

Wyoming Basin & Water Supply Outlook Report

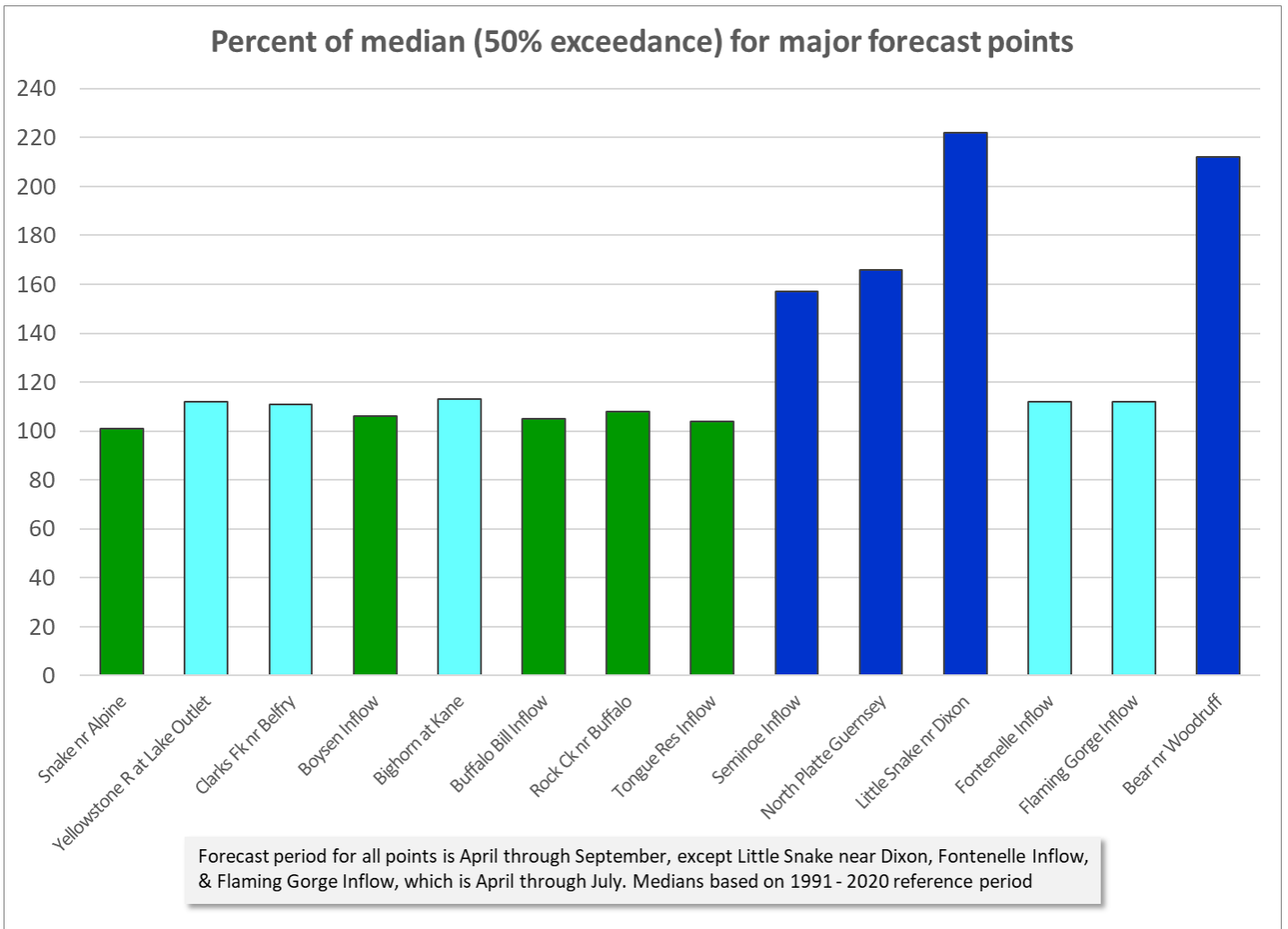
April 1, 2023

**Natural
Resources
Conservation
Service**



Hunter Creek Road, Johnson County, Wyoming. Photo credit: Wyoming State Engineers Office

Forecasted stream flows for April 1st, 2023



All of the above major forecast points have a 50% exceedance probability of being above median stream flow volume. Two of the forecast points should exceed 200% of median flow volume. Four of the major forecast points could exceed 150% of median stream flow volumes.

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.

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

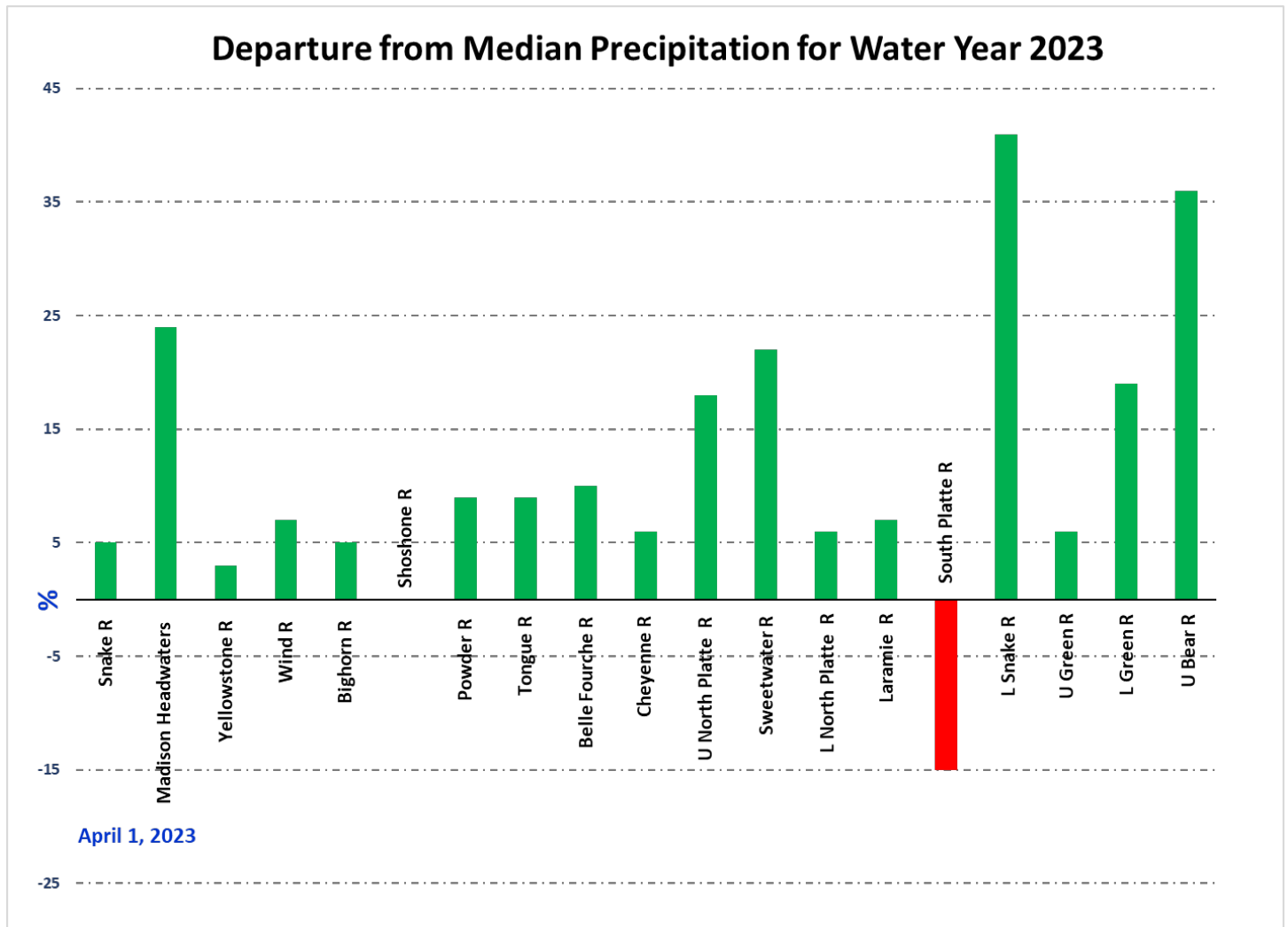
Snowpack

Snow water equivalent (SWE) across Wyoming for April 1st was at 126% of median. SWE in the Belle Fourche River Basin was the highest at 163% of median and lowest for the Shoshone River Basin at 106% of median. *See the map on page 6 and the Appendix for further information.*

Precipitation

The Upper Bear River Basin had the highest precipitation for the month at 194% of median. The Lower North Platte River Basin had the lowest precipitation amount for the month at 62% 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 122%. Forecast median stream flow yields for April thru July in Green, Little Snake, and Cheyenne average 139%. The Snake River and Yellowstone River in Wyoming, basins should yield about 111% and 112% of median. Yields from the Wind and Bighorn River basins should be about 114% and 110% of median. Yields from the Shoshone River basin should be 102% of median. Yields from the Powder and Tongue River basins should be about 109% and 103% of median. Yield for the Cheyenne River basin should be about 137% of median. Yields for the Sweetwater, Upper North Platte, Lower North Platte, and Laramie Rivers of Wyoming should be about 163%, 157%, 154%, and 126% of median, respectively. Yields for the Little Snake and Green River should be 212% and 119%.

Reservoirs

Reservoir storage was 79% of median across the entire state. Reservoirs in the Snake River basin are much below median at 33%. Reservoirs in the Wind River basin are near median at 97%. Reservoirs on the Bighorn are near median at 96%. The Buffalo Bill Reservoir on the Shoshone is near median at 105%. Reservoirs in the Belle Fourche and Cheyenne River basins are below median at 93% and 77% respectively. Reservoirs on the Upper and Lower North Platte River are below median and near median at 66% and 94% respectively. Reservoirs on the Upper Green River are at 85% of median. Reservoirs on the Lower Green River are below median at 78%. *See below for further information.*

Wyoming Reservoir Levels

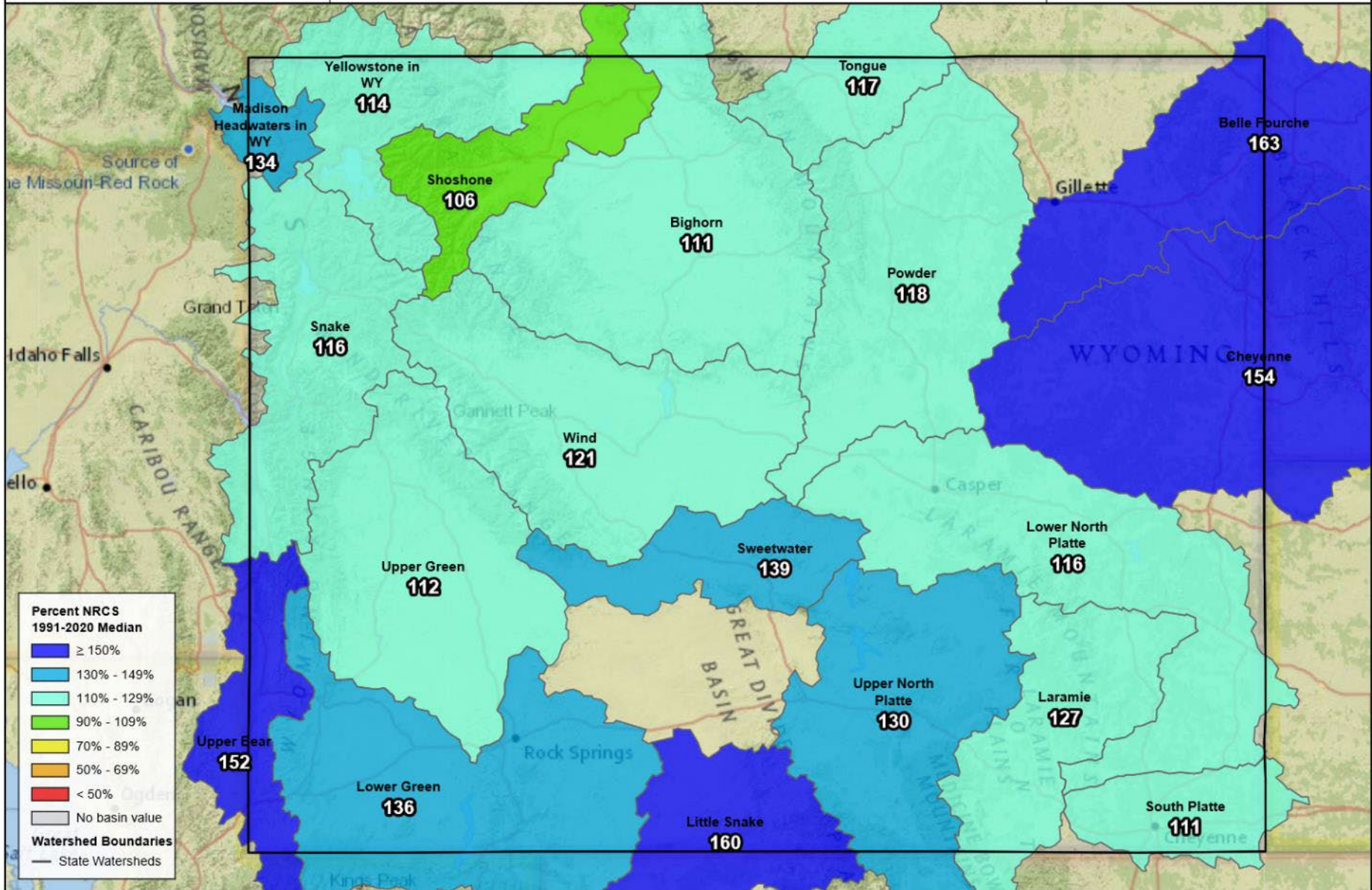
	Reservoir Storage Summary For the End of March 2023								
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Alcova	157.8	156.7	157.7	184.3	86%	85%	86%	100%	99%
Angostura	70.7	85.6	107.5	122.1	58%	70%	88%	66%	80%
Belle Fourche	148.7	126.9	147.7	178.4	83%	71%	83%	101%	86%
Big Sandy	9.3	8.4	20.6	38.3	24%	22%	54%	45%	41%
Bighorn Lake	766.2	781.2	798.4	1356.0	57%	58%	59%	96%	98%
Boysen	529.2	583.1	541.5	596.0	89%	98%	91%	98%	108%
Buffalo Bill	454.9	389.4	432.8	646.6	70%	60%	67%	105%	90%
Bull Lake	75.2	87.4	81.0	151.8	50%	58%	53%	93%	108%
Deerfield	14.7	14.9	14.9	15.2	97%	98%	98%	98%	100%
Flaming Gorge Res.	2465.2	2932.2	3162.0	3749.0	66%	78%	84%	78%	93%
Fontenelle	112.6	151.4	122.9	344.8	33%	44%	36%	92%	123%
Glendo	340.8	360.4	375.2	506.4	67%	71%	74%	91%	96%
Grassy Lake	12.0	10.8	13.2	15.2	79%	71%	87%	91%	82%
Guernsey	18.9	1.6	18.6	45.6	42%	4%	41%	102%	9%
High Savery Res.	7.2	6.5	11.7	22.4	32%	29%	52%	61%	56%
Jackson Lake	199.6	180.4	627.0	847.0	24%	21%	74%	32%	29%
Keyhole	125.9	129.4	147.3	193.8	65%	67%	76%	85%	88%
Meeks Cabin Res.	11.4	12.7	12.0	32.5	35%	39%	37%	95%	106%
Pactola	50.4	53.4	53.8	55.0	92%	97%	98%	94%	99%
Pathfinder	351.7	665.2	595.5	1016.5	35%	65%	59%	59%	112%
Pilot Butte	24.6	20.8	25.2	31.6	78%	66%	80%	98%	83%
Seminole	434.9	291.1	589.8	1016.7	43%	29%	58%	74%	49%
Stalene Res.	6.7	6.0	5.7	12.0	56%	50%	48%	118%	105%
Viva Naughton Res	28.8	26.8	28.5	42.4	68%	63%	67%	101%	94%
Wheatland #2	40.0	46.4	57.4	98.9	40%	47%	58%	70%	81%
Woodruff Creek	2.8	2.9	3.8	4.0	70%	73%	95%	74%	76%
Woodruff Narrows Res.	16.3	20.3	49.8	57.3	28%	35%	87%	33%	41%

Snow Water Equivalent

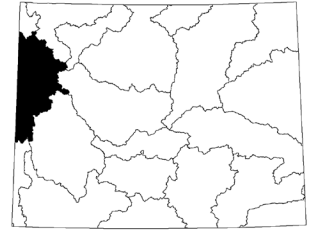
Wyoming Basins - Includes Manual Snow Course Data

End of March, 2023

Percent NRCS 1991-2020 Median



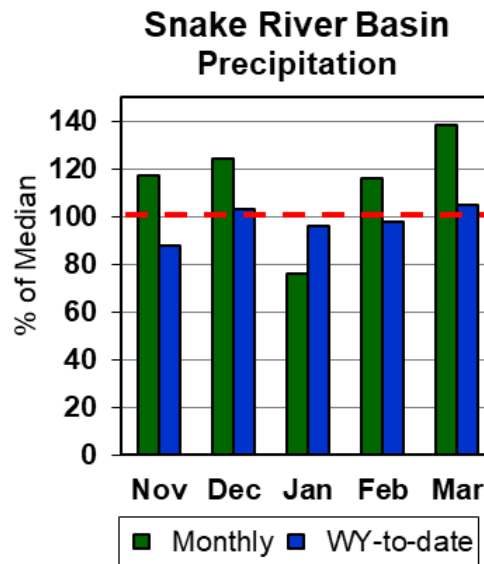
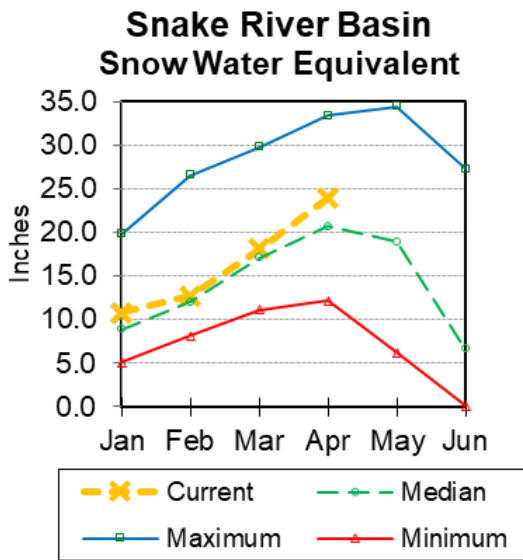
Snake River Basin



Snow

The overall Snake River basin SWE (portion above Palisades dam) is 116% of median. SWE in the Snake River Basin above Jackson Lake is 116% of median. Pacific Creek basin SWE is 111% of median. Buffalo Fork SWE is 100% of median. Gros Ventre River basin SWE is 101% of median. SWE in the Hoback River drainage is 116% of median. SWE in the Greys River drainage is 114% of median. Salt River Basin SWE is 136% 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 138% of median. Water-year-to-date precipitation is 105% of median.

Reservoirs

Current reservoir storage is 33% of median for the two storage reservoirs in the basin.

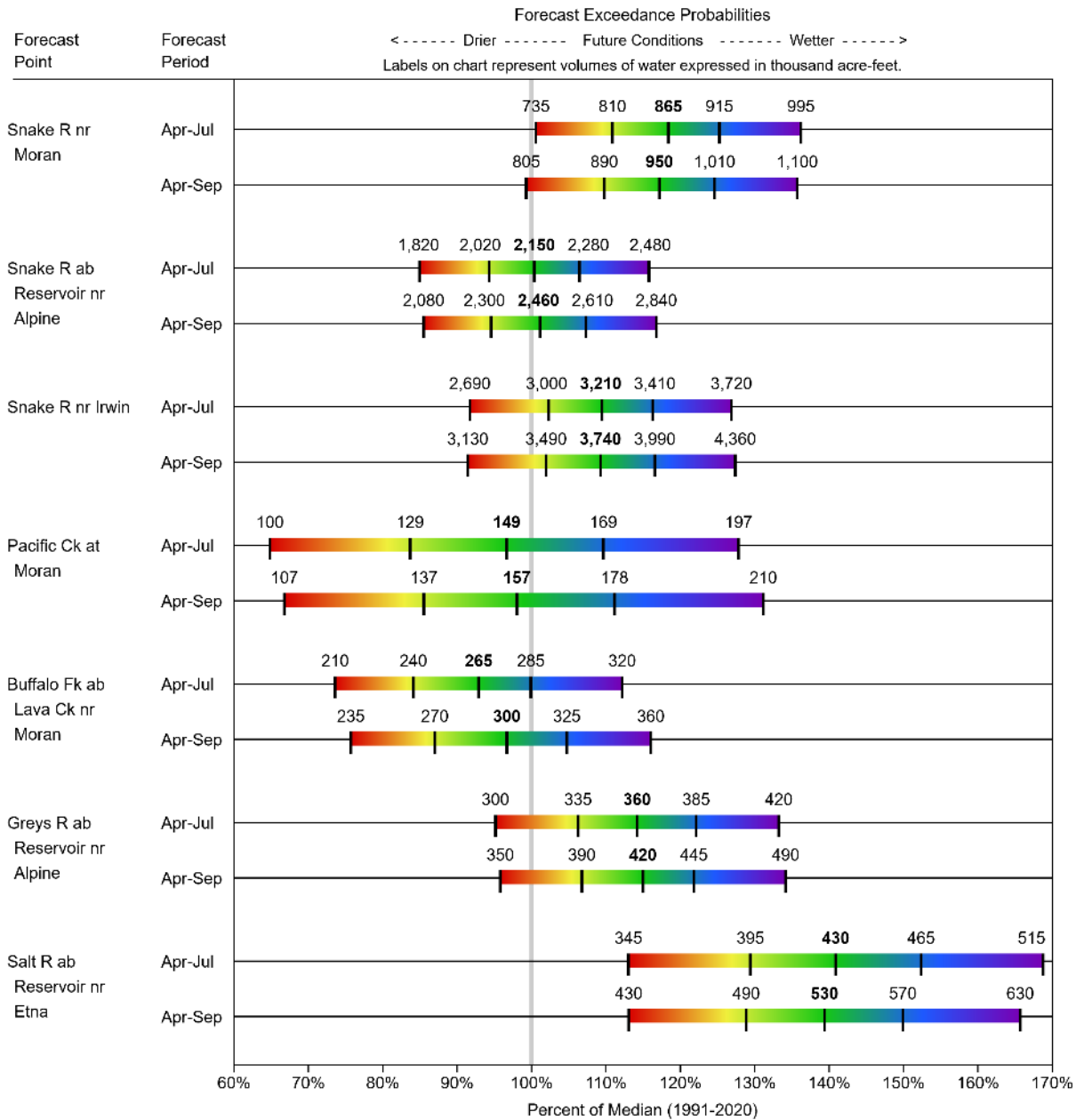
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Jackson Lake	199.6	180.4	627.0	847.0	24%	21%	74%	32%	29%
Grassy Lake	12.0	10.8	13.2	15.2	79%	71%	87%	91%	82%
Basin Index					25%	22%	74%	33%	30%
# of reservoirs					2	2	2	2	2

Streamflow

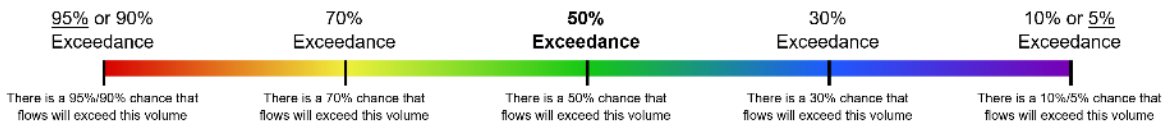
The 50% exceedance forecasts for April through September are slightly above median for this basin. The Snake near Moran yield should be 117% of median. Snake River above reservoir near Alpine will yield about 101%. Pacific Creek near Moran yield will be around 98%. Buffalo Fork above Lava near Moran will be around 97% of median. Greys River above reservoir near Alpine should yield about 115%. Salt River near Etna yield will be about 139%.

See the following graph for further information.

SNAKE RIVER BASIN Water Supply Forecasts April 1, 2023



Legend



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.

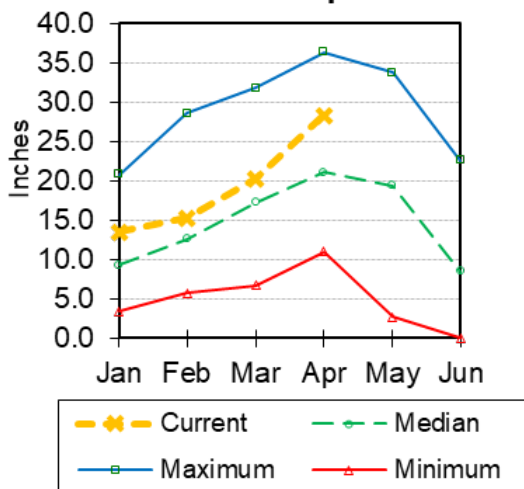
Madison Headwaters in Wyoming



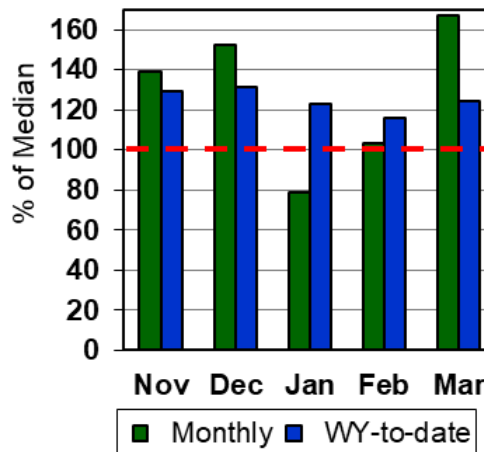
Snow

SWE is 134% 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.*

Madison Headwaters Snow Water Equivalent



Madison Headwaters Precipitation



Precipitation

Last month precipitation in the Madison Headwaters drainage was 167% of median. Water-year-to-date precipitation is at 124% of median.

Reservoirs

No reservoir data.

Streamflow

There are no streamflow forecast points for the basin.

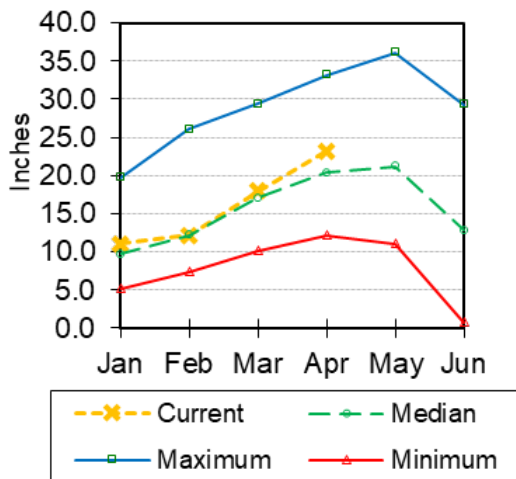
Yellowstone River Basin



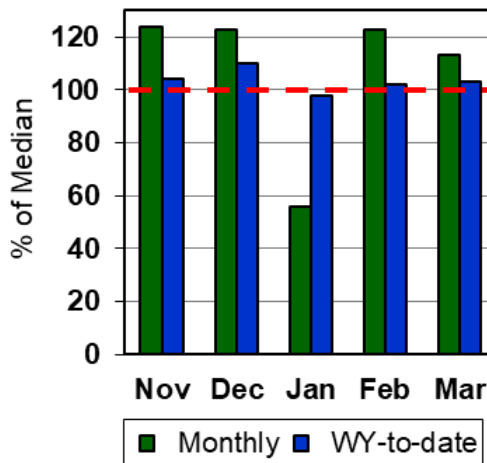
Snow

SWE in the Yellowstone River Basin is 114% of median. SWE in the Clarks Fork Drainage of the Yellowstone River basin in Wyoming is 106% 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 113% of median. Water-year-to-date precipitation is 103% of median.

Reservoirs

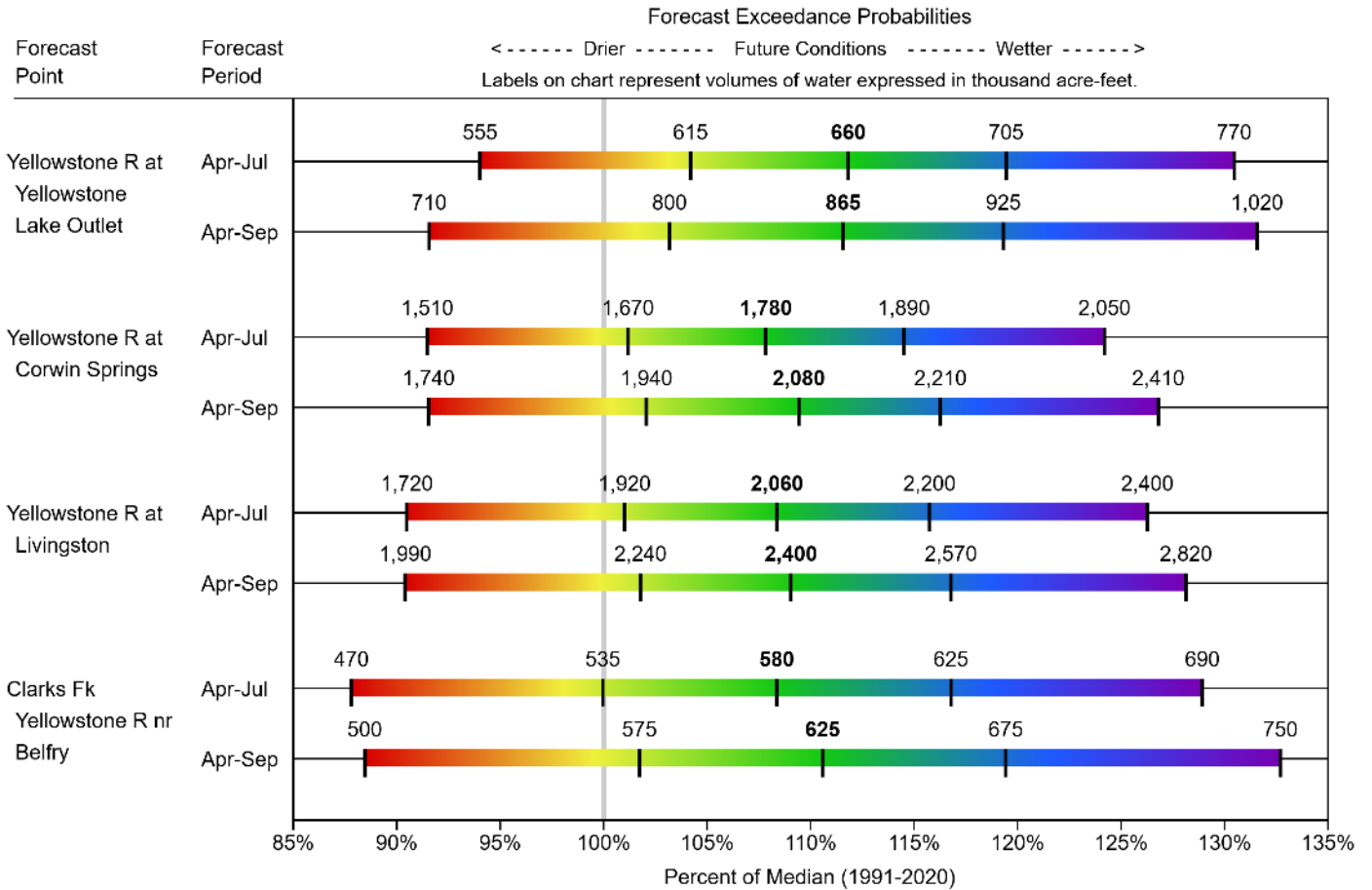
No reservoir data.

Streamflow

The 50% exceedance forecasts for April through September are above normal for the basin. Yellowstone at Lake Outlet will yield around 112% of median. Clarks Fork of the Yellowstone near Belfry will yield around 111%.

See the following graph for detailed information.

YELLOWSTONE RIVER BASIN
Water Supply Forecasts
April 1, 2023

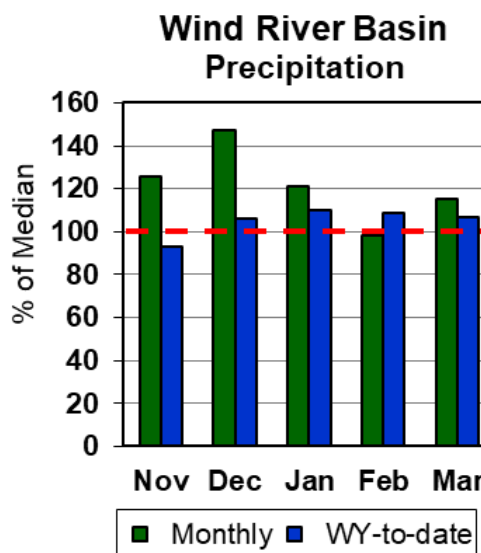
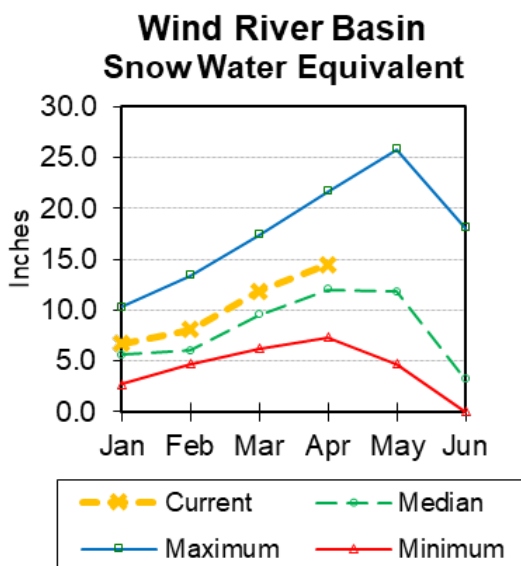


Wind River Basin



Snow

Wind River basin SWE (above Boysen Reservoir) is 121% of median. SWE in the Wind River above Dubois is 107% of median. Little Wind SWE is 107% of median, and Popo Agie drainage SWE is 140% 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 115% of median. Water year-to-date precipitation is 107% of median.

Reservoirs

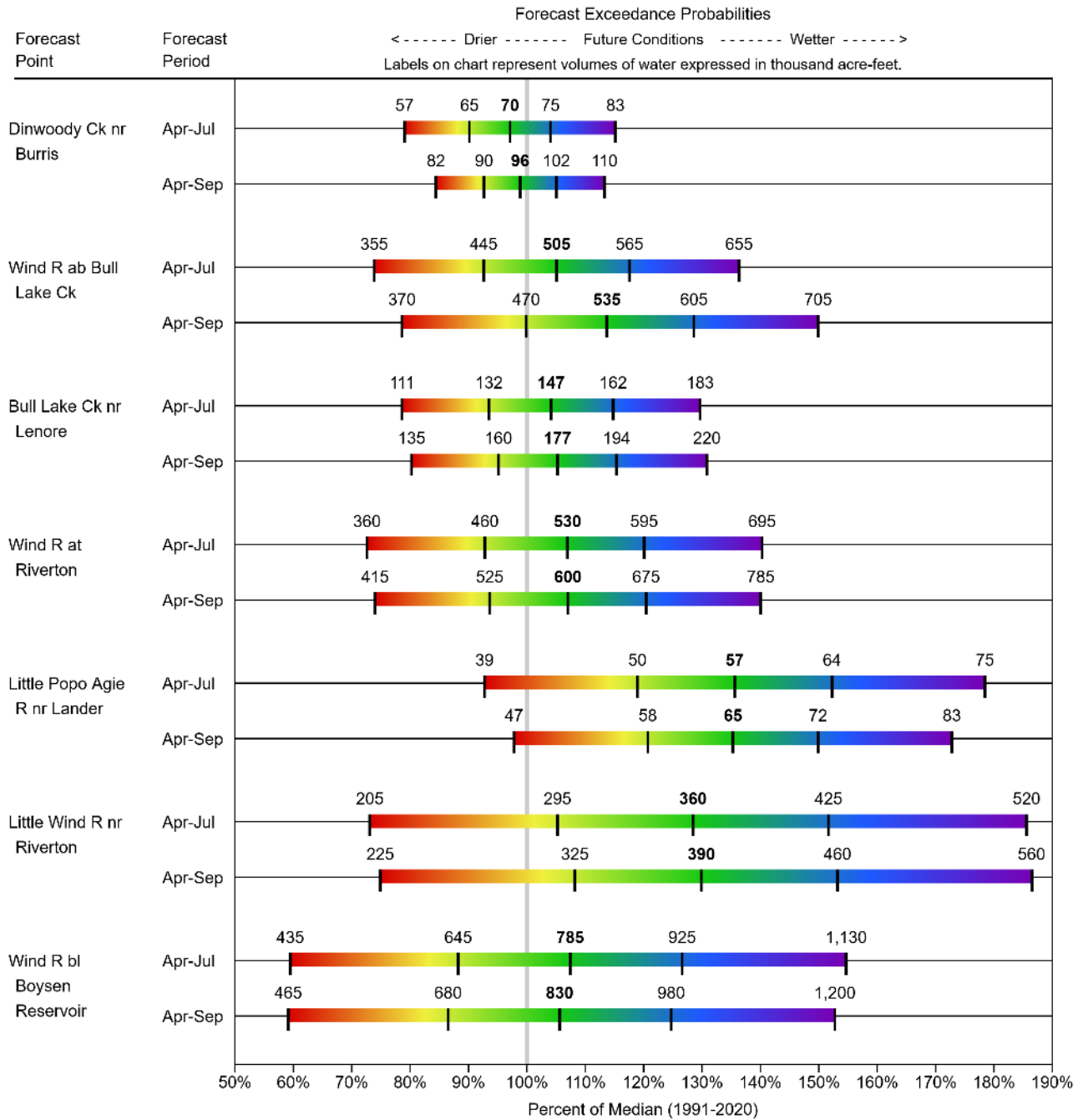
Current storage is 97% of median in the basin.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pilot Butte	24.6	20.8	25.2	31.6	78%	66%	80%	98%	83%
Boysen	529.2	583.1	541.5	596.0	89%	98%	91%	98%	108%
Bull Lake	75.2	87.4	81.0	151.8	50%	58%	53%	93%	108%
Basin Index					81%	89%	83%	97%	107%
# of reservoirs					3	3	3	3	3

Streamflow

The 50% exceedance forecasts for the April through September runoff period should yield slightly above normal for the Wind River. The Wind River above Bull Lake Creek will yield about 114% of median. Little Popo Agie River near Lander should yield around 135% of median. Little Wind River near Riverton will yield around 130% of median. Boysen Reservoir inflow will yield about 106% of median. *See the following graph for detailed runoff volumes.*

WIND RIVER BASIN
Water Supply Forecasts
April 1, 2023

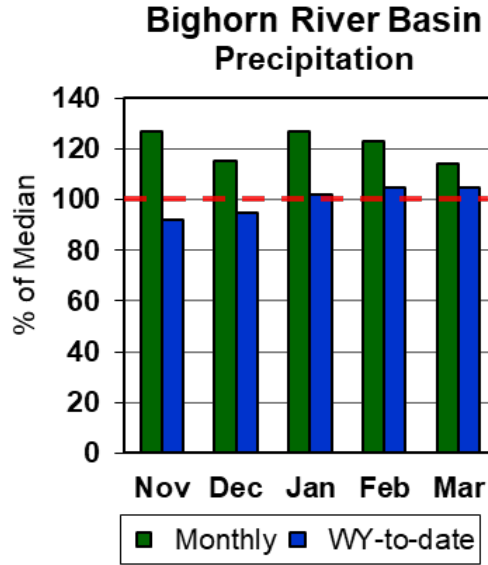
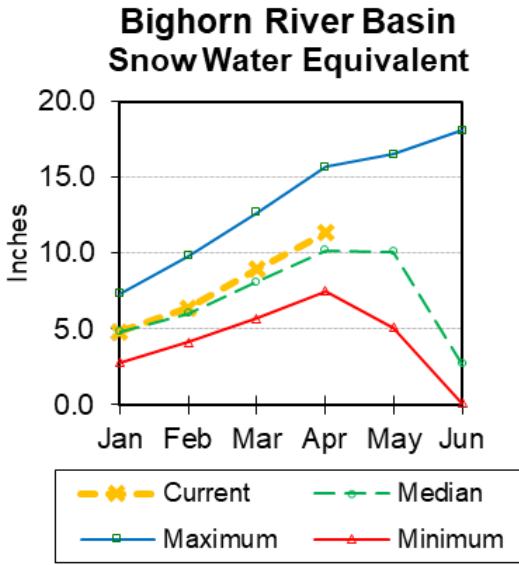


Bighorn River Basin



Snow

The Bighorn River Basin SWE (above Bighorn Reservoir) is 111% of median. The Greybull River SWE is at 117% of median. Shell Creek SWE is at 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 114% of median. Year-to-date precipitation is 105% of median.

Reservoirs

Current reservoir storage in the basin is 96% of median.

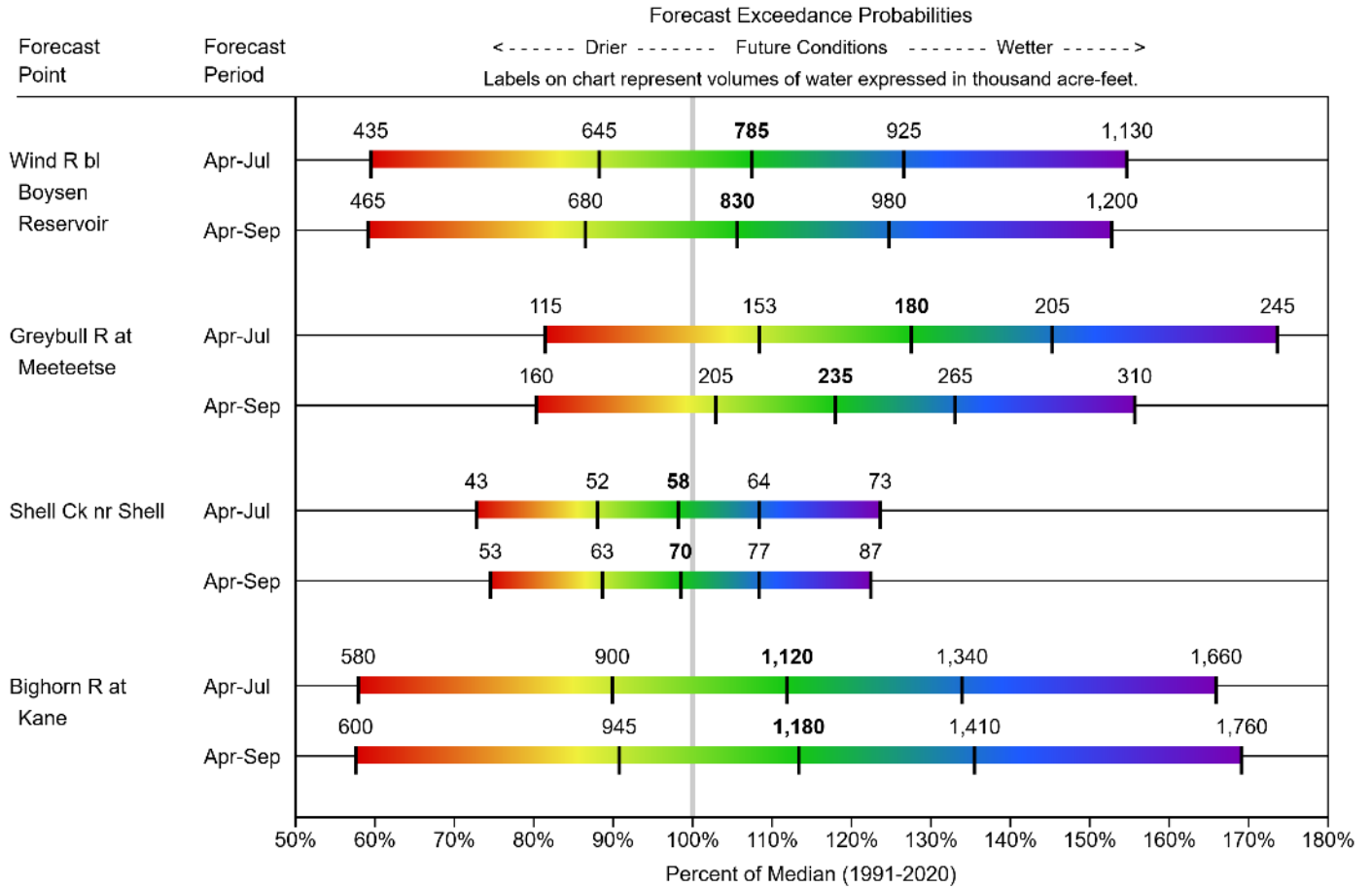
	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Bighorn Lake	766.2	781.2	798.4	1356.0	57%	58%	59%	96%	98%
Basin Index					57%	58%	59%	96%	98%
# of reservoirs					1	1	1	1	1

Streamflow

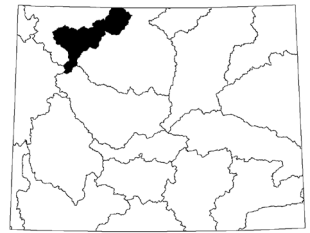
The 50% exceedance forecasts for the April through September runoffs are slightly above normal. The Greybull River near Meeteetse should yield 118% of median. Shell Creek near Shell should yield around 99% of median. The Bighorn River at Kane should yield around 113% of median.

See the following graph for detailed runoff volumes.

BIGHORN RIVER BASIN
Water Supply Forecasts
April 1, 2023

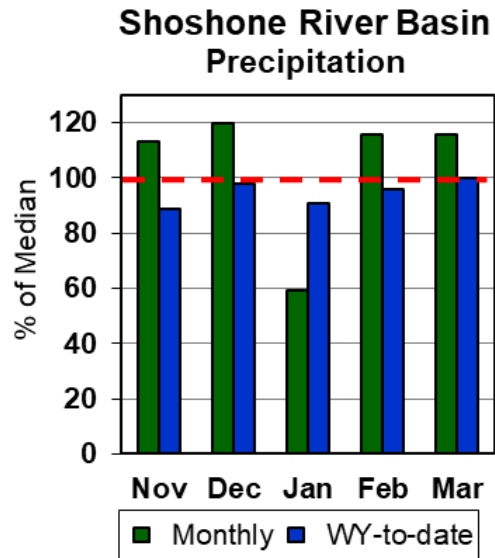
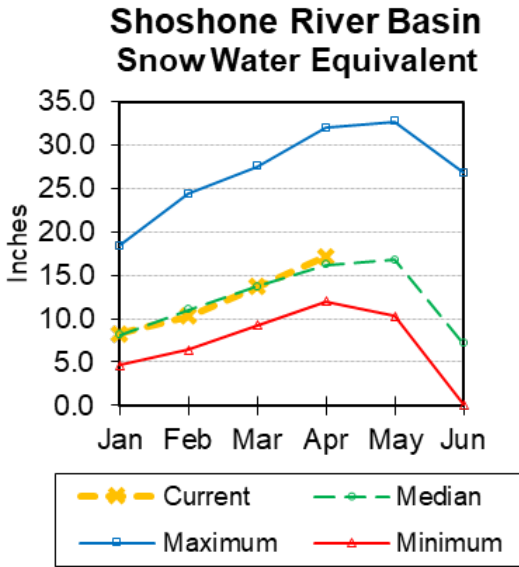


Shoshone River Basin



Snow

Snow Water Equivalent (SWE) is 106% 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 100% of median.

Reservoirs

Current storage in Buffalo Bill Reservoir is about 105% 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	454.9	389.4	432.8	646.6	70%	60%	67%	105%	90%
Basin Index					70%	60%	67%	105%	90%
# of reservoirs					1	1	1	1	1

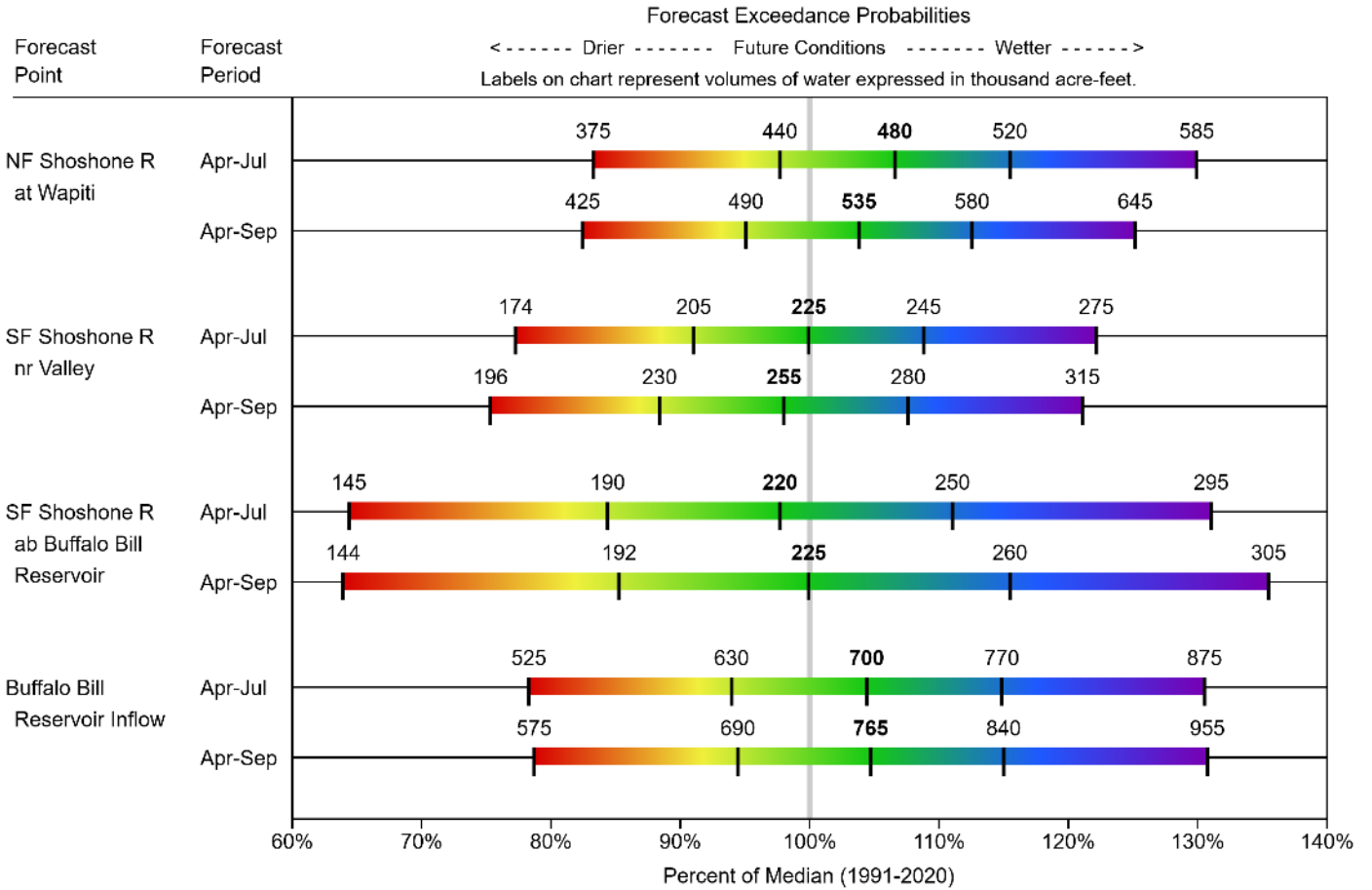
Streamflow

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 104% of median. The South Fork of the Shoshone River near Valley should yield 98% of median. The Buffalo Bill Reservoir inflow should yield 105% of median. *See the following graph for detailed runoff volumes.*

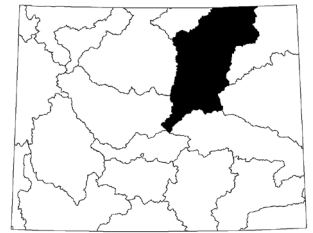
SHOSHONE RIVER BASIN

Water Supply Forecasts

April 1, 2023

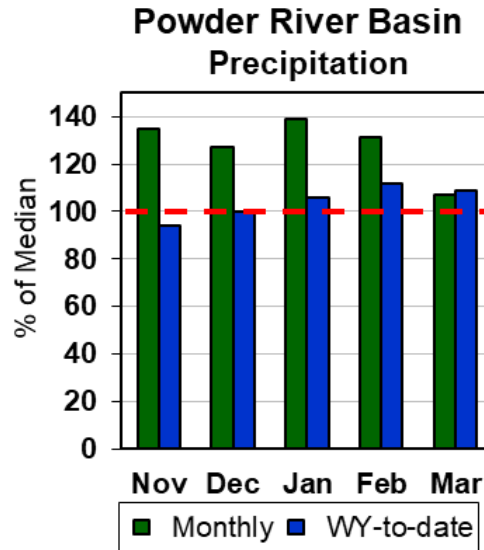
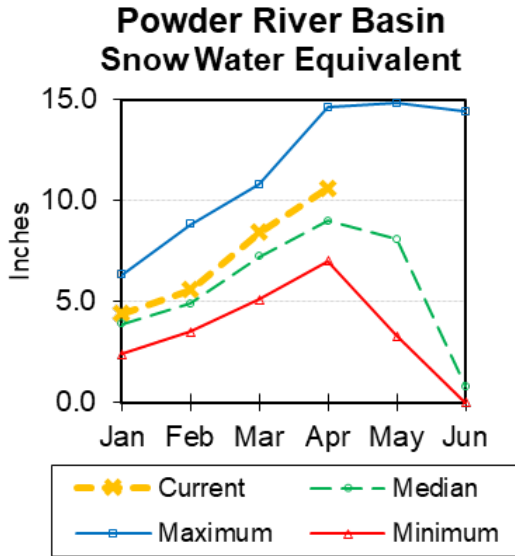


Powder River Basin



Snow

Powder River Basin SWE is at 118% of median. SWE in the Clear Creek drainage 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 was 107% of median in the basin. Year-to-date precipitation is 109% of median.

Reservoirs

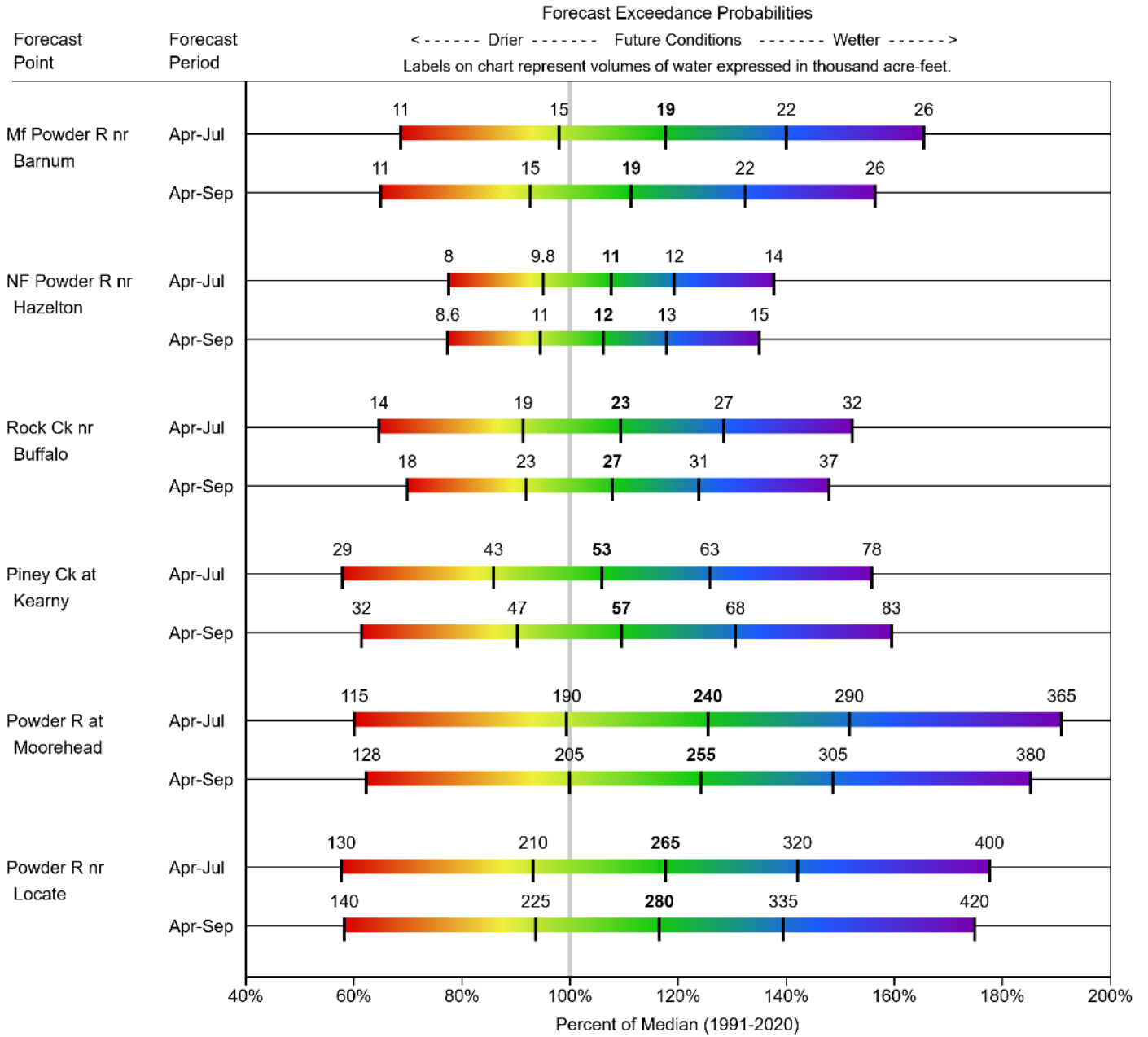
No reservoir data for this basin.

Streamflow

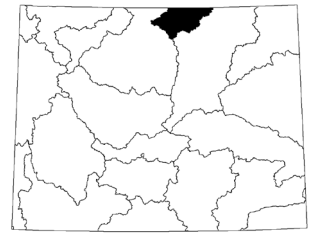
The 50% exceedance forecasts for the April through September period are slightly above normal for the basin. The Middle Fork of the Powder River near Barnum should yield around 111% of median. The North Fork of the Powder River near Hazelton to yield around 106% of median.

See the following graph for detailed runoff volumes.

POWDER RIVER BASIN
Water Supply Forecasts
April 1, 2023

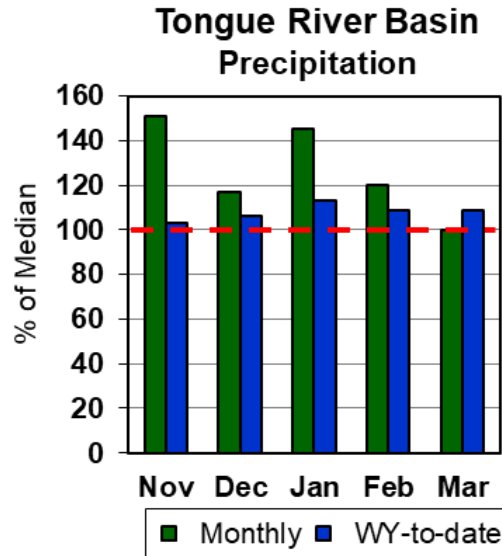
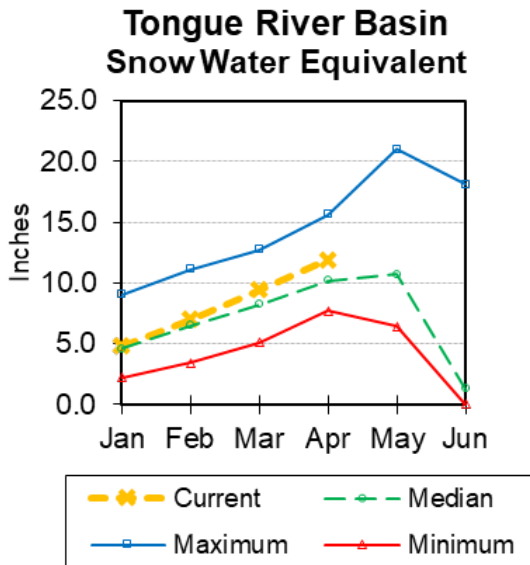


Tongue River Basin



Snow

Upper Tongue River drainage SWE is at 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 100% of median. Year-to-date precipitation is 109% of median in the basin.

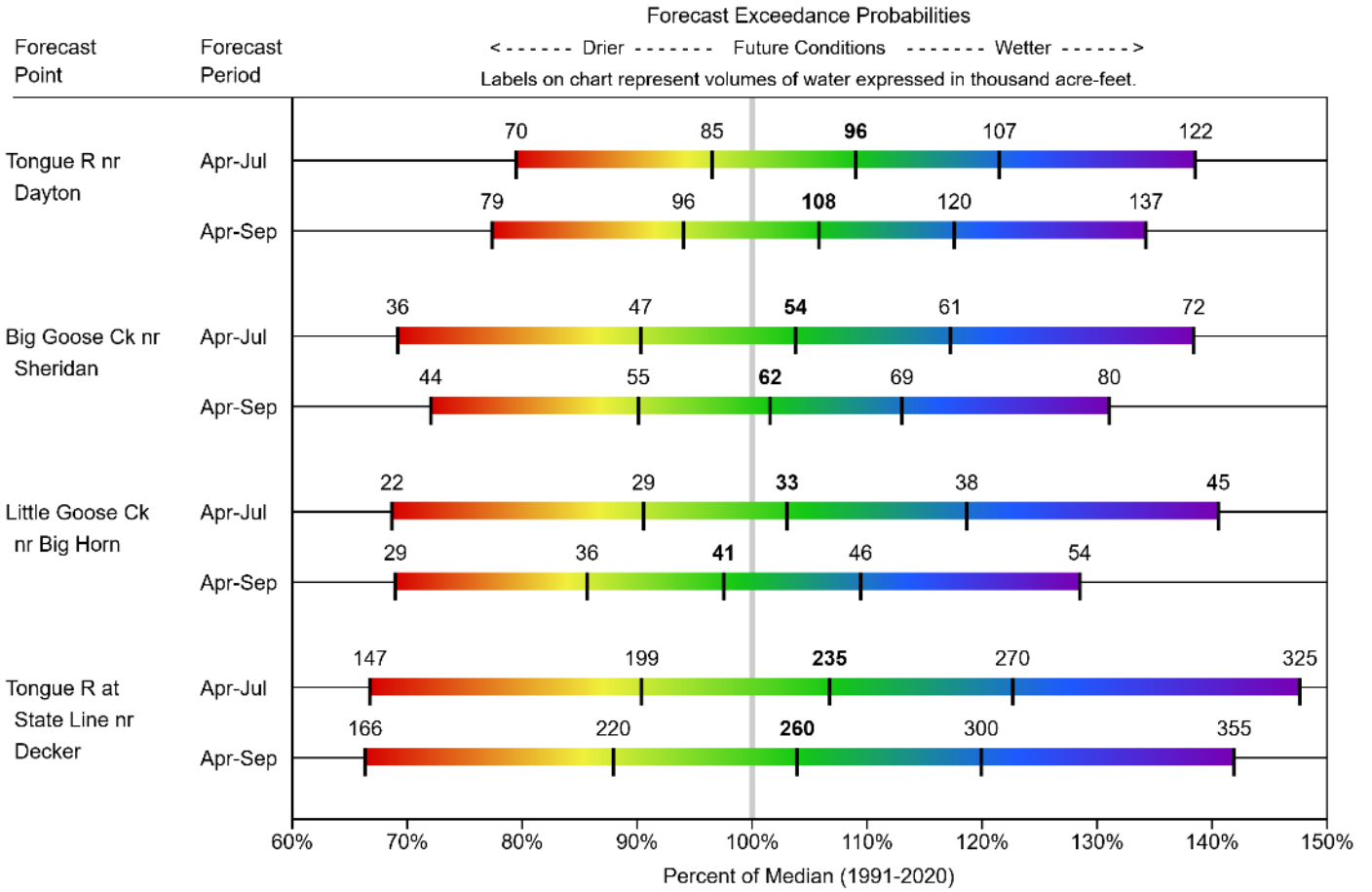
Reservoirs

No reservoir data for this basin.

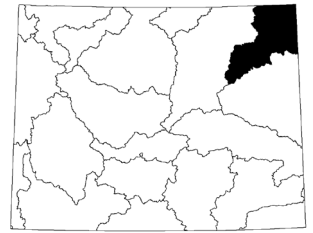
Streamflow

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 106% 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
April 1, 2023

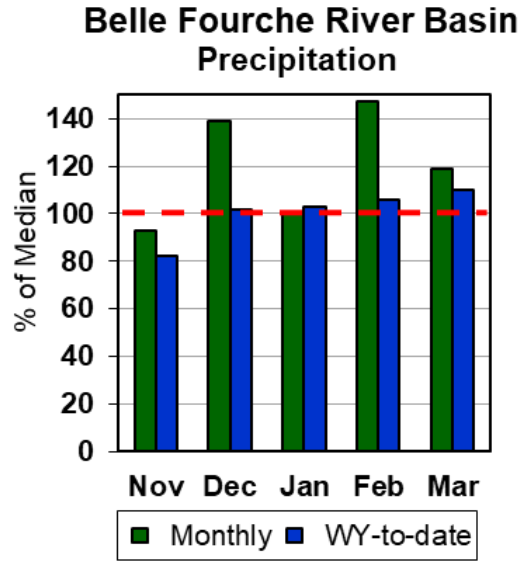
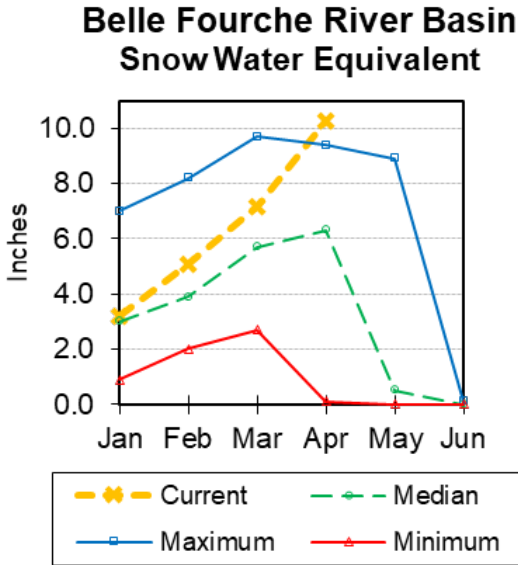


Belle Fourche River Basin



Snow

Currently the Belle Fourche River Basin SWE is at 163% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



Precipitation

Precipitation for last month was 119% of median in the Belle Fourche basin. Year-to-date precipitation is 110% of median.

Reservoirs

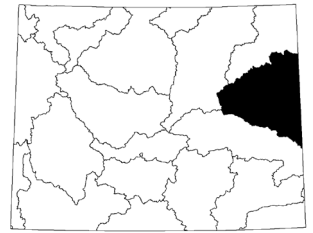
Combined storage for the 2 reservoirs in the basin is at 93% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Keyhole	125.9	129.4	147.3	193.8	65%	67%	76%	85%	88%
Belle Fourche	148.7	126.9	147.7	178.4	83%	71%	83%	101%	86%
Basin Index					74%	69%	79%	93%	87%
# of reservoirs					2	2	2	2	2

Streamflow

There are no streamflow forecast points for the basin.

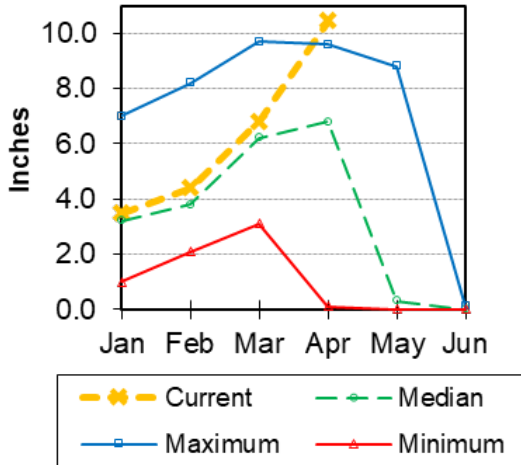
Cheyenne River Basin



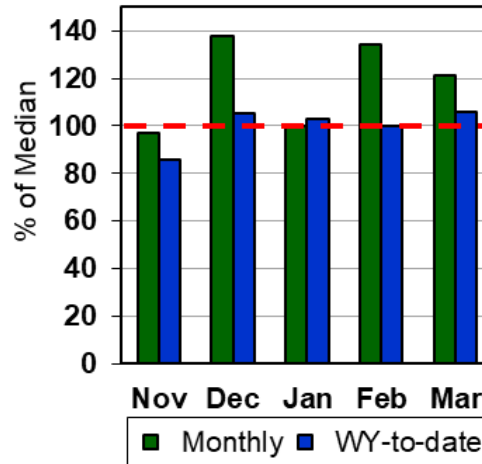
Snow

Currently SWE for sites in the Cheyenne River Basin are at 154% of median. *See Appendix at the end of this report for a detailed listing.*

Cheyenne River Basin Snow Water Equivalent



Cheyenne River Basin Precipitation



Precipitation

Precipitation for last month was 121% of median. Year-to-date precipitation is 106% of median.

Reservoirs

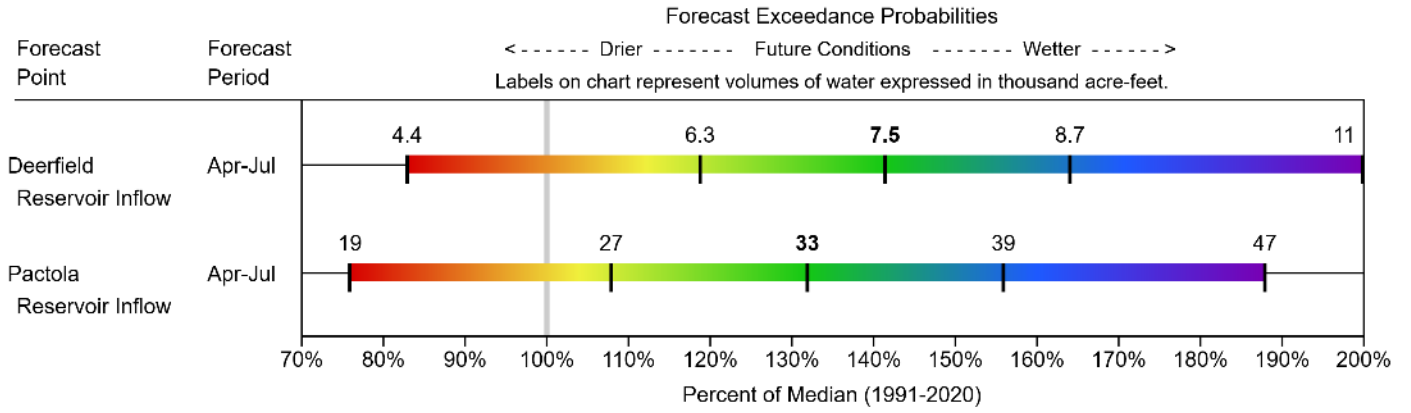
Combined storage for the 3 reservoirs in the basin is at 77% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pactola	50.4	53.4	53.8	55.0	92%	97%	98%	94%	99%
Deerfield	14.7	14.9	14.9	15.2	97%	98%	98%	98%	100%
Angostura	70.7	85.6	107.5	122.1	58%	70%	88%	66%	80%
Basin Index					71%	80%	92%	77%	87%
# of reservoirs					3	3	3	3	3

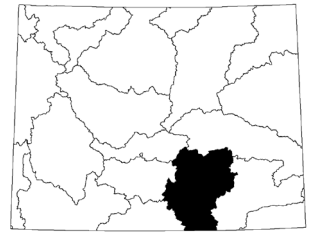
Streamflow

The 50% exceedance forecasts for the April through July period are well above normal. The Deerfield Reservoir Inflow yield is forecasted at 142% of median. Pactola Reservoir Inflow yield should be 132% of median. *See the following graph for detailed runoff volumes.*

CHEYENNE RIVER BASIN
Water Supply Forecasts
April 1, 2023



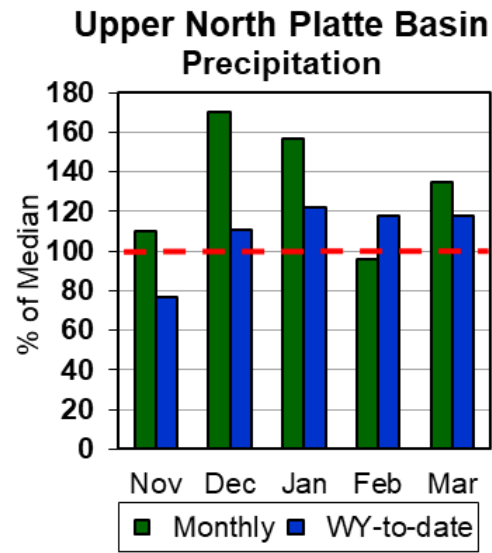
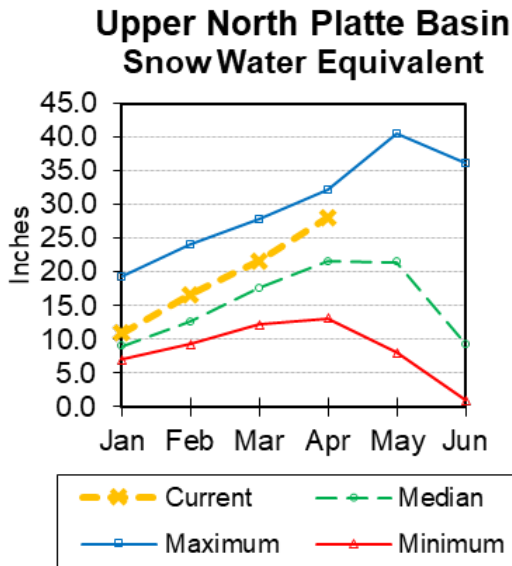
Upper North Platte River Basin



Snow

The Upper North Platte River basin SWE is 130% of median. North Platte above Northgate SWE is 129% of median. Encampment River SWE is 141% of median. Medicine Bow and Rock Creek SWE are 111% of median.

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



Precipitation

Last month's precipitation was 135% of median. Total water-year-to-date precipitation is 118% of median.

Reservoirs

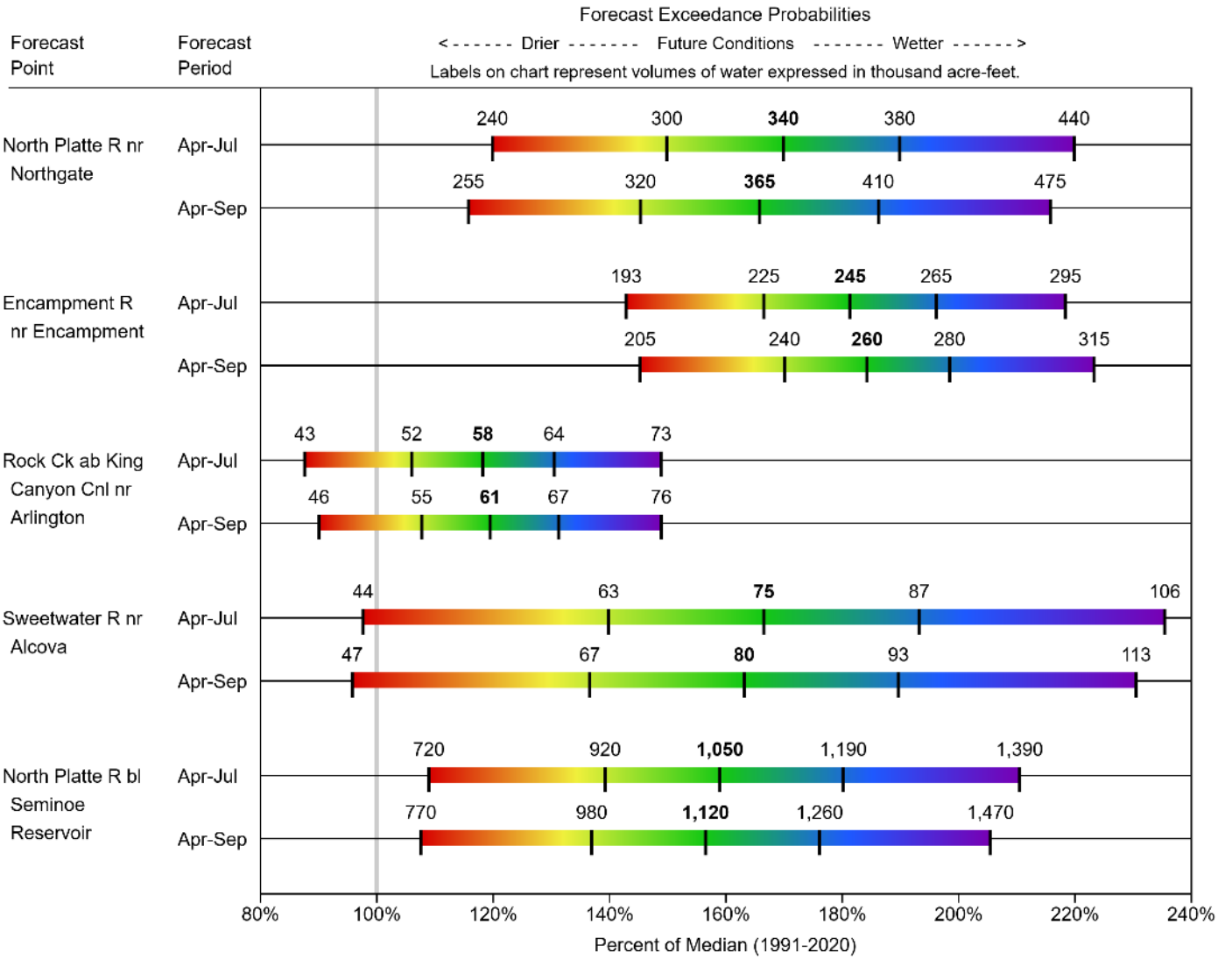
Combined storage for reservoirs in the Upper North Platte River Basin is at 66% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Pathfinder	351.7	665.2	595.5	1016.5	35%	65%	59%	59%	112%
Seminole	434.9	291.1	589.8	1016.7	43%	29%	58%	74%	49%
Basin Index					39%	47%	58%	66%	81%
# of reservoirs					2	2	2	2	2

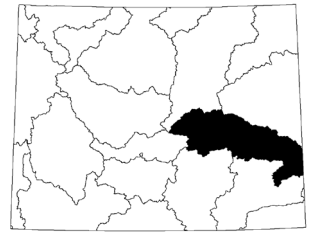
Streamflow

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 166% of median. The Encampment River near Encampment yield will be about 184%. Rock Creek near Arlington yield will be around 120%. Seminole Reservoir inflow should be about 157% of median. *See the following page for more detailed information on projected runoff.*

UPPER NORTH PLATTE RIVER BASIN
Water Supply Forecasts
April 1, 2023

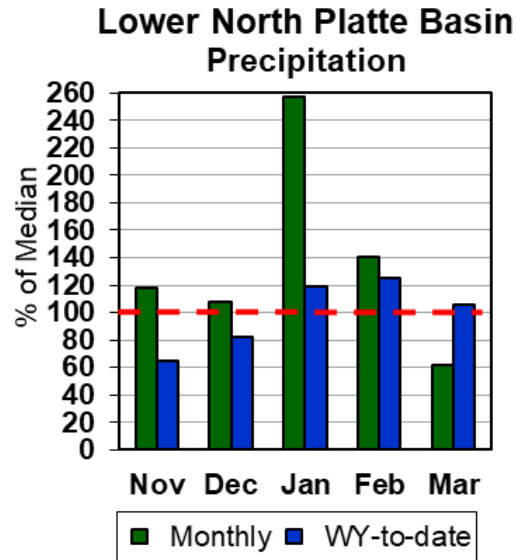
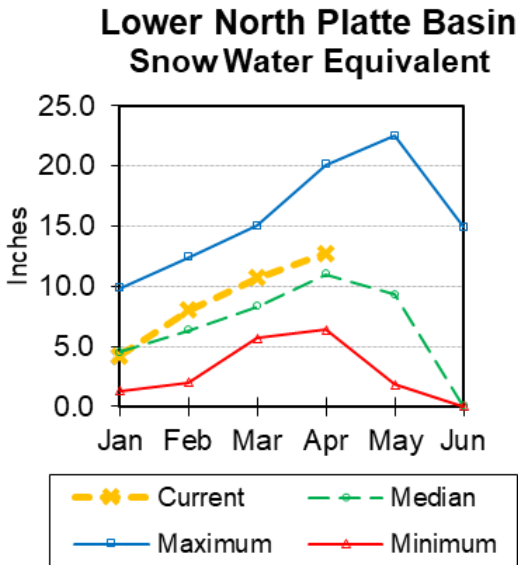


Lower North Platte River Basin



Snow

Currently, SWE in the Lower North Platte River Basin is 116% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



Precipitation

Last month's precipitation was 62% of median. The water year-to-date precipitation for the basin is currently 106% of median.

Reservoirs

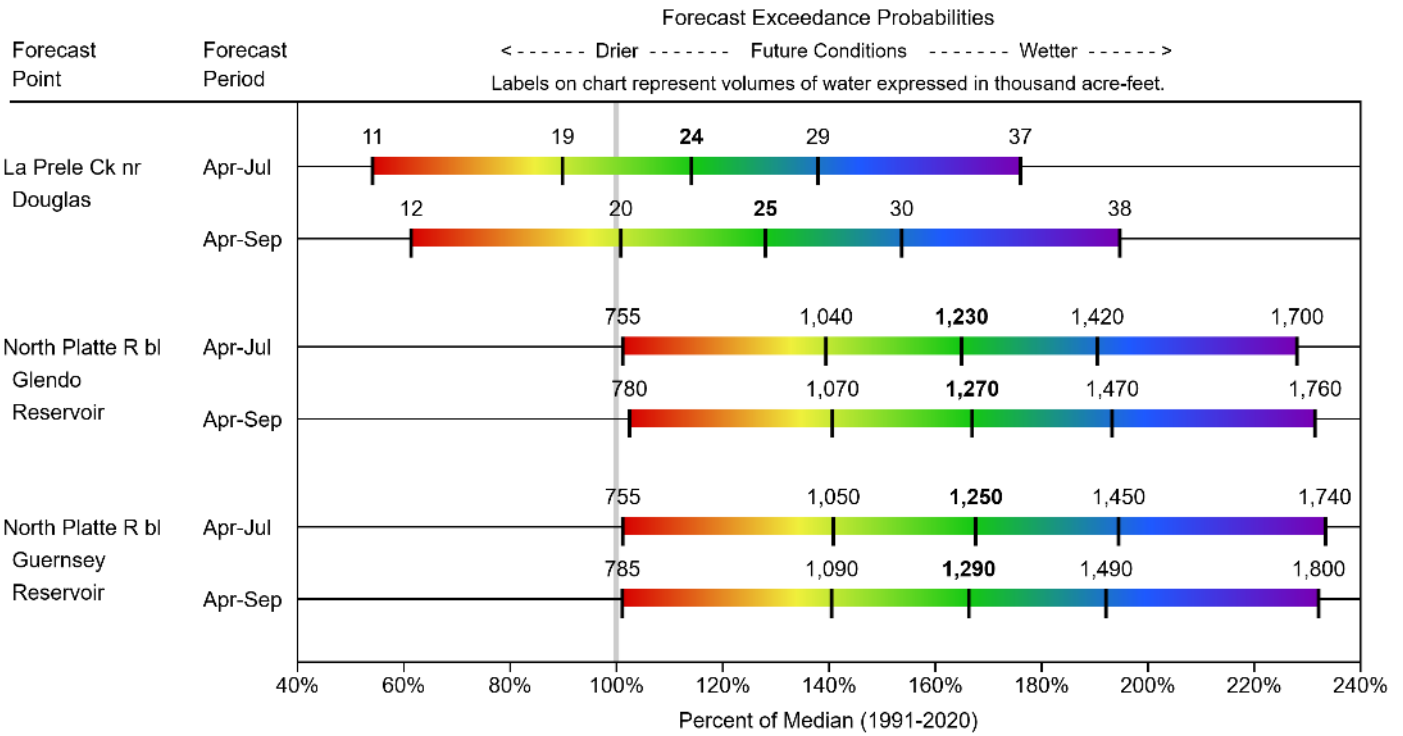
Combined storage for the 3 reservoirs in the basin is at 94% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Alcova	157.8	156.7	157.7	184.3	86%	85%	86%	100%	99%
Glendo	340.8	360.4	375.2	506.4	67%	71%	74%	91%	96%
Guernsey	18.9	1.6	18.6	45.6	42%	4%	41%	102%	9%
Basin Index					70%	70%	75%	94%	94%
# of reservoirs					3	3	3	3	3

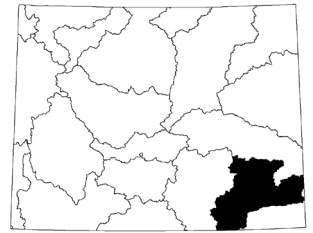
Streamflow

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 166% of median. *See the following for more detailed information on projected runoff.*

LOWER NORTH PLATTE RIVER BASIN
Water Supply Forecasts
April 1, 2023

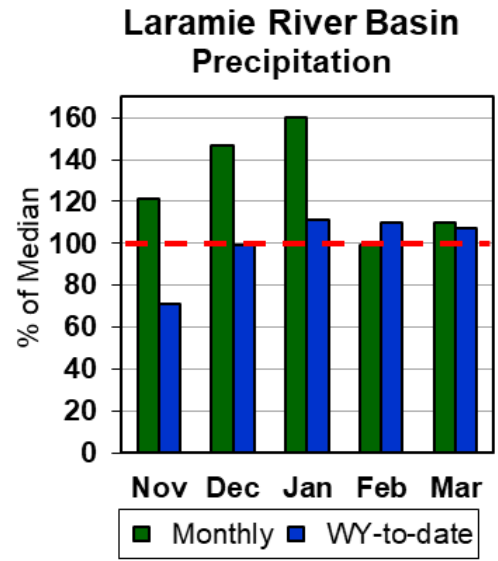
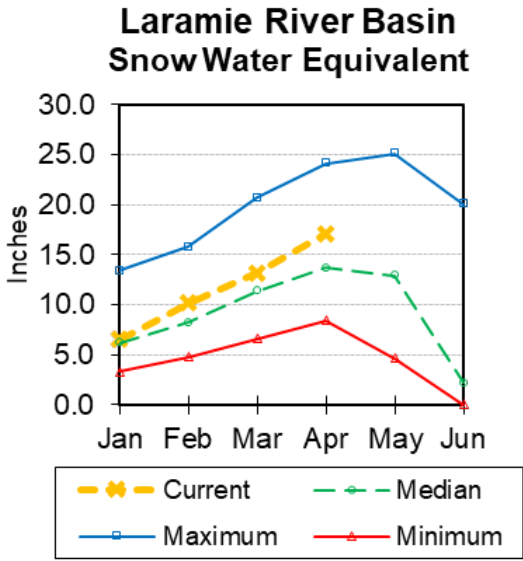


Laramie River Basin



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 127% of median. SWE for the Little Laramie River is 125% of median. *See Appendix 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 107% of median.

Reservoirs

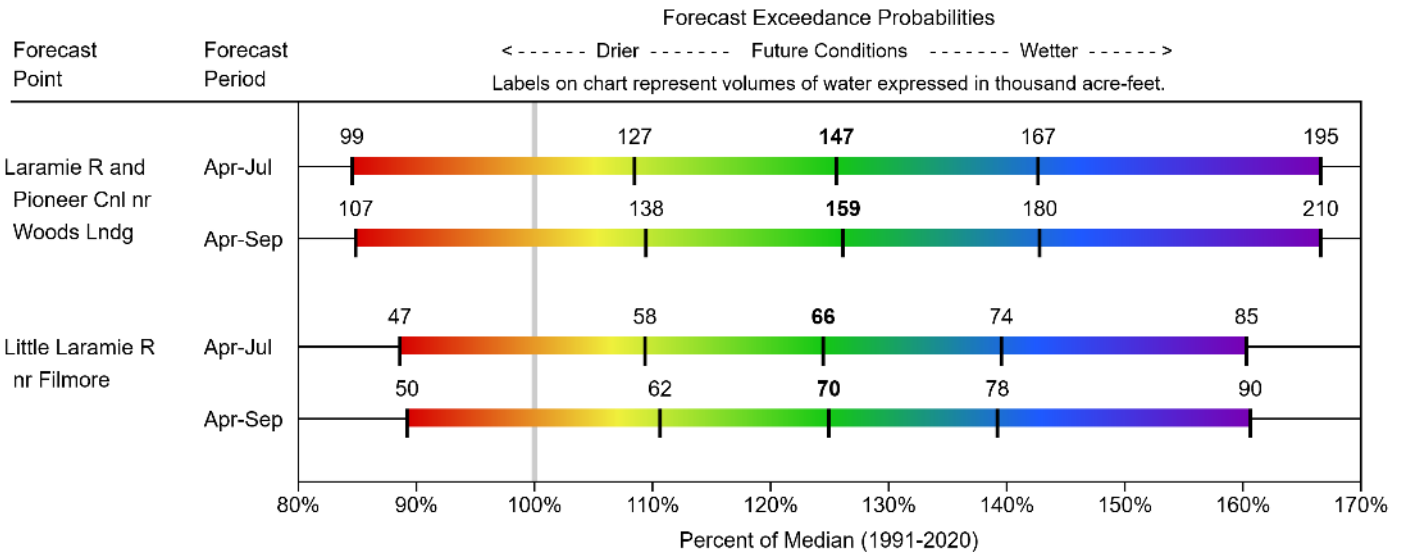
Reservoir storage in this basin is 70% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Wheatland #2	40.0	46.4	57.4	98.9	40%	47%	58%	70%	81%
Basin Index					40%	47%	58%	70%	81%
# of reservoirs					1	1	1	1	1

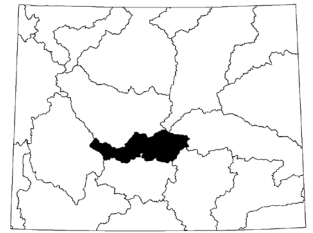
Streamflow

The 50% exceedance forecasts for the April through September period at Laramie River near Woods Landing should yield around 126% of median. The Little Laramie near Filmore should produce about 125% of median. *See the following graph for detailed runoff volumes.*

LARAMIE RIVER BASIN
Water Supply Forecasts
April 1, 2023

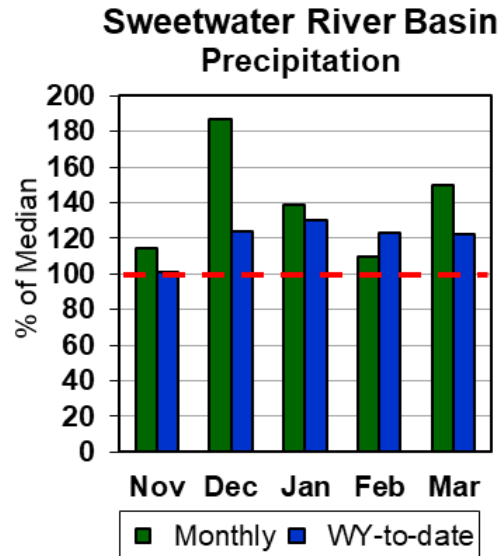
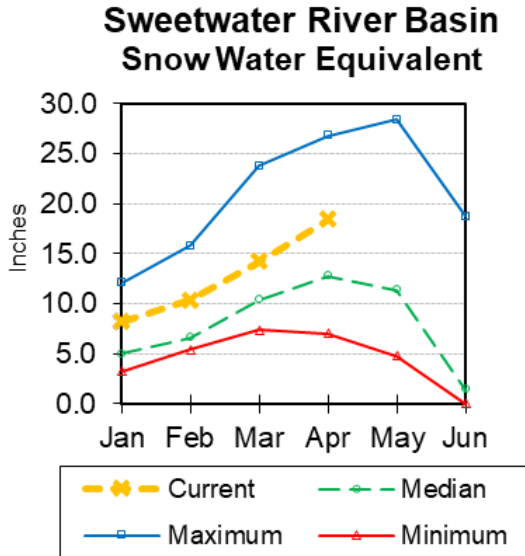


Sweetwater River Basin



Snow

Sweetwater River Basin SWE is at 144% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



Precipitation

Last month's precipitation was 150% of median. The water year-to-date precipitation for the basin is currently 122% of median.

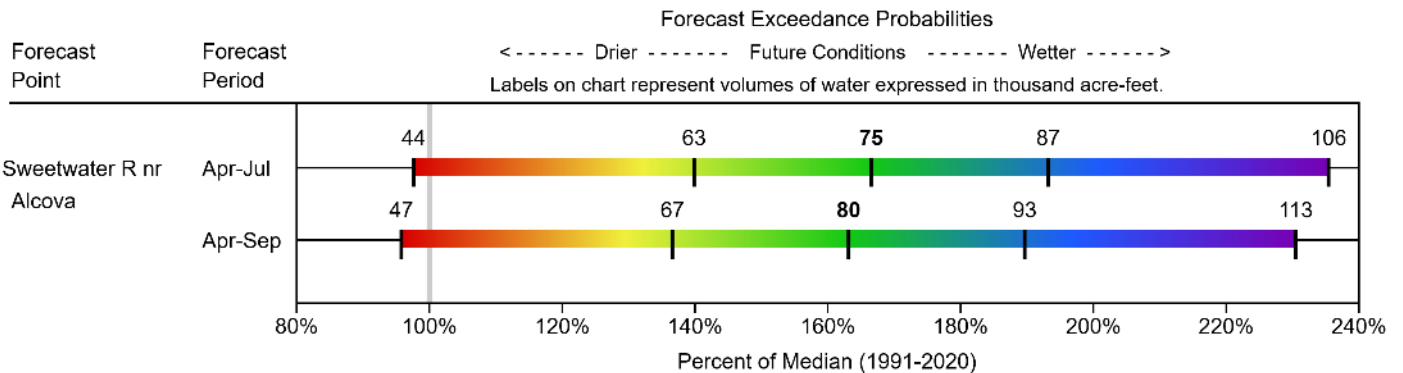
Reservoirs

No reservoir data for the basin.

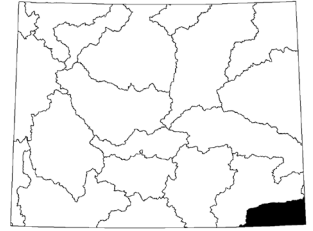
Streamflow

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 163% of median. *See below for detailed information on projected runoff.*

SWEETWATER RIVER BASIN Water Supply Forecasts April 1, 2023

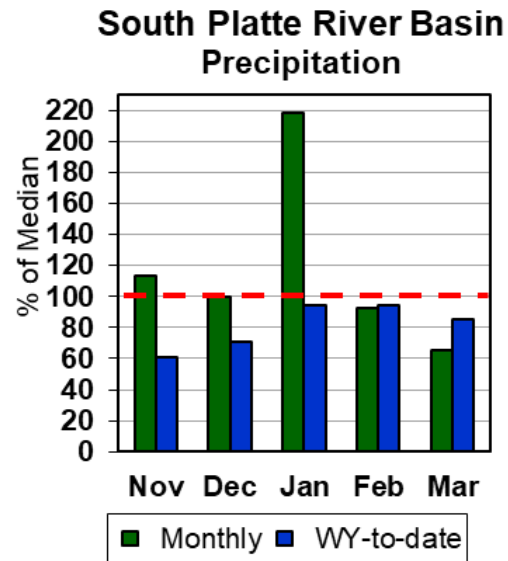
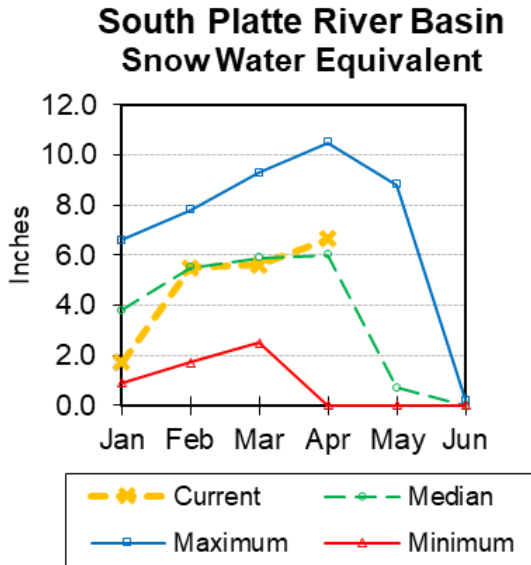


South Platte River Basin (WY)



Snow

The median SWE for sites in the South Platte River Basin is 111% of median. *See Appendix at the end of this report for a detailed listing of snow course information.*



Precipitation

Last month's precipitation was 65% of median. The water year-to-date precipitation for the basin is currently 85% of median.

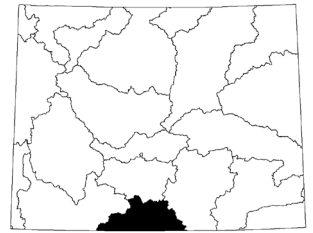
Reservoirs

No reservoir data for the basin.

Streamflow

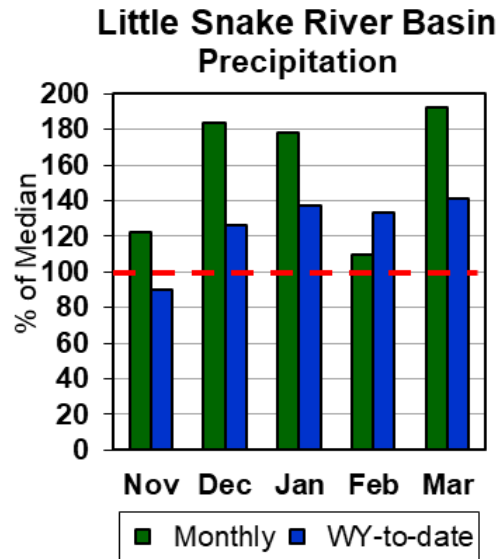
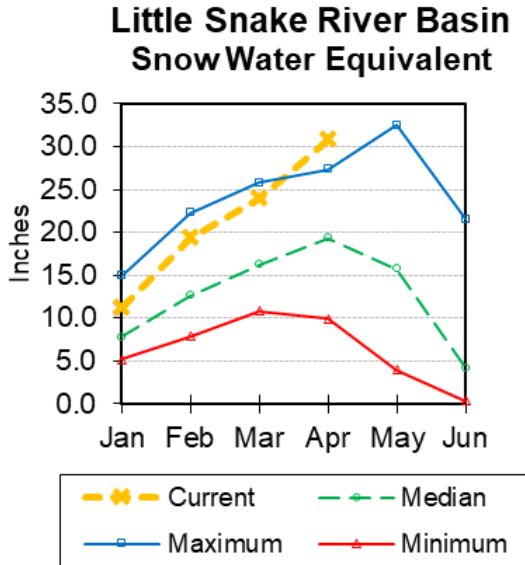
There are no streamflow forecast points for the basin.

Little Snake River Basin



Snow

Little Snake River drainage SWE is 160% of median. See *Appendix at the end of this report for a detailed listing of snow course information.*



Precipitation

Precipitation across the basin was 192% of median. The Little Snake River Basin water-year-to-date precipitation is currently 141% of median.

Reservoirs

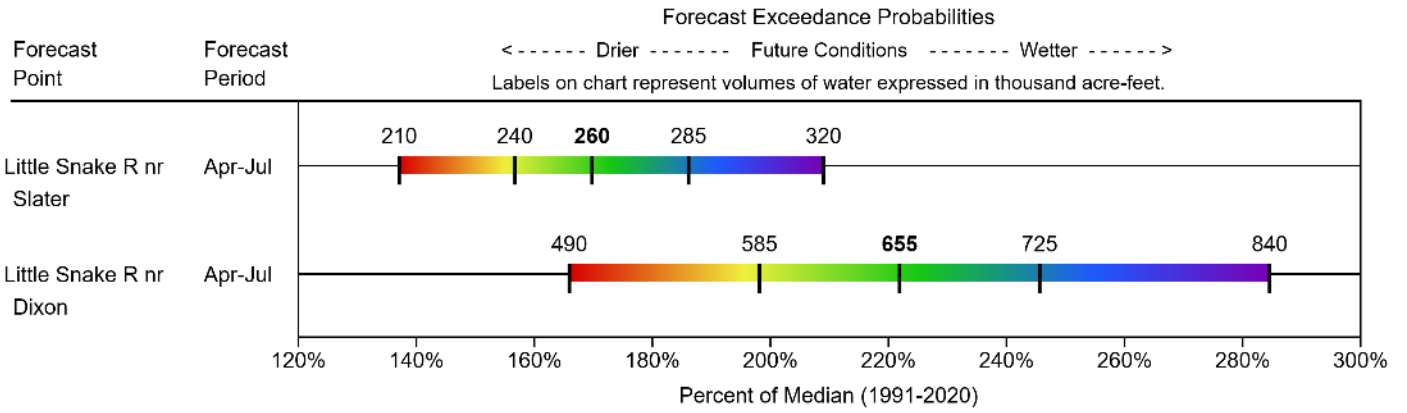
Reservoir storage in this basin is 61% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
High Savery Res.	7.2	6.5	11.7	22.4	32%	29%	52%	61%	56%
Basin Index					32%	29%	52%	61%	56%
# of reservoirs					1	1	1	1	1

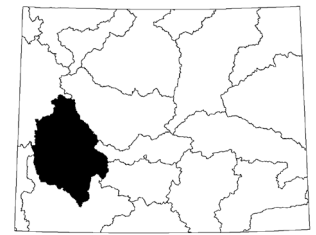
Streamflow

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 170% of median. *See below for detailed information on projected runoff.*

LITTLE SNAKE RIVER BASIN
Water Supply Forecasts
April 1, 2023

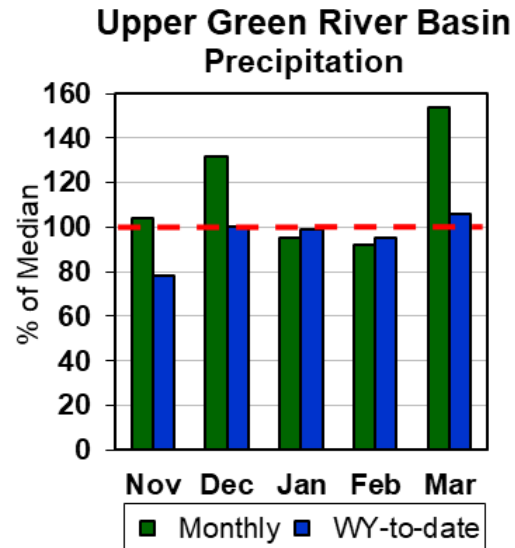
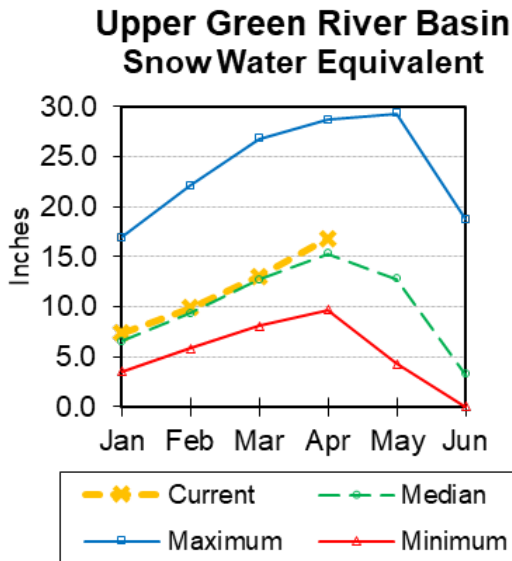


Upper Green River Basin



Snow

The Upper Green River Basin SWE (above Fontenelle Reservoir) is 110% of median. Green River Basin above Warren Bridge SWE is 105% of median. West Side of Upper Green River Basin SWE is 111% 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 154% of median last month. Water year-to-date precipitation is 106% of median.

Reservoir

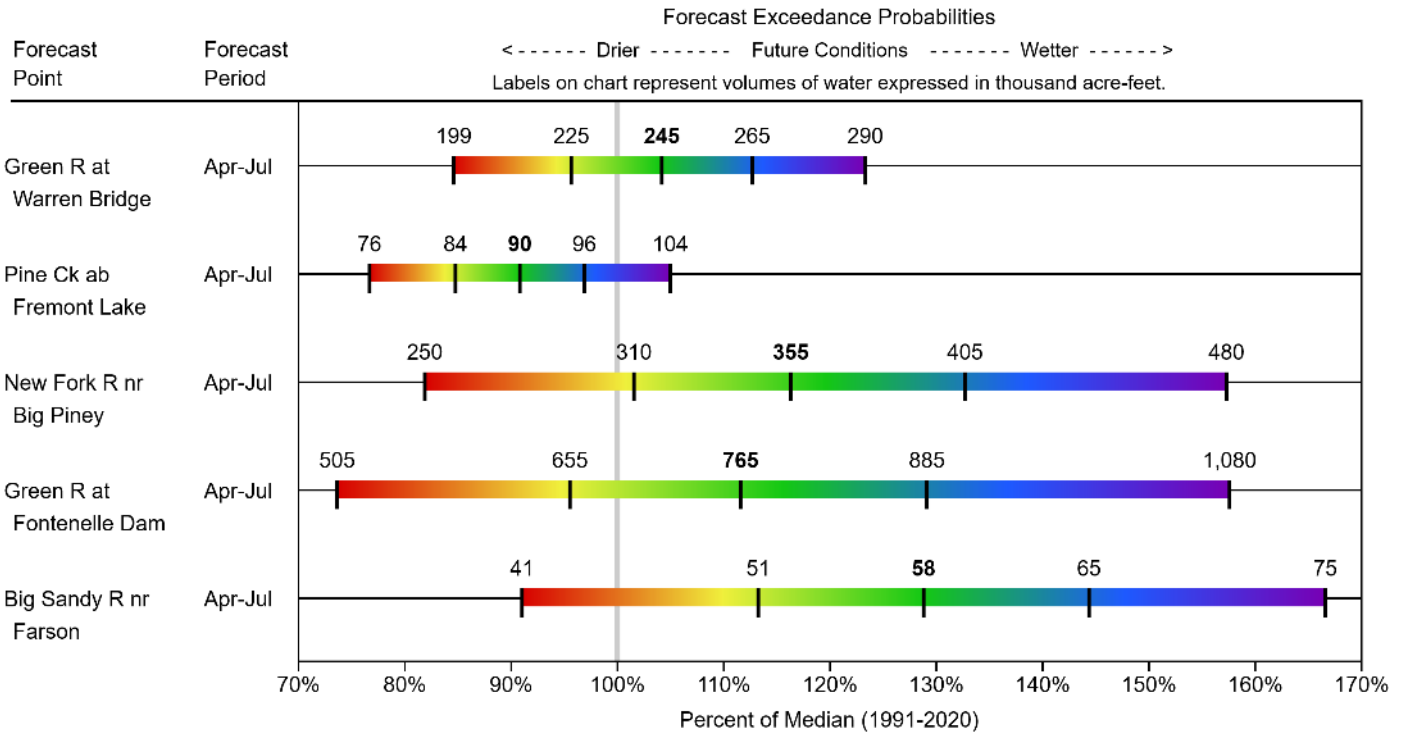
Combined water storage in the basin was at 85% of median for the 2 reservoirs.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Fontenelle	112.6	151.4	122.9	344.8	33%	44%	36%	92%	123%
Big Sandy	9.3	8.4	20.6	38.3	24%	22%	54%	45%	41%
Basin Index					32%	42%	37%	85%	111%
# of reservoirs					2	2	2	2	2

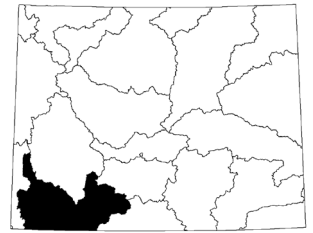
Streamflow

The 50% exceedance forecasts for the April through July period will be slightly above normal. The yield on the Green River at Warren Bridge is about 104% of median. New Fork River near Big Piney yield will be around 116% of median. Green River at Fontenelle Dam is estimated to be about 112% of median. *See the following for a more detailed forecast.*

UPPER GREEN RIVER BASIN
Water Supply Forecasts
April 1, 2023



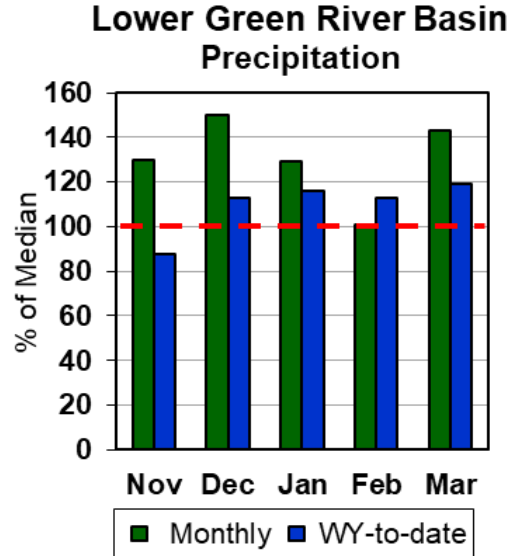
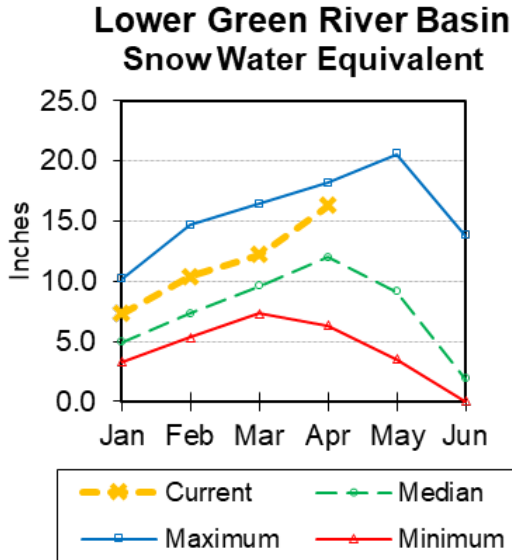
Lower Green River Basin



Snow

Lower Green River Basin SWE is at 136% of median. Hams Fork drainage SWE is 130% of median. Blacks Fork drainage SWE is 136% 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 143% of median. The basin year-to-date precipitation is currently 119% of median.

Reservoirs

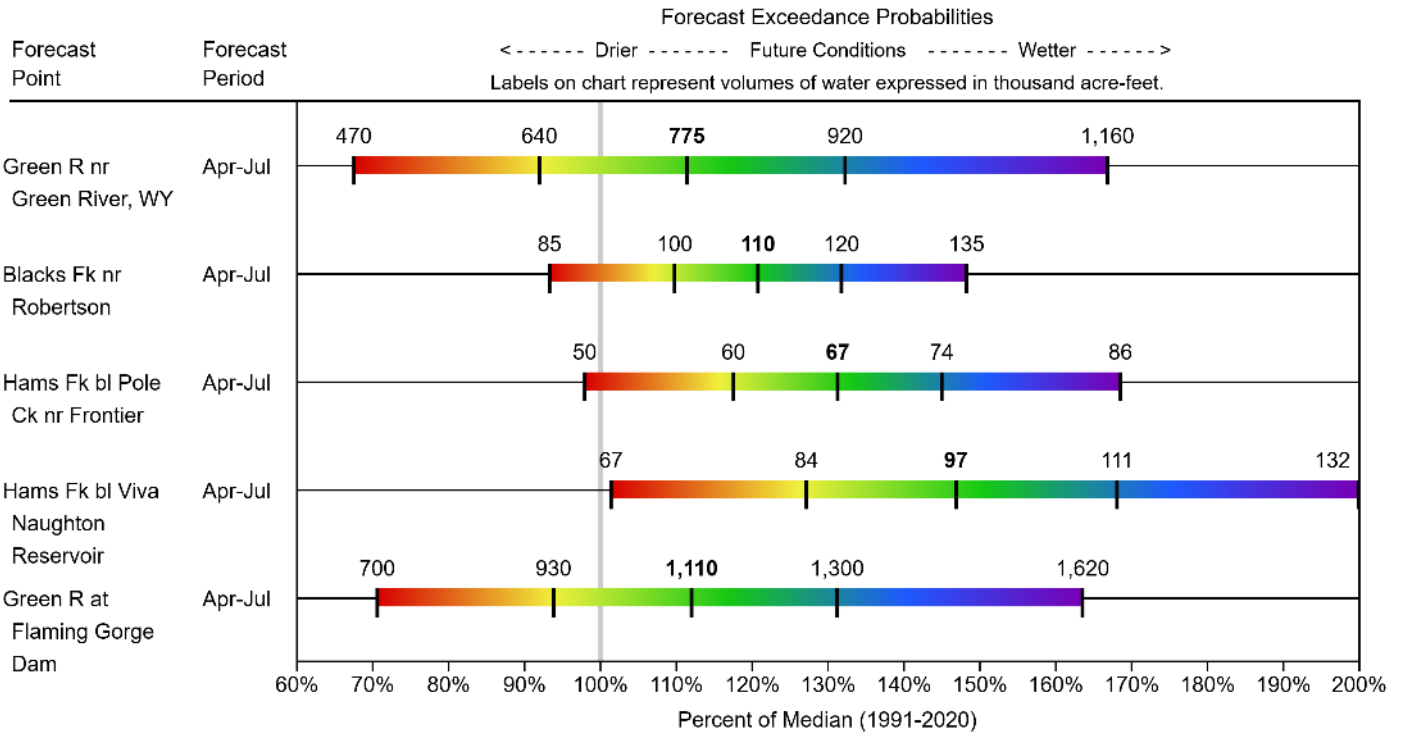
Combined storage for the 4 reservoirs in the basin was at 78% of median at the end of last month.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Stateline Res.	6.7	6.0	5.7	12.0	56%	50%	48%	118%	105%
Meeks Cabin Res.	11.4	12.7	12.0	32.5	35%	39%	37%	95%	106%
Flaming Gorge Res.	2465.2	2932.2	3162.0	3749.0	66%	78%	84%	78%	93%
Viva Naughton Res	28.8	26.8	28.5	42.4	68%	63%	67%	101%	94%
Basin Index					65%	78%	84%	78%	93%
# of reservoirs					4	4	4	4	4

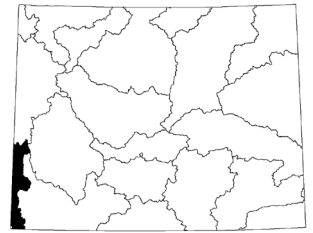
Streamflow

The following are the 50% exceedance forecasts for the April through July period. The Green River near Green River will yield about 112% of median. The Flaming Gorge Reservoir inflow will be about 112% of median. *See the following page for more detailed information on projected runoff.*

LOWER GREEN RIVER BASIN
Water Supply Forecasts
April 1, 2023



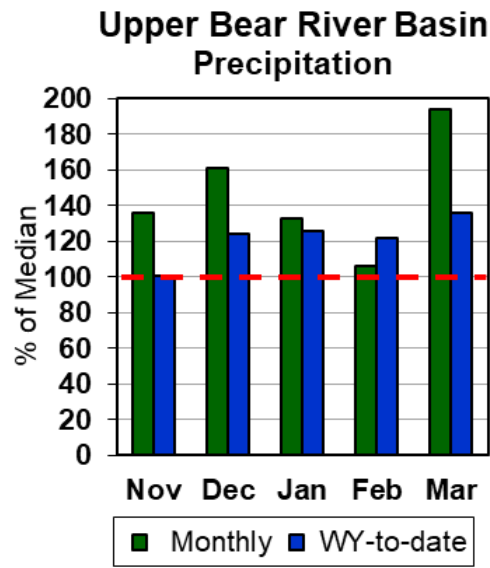
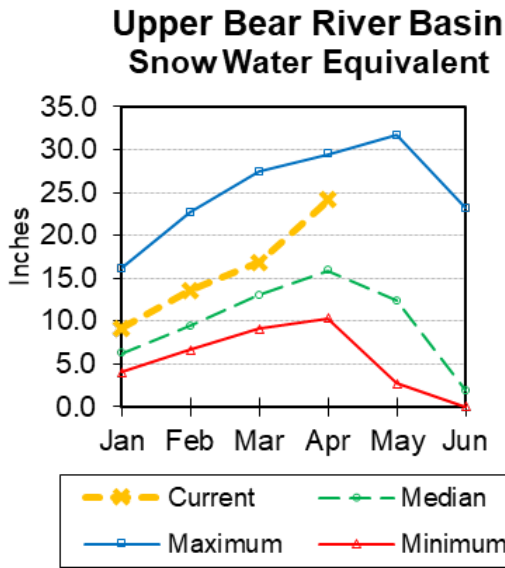
Upper Bear River Basin



Snow

SWE in the Upper Bear River Basin of Utah is 152% of median. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 137% of median.

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



Precipitation

Precipitation for last month was 194% of median in the basin. The year-to-date precipitation for the basin is 136% of median.

Reservoirs

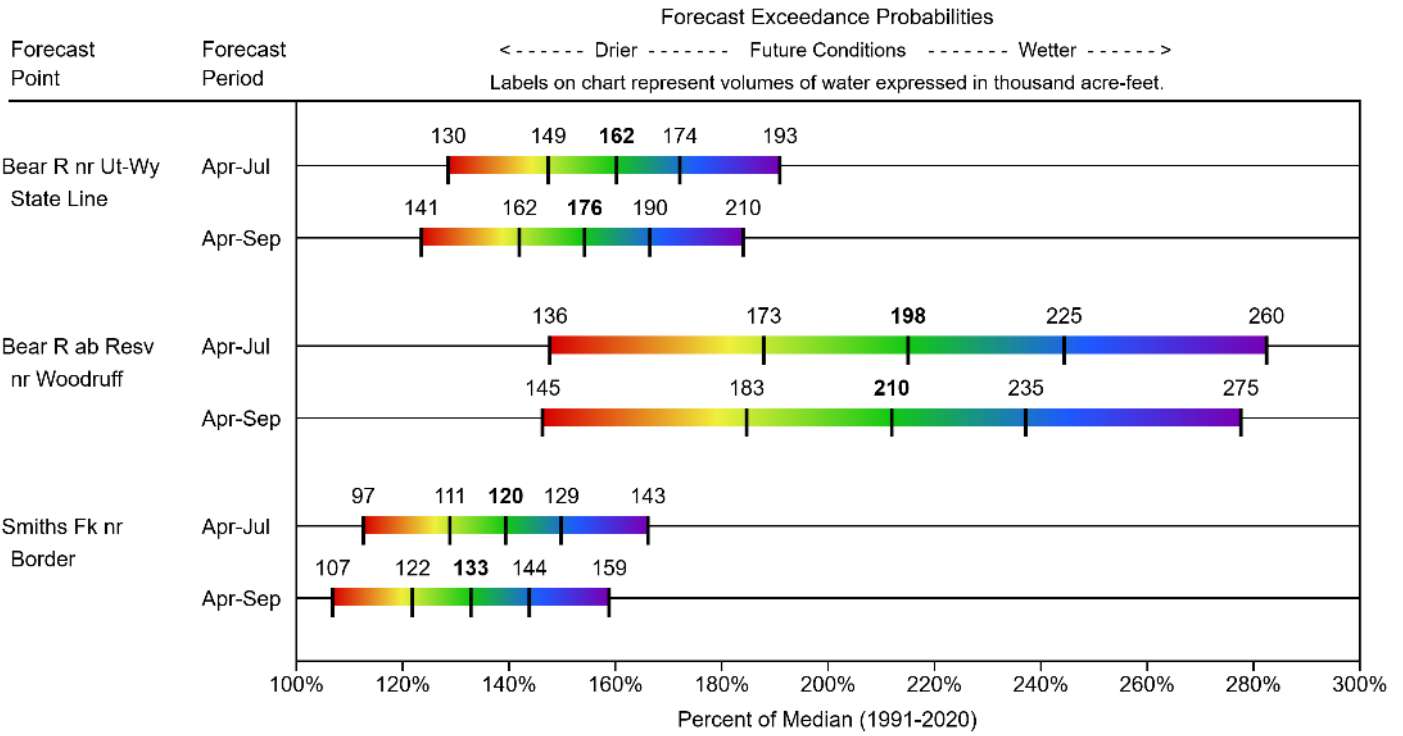
Combined reservoir storage in this basin is at 36% of median.

	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Median % Capacity	Current % Median	Last Year % Median
Woodruff Creek	2.8	2.9	3.8	4.0	70%	73%	95%	74%	76%
Woodruff Narrows Res.	16.3	20.3	49.8	57.3	28%	35%	87%	33%	41%
Basin Index					31%	38%	87%	36%	43%
# of reservoirs					2	2	2	2	2

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 212% of median. The Smiths Fork River near Border Jct. will yield around 133%. *See the following page for more detailed information on projected runoff.*

UPPER BEAR RIVER BASIN
Water Supply Forecasts
April 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/

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



BSnow_4_2023.pdf

Appendix - Precipitation Data

In Word double click the object below to view entire document



BPrecip_4_2023.pdf

Appendix - Streamflow Data

In Word double click the object below to view entire document



BFcst_4_2023.pdf

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