

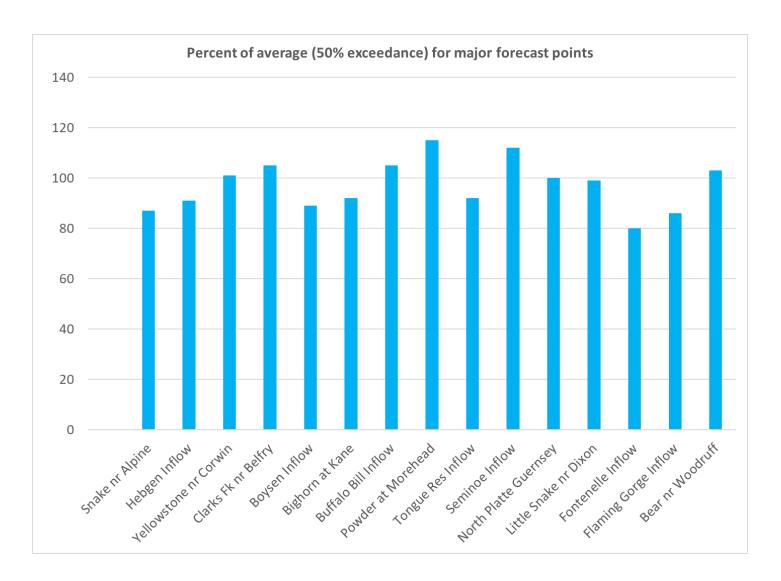
# Wyoming Basin & Water Supply Outlook Report February 1, 2020

Natural Resources Conservation Service



Photo courtesy of Wyoming State Engineer's Office Staff

# Forecasted stream flows for February 1st, 2020



# **Basin Outlook Reports**And

# Federal - State - Private Cooperative Snow Surveys

For more information, contact:

Jeff Goats 100 East "B" Street, Casper, WY 82601 (307) 233-6768 jeff.goats@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.

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers. If you believe you experienced discrimination when obtaining services from USDA, participating in a USDA program, or participating in a program that receives financial assistance from USDA, you may file a complaint with USDA. Information about how to file a discrimination complaint is available from the Office of the Assistant Secretary for Civil Rights. USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex (including gender identity and expression), marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) To file a complaint of discrimination, complete, sign, and mail a program discrimination complaint form, available at any USDA office location or online at www.ascr.usda.gov, or write to: USDA Office of the Assistant Secretary for Civil Rights 1400 Independence Avenue, SW. Washington, DC 20250-9410 Or call toll free at (866) 632-9992 (voice) to obtain additional information, the appropriate office or to request documents. Individuals who are deaf, hard of hearing, or have speech disabilities may contact USDA through the Federal Relay service at (800) 877-8339 or (800) 845-6136 (in Spanish). USDA is an equal opportunity provider, employer, and lender. Persons with disabilities who require alternative means for communication of program information (e.g., Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

# **Wyoming Basin & Water Supply Outlook Report**

## Snowpack

Snow water equivalent (SWE) across Wyoming for February 1<sup>st</sup> was at 109% of median. SWE in the Lower North Platte River Basin was the highest at 140% of median, while SWE in the Sweetwater River Basin was the lowest at 74% of median. *See the map on page 5 and the Appendix for further information*.

# **Precipitation**

The Snake River Basin had the highest precipitation for the month at 136% of average. The Tongue River Basin had the lowest precipitation amount at 77% of average. The following table displays the major river basins and their departure from average for last month.

## See Appendix for further information.

	Departure			Departure	
Basin	from average		Basin	from average	_
Snake River	+36%		Upper North Platte River	+22%	
Madison-Gallatin	+15%	- 1	Sweetwater River	-22%	
Yellowstone River	+24%	- 1	Lower North Platte River	-21%	
Wind River	-13%	- 1	Laramie River	+8%	
Bighorn River	-16%	- 1	North Platte River (Total)	+13%	
Shoshone River	+24%	- 1	South Platte River	-7%	
Powder River	-9%	- 1	Little Snake River	+24%	
Tongue River	-23%	- 1	Upper Green River	+24%	
Belle Fourche River	+28%		Lower Green River	+12%	-
Cheyenne River	-5%		Upper Bear River	+25%	-

## **Streams**

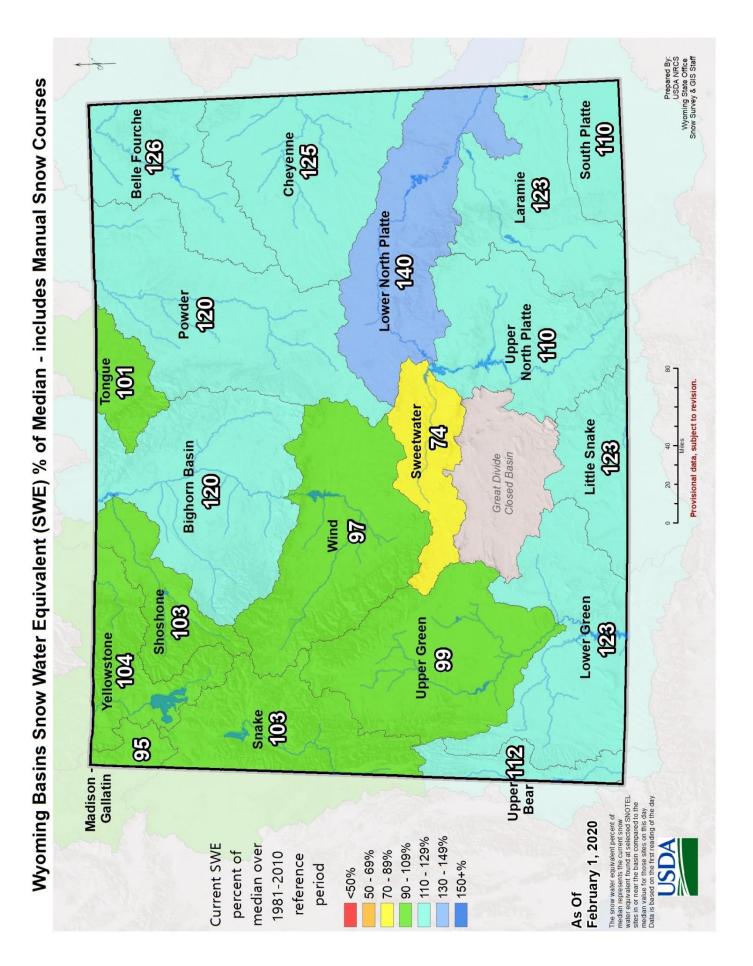
Forecast stream flow yields for April thru September across Wyoming average 97%. The Snake River, Madison, and Upper Yellowstone River Basins should yield about 92%, 91% and 102% of average, respectively. Yields from the Wind and Bighorn River Basins should be about 90% and 96% of average. Yields from the Shoshone and Clarks Fork River Basins of Wyoming should be about 104% and 105% of average. Yields from the Powder and Tongue River Basins should be about 109% and 93% of average. Yield for the Cheyenne River Basin should be about 109% of average. Yields for the Sweetwater, Upper North Platte, Lower North Platte, and Laramie Rivers of Wyoming should be about 48%, 109%, 107%, and 112% of average, respectively. Yields for the Little Snake, Green River, Bear River, and Smith's Fork of Wyoming should be 85%, 91%, 103%, and 100% respectively.

## Reservoirs

Reservoir storage was above average at 127% across the entire state. Reservoirs in the Snake River Basin are above average at 131%. Reservoirs in the Madison-Gallatin Basin are near average at 105%. Reservoirs in the Wind River Basin are above average at 113%. Reservoirs on the Big Horn are above average at 108%. The Buffalo Bill Reservoir on the Shoshone is above average at 133%. The Tongue River Basin Reservoir is above average at 178%. Reservoirs in the Belle Fourche and Cheyenne River Basins are above average at 149% & 115% respectively. Reservoirs on the Upper and Lower North Platte River are above average at 152% and 118% respectively. Reservoirs on the Upper Green River are above average at 126%. Reservoirs on the Lower Green River Basin are above average at 104% and are above average on the Upper Bear River Basin at 174%. See below for further information.

# **Wyoming Reservoir Levels**

			Reservoi	r Storage S	Summary for	the end of J	anuary 202	0	
	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Alcova	157	157.2	155	184.3	85%	85%	84%	101%	101%
Angostura	98.2	95.8	83.2	122.1	80%	78%	68%	118%	115%
Belle Fourche	132.5	133.5	110.5	178.4	74%	75%	62%	120%	121%
Big Sandy	22.5	15.8	17	38.3	59%	41%	44%	133%	93%
Bighorn Lake	878.9	826.5	825.9	1356	65%	61%	61%	106%	100%
Boysen	569.5	552.7	506	596	96%	93%	85%	113%	109%
Buffalo Bill	469.6	450.1	353.8	646.6	73%	70%	55%	133%	127%
Bull Lake	92.3	81.3	75.4	151.8	61%	54%	50%	122%	108%
Deerfield	15.1	14.8	13.7	15.2	99%	98%	90%	110%	108%
Ennis Lake	28.9	28.9	29.8	41	70%	70%	73%	97%	97%
Flaming Gorge Reservoir	3273.6	3197.7	3049	3749	87%	85%	81%	107%	105%
Fontenelle	176.6	149.6	150.1	344.8	51%	43%	44%	118%	100%
Glendo	324.2	302.2	301.5	506.4	64%	60%	60%	108%	100%
Grassy Lake	12.8	12.7	11.9	15.2	84%	84%	78%	108%	107%
Guernsey	16.6	14.3	11.4	45.6	36%	31%	25%	146%	125%
Hebgen Lake	313.3	316.8	279	378.8	83%	84%	74%	112%	114%
High Savery Reservoir		6.6	11.9	22.4		29%	53%		55%
Jackson Lake	613.4	657.1	431.2	847	72%	78%	51%	142%	152%
Keyhole	169.8	158.6	87.9	193.8	88%	82%	45%	193%	180%
PactoLa	53	51.7	45.5	55	96%	94%	83%	116%	114%
Palisades Reservoir	1314	1124.7	911.2	1400	94%	80%	65%	144%	123%
Pathfinder	882.4	628.4	559	1016.5	87%	62%	55%	158%	112%
Pilot Butte	23.9	24.1	23.2	31.6	76%	76%	73%	103%	104%
Seminoe	794.1	617.5	520.8	1016.7	78%	61%	51%	152%	119%
Shadehill	57.5	67.4	42.8	81.4	71%	83%	53%	134%	157%
Tongue River Res	47.5	50.6	26.7	79.1	60%	64%	34%	178%	189%
Viva Naughton Res	30.4	27.6	30.1	42.4	72%	65%	71%	101%	92%
Wheatland #2		34.9	40.9	98.9		35%	41%		85%
Woodruff Narrows Reservoir	50.6	20.7	29	57.3	88%	36%	51%	174%	71%



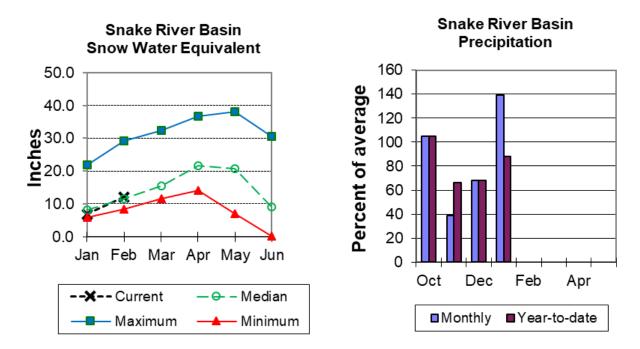
## Snake River Basin



#### Snow

The overall Snake River Basin SWE (portion above Palisades dam) is 103% of median. SWE in the Snake River Basin above Jackson Lake is 99% of median. Pacific Creek Basin SWE is 105% of median. Buffalo Fork SWE is 103% of median. Gros Ventre River Basin SWE is 94% of median. SWE in the Hoback River drainage is 103% of median. SWE in the Greys River drainage is 116% of median. Salt River Basin SWE is 120% of median.

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



## Precipitation

Last month's precipitation for the Snake River Basin was 139% of average. Water-year-to-date precipitation is 88% of average.

## Reservoirs

Current reservoir storage is 143% of average for the three storage reservoirs in the basin.

	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
SNAKE RIVER BASIN	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Grassy Lake	12.8	12.7	11.9	15.2	84%	84%	78%	108%	107%
Jackson Lake	613.4	657.1	431.2	847.0	72%	78%	51%	142%	152%
Palisades Reservoir	1314.0	1124.7	911.2	1400.0	94%	80%	65%	144%	123%
Basin-wide Total	1940.2	1794.6	1354.3	2262.2	86%	79%	60%	143%	133%
# of reservoirs	3	3	3	3	3	3	3	3	3

#### Streamflow

The 50% exceedance forecasts for April through September are below average for this basin. The Snake near Moran yield is 89% of average. Snake River above Reservoir near Alpine will yield about 87%. Pacific Creek near Moran Yield will be around 87%. Buffalo Fork above Lava near Moran yield will be around 92% of average. Greys River above Palisades

Reservoir yield about 100%. Salt River near Etna yield will be about 100%.

# See the following table for further information.

	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast										
SNAKE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)			
Snake R nr Moran <sup>,2</sup>											
	APR-JUL	490	605	680	89%	755	865	765			
	APR-SEP	545	670	750	89%	835	960	845			
Snake R ab Reservoir nr A	lpine <sup>,2</sup>							'			
	APR-JUL	1330	1660	1890	87%	2120	2450	2170			
	APR-SEP	1540	1920	2170	87%	2430	2810	2500			
Snake R nr Irwin <sup>,2</sup>											
	APR-JUL	1910	2380	2700	90%	3010	3480	3010			
	APR-SEP	2240	2770	3140	90%	3500	4040	3500			
Snake R nr Heise <sup>2</sup>											
	APR-JUL	2100	2580	2900	90%	3230	3700	3240			
	APR-SEP	2470	3020	3400	90%	3770	4330	3780			
Pacific Ck at Moran											
	APR-JUL	98	124	141	86%	159	185	164			
	APR-SEP	105	131	150	87%	168	195	173			
Buffalo Fk ab Lava Ck nr M	1oran					ı					
	APR-JUL	190	230	260	93%	290	330	280			
	APR-SEP	215	260	295	92%	325	375	320			
Greys R ab Reservoir nr Al	pine										
	APR-JUL	230	275	310	102%	340	385	305			
	APR-SEP	270	320	360	100%	395	450	360			
Salt R ab Reservoir nr Etna	Э										
	APR-JUL	184	255	300	100%	345	415	300			
	APR-SEP	230	315	370	100%	425	505	370			

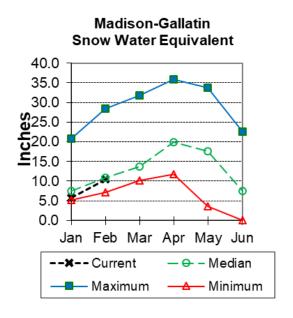
<sup>3)</sup> Median value used in place of average

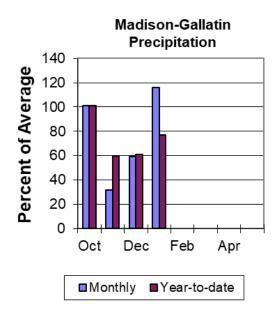
## Madison-Gallatin Rivers Basin



#### Snow

SWE is 95% of median in the Madison-Gallatin drainage. See Appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Last month precipitation in the Madison-Gallatin drainage was 116% of average. Water-year-to-date precipitation is at 77% of average.

## Reservoirs

Current reservoir storage is 111% of average in the basin.

MADISON-GALLATIN RIVER	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
BASINS	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Ennis Lake	28.9	28.9	29.8	41.0	70%	70%	73%	97%	97%
Hebgen Lake	313.3	316.8	279.0	378.8	83%	84%	74%	112%	114%
Basin-wide Total	342.1	345.6	308.8	419.8	81%	82%	74%	111%	112%
# of reservoirs	2	2	2	2	2	2	2	2	2

#### Streamflow

The 50% exceedance forecast for April through September is below average for the basin. Hebgen Reservoir inflow is 91% of average. *See below for detailed runoff volumes.* 

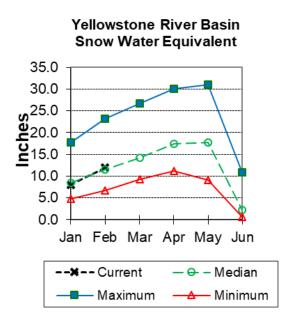
			Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast							
MADISON-GALLATIN RIVER BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)		
Hebgen Reservoir Inflow										
	APR-JUL	255	305	335	91%	365	415	370		
	APR-SEP	330	390	430	91%	470	530	470		
1) 90% and 10% exceeda	nce probabilitie	s are actually	95% and 5%	•	•		-			
2) Forecasts are for unimp	aired flows. Ad	ctual flow will	be dependent	on manageme	nt of upstream	reservoirs and	diversions			
3) Median value used in pl	ace of average									

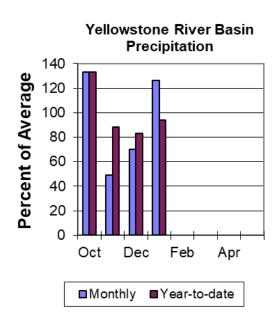


## Yellowstone River Basin

#### Snow

SWE in the Yellowstone River Basin is 104% of median. SWE in the Clarks Fork Drainage of the Yellowstone River Basin in Wyoming is 105% 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 126% of average. Water-year-to-date precipitation is 94% of average.

Reservoirs No reservoir data

#### Streamflow

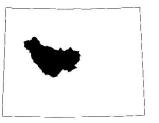
The 50% exceedance forecasts for April through September are near average for the basin. Yellowstone at Lake Outlet will yield around 99% of average. Yellowstone at Corwin Springs will yield around 101%. Clarks Fork of the Yellowstone near Belfry will yield around 105%.

See the following for further information.

			Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast								
YELLOWSTONE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)			
Yellowstone R at Yellowsto	ne Lake Outlet										
	APR-JUL	435	515	570	99%	625	705	575			
	APR-SEP	580	685	760	99%	835	940	770			
Yellowstone R at Corwin Sp	orings			·		-					
	APR-JUL	1290	1480	1600	101%	1720	1910	1590			
	APR-SEP	1520	1740	1890	101%	2040	2260	1880			
Yellowstone R at Livingston	· !										
Clarks Fk Yellowstone F	R nr Belfry <sup>2</sup>										
	APR-JUL	405	480	530	104%	580	655	510			
	APR-SEP	435	520	575	105%	630	710	550			
1) 90% and 10% exceeda	nce probabilitie	s are actually	95% and 5%			-	•				
2) Forecasts are for unimp	paired flows. A	ctual flow will	be dependent	on managemer	nt of upstream	reservoirs and	diversions				
3) Modian value used in pl	aca of avorago										

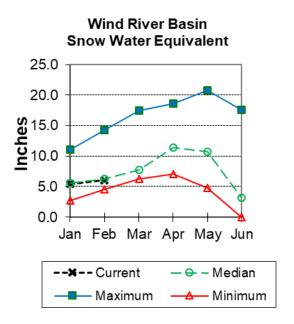
<sup>3)</sup> Median value used in place of average

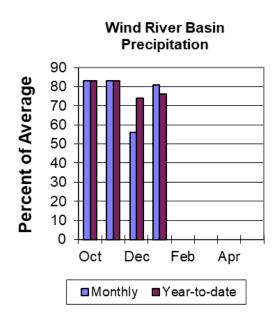
## Wind River Basin



#### Snow

Wind River Basin SWE (above Boysen Reservoir) is 97% of median. SWE in the Wind River above Dubois is 104% of median. Little Wind SWE is 85% of median, and Popo Agie drainage SWE is 92% of median. See Appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Precipitation for the basin was 81% of average. Water year-to-date precipitation is 76% of average.

#### Reservoirs

Current storage is 113% of average in the basin.

WIND RIVER BASIN	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Bull Lake	92.3	81.3	75.4	151.8	61%	54%	50%	122%	108%
Boysen	569.5	552.7	506.0	596.0	96%	93%	85%	113%	109%
Pilot Butte	23.9	24.1	23.2	31.6	76%	76%	73%	103%	104%
Basin-wide Total	685.7	658.1	604.6	779.4	88%	84%	78%	113%	109%
# of reservoirs	3	3	3	3	3	3	3	3	3

#### Streamflow

The 50% exceedance forecasts for the April through September runoff period are below average. The Wind River above Bull Lake Creek will yield about 99% of average. Little Popo Agie River near Lander should yield around 76% of average. Little Wind River near Riverton will yield around 80% of average. Boysen Reservoir inflow will yield about 89% of average. See the following page for detailed runoff volumes.

		Forecast Exceedance Probabilities for Risk Assessment									
			Chance	that actual volu	ıme will excee	d forecast					
WIND RIVER BASIN	Forecast	90%	70%	50%	% Avg	30%	10%	30yr Avg			
	Period	(KAF)	(KAF)	(KAF)		(KAF)	(KAF)	(KAF)			
Dinwoody Ck nr Burris											
	APR-JUL	52	60	66	100%	72	80	66			
	APR-SEP	76	86	92	100%	98	108	92			
Wind R Ab Bull Lake Ck											
	APR-JUL	300	390	455	100%	520	610	455			
	APR-SEP	315	415	485	99%	555	655	490			
Bull Lake Ck nr Lenore											
	APR-JUL	92	112	125	90%	139	159	139			
	APR-SEP	112	136	152	90%	168	192	169			
Wind R at Riverton											
	APR-JUL	300	400	470	99%	540	640	475			
	APR-SEP	355	470	545	99%	620	730	550			
Little Popo Agie R nr Lande	er										
	APR-JUL	11.5	24	32	76%	41	53	42			
	APR-SEP	15.5	29	37	76%	46	59	49			
Little Wind R nr Riverton											
	APR-JUL	48	150	220	81%	290	390	270			
	APR-SEP	54	162	235	80%	310	415	295			
Boysen Reservoir Inflow											
	APR-JUL	194	410	555	91%	700	920	610			
	APR-SEP	205	435	590	89%	740	970	665			

<sup>2)</sup> Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

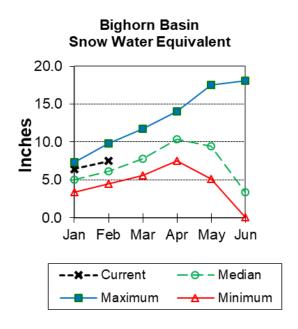
<sup>3)</sup> Median value used in place of average

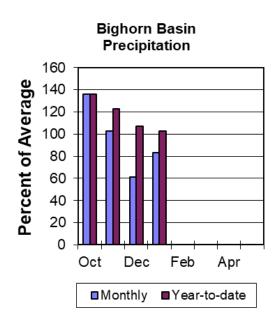
# **Bighorn River Basin**



#### Snow

The Bighorn River Basin SWE (above Bighorn Reservoir) is 120% of median. The Nowood River is at 127% of median. The Greybull River SWE is at 123% of median. Shell Creek SWE is at 113% of median. See Appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Last month's precipitation was 83% of average. Year-to-date precipitation is 103% of average.

## Reservoirs

Current reservoir storage in the basin is 109% of average.

<b>BIGHORN RIVER BASIN</b>	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Boysen	569.5	552.7	506.0	596.0	96%	93%	85%	113%	109%
Bighorn Lake	878.9	826.5	825.9	1356.0	65%	61%	61%	106%	100%
Basin-wide Total	1448.3	1379.2	1331.9	1952.0	74%	71%	68%	109%	104%
# of reservoirs	2	2	2	2	2	2	2	2	2

#### Streamflow

The 50% exceedance forecasts for the April through September runoffs are near average. Boysen Reservoir inflow has a forecasted yield 89% of average; the Greybull River near Meeteetse yielding around 99% of average; Shell Creek near Shell yielding around 105% of average and the Bighorn River at Kane to yield around 92% of average. See the following for detailed runoff volumes.

	Forecast Exceedance Probabilities for Risk Assessment									
BIGHORN RIVER BASIN			Chance that actual volume will exceed forecast							
	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)		
Boysen Reservoir Inflow										
	APR-JUL	194	410	555	91%	700	920	610		
	APR-SEP	205	435	590	89%	740	970	665		
Greybull R nr Meeteetse										
	APR-JUL	73	107	129	98%	152	186	131		
	APR-SEP	109	148	175	99%	200	240	177		
Shell Ck nr Shell										
	APR-JUL	43	52	58	105%	64	73	55		
	APR-SEP	52	62	69	105%	76	86	66		
Bighorn R at Kane										
	APR-JUL	290	590	795	95%	1000	1300	840		
	APR-SEP	290	615	830	92%	1050	1370	905		

<sup>1) 90%</sup> and 10% exceedance probabilities are actually 95% and 5%

<sup>2)</sup> Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

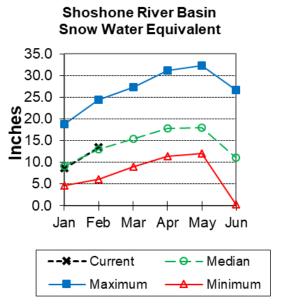
<sup>3)</sup> Median value used in place of average

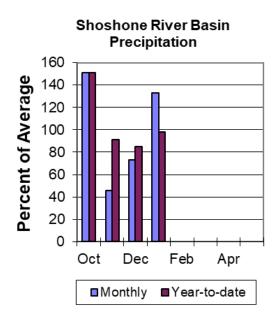
## **Shoshone River Basin**



#### Snow

Snow Water Equivalent (SWE) is 103% 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 133% of average. The basin year-to-date precipitation is now 98% of average.

#### Reservoirs

Current storage in Buffalo Bill Reservoir is about 133% of average.

SHOSHONE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Buffalo Bill	469.6	450.1	353.8	646.6	73%	70%	55%	133%	127%
Basin-wide Total	469.6	450.1	353.8	646.6	73%	70%	55%	133%	127%
# of reservoirs	1	1	1	1	1	1	1	1	1

#### Streamflow

The 50% exceedance forecasts for the April through September period are near average for the basin. The North Fork Shoshone River at Wapiti will yield 107% of average. The South Fork of the Shoshone River near Valley would yield 102% of average. The Buffalo Bill Reservoir inflow to yield 105%. *See the following for detailed runoff volumes.* 

	Forecast Exceedance Probabilities for Risk Assessment								
		Chance	that actual volu	ume will exceed	d forecast				
Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)		
APR-JUL	385	450	495	108%	535	600	460		
APR-SEP	430	500	550	107%	595	665	515		
APR-JUL	157	192	215	100%	240	275	215		
APR-SEP	180	220	250	102%	275	315	245		
Bill Reservoir					•	-			
APR-JUL	107	157	191	99%	225	275	193		
APR-SEP	112	166	205	103%	240	295	200		
APR-JUL	510	625	705	104%	780	895	675		
APR-SEP	575	700	785	105%	865	990	745		
	APR-JUL APR-SEP  APR-SEP  Bill Reservoir APR-JUL APR-SEP  APR-JUL APR-SEP	Period         (KAF)           APR-JUL         385           APR-SEP         430           APR-JUL         157           APR-SEP         180           Bill Reservoir         APR-JUL         107           APR-SEP         112           APR-JUL         510	Chance Forecast 90% 70% Period (KAF) (KAF)  APR-JUL 385 450 APR-SEP 430 500  APR-JUL 157 192 APR-SEP 180 220  Bill Reservoir APR-JUL 107 157 APR-SEP 112 166  APR-JUL 510 625	Chance that actual voluments of the control of the	Chance that actual volume will exceed Forecast 90% 70% 50% % Avg Period (KAF) (KAF) (KAF)  APR-JUL 385 450 495 108% APR-SEP 430 500 550 107%  APR-JUL 157 192 215 100% APR-SEP 180 220 250 102%  Sill Reservoir APR-JUL 107 157 191 99% APR-SEP 112 166 205 103%  APR-JUL 510 625 705 104%	Chance that actual volume will exceed forecast Forecast 90% 70% 50% % Avg 30% (KAF) (KAF) (KAF) (KAF)  APR-JUL 385 450 495 108% 535 APR-SEP 430 500 550 107% 595  APR-JUL 157 192 215 100% 240 APR-SEP 180 220 250 102% 275  Bill Reservoir APR-JUL 107 157 191 99% 225 APR-SEP 112 166 205 103% 240  APR-JUL 510 625 705 104% 780	Chance that actual volume will exceed forecast  Forecast 90% 70% 50% 8 Avg 30% 10% (KAF)  Period (KAF) (KAF) (KAF) (KAF)  APR-JUL 385 450 495 108% 535 600  APR-SEP 430 500 550 107% 595 665  APR-JUL 157 192 215 100% 240 275  APR-SEP 180 220 250 102% 275 315  Sill Reservoir  APR-JUL 107 157 191 99% 225 275  APR-SEP 112 166 205 103% 240 295  APR-JUL 510 625 705 104% 780 895		

<sup>2)</sup> Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

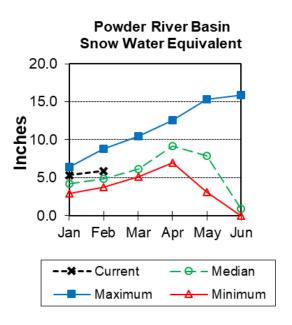
<sup>3)</sup> Median value used in place of average

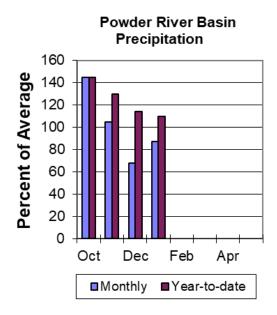
## Powder River Basin



#### Snow

Powder River Basin SWE is at 120% of median. Upper Powder River drainage is 132% of median. SWE in the Clear Creek drainage is 103% of median. Crazy Woman Creek drainage SWE is at 122%. See appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Last month's precipitation was 87% of average in the basin. Year-to-date precipitation is 110% of average.

## Reservoirs

No reservoir data for this basin.

## Streamflow

The 50% exceedance forecasts for the April through September period are above average for the basin. The Middle Fork of the Powder River near Barnum should yield around 109% of average. The North Fork of the Powder River near Hazelton to yield around 118%. The Powder River near Morehead to yield around 115% of average. See the following for detailed runoff volumes.

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast								
			Chance t	hat actual vol	ume will excee	d forecast				
POWDER RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)		
MF Powder R nr Barnum										
	APR-JUL	10.7	14.9	17.7	110%	21	25	16.1		
	APR-SEP	11.5	15.7	18.6	109%	22	26	17		
NF Powder R nr Hazelton										
	APR-JUL	7.6	9.6	10.9	120%	12.2	14.2	9.1		
	APR-SEP	8.3	10.3	11.7	118%	13.1	15.1	9.9		
Rock Ck nr Buffalo										
	APR-JUL	10.5	16.2	20	108%	24	29	18.6		
	APR-SEP	13.8	19.9	24	109%	28	34	22		
Piney Ck at Kearny										
	APR-JUL	12.4	30	41	93%	53	70	44		
	APR-SEP	14.6	32	44	94%	56	74	47		
Powder R at Moorehead										
	APR-JUL	71	151	205	116%	260	340	177		
	APR-SEP	90	170	225	115%	280	360	196		
Powder R nr Locate										

<sup>2)</sup> Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

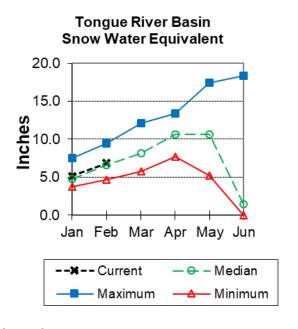
<sup>3)</sup> Median value used in place of average

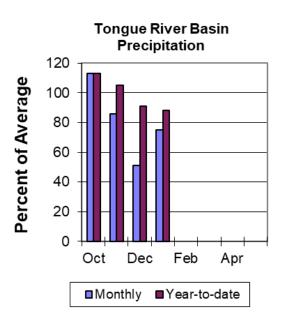
# **Tongue River Basin**



#### Snow

Upper Tongue River drainage SWE is at 101% of median. The Goose Creek drainage SWE is also 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 75% of average. Year-to-date precipitation is 88% of average in the basin.

#### Reservoirs

The Tongue River Reservoir is at 178% of average for this time of year.

TONGUE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Tongue River Res	47.5	50.6	26.7	79.1	60%	64%	34%	178%	189%
Basin-wide Total	47.5	50.6	26.7	79.1	60%	64%	34%	178%	189%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

The 50% exceedance forecasts for the April through September period are below average for the basin. The yield for Tongue River near Dayton is forecasted to be 96% of average. Big Goose Creek near Sheridan to yield around 91%. Little Goose Creek near Bighorn yielding 92% of average. The Tongue River Reservoir Inflow will be about 92% of average. See below for detailed runoff volumes.

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast								
TONGUE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)		
Tongue R nr Dayton										
	APR-JUL	53	70	82	95%	93	111	86		
	APR-SEP	62	81	94	96%	106	125	98		
Big Goose Ck nr Sheridan										
	APR-JUL	20	32	41	89%	49	61	46		
	APR-SEP	28	40	49	91%	57	70	54		
Little Goose Ck nr Bighorn										
	APR-JUL	15.3	23	28	90%	34	42	31		
	APR-SEP	22	30	36	92%	42	50	39		
Tongue River Reservoir Inflo	w	'								
	APR-JUL	72	133	175	91%	215	280	193		
	APR-SEP	89	153	198	92%	240	305	215		

<sup>2)</sup> Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

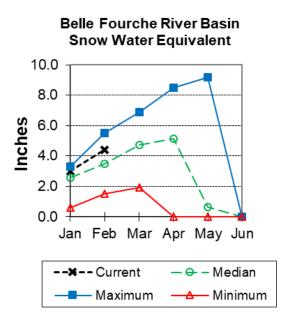
<sup>3)</sup> Median value used in place of average

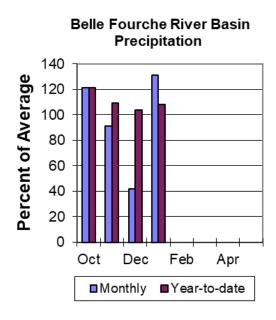
## Belle Fourche River Basin



#### Snow

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.





## Precipitation

Precipitation for last month was 131% of average in the Belle Fourche basin. Year-to-date precipitation is 108% of average.

#### Reservoirs

Combined storage for the 3 reservoirs in the basin is at 149% of average.

BELLE FOURCHE RIVER	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
BASIN	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Belle Fourche	132.5	133.5	110.5	178.4	74%	75%	62%	120%	121%
Keyhole	169.8	158.6	87.9	193.8	88%	82%	45%	193%	180%
Shadehill	57.5	67.4	42.8	81.4	71%	83%	53%	134%	157%
Basin-wide Total	359.8	359.5	241.2	453.6	79%	79%	53%	149%	149%
# of reservoirs	3	3	3	3	3	3	3	3	3

## Streamflow

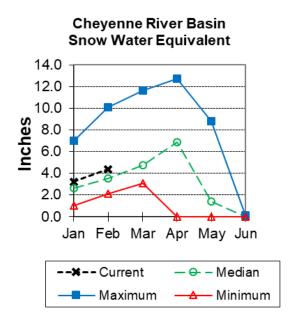
There are no streamflow forecast points for the basin.

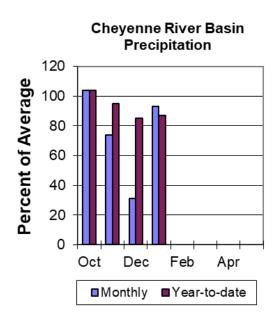
# Cheyenne River Basin



#### Snow

Cheyenne River Basin SWE is at 125% of median. See Appendix at the end of this report for a detailed listing.





## Precipitation

Precipitation for last month was 93% of average. Year-to-date precipitation is 87%.

## Reservoirs

Combined storage for the 3 reservoirs in the basin is at 113% of average.

CHEYENNE RIVER BASIN	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Angostura	98.2	95.8	83.2	122.1	80%	78%	68%	118%	115%
Deerfield	15.1	14.8	13.7	15.2	99%	98%	90%	110%	108%
PactoLa	53.0	51.7	45.5	55.0	96%	94%	83%	116%	114%
Basin-wide Total	166.3	162.3	142.4	192.3	86%	84%	74%	117%	114%
# of reservoirs	3	3	3	3	3	3	3	3	3

## Streamflow

The Deerfield Reservoir Inflow yield is forecasted at 112% of average. Pactola Reservoir Inflow yield is 105% of average. See the following for detailed runoff volumes.

CHEYENNE RIVER BASIN		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast							
	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)	
Deerfield Reservoir Inflow									
	MAR-JUL	3.3	5.5	7	113%	8.5	10.8	6.2	
	APR-JUL	2.4	4.4	5.8	112%	7.2	9.2	5.2	
Pactola Reservoir Inflow									
	MAR-JUL	10.8	20	27	108%	33	43	25	
	APR-JUL	8.3	17.3	23	105%	30	39	22	

<sup>1) 90%</sup> and 10% exceedance probabilities are actually 95% and 5%

<sup>2)</sup> Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

<sup>3)</sup> Median value used in place of average

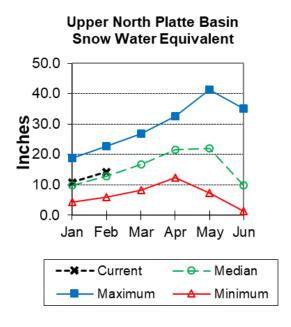
# Upper North Platte River Basin

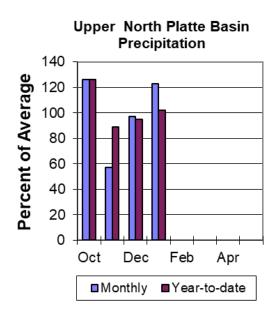


#### Snow

The Upper North Platte River Basin SWE above Seminoe Reservoir is 110% of median. North Platte above Northgate SWE is 100% of median. Encampment River SWE is 114% of median. Brush Creek SWE is 126% of median. Medicine Bow and Rock Creek SWE are 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 123% of average. Total water-year-to-date precipitation is 102% of average.

#### Reservoirs

Seminoe Reservoir storage is at 152% of average.

UPPER NORTH PLATTE	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
RIVER BASIN	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Seminoe	794.1	617.5	520.8	1016.7	78%	61%	51%	152%	119%
Basin-wide Total	794.1	617.5	520.8	1016.7	78%	61%	51%	152%	119%
# of reservoirs	1	1	1	1	1	1	1	1	1

#### Streamflow

The 50% exceedance forecasts for the April through September period are mostly above average for the Upper North Platte River Basin. The yield for the North Platte River near Northgate will be around 92% of average. The Encampment River near Encampment yield will be about 112%. Rock Creek near Arlington yield will be around 119%. Seminoe Reservoir inflow should be about 112%. See the following page for more detailed information on projected runoff.

			Forecast Exc	eedance Prob	abilities for Risl	k Assessment		
			Chance	that actual volu	ume will exceed	d forecast		
UPPER NORTH	Forecast	90%	70%	50%	% Avg	30%	10%	30yr Avg
PLATTE RIVER BASIN	Period	(KAF)	(KAF)	(KAF)		(KAF)	(KAF)	(KAF)
North Platte R nr Northgate	)					-		•
	APR-JUL	79	156	210	93%	260	340	225
	APR-SEP	89	173	230	92%	285	370	250
Encampment R nr Encamp	ment <sup>2</sup>		-				-	
	APR-JUL	86	121	146	113%	170	205	129
	APR-SEP	93	130	155	112%	180	215	138
Rock Ck nr Arlington								
	APR-JUL	41	52	59	120%	66	77	49
	APR-SEP	43	54	62	119%	70	81	52
Sweetwater R nr Alcova								
	APR-JUL	1	13.8	28	47%	42	64	59
	APR-SEP	1	15.5	31	48%	46	69	64
Seminoe Reservoir Inflow								
	APR-JUL	420	650	805	113%	960	1190	715
	APR-SEP	465	700	865	112%	1030	1270	770

<sup>2)</sup> Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

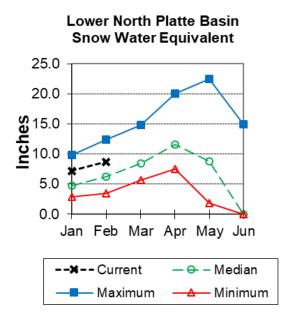
<sup>3)</sup> Median value used in place of average

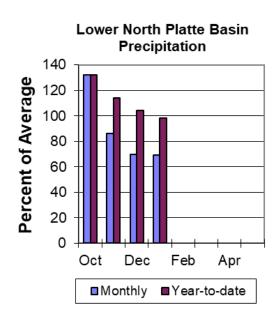
## Lower North Platte River Basin



#### Snow

Lower North Platte River Basin SWE is 140% of median. Deer Creek and LaPrele Creek SWE is at 139%. SWE total for the entire North Platte River Basin above Torrington, WY is 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 69% of average. The water year-to-date precipitation for the basin is currently 98% of average.

#### Reservoirs

Combined storage for the 4 reservoirs in the basin is at 134% of average.

LOWER NORTH PLATTE	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
RIVER BASIN	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Alcova	157.0	157.2	155.0	184.3	85%	85%	84%	101%	101%
Glendo	324.2	302.2	301.5	506.4	64%	60%	60%	108%	100%
Guernsey	16.6	14.3	11.4	45.6	36%	31%	25%	146%	125%
Pathfinder	882.4	628.4	559.0	1016.5	87%	62%	55%	158%	112%
Basin-wide Total	1380.3	1102.1	1026.9	1752.8	79%	63%	59%	134%	107%
# of reservoirs	4	4	4	4	4	4	4	4	4

#### Streamflow

The 50% exceedance forecasts for the April through September period will be above average. LaPrele Creek above LaPrele Reservoir is forecasted to yield 121% of average. North Platte River below Guernsey Reservoir to yield around 100% of average. See the following for more detailed information on projected runoff.

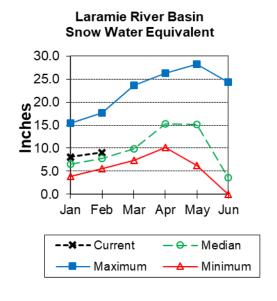
	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast								
LOWER NORTH PLATTE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)	
La Prele Ck ab La Prele Re		(1011)	(10.11)	(1011)		(1011)	(1011)	(1011)	
	APR-JUL	5.8	16.4	24	121%	31	41	19.9	
	APR-SEP	5.9	16.7	24	121%	31	42	19.9	
North Platte R bl Glendo Re	eservoir		·						
	APR-JUL	285	600	815	99%	1030	1350	820	
	APR-SEP	300	630	850	100%	1070	1400	850	
North Platte R bl Guernsey	Reservoir								
	APR-JUL	265	595	815	99%	1040	1370	820	
	APR-SEP	285	620	850	100%	1080	1420	850	
1) 90% and 10% exceeda	nce probabilitie	es are actually	y 95% and 5%			-			
2) Forecasts are for unimp	paired flows. A	ctual flow will	be dependent	on manageme	nt of upstream	reservoirs and	diversions		
3) Median value used in p	ace of average								

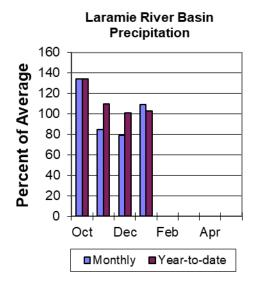
## Laramie River Basin



#### Snow

SWE for the entire Laramie River Basin (above mouth entering North Platte) is 123% of median. SWE for the Laramie River above Laramie is 115% of median. SWE for the Little Laramie River is 128% of median. See Appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Last month's precipitation was 109% of average. The water year-to-date precipitation for the basin is currently 103% of average.

#### 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 94% of average. The Little Laramie near Filmore should produce about 129% of average.

	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast								
LARAMIE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)	
Laramie R nr Woods									
	APR-JUL	49	84	108	94%	132	167	115	
	APR-SEP	55	92	118	94%	144	181	126	
Little Laramie R nr Filmore									
	APR-JUL	44	57	66	129%	75	88	51	
	APR-SEP	48	62	71	129%	80	94	55	

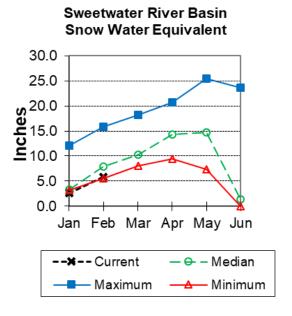
- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

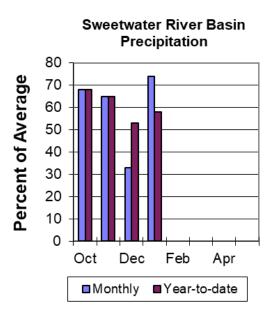
## Sweetwater River Basin



#### Snow

Sweetwater River Basin SWE is at 74% of median. See Appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Last month's precipitation was 74% of average. The water year-to-date precipitation for the basin is currently 58% of average.

#### Reservoirs

Pathfinder is storing at 158% of average for this time of year.

SWEETWATER RIVER	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
BASIN	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Pathfinder	882.4	628.4	559.0	1016.5	87%	62%	55%	158%	112%
Basin-wide Total	882.4	628.4	559.0	1016.5	87%	62%	55%	158%	112%
# of reservoirs	1	1	1	1	1	1	1	1	1

## Streamflow

The following is the streamflow forecast for the April through September period. The Sweetwater River near Pathfinder will yield about 48% of average. See below for detailed information on projected runoff.

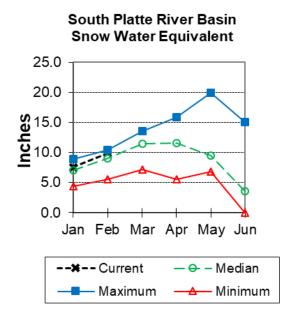
			Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
SWEETWATER RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)	
Sweetwater R nr Alcova									
	APR-JUL	1	13.8	28	47%	42	64	59	
	APR-SEP	1	15.5	31	48%	46	69	64	
1) 90% and 10% exceeds	ance probabilitie	s are actuall	y 95% and 5%						
2) Forecasts are for unim	paired flows. A	ctual flow wil	l be dependent	on manageme	ent of upstream	reservoirs and	diversions		
3) Median value used in p	lace of average								

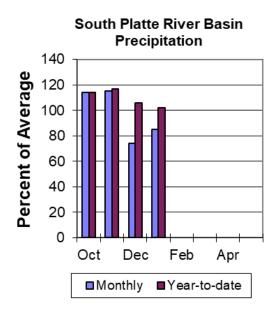
# South Platte River Basin (WY)



#### Snow

South Platte River Basin SWE in WY is 110% of median. See Appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Last month's precipitation was 85% of average. The water year-to-date precipitation for the basin is currently 102%.

#### Reservoirs

No reservoir data for the basin.

#### Streamflow

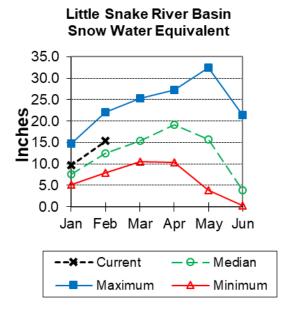
There are no streamflow forecast points for the basin.

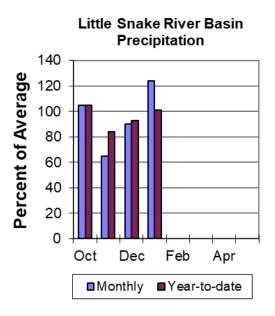
## Little Snake River Basin



#### Snow

Little Snake River drainage SWE is 123% of median. See Appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Precipitation across the basin was 124% of average. The Little Snake River Basin wateryear-to-date precipitation is currently 101% of average.

## Reservoirs

No reservoir data for the basin.

## Streamflow

The 50% exceedance forecasts for the April through July period will be slightly below average. The Little Snake River near Slater is forecasted to yield around 97% of average. See below for detailed information on projected runoff.

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast								
LITTLE SNAKE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)		
Little Snake R nr Slater <sup>2</sup>										
	APR-JUL	103	131	152	97%	175	210	156		
Little Snake R nr Dixon <sup>2</sup>										
	APR-JUL	200	280	340	99%	405	515	345		
1) 90% and 10% exceeda	nce probabilitie	es are actually	/ 95% and 5%	1	I	1	1			

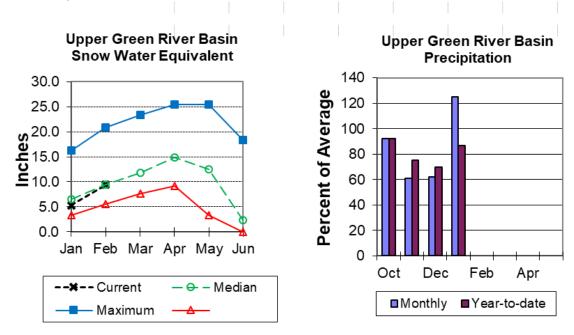
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

# Upper Green River Basin



#### Snow

The Upper Green River Basin SWE (above Fontenelle Reservoir) is 99% of median. Green River Basin above Warren Bridge SWE is 90% of median. West Side of Upper Green River Basin SWE is 111% of median. New Fork River SWE is 92% of median. Big Sandy-Eden Valley Basin SWE is 66% 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 125% of average last month. Water year-to-date precipitation is 87% of average.

#### Reservoir

Combined water storage in the basin was at 119% of average for the 2 reservoirs.

UPPER GREEN RIVER	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
BASIN	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Big Sandy	22.5	15.8	17.0	38.3	59%	41%	44%	133%	93%
Fontenelle	176.6	149.6	150.1	344.8	51%	43%	44%	118%	100%
Basin-wide Total	199.2	165.4	167.1	383.1	52%	43%	44%	119%	99%
# of reservoirs	2	2	2	2	2	2	2	2	2

## Streamflow

The 50% exceedance forecasts for the April through July period will be below average. The yield on the Green River at Warren Bridge is about 86% of average. New Fork River near Big Piney yield will be around 79% of average. Fontenelle Reservoir Inflow is estimated to be about 80% of average. See the following for a more detailed forecast.

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast								
UPPER GREEN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)		
Green R at Warren Bridge										
	APR-JUL	152	185	210	86%	235	280	245		
Pine Creek ab Fremont Lak	e									
	APR-JUL	67	76	83	85%	90	100	98		
New Fork R nr Big Piney										
	APR-JUL	155	225	280	79%	340	440	355		
Fontenelle Reservoir Inflow										
	APR-JUL	310	460	580	80%	710	930	725		
Big Sandy R nr Farson										
	APR-JUL	22	30	37	71%	44	56	52		
1) 90% and 10% exceeda	nce probabilitie	s are actually	/ 95% and 5%							

<sup>2)</sup> Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

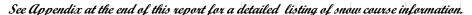
<sup>3)</sup> Median value used in place of average

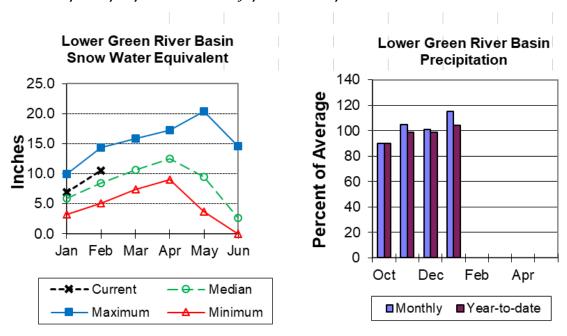


## Lower Green River Basin

#### Snow

Lower Green River Basin SWE is at 123% of median. Hams Fork drainage SWE is 106% of median. Blacks Fork drainage SWE is 133% of median. Henrys Fork SWE is 192% of median. SWE for the entire Green River Basin (above Flaming Gorge) is at 107% of median.





## Precipitation

Precipitation for the basin last month was 115% of average. The basin year-to-date precipitation is currently 104% of average.

## Reservoirs

Combined storage for the 3 reservoirs in the basin was at 108% of average at the end of last month.

LOWER GREEN RIVER	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
BASIN	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Fontenelle	176.6	149.6	150.1	344.8	51%	43%	44%	118%	100%
Flaming Gorge Reservoir	3273.6	3197.7	3049.0	3749.0	87%	85%	81%	107%	105%
Viva Naughton Res	30.4	27.6	30.1	42.4	72%	65%	71%	101%	92%
Basin-wide Total	3480.6	3374.9	3229.2	4136.2	84%	82%	78%	108%	105%
# of reservoirs	3	3	3	3	3	3	3	3	3

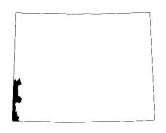
#### Streamflow

The following are the 50% exceedance forecasts for the April through July period. The Green River near Green River will yield about 82% of average. The Flaming Gorge Reservoir inflow will be about 86% of average. See the following page for more detailed information on projected runoff.

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast								
LOWER GREEN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)		
Green R nr Green River, W	Y 2	'	1		1	1				
	APR-JUL	315	470	595	82%	735	965	730		
Blacks Fk nr Robertson										
	APR-JUL	66	86	100	116%	116	140	86		
EF of Smiths Fork nr Robe	rtson <sup>2</sup>									
	APR-JUL	19.1	25	29	107%	34	42	27		
Hams Fk bl Pole Ck nr Fron	ntier			-			-			
	APR-JUL	21	32	42	78%	53	71	54		
Viva Naughton Reservoir Inf	low		'				'			
	APR-JUL	24	41	56	76%	73	102	74		
Flaming Gorge Reservoir In	flow <sup>2</sup>									
	APR-JUL	445	670	845	86%	1040	1370	980		
1) 90% and 10% exceeda	nce probabilitie	es are actually	y 95% and 5%							
2) Forecasts are for unimp	paired flows. A	ctual flow will	be dependent	on manageme	ent of upstream	reservoirs and	diversions			
3) Median value used in n	lace of average									

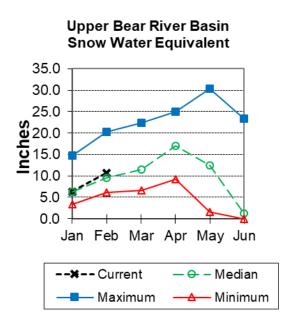
<sup>3)</sup> Median value used in place of average

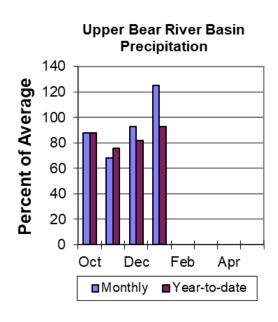
# **Upper Bear River Basin**



#### Snow

SWE in the Upper Bear River Basin of Utah is 106% of median. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is 112% of median. Bear River Basin SWE, above the Idaho State line, is 106% of median. See Appendix at the end of this report for a detailed listing of snow course information.





## Precipitation

Precipitation for last month was 125% of average in the basin. The year-to-date precipitation for the basin is 93% of average.

## Reservoirs

Storage in Woodruff Narrows Reservoir was at 174% of average for the end of last month.

<b>UPPER BEAR RIVER BASIN</b>	Current	Last Year	Average	Capacity	Current %	Last Year %	Average %	Current %	Last Year %
	(KAF)	(KAF)	(KAF)	(KAF)	Capacity	Capacity	Capacity	Average	Average
Woodruff Narrows Reservoir	50.6	20.7	29.0	57.3	88%	36%	51%	174%	71%
Basin-wide Total	50.6	20.7	29.0	57.3	88%	36%	51%	174%	71%
# of reservoirs	1	1	1	1	1	1	1	1	1

#### Streamflow

The 50% exceedance forecasts for the April through September period will be average. The Bear River above Reservoir near Woodruff to yield around 103% of average. The Smiths Fork River near Border Jct. will yield around 100%. See below for detailed information on projected runoff.

		Forecast Exceedance Probabilities for Risk Assessment								
UPPER BEAR RIVER			Chance	that actual volu	ıme will excee	d forecast				
	Forecast	90%	70%	50%	% Avg	30%	10%	30yr Avg		
BASIN	Period	(KAF)	(KAF)	(KAF)		(KAF)	(KAF)	(KAF)		
Bear R nr UT-WY State Li	ne					•				
	APR-JUL	74	98	115	103%	131	155	112		
	APR-SEP	82	108	126	102%	144	171	123		
Bear R ab Resvnr Woodr	uff		·							
	APR-JUL	38	90	125	103%	161	215	121		
	APR-SEP	37	94	132	103%	171	230	128		
Smiths Fk nr Border										
	APR-JUL	60	77	89	100%	101	119	89		
	APR-SEP	70	90	104	100%	118	138	104		
1) 90% and 10% exceed	lance probabilitie	s are actually	y 95% and 5%		-		•			
2) Forecasts are for unin	npaired flows. A	ctual flow will	be dependent	on manageme	ent of upstream	reservoirs and	diversions			
3) Median value used in	place of average									

## **Appendix - Snowpack Data**

In Word double click the object below to view entire document



BSnow\_2\_2020.pdf

## **Appendix - Precipitation Data**

In Word double click the object below to view entire document



BPrecip\_2\_2020.pdf

Issued by:	Released by:
Matthew Lohr (Chief) U.S.D.A. Natural Resources Conservation Service Washington D.C.	Astrid Martinez State Con. N R C S Casper, Wyoming
The Following Agencies and Organizations Coope Conservation Service on the Snow Survey Work.	erate with the Natural Resources
FEDERAL:	
United States Department of the Interior (National Park Service)	ce) United States Department of Agriculture
(Forest Service)	
United States Department of the Interior (Bureau of Reclamat	ion)
United States Department of Commerce NOAA (National We	eather Service)
State:	
The Wyoming State Engineer's Office	
The University of Wyoming	
Local:	
The City of Cheyenne	
The City of Rawlins	