023

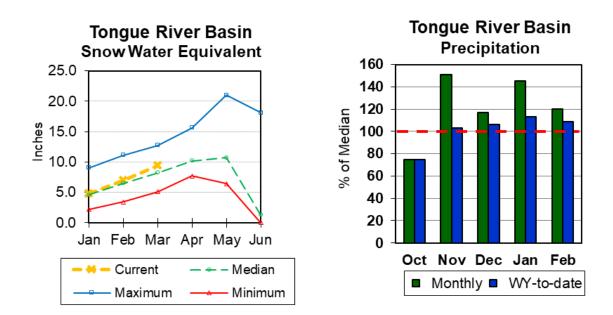


Tongue River Basin



Snow

Upper Tongue River drainage SWE is at 115% of median. See Appendix at the end of this report for a detailed listing of snow course information.



Precipitation

Last month's precipitation was 120% of median. Year-to-date precipitation is 109% of median in the basin.

Reservoirs

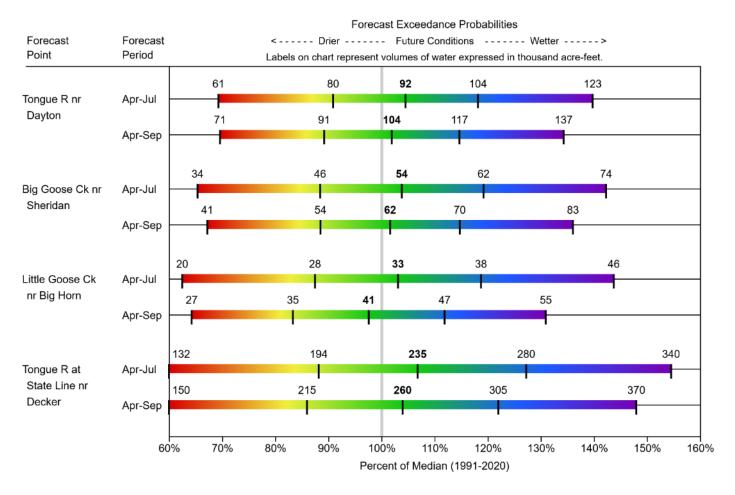
The Tongue River Reservoir is at 112% of median.

Tongue	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Tongue River Res	49.2	46.8	43.9	79.1	62%	59%	55%	112%	107%
Basin Index					62%	59%	55%	112%	107%
# 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 yield for Tongue River near Dayton is forecasted to be 102% of median. Big Goose Creek near Sheridan should yield around 102%. Little Goose Creek near Bighorn should yield 98% of median. The Tongue River Reservoir Inflow should yield 104% of median. *See below for detailed runoff volumes.*

TONGUE RIVER BASIN Water Supply Forecasts March 1, 2023



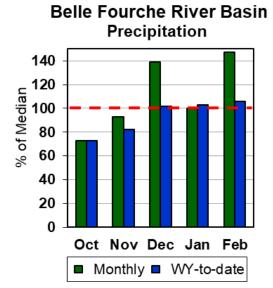
Belle Fourche River Basin



Snow

Currently the Belle Fourche River Basin SWE is at 126% of median. See Appendix at the end of this report for a detailed listing of snow course information.

Belle Fourche River Basin Snow Water Equivalent



Precipitation

Precipitation for last month was 147% of median in the Belle Fourche basin. Year-to-date precipitation is 106% of median.

Reservoirs

Combined storage for the 2 reservoirs in the basin is at 100% 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	118.6	128.4	119.1	193.8	61%	66%	61%	100%	108%
Belle Fourche	134.2	116.2	134.8	178.4	75%	65%	76%	100%	86%
Basin Index					68%	66%	68%	100%	96%
# of reservoirs					2	2	2	2	2

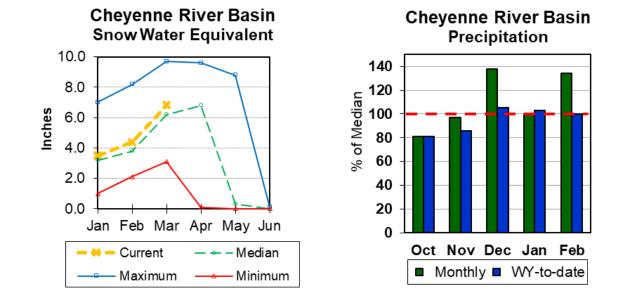
Streamflow

There are no streamflow forecast points for the basin.

Cheyenne River Basin



Snow



Currently SWE for sites in the Cheyenne River Basin are at 110% of median. See Appendix at the end of this report for a detailed listing.

Precipitation

Precipitation for last month was 134% of median. Year-to-date precipitation is 100% of median.

Reservoirs

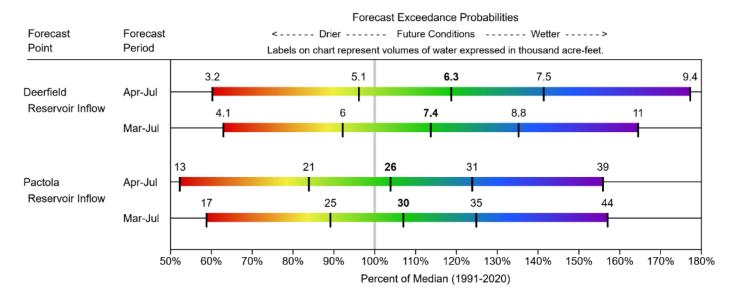
Combined storage for the 3 reservoirs in the basin is at 78% of median.

Cheyenne	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pactola	50.2	52.4	52.8	55.0	91%	95%	96%	95%	99%
Deerfield	14.6	14.8	14.8	15.2	96%	97%	97%	99%	100%
Angostura	65.3	82.0	98.1	122.1	53%	67%	80%	67%	84%
Basin Index					68%	78%	86%	78%	90%
# of reservoirs					3	3	3	3	3

Streamflow

The 50% exceedance forecasts for the April through July period are slightly above normal. The Deerfield Reservoir Inflow yield is forecasted at 119% of median. Pactola Reservoir Inflow yield should be 104% of median. *See the following graph for detailed runoff volumes.*

CHEYENNE RIVER BASIN Water Supply Forecasts March 1, 2023



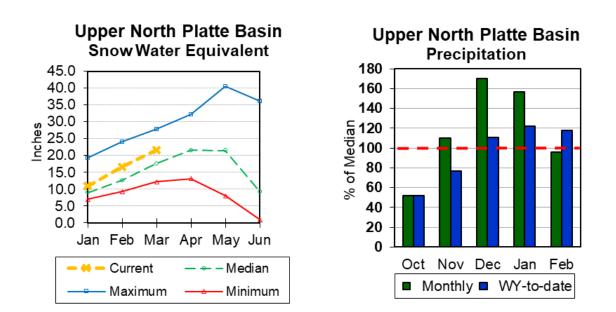
Upper North Platte River Basin



Snow

The Upper North Platte River basin SWE is 123% of median. North Platte above Northgate SWE is 118% of median. Encampment River SWE is 137% of median. Medicine Bow and Rock Creek SWE are 112% of median.

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



Precipitation

Last month's precipitation was 96% of median. Total water-year-to-date precipitation is 118% of median.

Reservoirs

Combined storage for reservoirs in the Upper North Platte River Basin is at 69% of median.

Upper North Platte	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pathfinder	359.3	654.3	579.7	1016.5	35%	64%	57%	62%	113%
Seminoe	438.1	279.8	579.6	1016.7	43%	28%	57%	76%	48%
Basin Index					39%	46%	57%	69%	81%
# of reservoirs					2	2	2	2	2

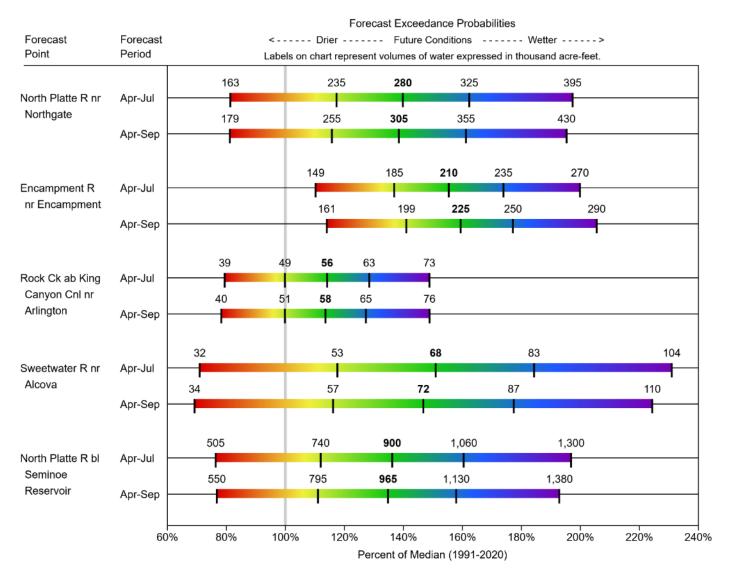
Streamflow

The 50% exceedance forecasts for the April through September period are well above normal for the Upper North Platte River Basin. The yield for the North Platte River near Northgate will be around 139% of median. The Encampment River near Encampment yield will be about 160%. Rock Creek near Arlington yield will be around 114%. Seminoe Reservoir inflow should be about 135% of median. *See the following page for more detailed information on projected runoff.*

UPPER NORTH PLATTE RIVER BASIN

Water Supply Forecasts

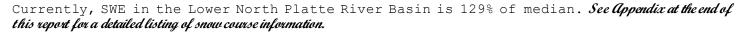
March 1, 2023

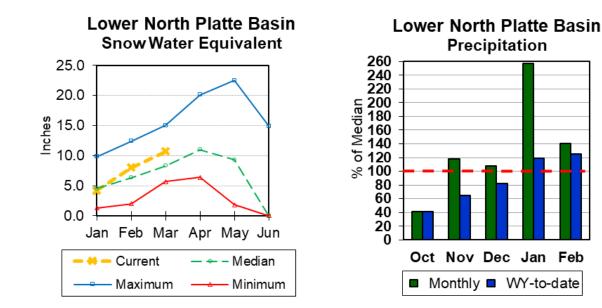


Lower North Platte River Basin



Snow





Precipitation

Last month's precipitation was 140% of median. The water year-to-date precipitation for the basin is currently 125% of median.

Reservoirs

Combined storage for the 3 reservoirs in the basin is at 94% of median.

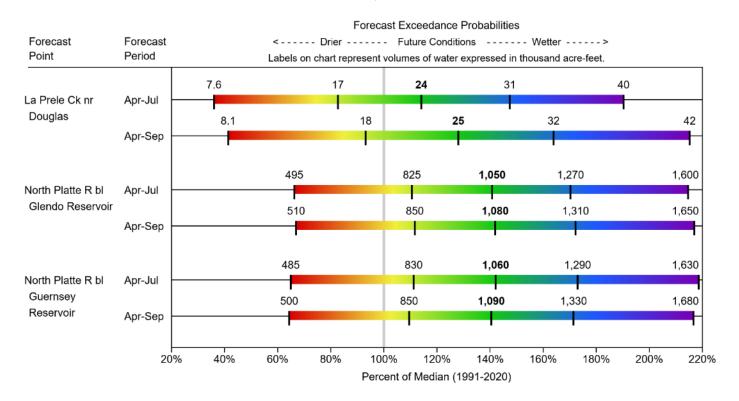
Lower North Platte	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Alcova	157.3	157.3	156.6	184.3	85%	85%	85%	100%	100%
Glendo	288.3	317.8	320.8	506.4	57%	63%	63%	90%	99%
Guernsey	15.9	0.0	15.8	45.6	35%	0%	35%	101%	0%
Basin Index					63%	65%	67%	94%	96%
# of reservoirs					3	3	3	3	3

Streamflow

The 50% exceedance forecasts for the April through September period should be well above normal. LaPrele Creek near Douglas is forecasted to yield 128% of median. North Platte River below Guernsey Reservoir should yield around 141% of median. *See the following formore detailed information on projected runoff.*

LOWER NORTH PLATTE RIVER BASIN

Water Supply Forecasts March 1, 2023

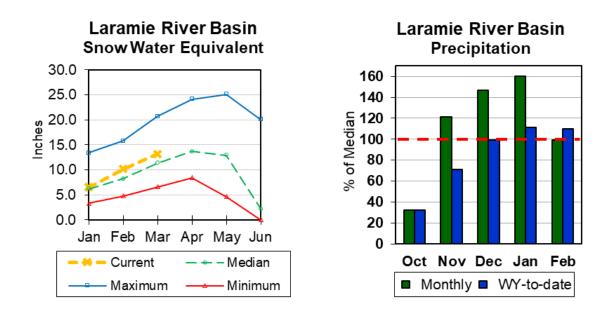


Laramie River Basin



Snow

SWE for the entire Laramie River Basin (above mouth entering North Platte) is 116% of median. SWE for the Laramie River above Laramie is 116% of median. SWE for the Little Laramie River is 117% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



Precipitation

Last month's precipitation was 99% of median. The water year-to-date precipitation for the basin is currently 110% of median.

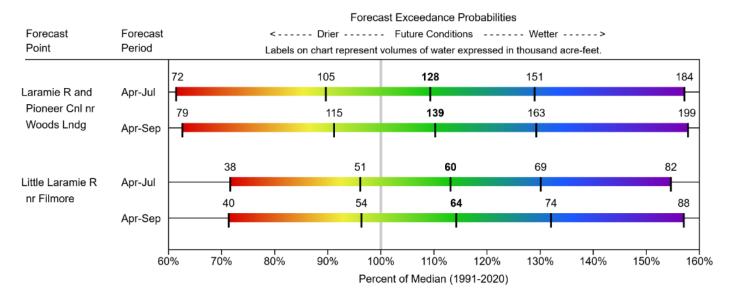
Reservoirs

No reservoir data for this basin.

Streamflow

The 50% exceedance forecasts for the April through September period at Laramie River near Woods Landing should yield around 110% of median. The Little Laramie near Filmore should produce about 114% of median. *See the following graph for detailed runoff volumes.*

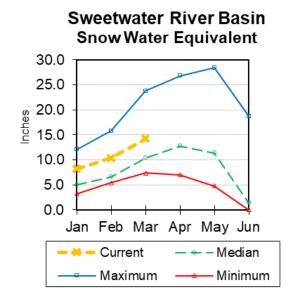
LARAMIE RIVER BASIN Water Supply Forecasts March 1, 2023

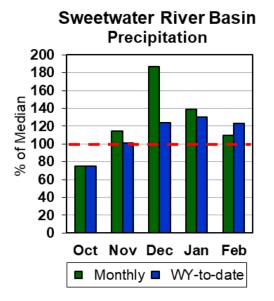




Snow

Sweetwater River Basin SWE is at 139% of median. See A pendix at the end of this report for a detailed listing of snow course information.





Precipitation

Last month's precipitation was 110% of median. The water year-to-date precipitation for the basin is currently 123% of median.

Reservoirs

No reservoir data for the basin.

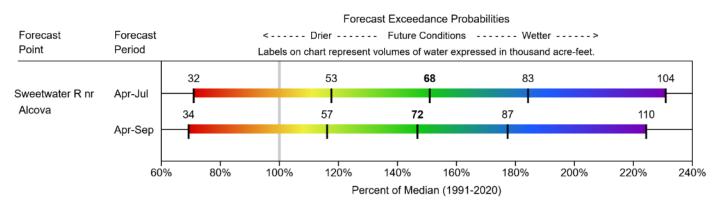
Streamflow

The 50% exceedance forecasts for the April through September period in the Sweetwater Basin is well above normal. The Sweetwater River near Alcova will yield about 147% of median. *See below for detailed information on projected runoff.*

SWEETWATER RIVER BASIN

Water Supply Forecasts

March 1, 2023

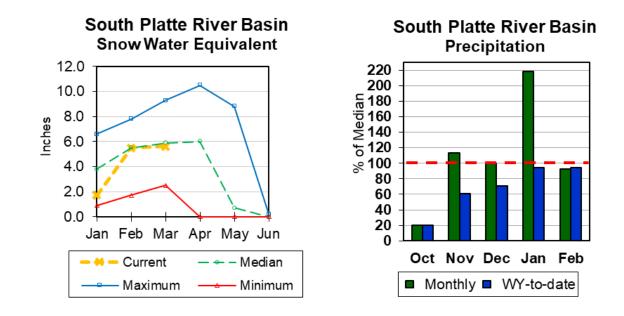


South Platte River Basin (WY)



Snow

The median SWE for sites in the South Platte River Basin is 95% of median. See Appendix at the end of this report for a detailed listing of snow course information.



Precipitation

Last month's precipitation was 93% of median. The water year-to-date precipitation for the basin is currently 94% of median.

Reservoirs

No reservoir data for the basin.

Streamflow

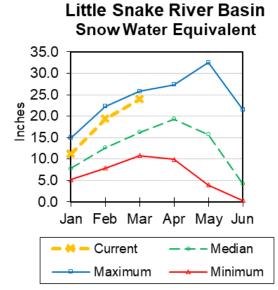
There are no streamflow forecast points for the basin.

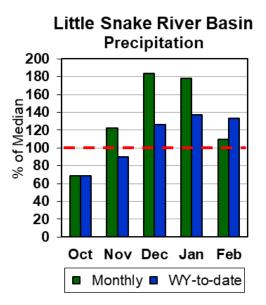
Little Snake River Basin



Snow

Little Snake River drainage SWE is 148% of median. See *Appendix at the end of this report for a detailed listing of snow course information.*





Precipitation

Precipitation across the basin was 110% of median. The Little Snake River Basin wateryear-to-date precipitation is currently 133% of median.

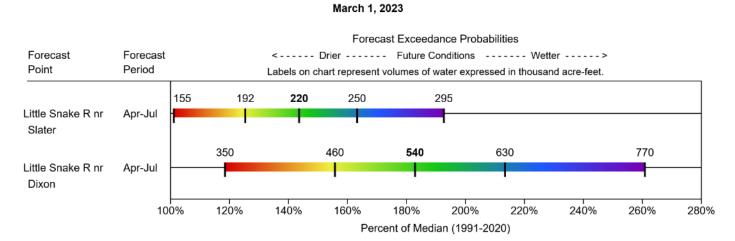
Reservoirs

No reservoir data for the basin.

Streamflow

The 50% exceedance forecasts for the April through July period will be well above normal. The Little Snake River near Slater is forecasted to yield around 144% of median. *See below for detailed information on projected runoff.*

LITTLE SNAKE RIVER BASIN Water Supply Forecasts

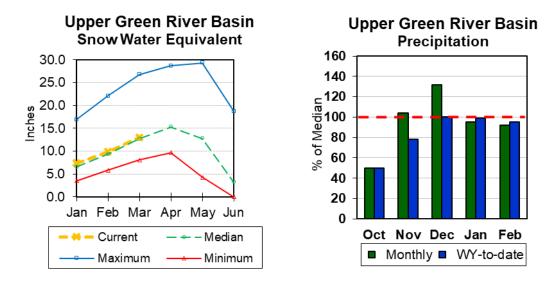


Upper Green River Basin



Snow

The Upper Green River Basin SWE (above Fontenelle Reservoir) is 102% of median. Green River Basin above Warren Bridge SWE is 96% of median. West Side of Upper Green River Basin SWE is 101% of median. *See Appendix at the end of this report for a detailed listing of snow courseinformation.*



Precipitation

Precipitation for sites in the basin was 92% of median last month. Water year-to-date precipitation is 95% of median.

Reservoir

Combined water storage in the basin was at 100% of median for the 2 reservoirs.

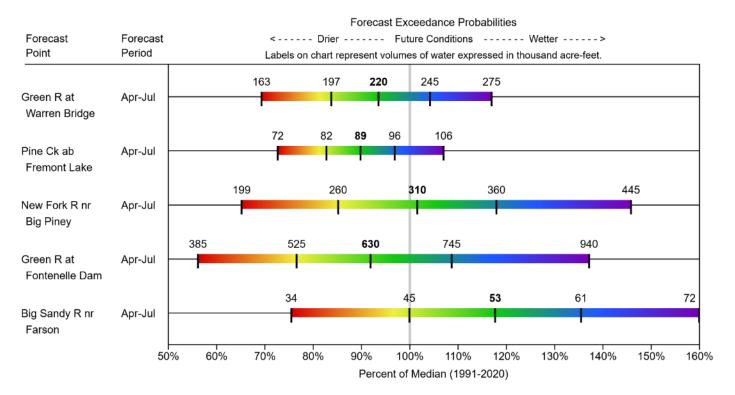
Upper Green	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Fontenelle	141.4	156.6	131.1	344.8	41%	45%	38%	108%	119%
Big Sandy	8.3	6.8	18.4	38.3	22%	18%	48%	45%	37%
Eden				11.8					
Basin Index					39%	43%	39%	100%	109%
# of reservoirs					2	2	2	2	2

Streamflow

The 50% exceedance forecasts for the April through July period will be slightly below normal. The yield on the Green River at Warren Bridge is about 94% of median. New Fork River near Big Piney yield will be around 102% of median. Green River at Fontenelle Dam is estimated to be about 92% of median. *See the following for a more detailed forecast.*

UPPER GREEN RIVER BASIN Water Supply Forecasts





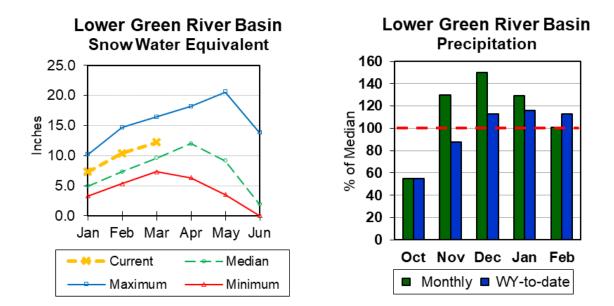
Lower Green River Basin



Snow

Lower Green River Basin SWE is at 127% of median. Hams Fork drainage SWE is 122% of median. Blacks Fork drainage SWE is 129% 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 101% of median. The basin year-to-date precipitation is currently 113% of median.

Reservoirs

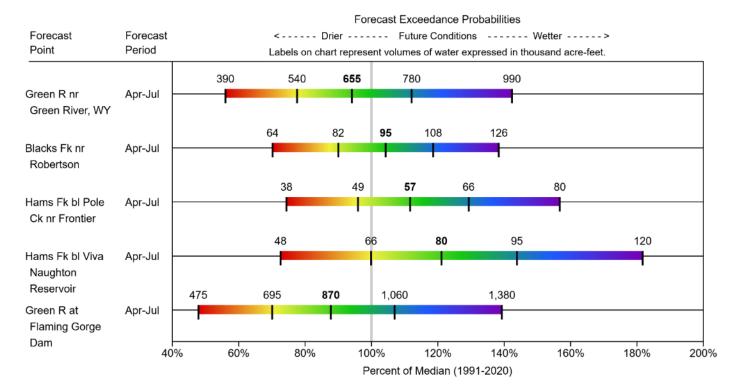
Combined storage for the 4 reservoirs in the basin was at 79% of median at the end of last month.

Lower Green	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Stateline Reservoir	6.4	5.7	5.7	12.0	53%	47%	48%	112%	100%
Meeks Cabin Res	10.3	11.4	10.8	32.5	32%	35%	33%	95%	106%
Flaming Gorge Res	2457.3	2905.1	3107.0	3749.0	66%	77%	83%	79%	94%
Viva Naughton Res	30.5	26.2	29.5	42.4	72%	62%	70%	103%	89%
Basin Index # of reservoirs					65% 4	77% 4	82% 4	79% 4	94% 4

Streamflow

The following are the 50% exceedance forecasts for the April through July period. The Green River near Green River will yield about 94% of median. The Flaming Gorge Reservoir inflow will be about 88% of median. *See the following page for more detailed information on projected runaff.*

LOWER GREEN RIVER BASIN Water Supply Forecasts March 1, 2023



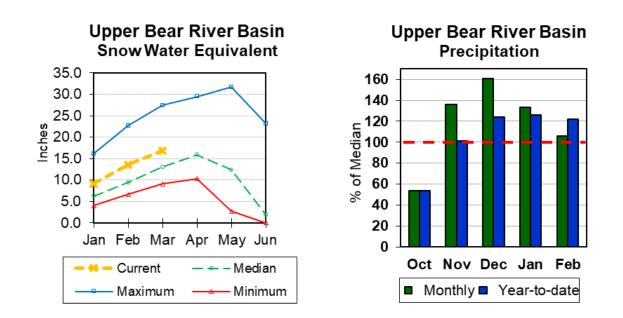
Upper Bear River Basin



Snow

SWE in the Upper Bear River Basin of Utah is 130% of median. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 125% of median.

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



Precipitation

Precipitation for last month was 106% of median in the basin. The year-to-date precipitation for the basin is 122% of median.

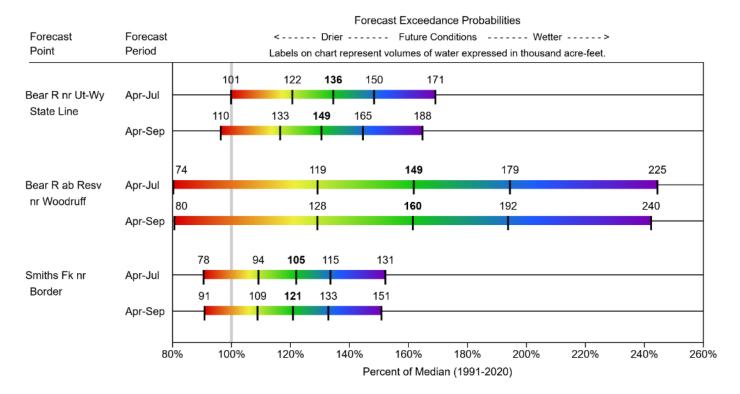
Reservoirs

No reservoir data for the basin.

Streamflow

The 50% exceedance forecasts for the April through September period are well above normal. The Bear River above Reservoir near Woodruff should yield around 162% of median. The Smiths Fork River near Border Jct. will yield around 121%. *See the following page for more detailed information on projected runoff*.

UPPER BEAR RIVER BASIN Water Supply Forecasts March 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 <u>averages</u> 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 <u>streamflow</u> normal comparisons for NRCS forecasted stations, please refer to:

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

USGS WaterWatch

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

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

Appendix - Snowpack Data

In Adobe Acrobat Document, on left, click on "Attachments: View File Attachments", click BSnow_3_2023.pdf

Appendix - Precipitation Data

In Adobe Acrobat Document, on left, click on "Attachments: View File Attachments", click BPrecip_3_2023.pdf

Appendix - Streamflow Data

In Adobe Acrobat Document, on left, click on "Attachments: View File Attachments", click BFcst_3_2023.pdf

Wyoming Basin Outlook Report Natural Resources Conservation Service Casper, Wyoming

Issued by:

Released by:

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