NRCS
Natural Resources Conservation Service

Wyoming Water Supply Outlook Report

February 1, 2018

Snake River Station SNOTEL

(Near Yellowstone National Park south entrance)

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

For more water supply and resource management information, contact:

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100 East B Street, Casper, Wyoming 82602
307-233-6784

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.

STATE OF WYOMING GENERAL OUTLOOK
February 1, 2018

SUMMARY

The snow water equivalent (SWE) across Wyoming is near normal at 108%. Monthly precipitation for the basins ranged from a high of 147% of average in the Upper Yellowstone in WY Basin to a low of 76% of average in the Sweetwater River Basin, for an overall average of 108%. The year-to-date precipitation average for Wyoming basins is now at 97% varying from a high of 135% in the Shoshone River Basin to a low of 64% of average in the Sweetwater River Basin. Forecasted runoff varies from 53% to 165% of average across the Wyoming basins. Basin reservoir levels for Wyoming vary from 43-100% of average for an overall average of 79%.

SNOWPACK

The SWE across Wyoming is above median for Feb. 1st at 108%, compared to 129% last year. The SWE was the lowest in the Little Snake River Basin at 71%, while SWE in the Upper Yellowstone in WY Basin is the highest at 147% of median. The Kirwin SNOTEL had the highest SWE at 212% of median, while the Crow Creek SNOTEL had the lowest SWE at 30% of median.

PRECIPITATION

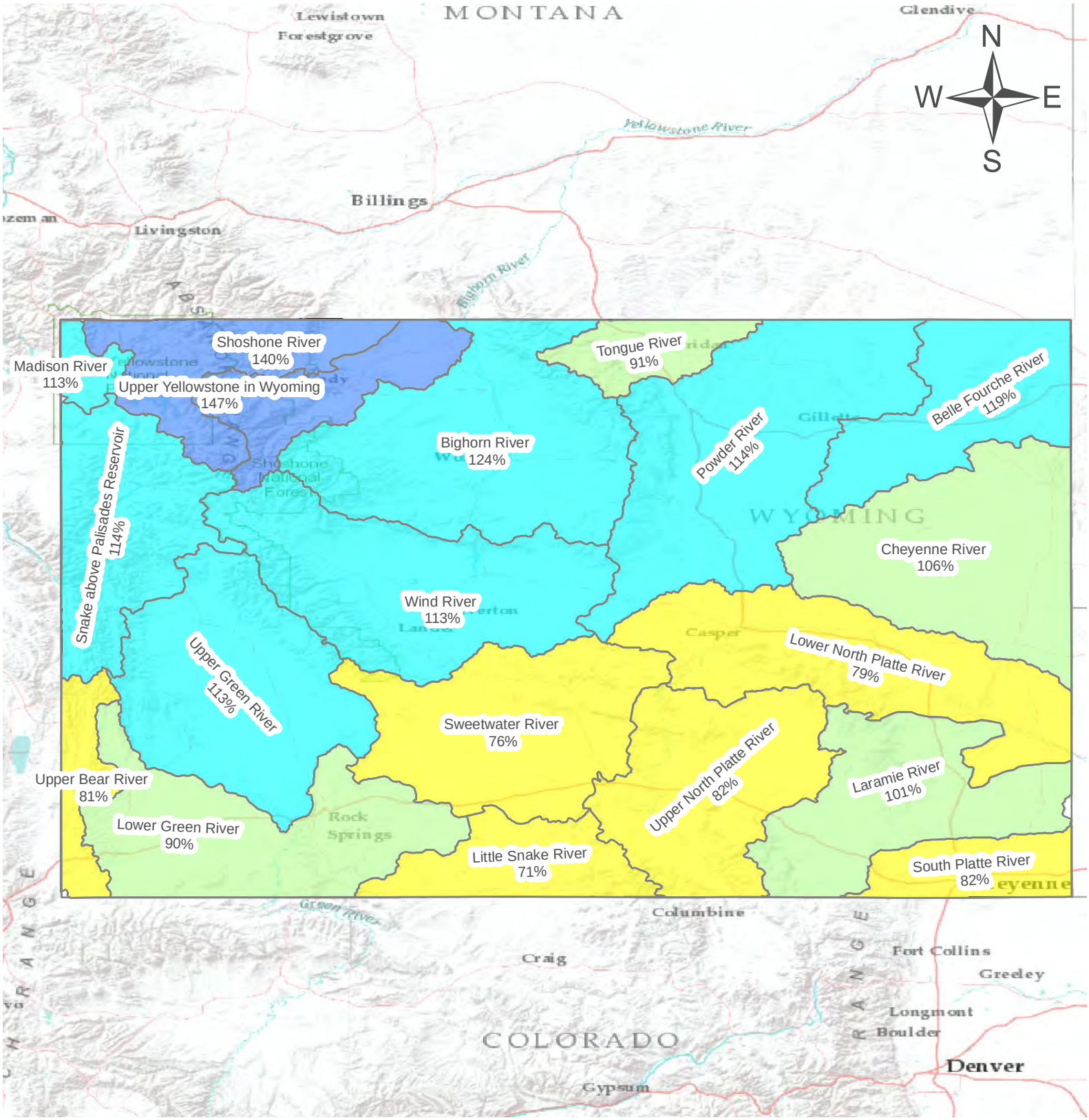
Year to date precipitation is at 97% of average. The Clarks Fork in WY Basin had the highest precipitation amount at 147% of average and the Sweetwater River Basin had the lowest precipitation amount at 64% of average. The Wolverine SNOTEL had the highest precipitation at 167% of average, while the Sandstone RS and Timber Creek SNOTELs had the lowest precipitation at 44% of average.

RESERVOIRS

Reservoir storage is above average at 121% for the entire state. Reservoirs in the Snake above Palisade Basin are above average at 149% with a current capacity at 89%. Reservoirs in the Madison abv Hebgen Lake Basin are above average at 115% with a current capacity at 85%. Reservoirs in the Wind River Basin are above average at 120% with a current capacity at 93%. Reservoirs on the Big Horn are above average at 109% with a current capacity at 75%. The Buffalo Bill Reservoir on the Shoshone is above average at 136% with a current capacity at 75%. The Tongue River Basin Reservoir is above average at 183% with a current capacity at 62%. Reservoirs in the Belle Fourche and Cheyenne River Basins are slightly above average in storage at 100 and 107% respectively with current capacities at 53% and 79% respectively. Reservoirs on the Upper and Lower North Platte River are above average at 155% and 124% respectively with current capacities at 80% and 72% respectively. Reservoirs on the Laramie and Little Snake River basins are at 142% and 91% respectively with current capacities at 59% and 48% respectively. Reservoirs on the Upper Green River are above average at 117% with a current capacity at 51%. Reservoirs on the Lower Green River Basin are above average at 107% with a current capacity at 84%. Woodruff Narrows Reservoir on the Upper Bear River Basin is above average at 165% with a current capacity at 84%.

STREAMFLOW

The Snake above Palisades, Madison abv Hebgen Lake, and Upper Yellowstone in WY Basins should yield about 103%, 103% and 132% of average, respectively. Yields from the Wind and Bighorn River Basins should be about 145% and 128% of average, respectively. Yields from the Shoshone River Basin should be about 149% of average. Yields from the Powder and Tongue River Basins should be about 124% and 67% of average, respectively. Yield for the Cheyenne River Basin should be about 96% of average. Yields for the Upper North Platte, Sweetwater, Lower North Platte, and Laramie Rivers of Wyoming should be about 80%, 63%, 74%, and 108% of average, respectively. Yields for the Little Snake, Upper Green River, Lower Green River, and Smith's Fork of Wyoming should be 53%, 97%, 98%, and 88% of average respectively.



Statewide Snow Water Equivalent

As of February 1, 2018:

108% of Normal Snow Water Equivalent

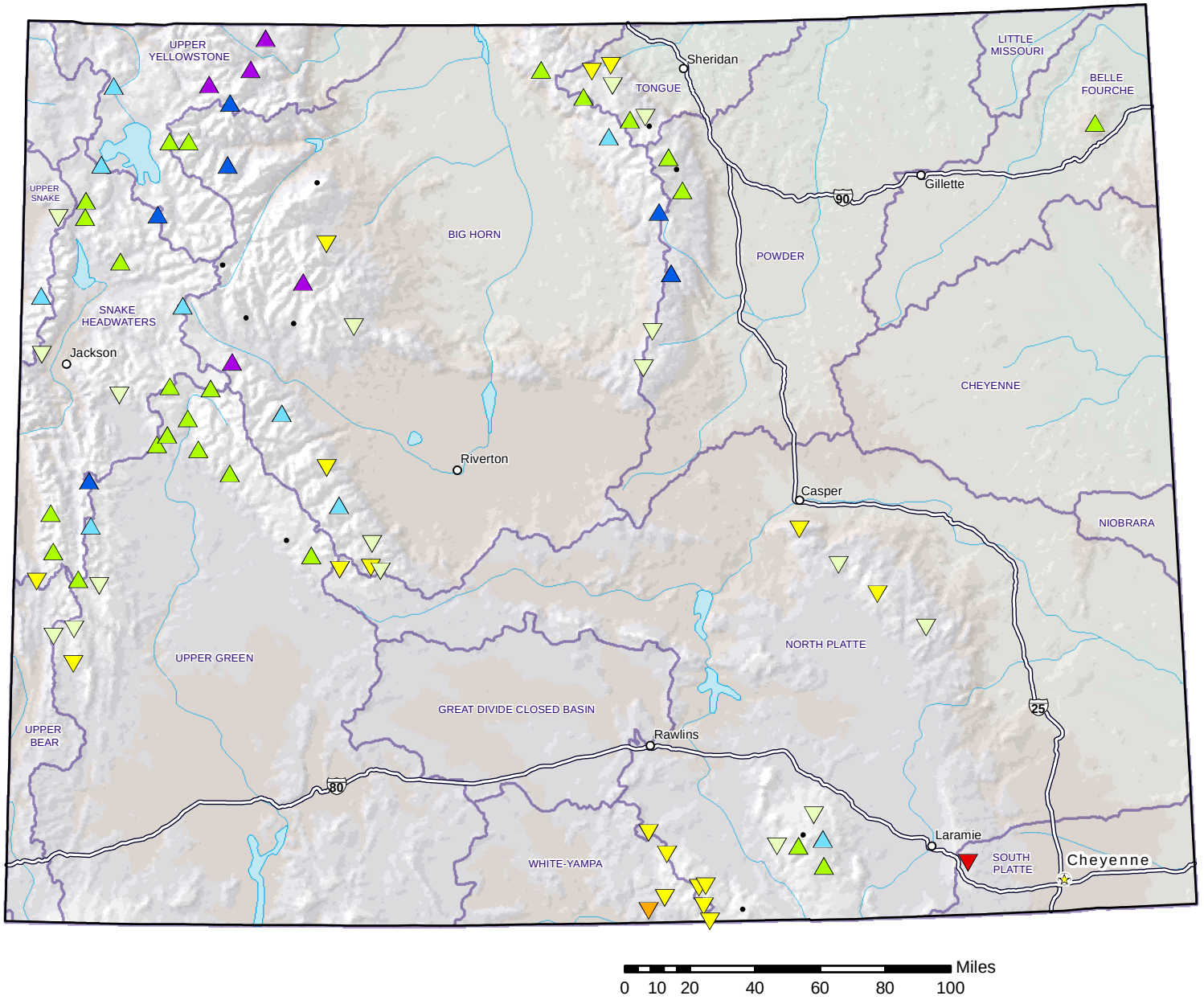
0 10 20 40 60 80 100 Miles

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%

Wyoming
SNOTEL Snow Water Equivalent (SWE)
% of Normal

Feb 01, 2018



Current SWE % of 1981-2010 Median

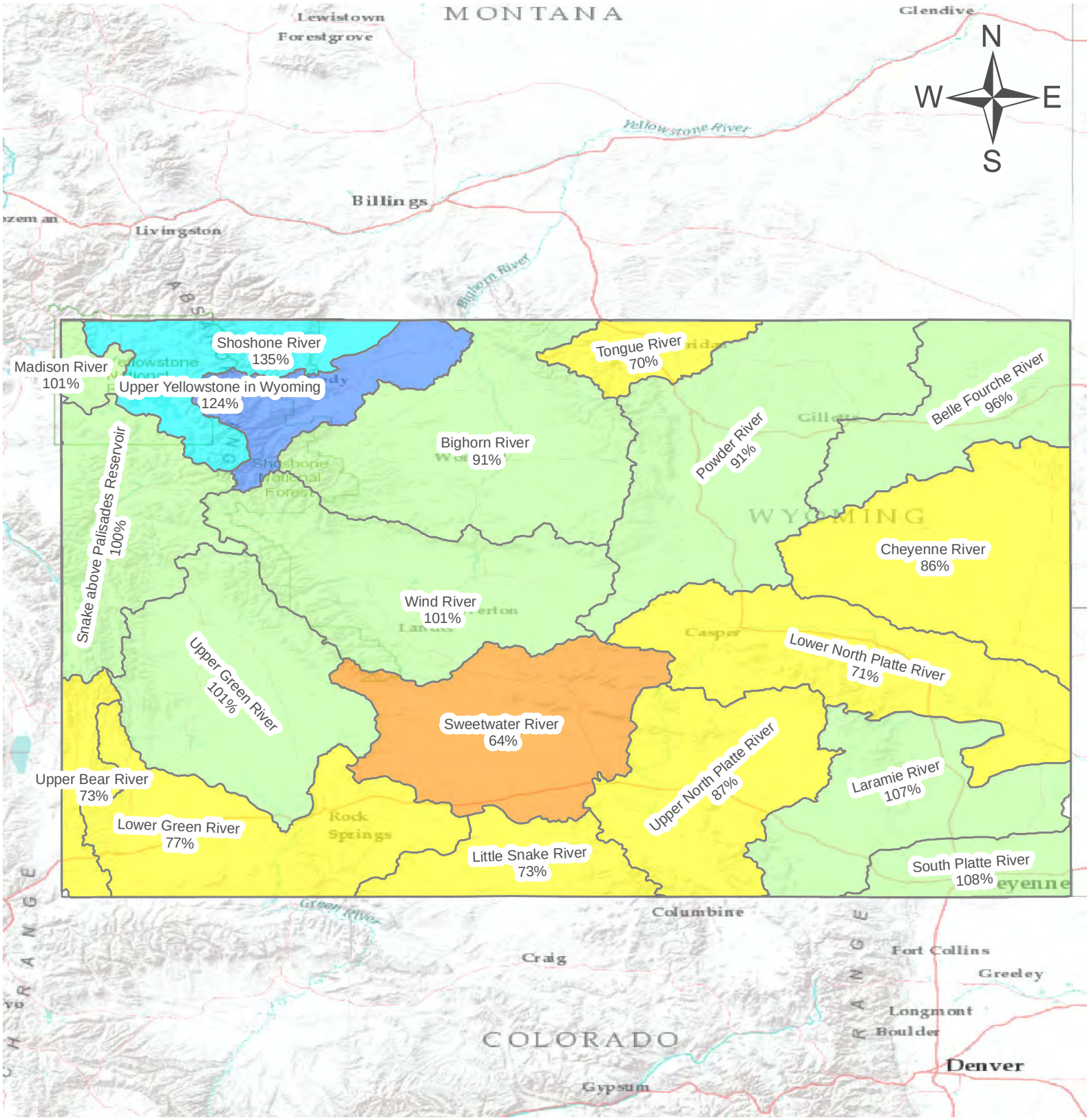
- ▲ > 160%
- ▲ 140-160%
- ▲ 120-139%
- ▲ 100-119%
- ▽ 80-99%
- ▽ 60-79%
- ▽ 40-59%
- ▽ 1-39%
- \+ 0%
- • Unavailable*

Provisional Data Subject to Revision

USDA NRCS

Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
http://www.wcc.nrcs.usda.gov

** Data unavailable at time of posting or unavailable long-term normal.*



Statewide Precipitation

As of February 1, 2018:

97% of Normal Precipitation

0 1020 40 60 80 100
Miles

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%

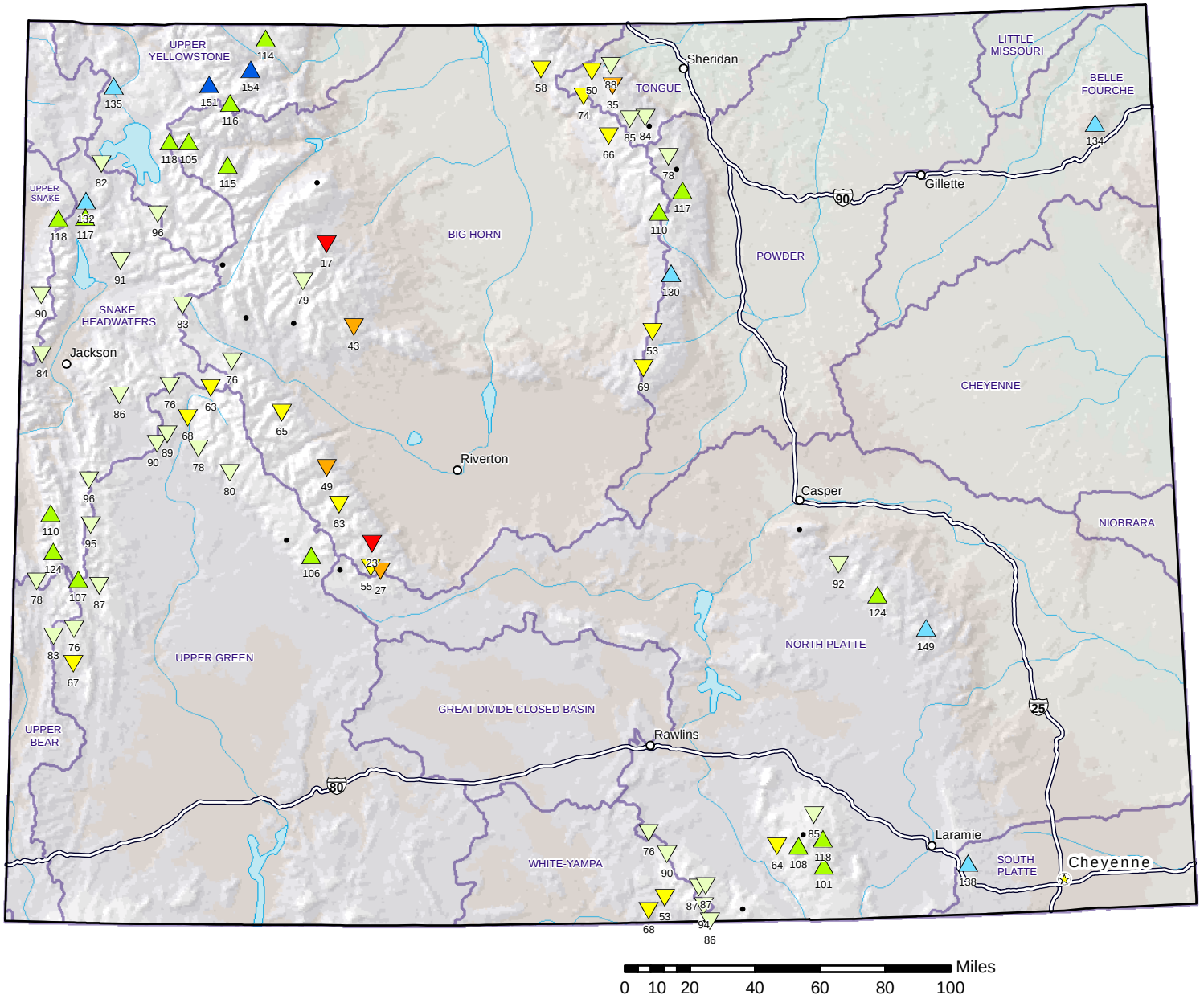
Wyoming
SNOTEL Month to Date (MTD) Precipitation
% of Normal

Feb 01, 2018

Current MTD Precipitation % of 1981-2010 Average

- > 200%
- 150-200%
- 125-149%
- 100-124%
- 75-99%
- 50-74%
- 25-49%
- 1-24%
- 0%
- Unavailable*

Provisional Data Subject to Revision



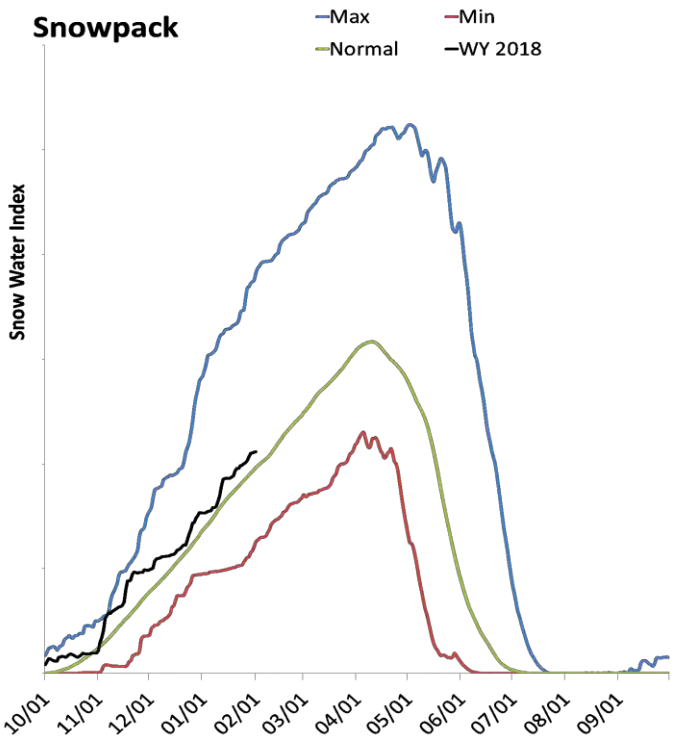
Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
http://www.wcc.nrcs.usda.gov

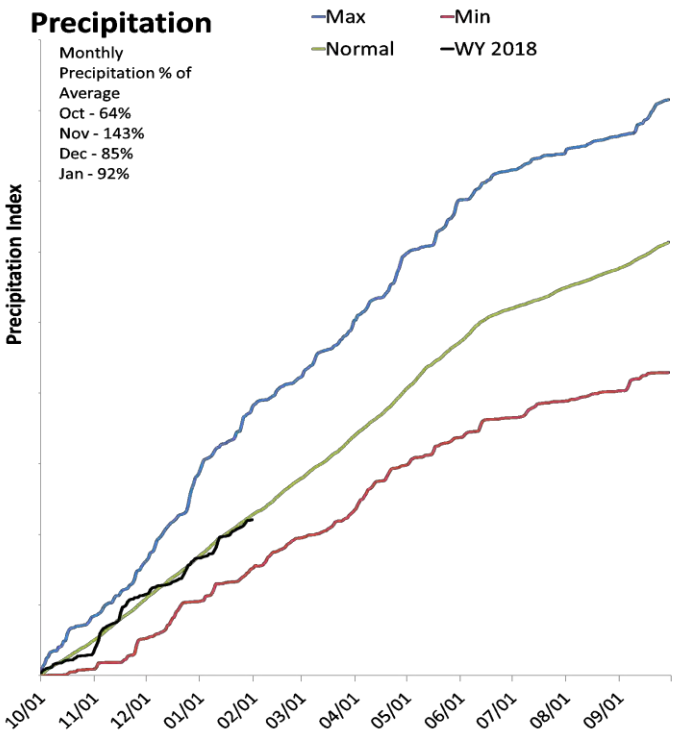
** Data unavailable at time of posting or unavailable long-term normal.*

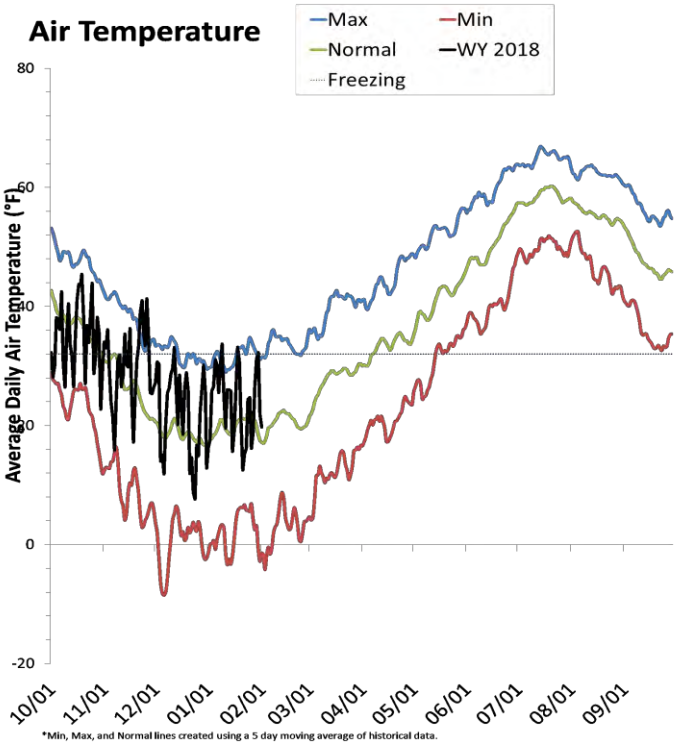
Wyoming Statewide

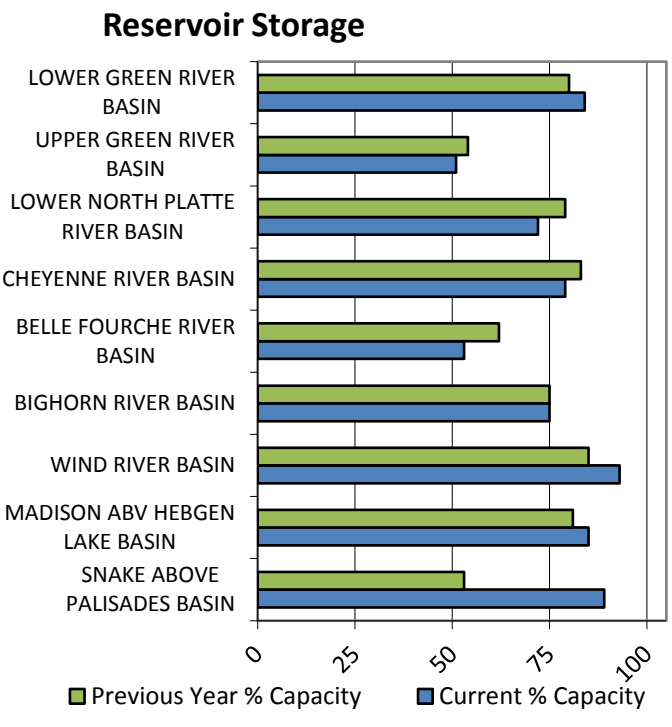
February 1, 2018

Snowpack in Wyoming is near normal at 108% of normal, compared to 129% last year. Precipitation in January was near average at 92%, which brings the seasonal accumulation (Oct-Jan) to 97% of average. Soil moisture at sites with sensors is at 52% of saturation. Reservoir storage is at 79% of capacity, compared to 72% last year. Forecast streamflow volumes range from 53% to 161% of average.









SNOTEL Data

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Statewide - February 1, 2018

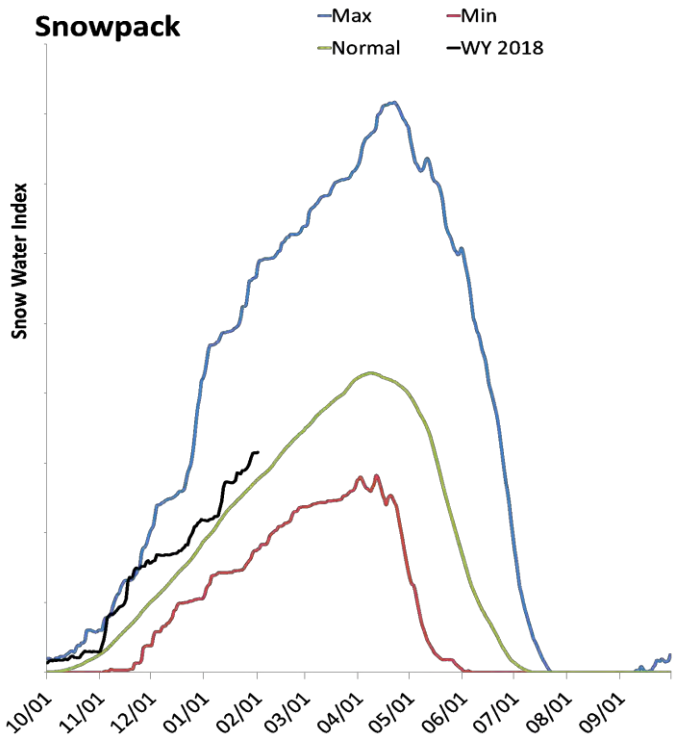
Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Hebgen Lake	320.1	305.2	279.0	378.8
Pilot Butte	24.3	25.6	23.2	31.6
Bull Lake	103.6	42.5	75.4	151.8
Boysen	598.1	590.6	506.0	596.0
Buffalo Bill	485.3	481.4	353.8	646.6
Bighorn Lake	856.5	876.3	825.9	1356.0
Tongue River Res	48.9	50.2	26.7	79.1
Shadehill	34.7	35.7	42.8	81.4
Angostura	85.8	91.4	83.2	122.1
Deerfield	14.6	15.0	13.7	15.2
Pactola	51.5	52.7	45.5	55.0
Keyhole	118.3	143.4	87.9	193.8
Belle Fourche	89.1	102.4	110.5	178.4
Seminoe	808.9	757.3	520.8	1016.7
Pathfinder	830.7	912.4	559.0	1016.5
Alcova	156.8	157.3	155.0	184.3
Glendo	264.1	307.4	301.5	506.4
Guernsey	19.1	0.0	11.4	45.6
Wheatland #2	57.9	47.5	40.9	98.9
Fontenelle	165.2	184.2	150.1	344.8
Big Sandy	30.8	23.5	17.0	38.3
Meeks Cabin Reservoir	10.0	11.2	11.9	32.5
Viva Naughton Res	31.6	30.3	30.1	42.4
Flaming Gorge Reservoir	3259.2	3087.3	3049.0	3749.0
High Savery Reservoir	10.8	12.0	11.9	22.4
Woodruff Narrows Reservoir	48.0	49.6	29.0	57.3
Jackson Lake	657.1	555.1	431.2	847.0
Palisades Reservoir	1352.8	638.3	911.2	1400.0
Grassy Lake	13.3	14.1	11.9	15.2
Basin-wide Total	10547.2	9599.9	8715.5	13303.1
# of reservoirs	29	29	29	29

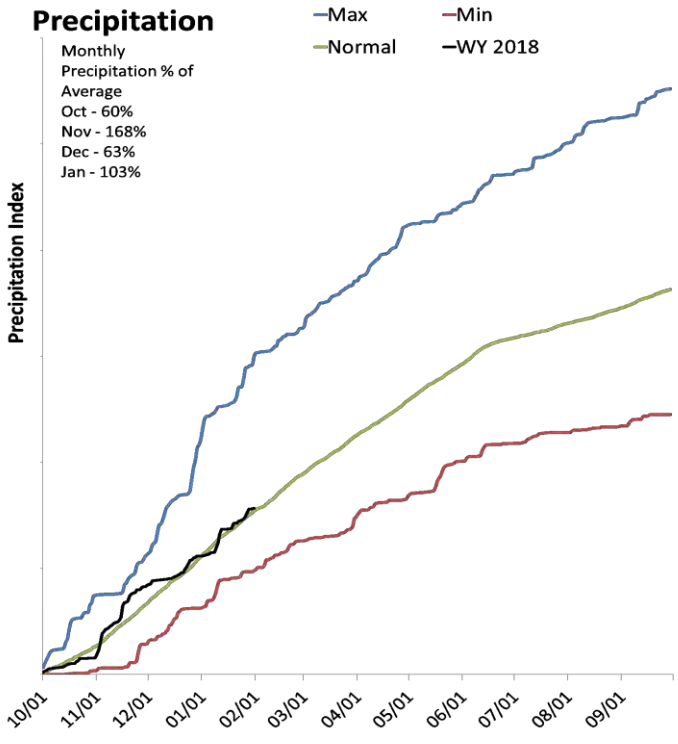
Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
SNAKE ABOVE PALISADES BASIN	20	114%	127%
MADISON ABV HEBGEN LAKE BASIN	4	113%	99%
UPPER YELLOWSTONE IN WY BASIN	8	147%	114%
WIND RIVER BASIN	9	113%	144%
BIGHORN RIVER BASIN	10	124%	109%
SHOSHONE RIVER BASIN	4	140%	123%
POWDER RIVER BASIN	7	114%	90%
TONGUE RIVER BASIN	6	91%	109%
BELLE FOURCHE RIVER BASIN	1	119%	106%
CHEYENNE RIVER BASIN	2	106%	106%
UPPER NORTH PLATTE RIVER BASIN	17	82%	127%
SWEETWATER RIVER BASIN	3	76%	185%
LOWER NORTH PLATTE RIVER BASIN	4	79%	109%
LARAMIE RIVER BASIN	7	101%	124%
SOUTH PLATTE RIVER BASIN	4	82%	117%
LITTLE SNAKE RIVER BASIN	8	71%	131%
UPPER GREEN RIVER BASIN	12	113%	152%
LOWER GREEN RIVER BASIN	7	90%	152%
UPPER BEAR RIVER BASIN	7	81%	164%
Statewide	80	108%	129%

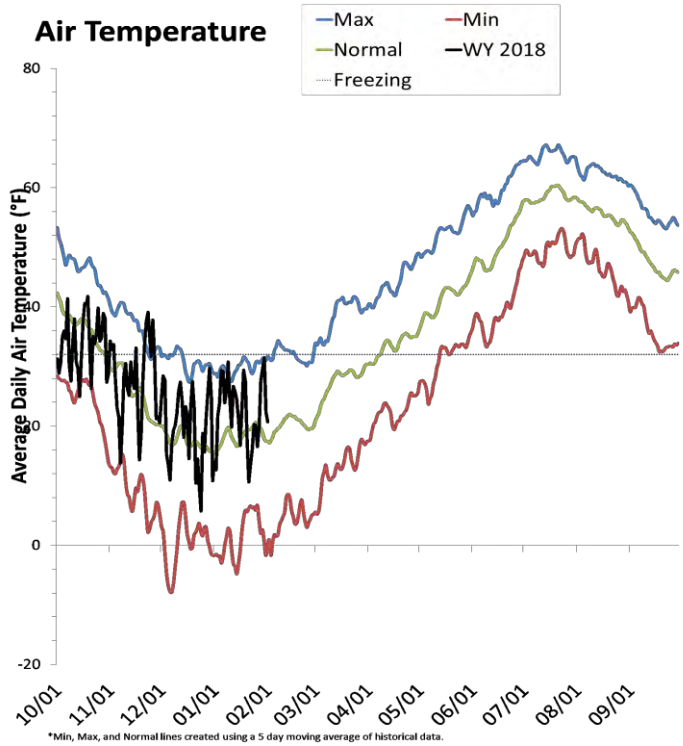
Snake above Palisades Reservoir

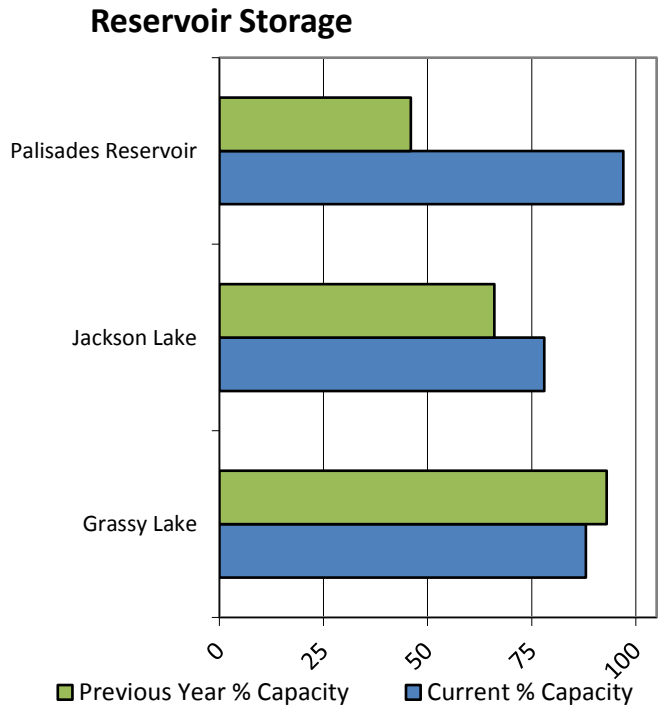
February 1, 2018

Snowpack in the Snake above Palisades Reservoir is above normal at 114% of normal, compared to 127% last year. Precipitation in January was near average at 101%, which brings the seasonal accumulation (Oct-Jan) to 100% of average. Soil moisture at sites with sensors is at 61% of saturation. Reservoir storage is at 89% of capacity, compared to 53% last year. Forecast streamflow volumes range from 82% to 119% of average.









SNOTEL Data

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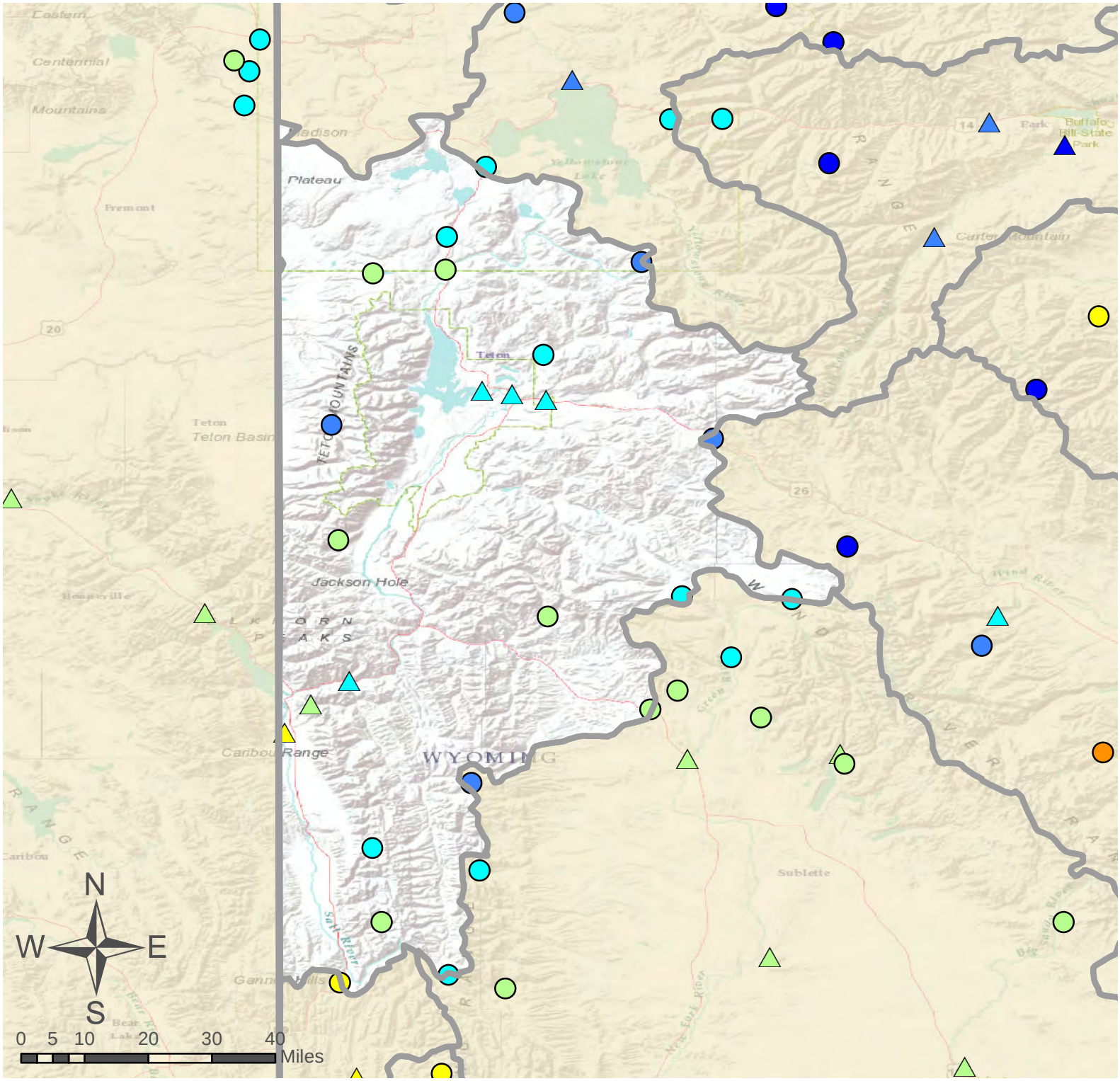
Snake Above Palisades Basin
Streamflow Forecasts - February 1, 2018

SNAKE ABOVE PALISADES BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
Snake R nr Moran[1,2]								
	APR-JUL	660	765	835	109%	910	1010	765
	APR-SEP	725	845	925	109%	1010	1120	845
Snake R ab Reservoir nr Alpine[1,2]								
	APR-JUL	1950	2220	2400	111%	2590	2860	2170
	APR-SEP	2230	2540	2760	110%	2970	3290	2500
Snake R nr Irwin [1,2]								
	APR-JUL	2360	2790	3080	102%	3370	3800	3010
	APR-SEP	2750	3250	3590	103%	3930	4430	3500
Snake R nr Heise[2]								
	APR-JUL	2550	3000	3310	102%	3620	4070	3240
	APR-SEP	3000	3520	3880	103%	4240	4770	3780
Pacific Ck at Moran								
	APR-JUL	154	179	195	119%	210	235	164
	APR-SEP	163	188	205	118%	220	250	173
Buffalo Fk ab Lava Ck nr Moran								
	APR-JUL	255	295	325	116%	350	395	280
	APR-SEP	285	335	370	116%	400	450	320
Greys R ab Reservoir nr Alpine								
	APR-JUL	225	270	305	100%	335	385	305
	APR-SEP	260	315	355	99%	390	445	360
Salt R ab Reservoir nr Etna								
	APR-JUL	130	200	245	82%	295	365	300
	APR-SEP	172	255	310	84%	365	445	370

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Grassy Lake	13.3	14.1	11.9	15.2
Jackson Lake	657.1	555.1	431.2	847.0
Palisades Reservoir	1352.8	638.3	911.2	1400.0
Basin-wide Total	2023.3	1207.5	1354.3	2262.2
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
SNAKE above Jackson Lake	5	115%	119%
PACIFIC CREEK	2	132%	140%
BUFFALO FORK	1	131%	123%
GROS VENTRE RIVER	4	114%	126%
HOBACK RIVER	6	112%	155%
GREYS RIVER	4	117%	137%
SALT RIVER	5	100%	133%
SNAKE AB PALISADES RESV	23	108%	132%



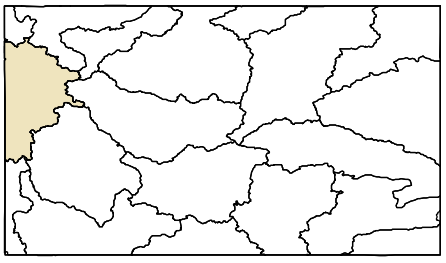
Snake above Palisades Reservoir

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

114% of Normal SWE

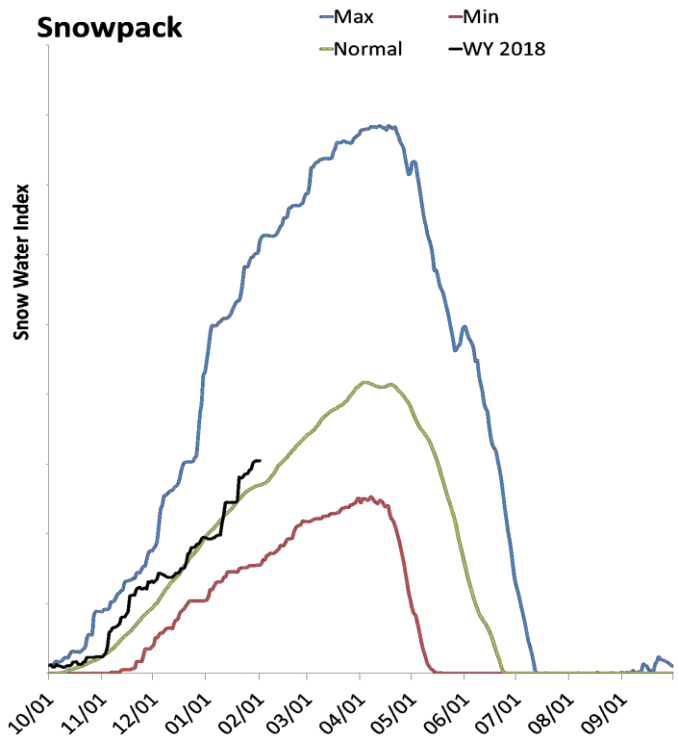
100% of Normal Precipitation

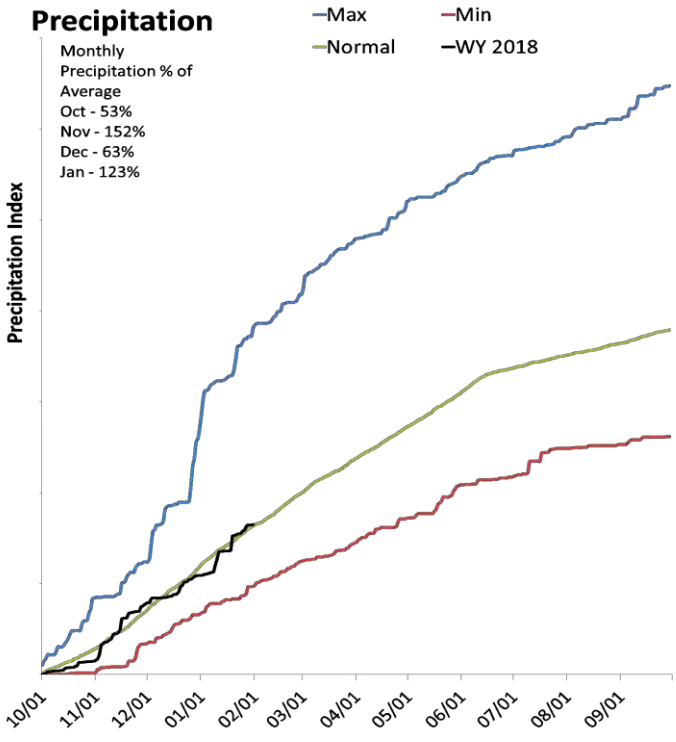
101% of Normal Precipitation Last Month

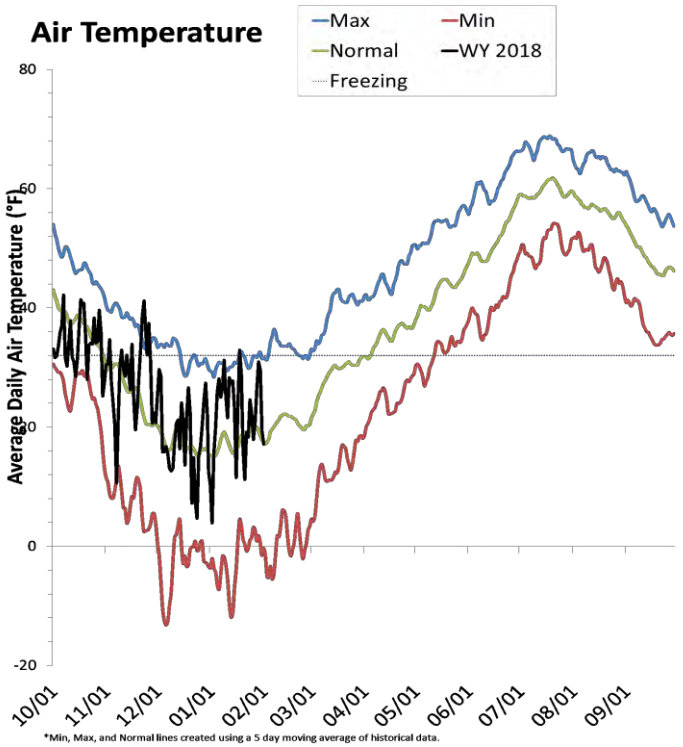
Madison River above Hebgen Lake

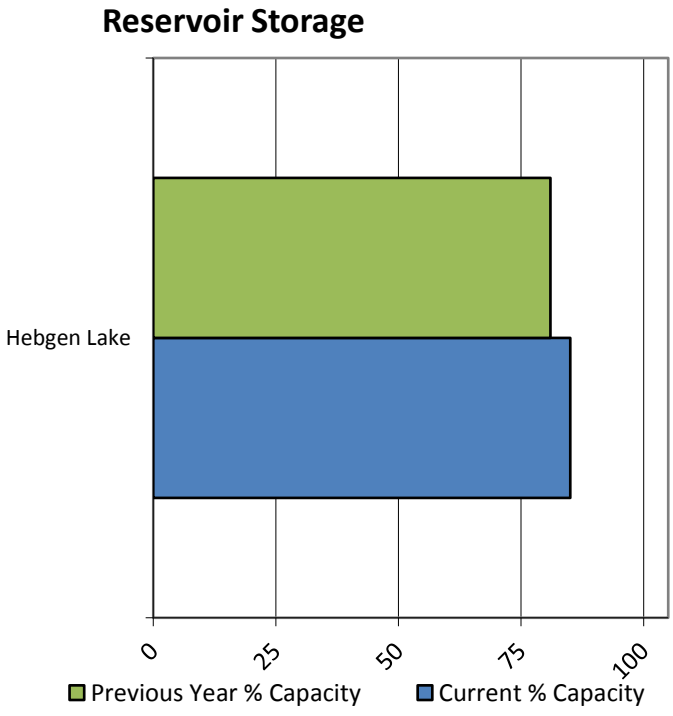
February 1, 2018

Snowpack in the Madison River above Hebgen Lake is above normal at 113% of normal, compared to 99% last year. Precipitation in January was above average at 125%, which brings the seasonal accumulation (Oct-Jan) to 101% of average. Reservoir storage is at 85% of capacity, compared to 81% last year. Forecast streamflow volumes range from 103% to 103% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:54:57 AM

Madison Abv Hebgen Lake Basin
Streamflow Forecasts - February 1, 2018

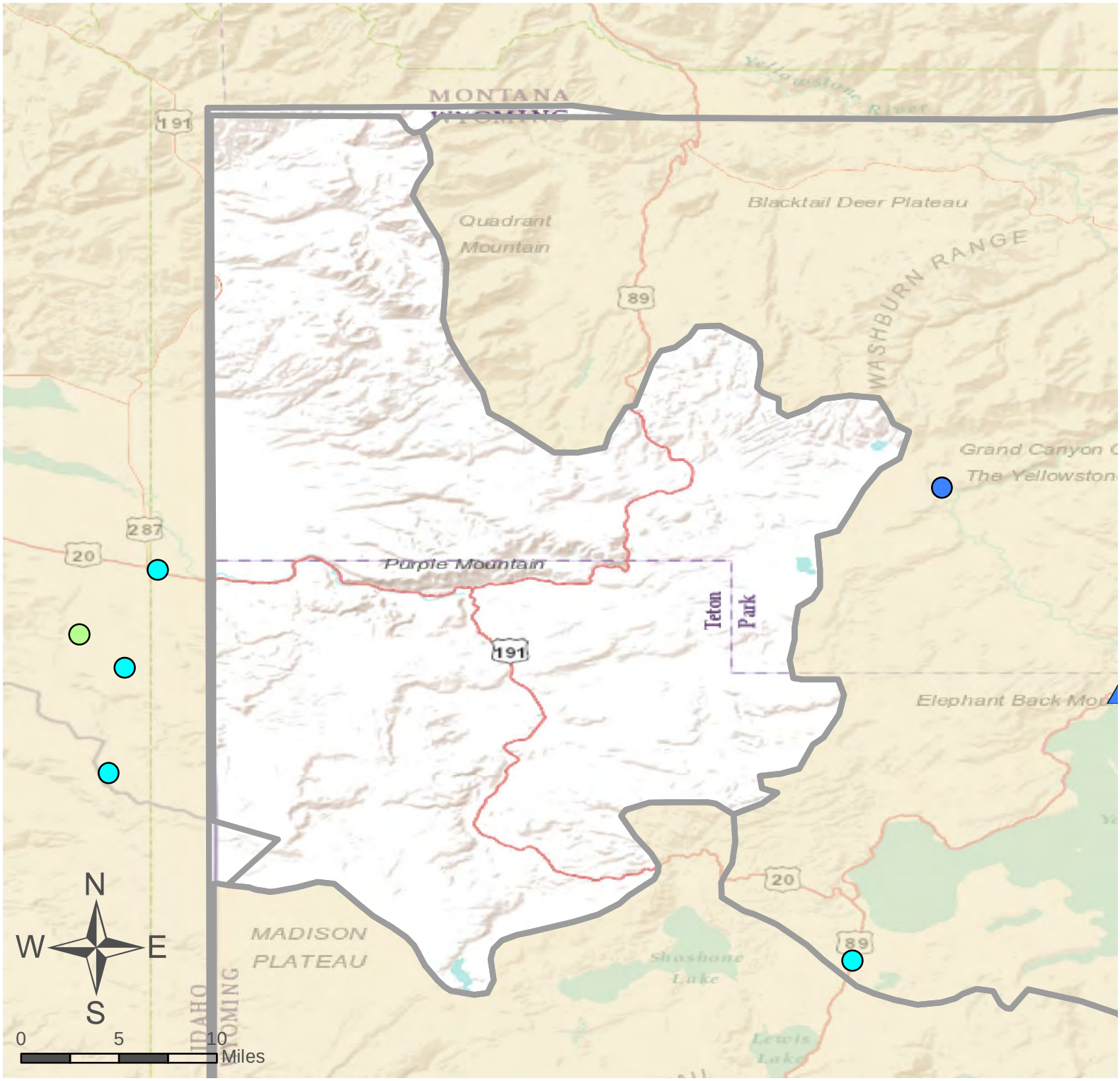
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

MADISON ABV HEBGEN LAKE BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Hebgen Lake Inflow								
	APR-JUL	300	350	380	103%	415	460	370
	APR-SEP	385	445	485	103%	525	585	470

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Hebgen Lake	320.1	305.2	279.0	378.8
Basin-wide Total	320.1	305.2	279.0	378.8
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
MADISON ABV HEBGEN LAKE	5	111%	102%



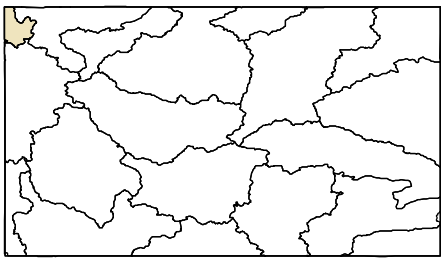
Madison River above Hebgen Lake

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

113% of Normal SWE

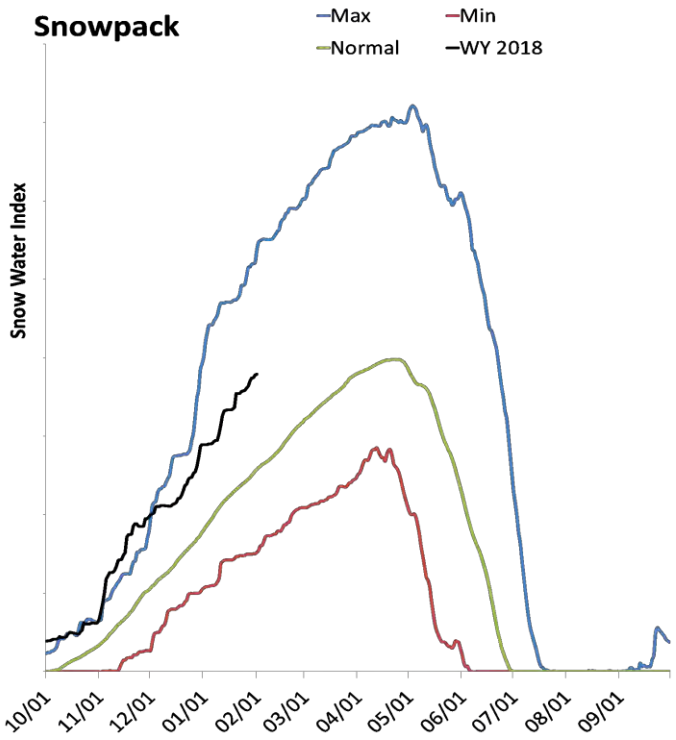
101% of Normal Precipitation

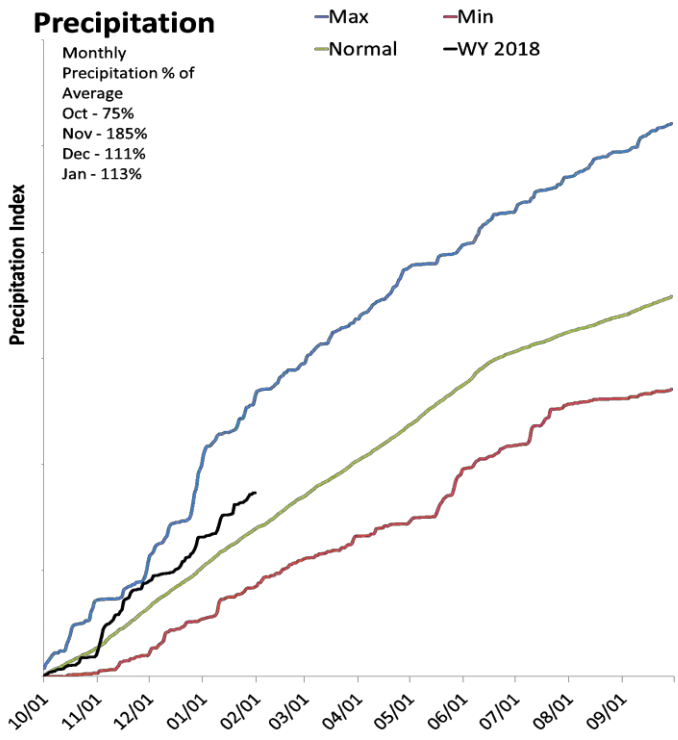
125% of Normal Precipitation Last Month

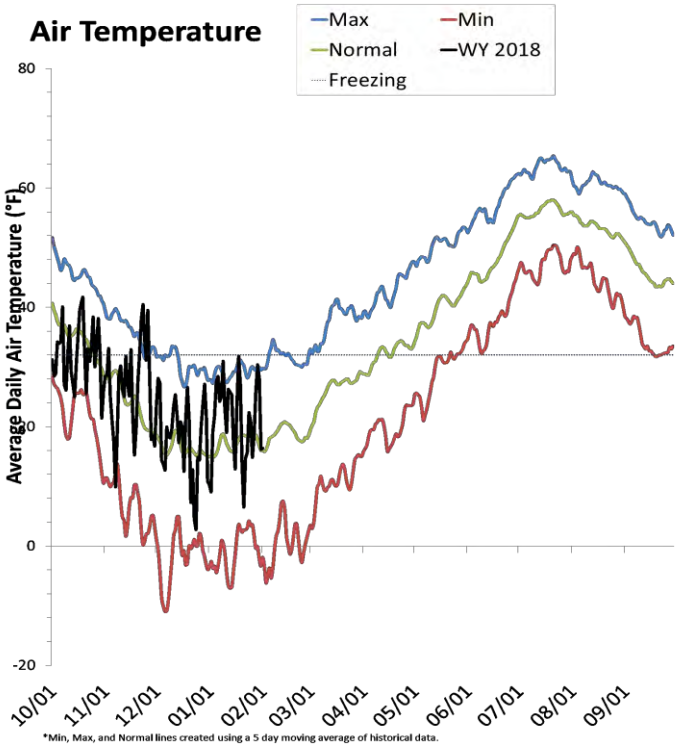
Upper Yellowstone in Wyoming

February 1, 2018

Snowpack in the Upper Yellowstone in Wyoming is much above normal at 147% of normal, compared to 114% last year. Precipitation in January was above average at 112%, which brings the seasonal accumulation (Oct-Jan) to 124% of average. Soil moisture at sites with sensors is at 79% of saturation. Forecast streamflow volumes range from 131% to 131% of average.







SNOTEL Data

Data Current as of: 2/6/2018 9:55:01 AM

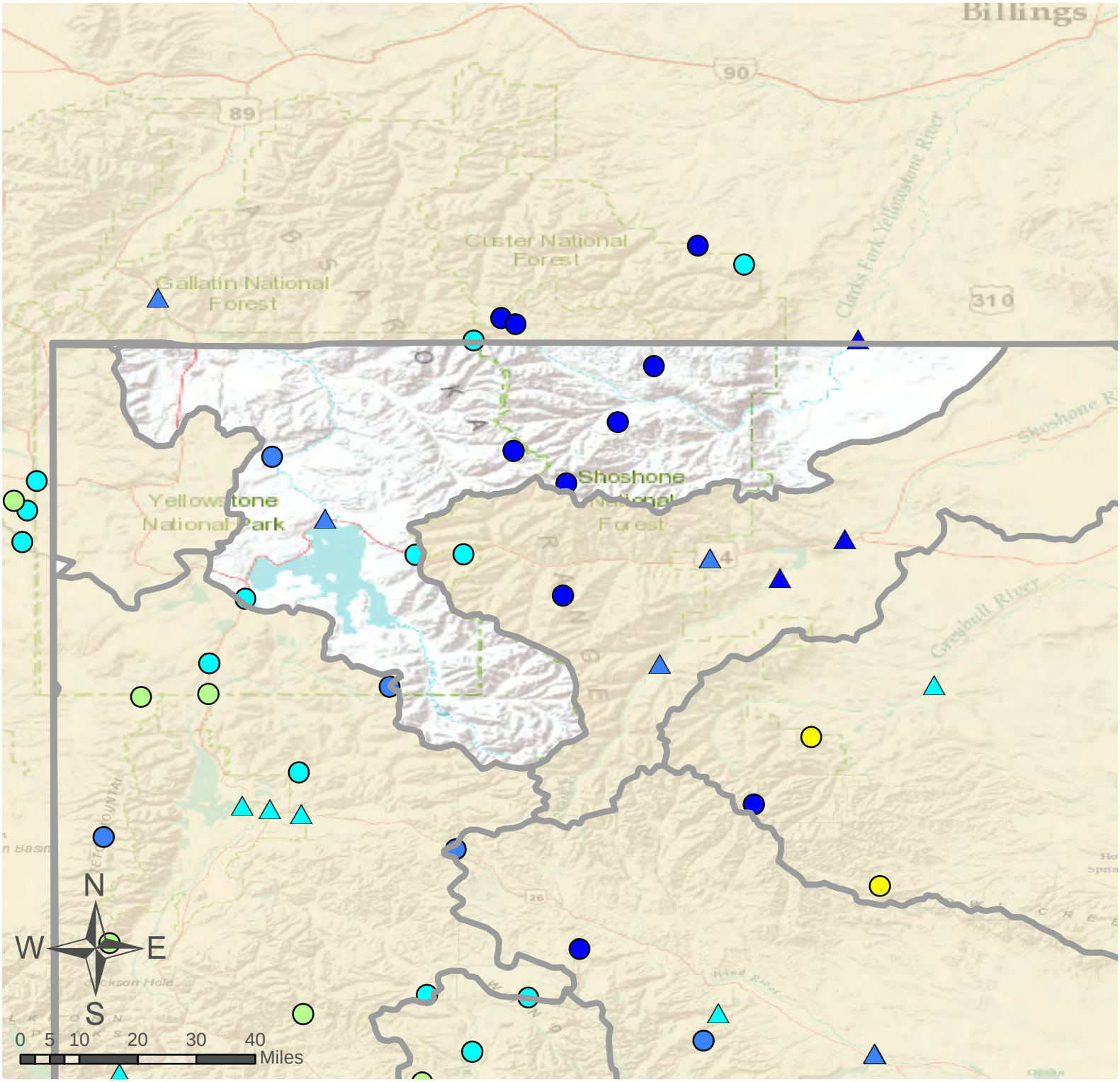
Upper Yellowstone In Wy Basin
Streamflow Forecasts - February 1, 2018

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

UPPER YELLOWSTONE IN WY BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Yellowstone R at Yellowstone Lake Outlet								
	APR-JUL	625	705	755	131%	810	890	575
	APR-SEP	835	945	1020	132%	1090	1200	770
Yellowstone R at Corwin Springs								
	APR-JUL	1790	1970	2090	131%	2220	2400	1590
	APR-SEP	2120	2340	2480	132%	2630	2850	1880
Clarks Fk Yellowstone R nr Belfry[2]								
	APR-JUL	660	735	785	154%	835	910	510
	APR-SEP	730	815	870	158%	925	1010	550

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

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
UPPER YELLOWSTONE IN WY	9	145%	113%
CLARKS FORK in WY	7	162%	115%



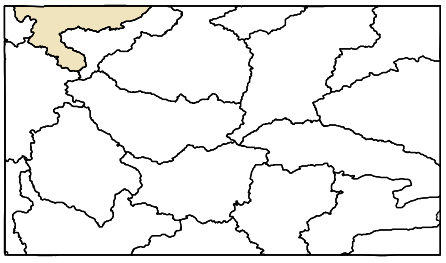
Upper Yellowstone in Wyoming

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

147% of Normal SWE

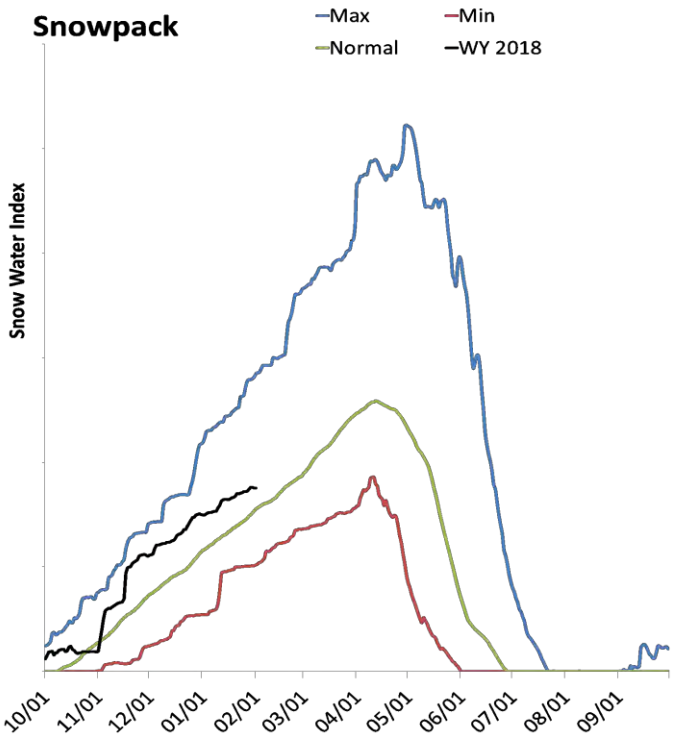
124% of Normal Precipitation

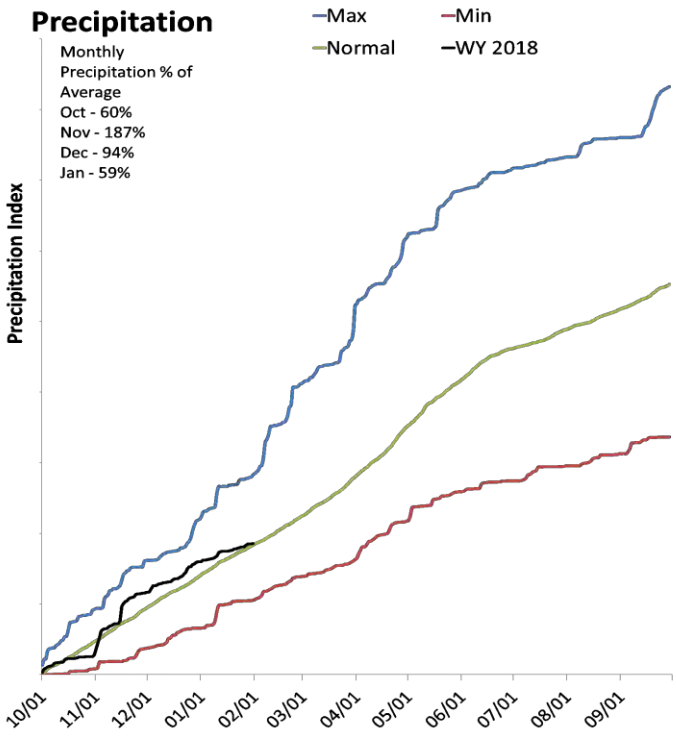
112% of Normal Precipitation Last Month

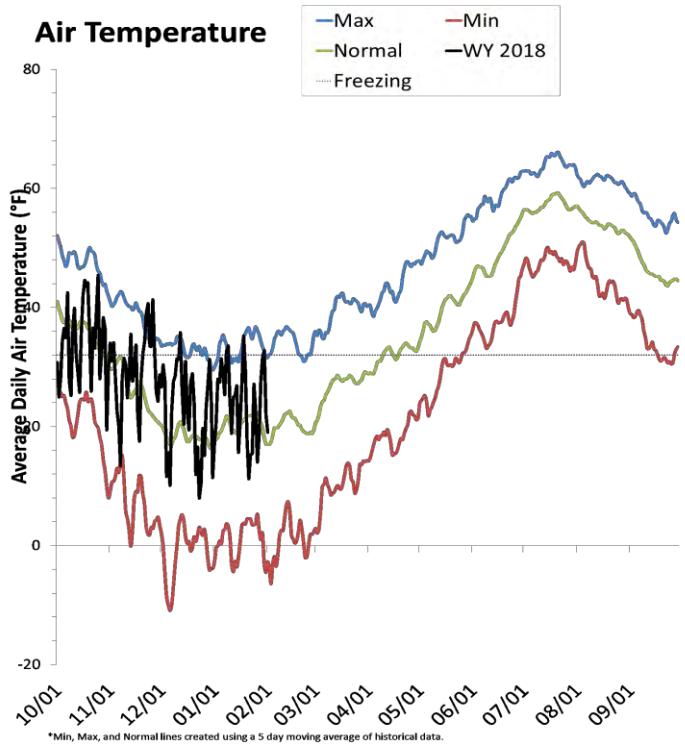
Wind River Basin

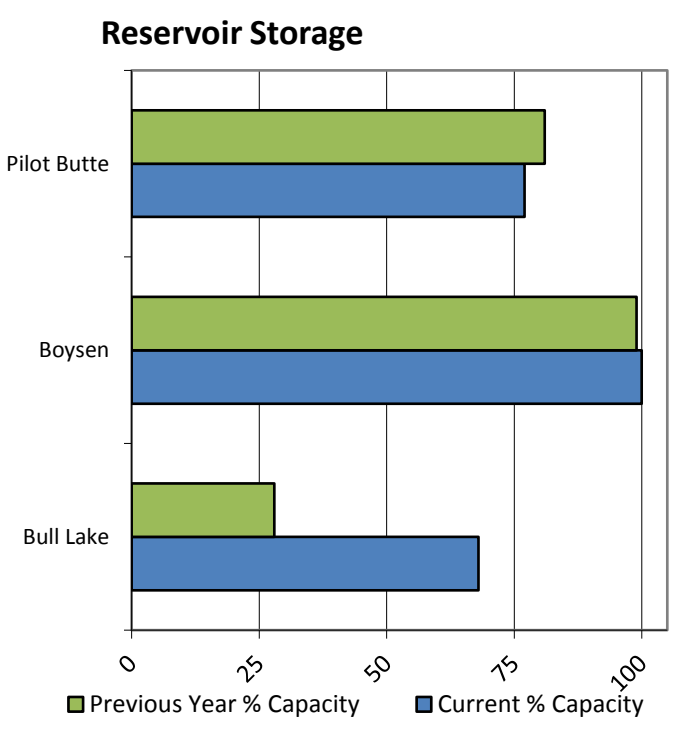
February 1, 2018

Snowpack in the Wind River Basin is above normal at 113% of normal, compared to 144% last year. Precipitation in January was much below average at 59%, which brings the seasonal accumulation (Oct-Jan) to 101% of average. Reservoir storage is at 93% of capacity, compared to 85% last year. Forecast streamflow volumes range from 89% to 144% of average.









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Wind River Basin
Streamflow Forecasts - February 1, 2018

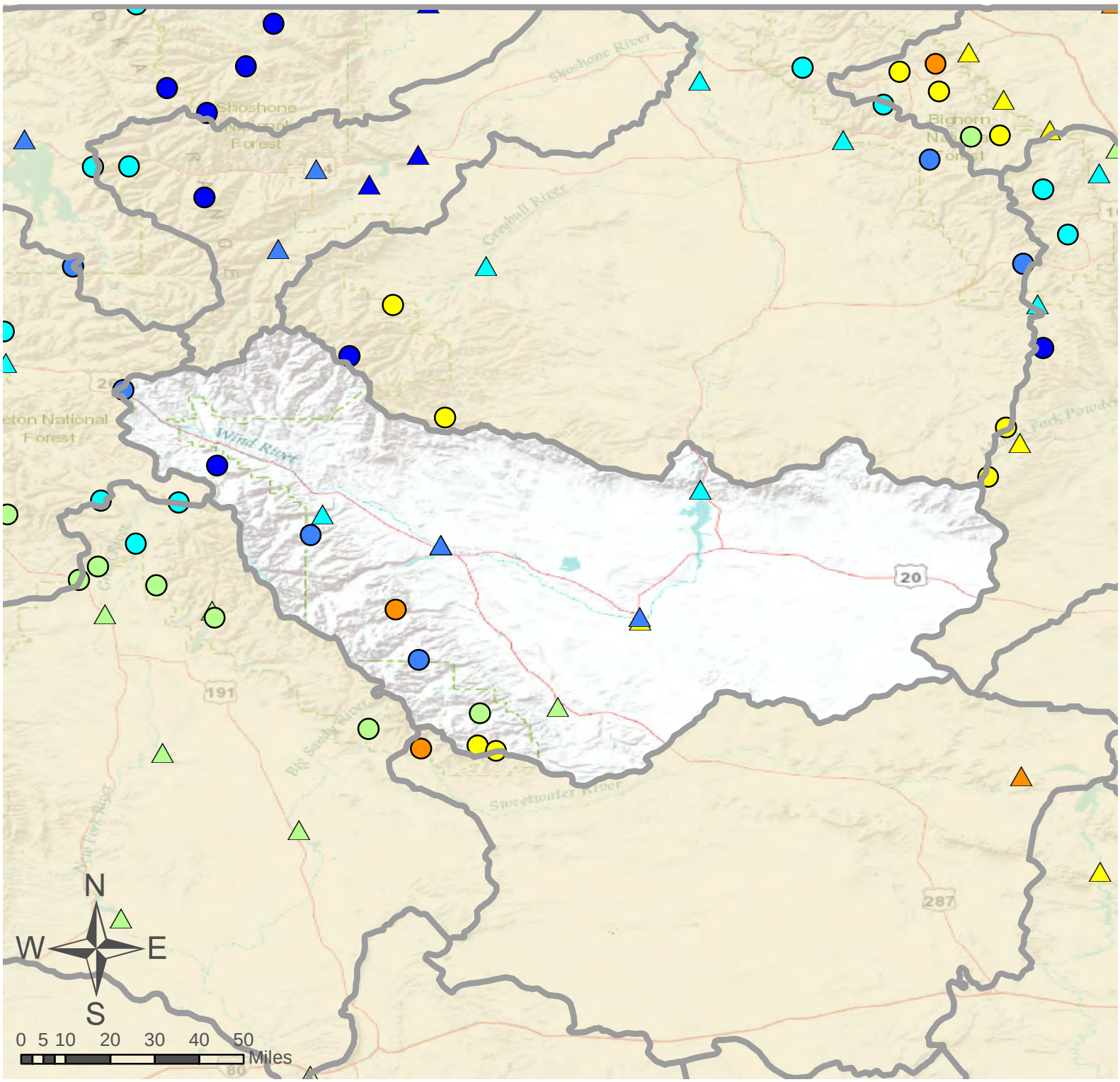
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

WIND RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Dinwoody Ck nr Burris								
	APR-JUL	63	71	76	115%	82	90	66
	APR-SEP	90	99	106	115%	112	121	92
Wind R Ab Bull Lake Ck								
	APR-JUL	495	585	650	143%	715	805	455
	APR-SEP	545	645	710	145%	780	880	490
Bull Lake Ck nr Lenore								
	APR-JUL	123	143	157	113%	170	191	139
	APR-SEP	151	174	190	112%	205	230	169
Wind R at Riverton								
	APR-JUL	515	615	685	144%	755	855	475
	APR-SEP	615	725	800	145%	875	990	550
Little Popo Agie R nr Lander								
	APR-JUL	17.3	30	38	90%	47	59	42
	APR-SEP	22	35	44	90%	53	66	49
Little Wind R nr Riverton								
	APR-JUL	69	172	240	89%	310	415	270
	APR-SEP	84	191	265	90%	340	445	295
Boysen Reservoir Inflow								
	APR-JUL	415	630	775	127%	925	1140	610
	APR-SEP	465	695	850	128%	1000	1230	665

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Bull Lake	103.6	42.5	75.4	151.8
Boysen	598.1	590.6	506.0	596.0
Pilot Butte	24.3	25.6	23.2	31.6
Basin-wide Total	725.9	658.7	604.6	779.4
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
WIND above Dubois	6	144%	160%
LITTLE WIND	2	113%	134%
POPO AGIE	7	88%	187%
WIND RIVER	17	113%	168%



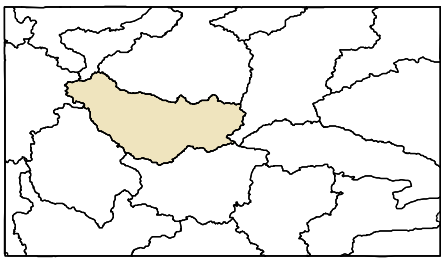
Wind River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

113% of Normal SWE

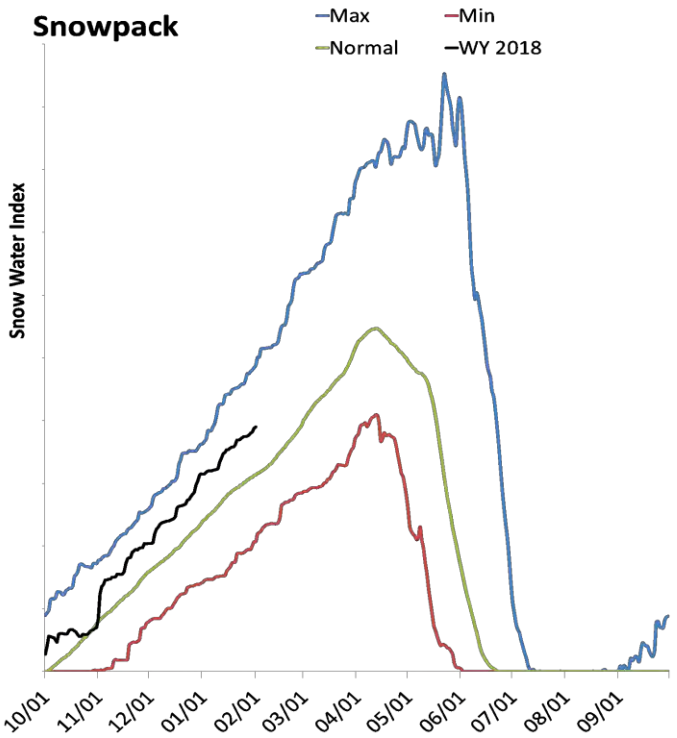
101% of Normal Precipitation

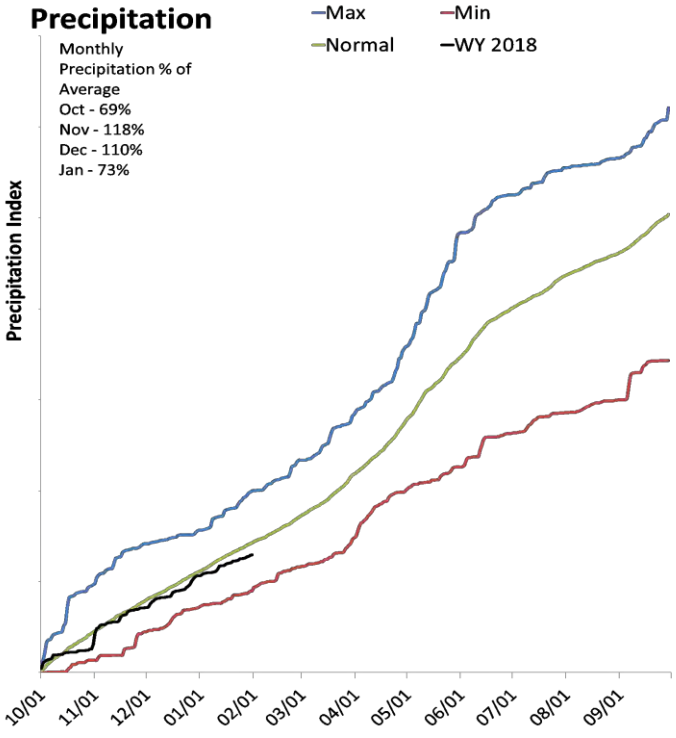
59% of Normal Precipitation Last Month

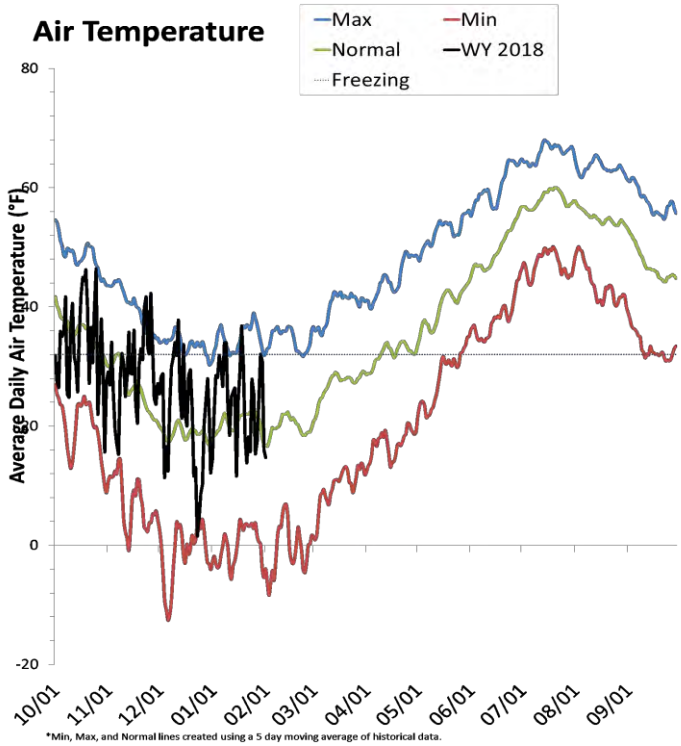
Bighorn River Basin

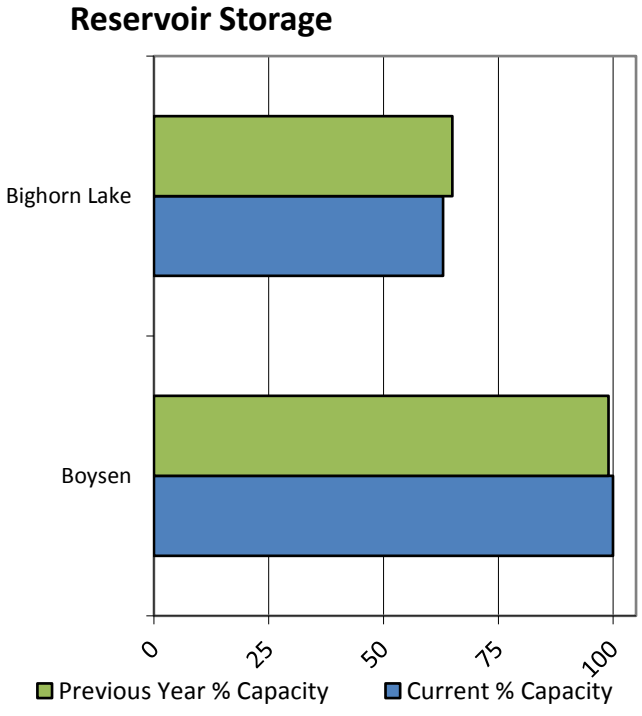
February 1, 2018

Snowpack in the Bighorn River Basin is above normal at 124% of normal, compared to 109% last year. Precipitation in January was below average at 72%, which brings the seasonal accumulation (Oct-Jan) to 91% of average. Reservoir storage is at 75% of capacity, compared to 75% last year. Forecast streamflow volumes range from 109% to 127% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:55:09 AM

Bighorn River Basin
Streamflow Forecasts - February 1, 2018

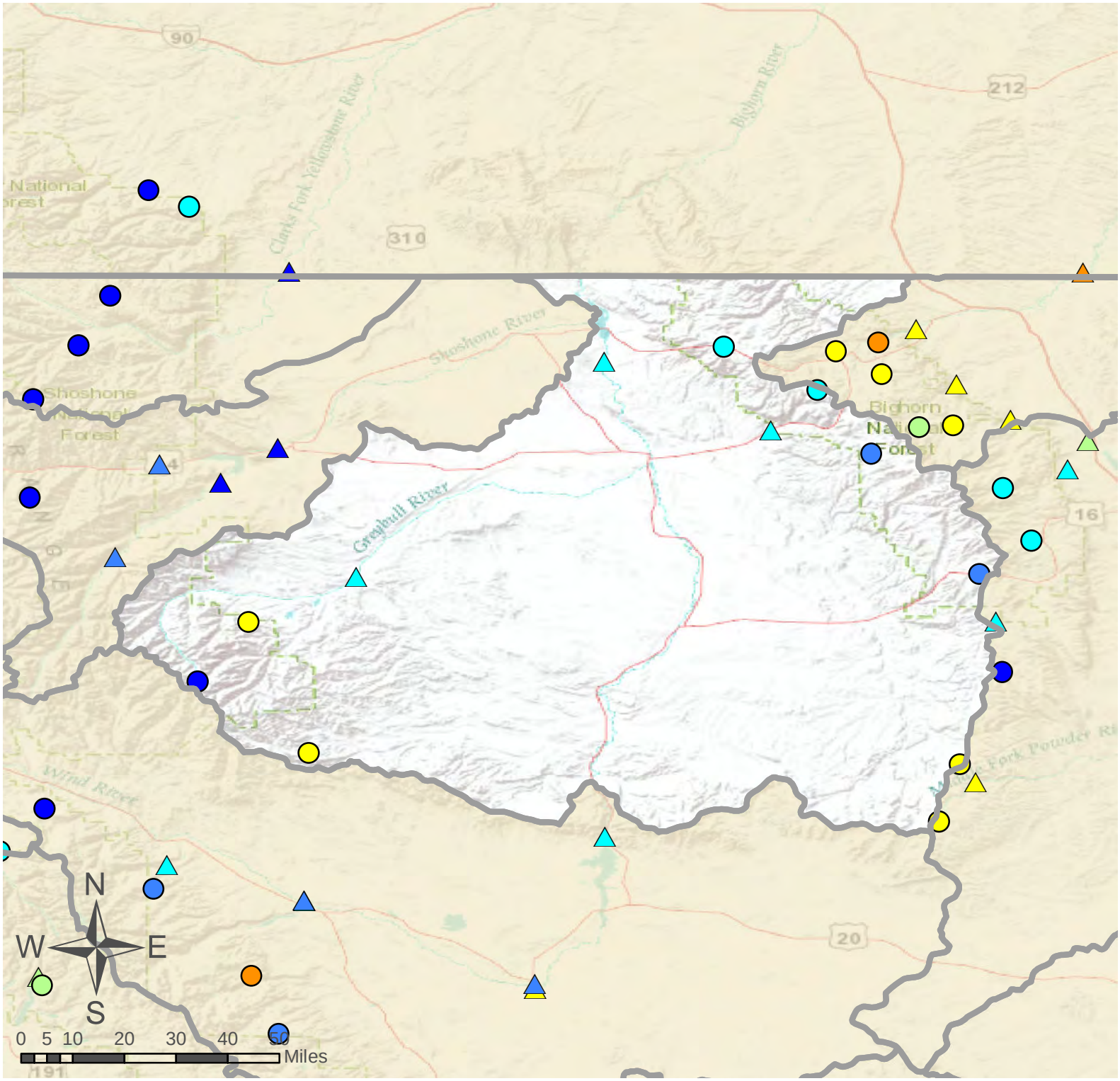
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

BIGHORN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Boysen Reservoir Inflow								
	APR-JUL	415	630	775	127%	925	1140	610
	APR-SEP	465	695	850	128%	1000	1230	665
Greybull R at Meeteetse								
	APR-JUL	89	122	145	111%	168	200	131
	APR-SEP	131	170	196	111%	225	260	177
Shell Ck nr Shell								
	APR-JUL	45	54	60	109%	66	75	55
	APR-SEP	55	65	72	109%	79	89	66
Bighorn R at Kane								
	APR-JUL	565	865	1070	127%	1270	1570	840
	APR-SEP	620	945	1160	128%	1380	1700	905

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Boysen	598.1	590.6	506.0	596.0
Bighorn Lake	856.5	876.3	825.9	1356.0
Basin-wide Total	1454.6	1466.9	1331.9	1952.0
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
NOWOOD RIVER	7	117%	68%
GREYBULL RIVER	2	168%	156%
SHELL CREEK	4	119%	111%
BIGHORN RIVER	14	122%	98%



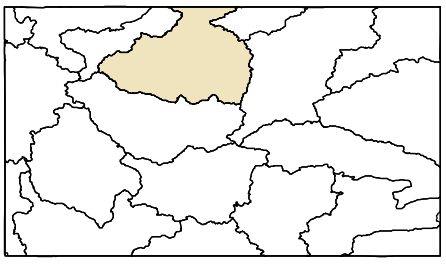
Bighorn River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

124% of Normal SWE

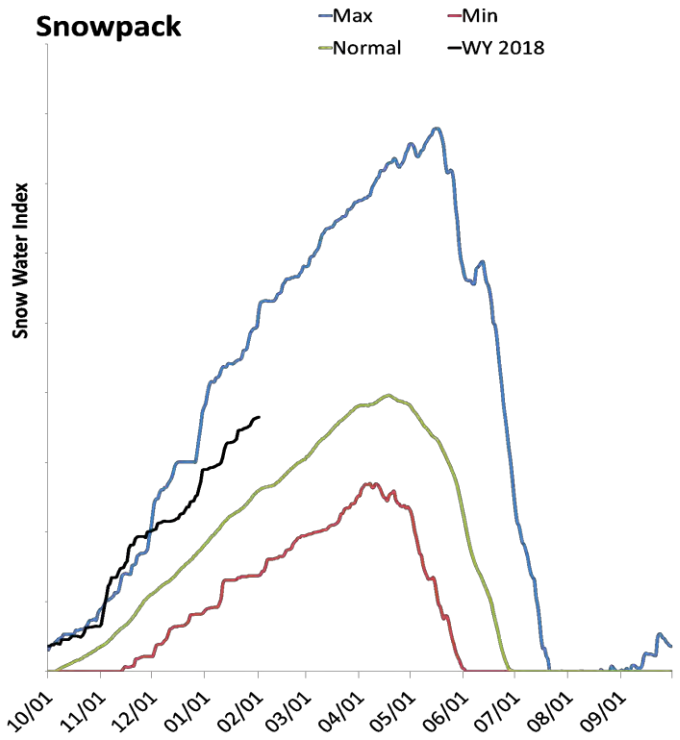
91% of Normal Precipitation

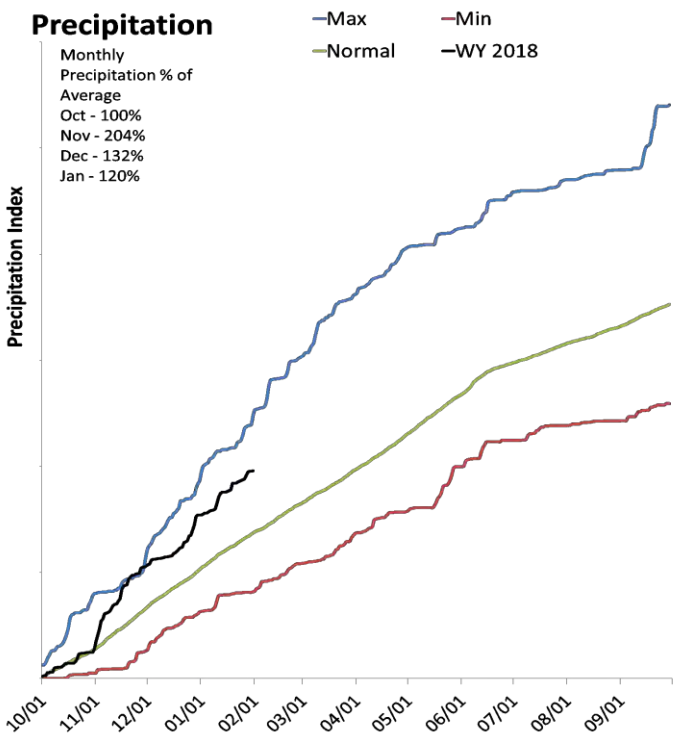
72% of Normal Precipitation Last Month

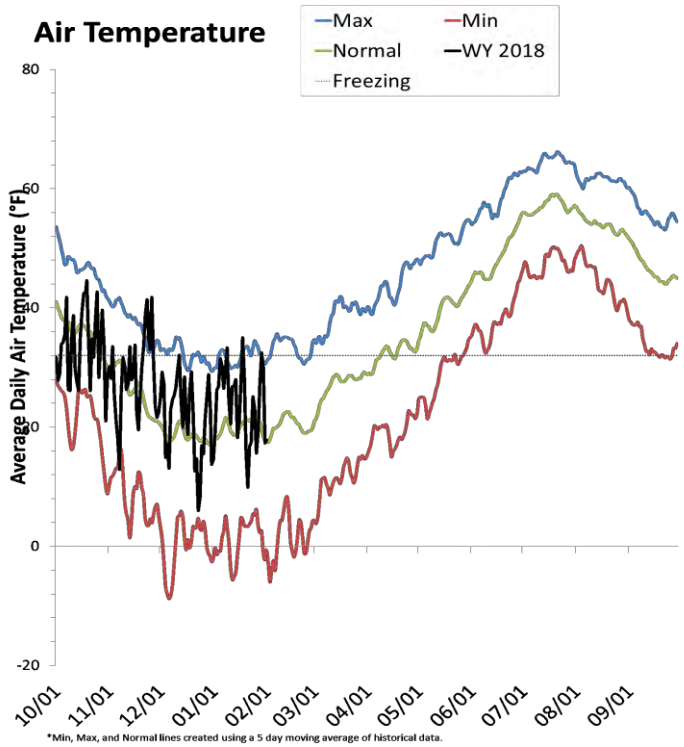
Shoshone River Basin

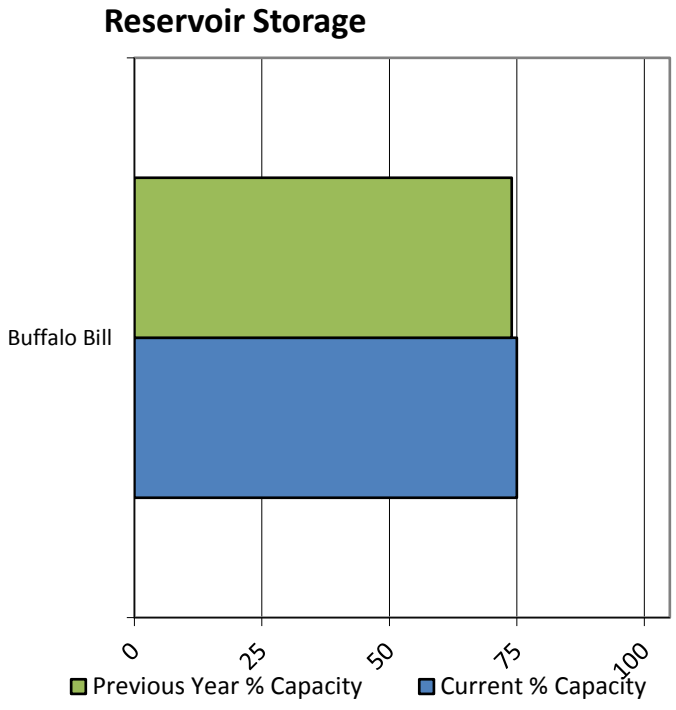
February 1, 2018

Snowpack in the Shoshone River Basin is much above average at 140% of normal, compared to 123% last year. Precipitation in January was above average at 113%, which brings the seasonal accumulation (Oct-Jan) to 135% of average. Reservoir storage is at 75% of capacity, compared to 74% last year. Forecast streamflow volumes range from 142% to 161% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:55:13 AM

Shoshone River Basin
Streamflow Forecasts - February 1, 2018

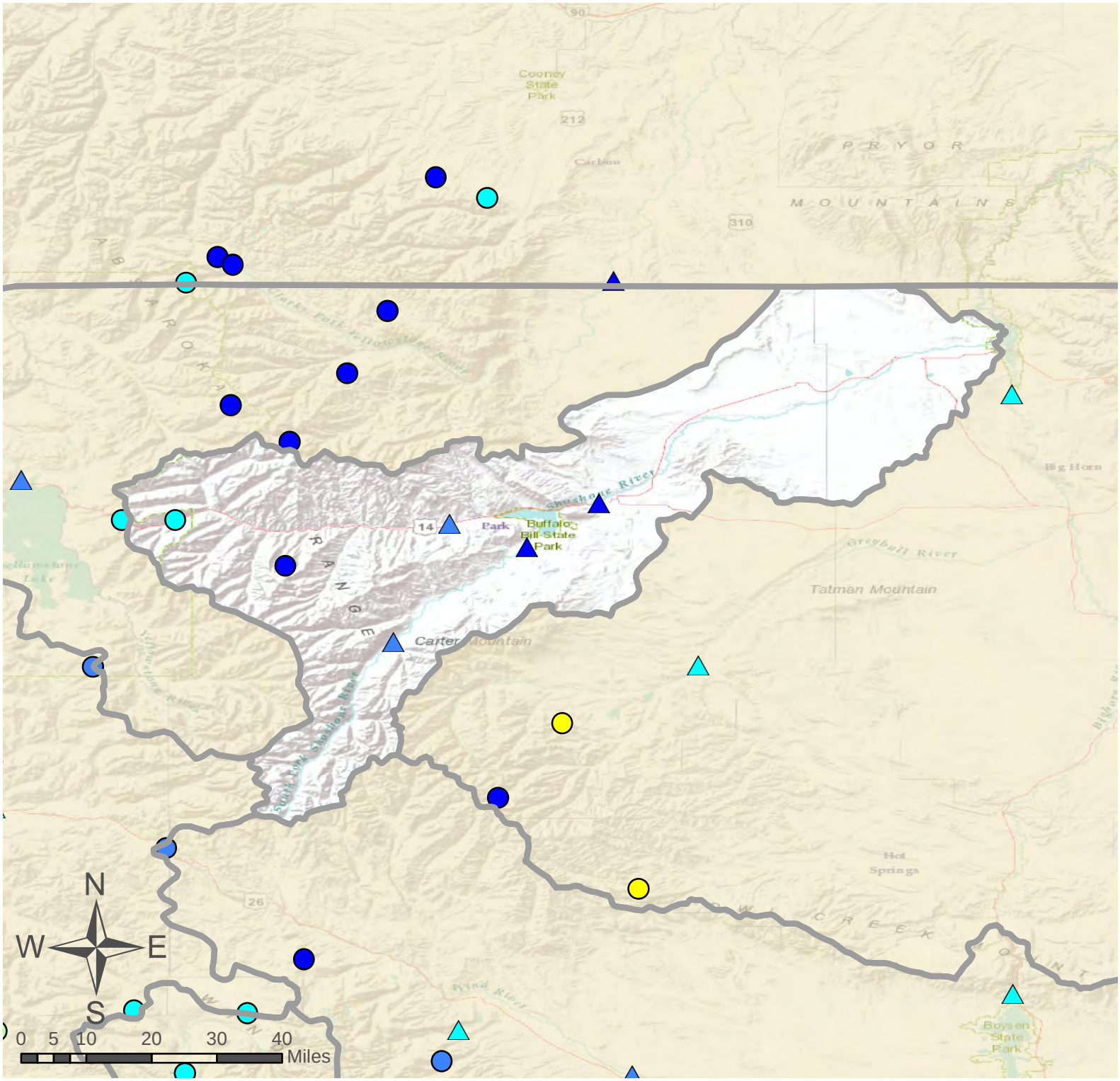
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

SHOSHONE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
NF Shoshone R at Wapiti								
	APR-JUL	575	635	680	148%	720	785	460
	APR-SEP	640	710	755	147%	805	870	515
SF Shoshone R nr Valley								
	APR-JUL	245	280	305	142%	330	365	215
	APR-SEP	285	325	350	143%	380	420	245
SF Shoshone R ab Buffalo Bill Reservoir								
	APR-JUL	230	280	310	161%	345	395	193
	APR-SEP	240	295	330	165%	365	420	200
Buffalo Bill Reservoir Inflow[2]								
	APR-JUL	815	930	1010	150%	1090	1200	675
	APR-SEP	900	1030	1110	149%	1200	1320	745

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Buffalo Bill	485.3	481.4	353.8	646.6
Basin-wide Total	485.3	481.4	353.8	646.6
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
SHOSHONE RIVER	4	140%	123%



Shoshone River Basin

SNOTEL Site

Forecast Point

As of February 1, 2018:

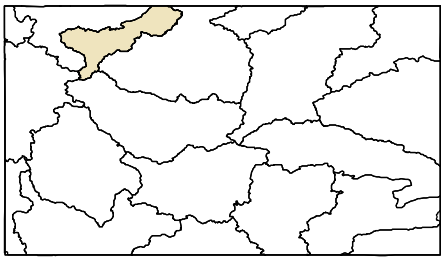
140% of Normal SWE

135% of Normal Precipitation

113% of Normal Precipitation Last Month

% of Normal

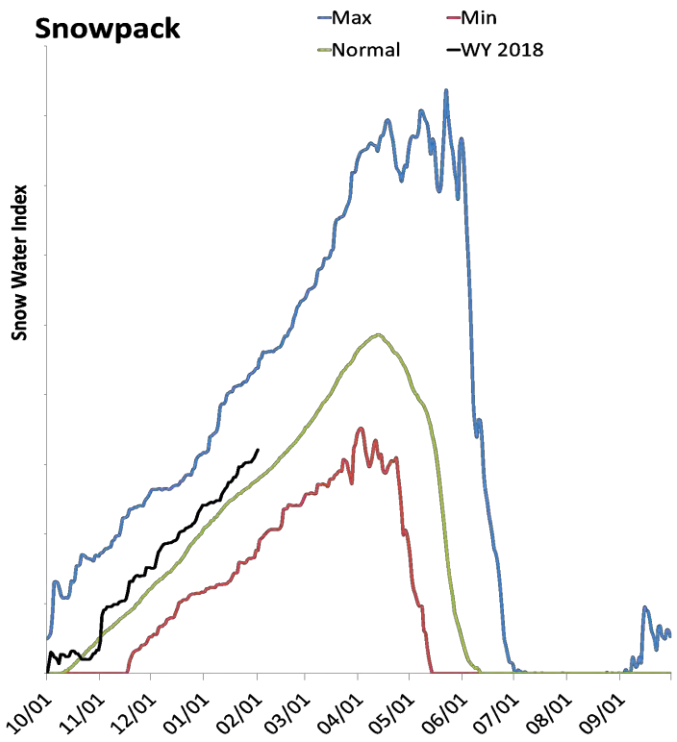
- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%

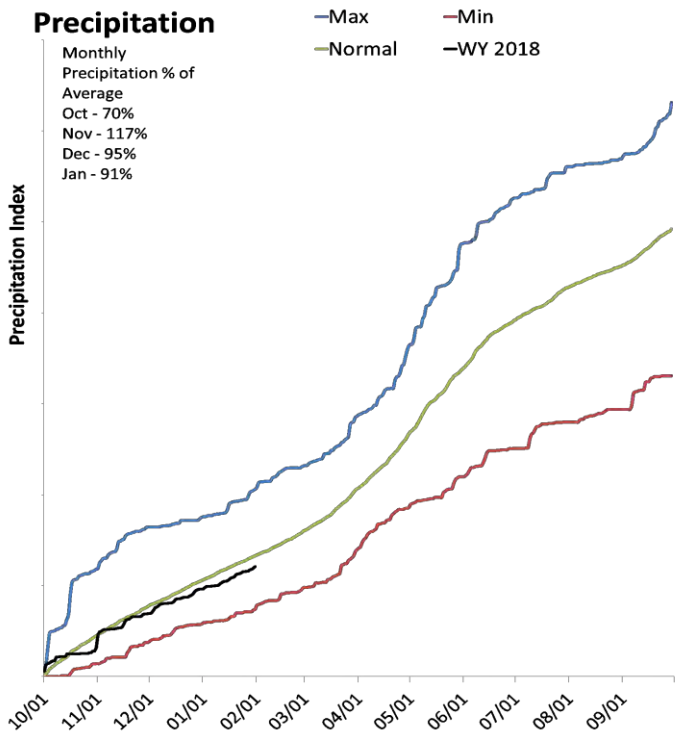


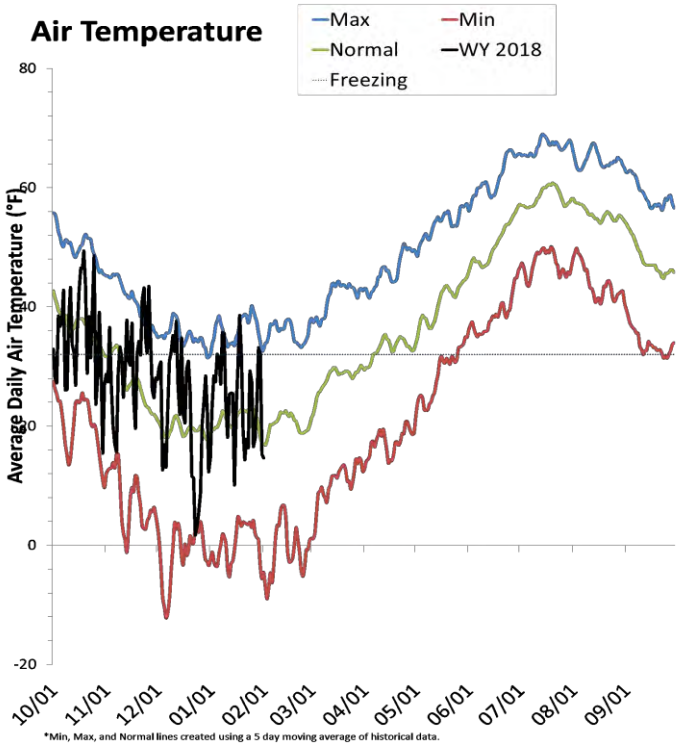
Powder River Basin

February 1, 2018

Snowpack in the Powder River Basin is above normal at 114% of normal, compared to 90% last year. Precipitation in January was below average at 88%, which brings the seasonal accumulation (Oct-Jan) to 91% of average. Forecast streamflow volumes range from 86% to 129% of average.







SNOTEL Data

Data Current as of: 2/6/2018 9:55:17 AM

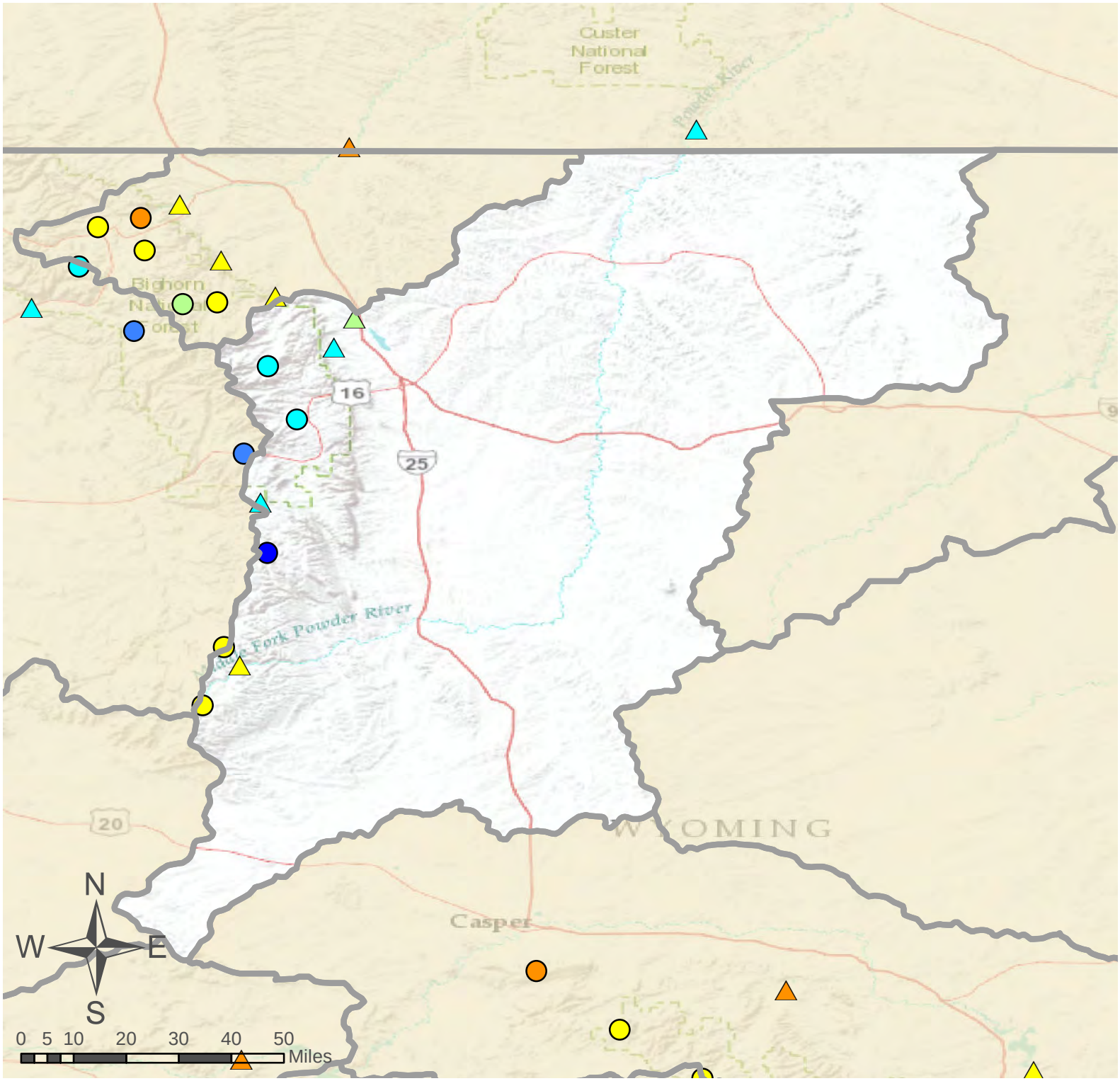
Powder River Basin
Streamflow Forecasts - February 1, 2018

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed 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	6.9	11.1	13.9	86%	16.7	21	16.1
	APR-SEP	7.6	11.9	14.8	87%	17.7	22	17
NF Powder R nr Hazelton								
	APR-JUL	8.4	10.4	11.7	129%	13.1	15	9.1
	APR-SEP	9.2	11.2	12.6	127%	14	16	9.9
Rock Ck nr Buffalo								
	APR-JUL	11.5	17.2	21	113%	25	30	18.6
	APR-SEP	13.8	19.9	24	109%	28	34	22
Piney Ck at Kearny								
	APR-JUL	16.6	34	45	102%	57	74	44
	APR-SEP	19	37	49	104%	61	78	47
Powder R at Moorehead								
	APR-JUL	86	166	220	124%	275	355	177
	APR-SEP	105	185	240	122%	295	375	196

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

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
UPPER POWDER RIVER	5	117%	71%
CLEAR CREEK	3	110%	110%
CRAZY WOMAN CREEK	3	128%	75%
POWDER RIVER	8	114%	86%



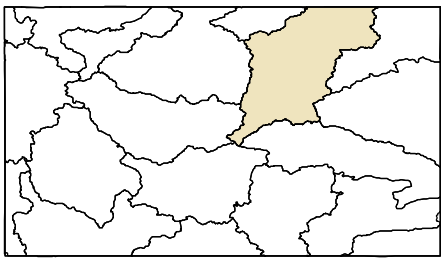
Powder River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

114% of Normal SWE

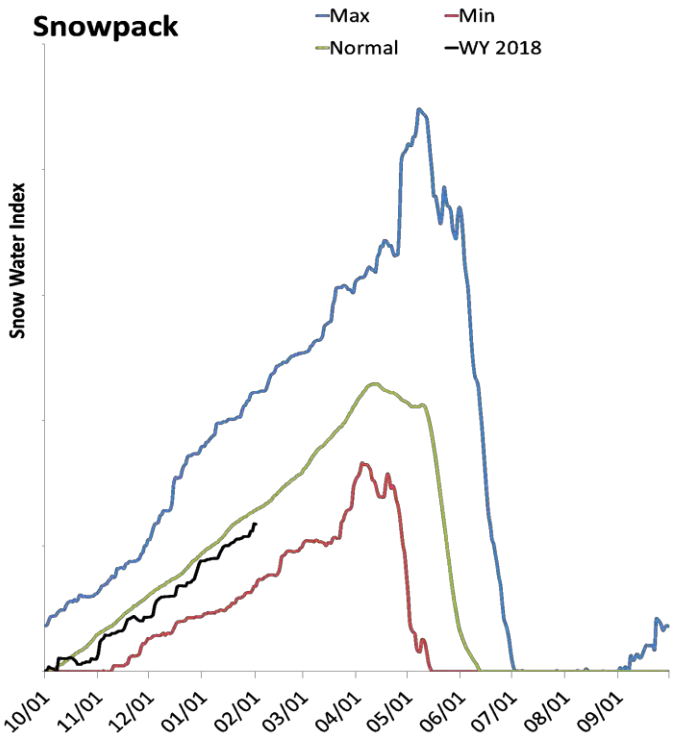
91% of Normal Precipitation

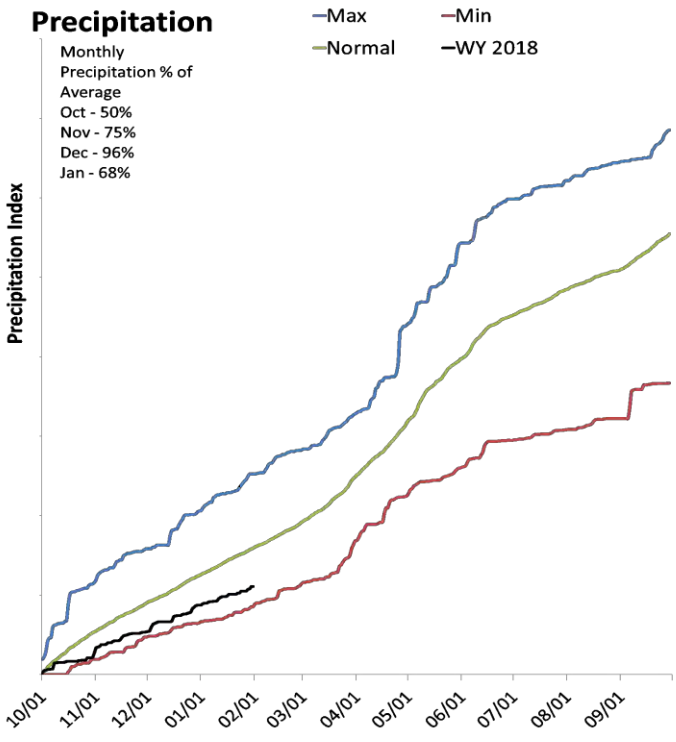
88% of Normal Precipitation Last Month

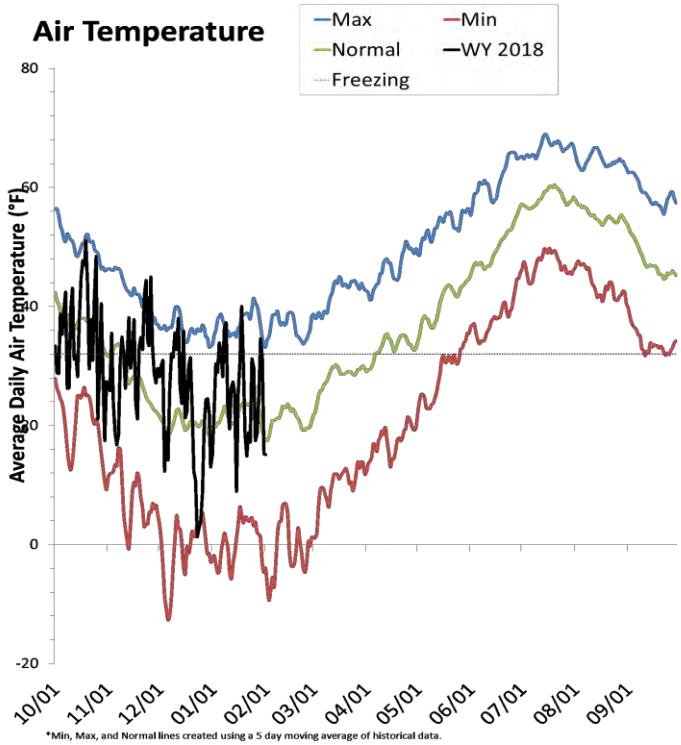
Tongue River Basin

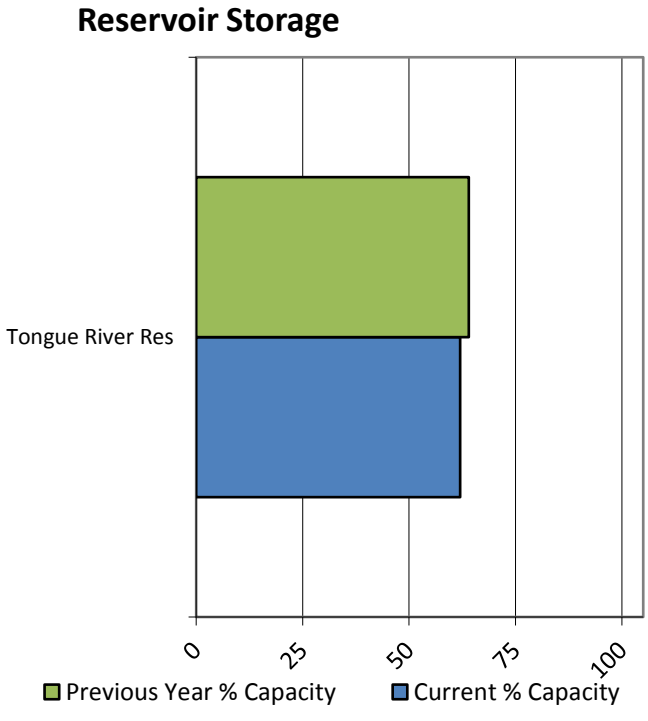
February 1, 2018

Snowpack in the Tongue River Basin is near normal at 91% of normal, compared to 109% last year. Precipitation in January was much below average at 67%, which brings the seasonal accumulation (Oct-Jan) to 70% of average. Reservoir storage is at 62% of capacity, compared to 64% last year. Forecast streamflow volumes range from 67% to 81% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:55:20 AM

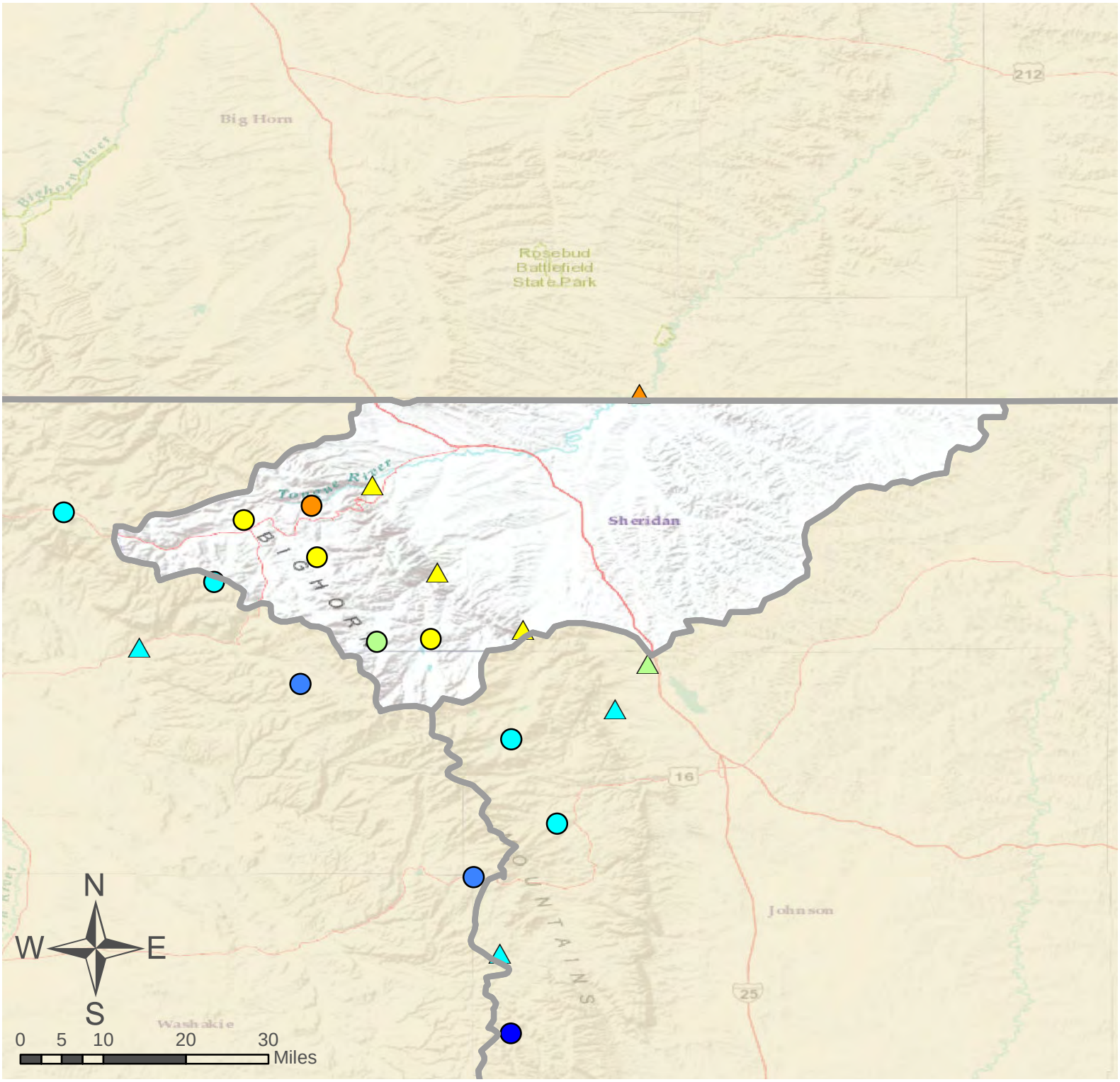
Tongue River Basin
Streamflow Forecasts - February 1, 2018

		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	34	51	63	73%	74	91	86
	APR-SEP	41	60	72	73%	85	104	98
Big Goose Ck nr Sheridan								
	APR-JUL	14.1	26	35	76%	43	55	46
	APR-SEP	22	34	42	78%	51	63	54
Little Goose Ck nr Big Horn								
	APR-JUL	11.9	19.7	25	81%	30	38	31
	APR-SEP	17.8	26	32	82%	38	46	39
Tongue River Reservoir Inflow								
	APR-JUL	25	87	129	67%	171	235	193
	APR-SEP	38	103	147	68%	191	255	215

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Tongue River Res	48.9	50.2	26.7	79.1
Basin-wide Total	48.9	50.2	26.7	79.1
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
GOOSE CREEK	3	97%	99%
TONGUE RIVER	9	90%	100%



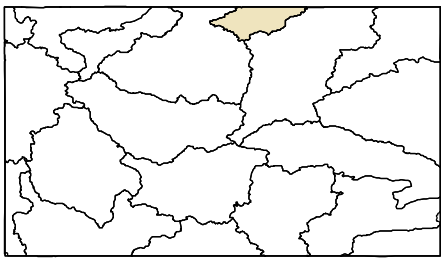
Tongue River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

91% of Normal SWE

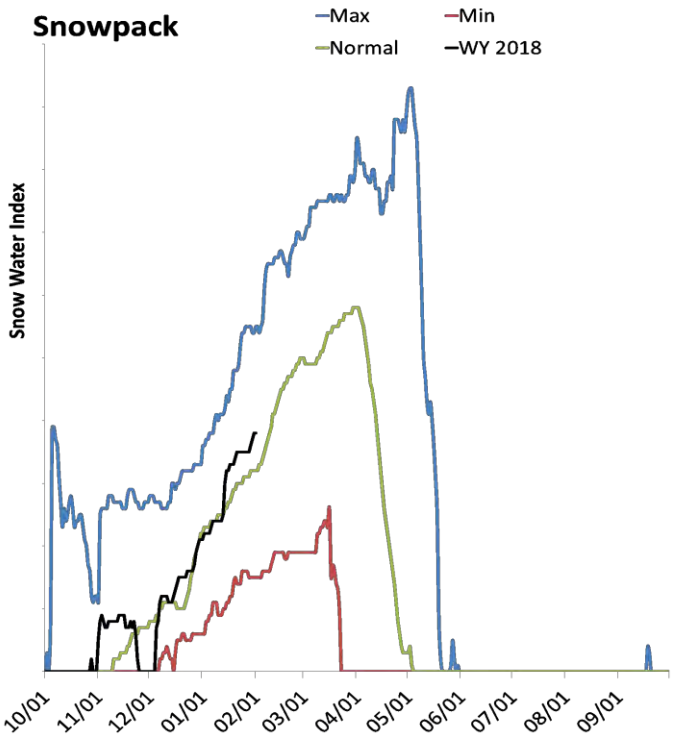
70% of Normal Precipitation

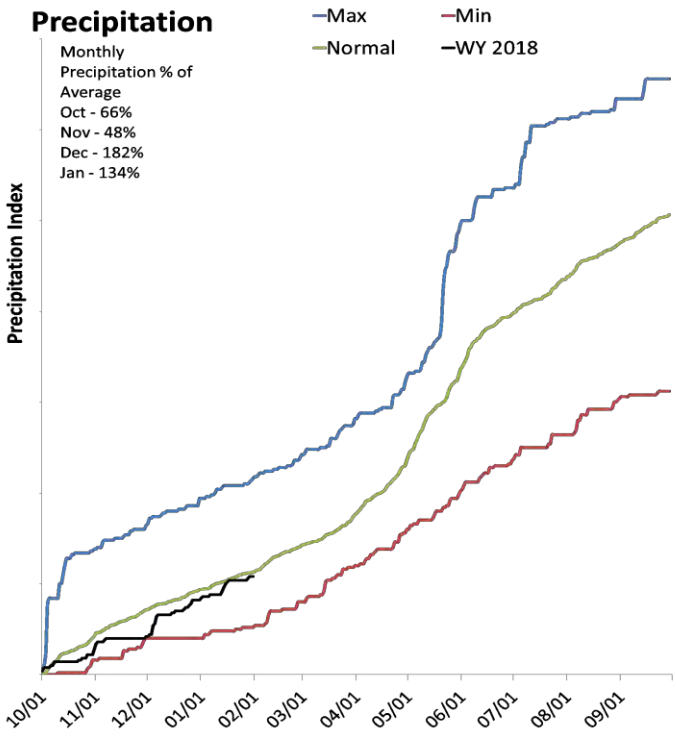
67% of Normal Precipitation Last Month

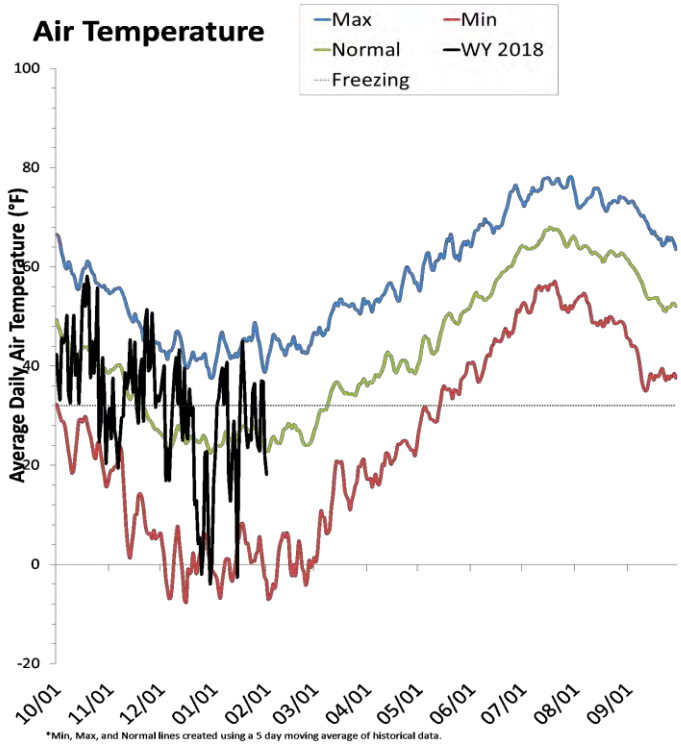
Belle Fourche River Basin

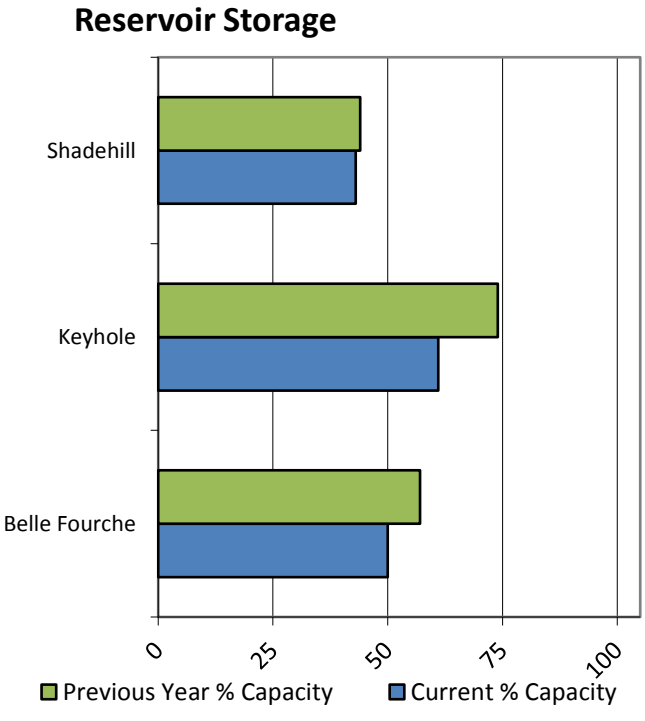
February 1, 2018

Snowpack in the Belle Fourche River Basin is above normal at 119% of normal, compared to 106% last year. Precipitation in January was much above average at 144%, which brings the seasonal accumulation (Oct-Jan) to 96% of average. Reservoir storage is at 53% of capacity, compared to 62% last year. Forecast streamflow volumes range from 0% to 0% of average.









SNOTEL Data

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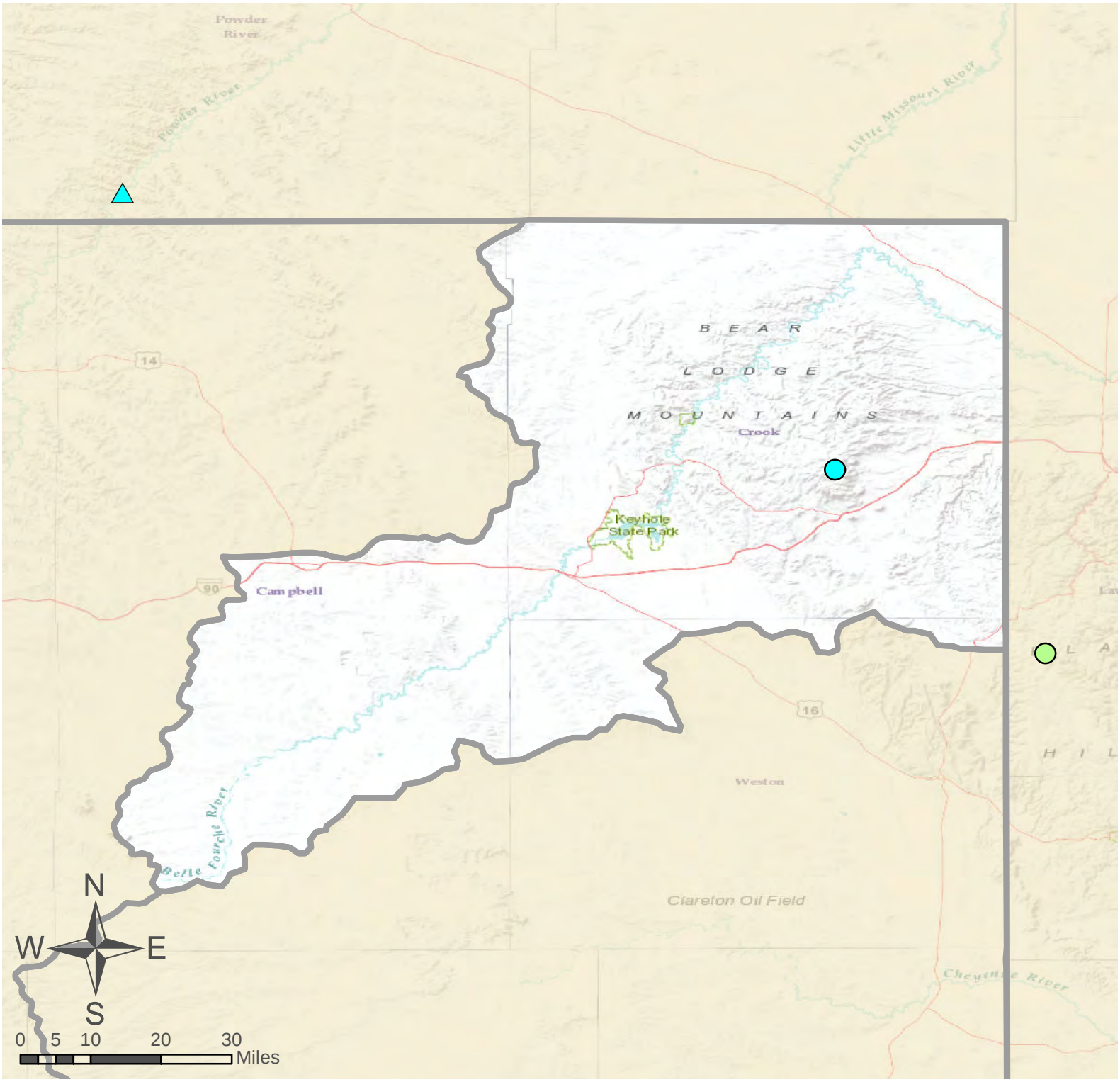
Belle Fourche River Basin - February 1, 2018

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Belle Fourche	89.1	102.4	110.5	178.4
Keyhole	118.3	143.4	87.9	193.8
Shadehill	34.7	35.7	42.8	81.4
Basin-wide Total	242.1	281.5	241.2	453.6
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
BELLE FOURCHE RIVER	6	82%	97%



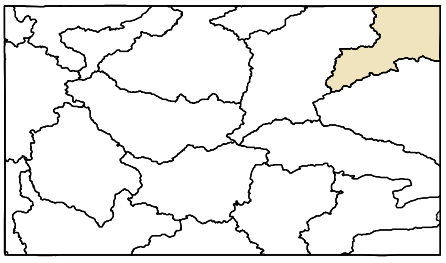
Belle Fourche River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

119% of Normal SWE

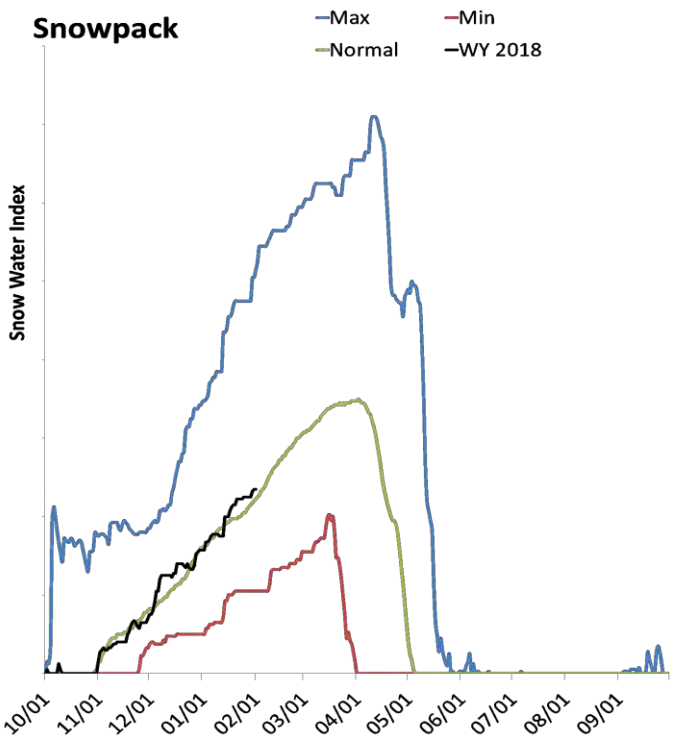
96% of Normal Precipitation

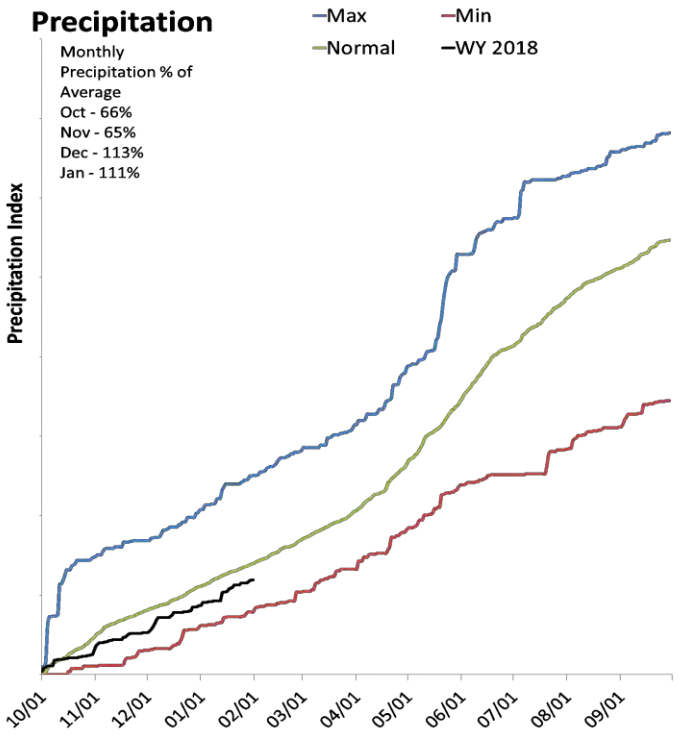
144% of Normal Precipitation Last Month

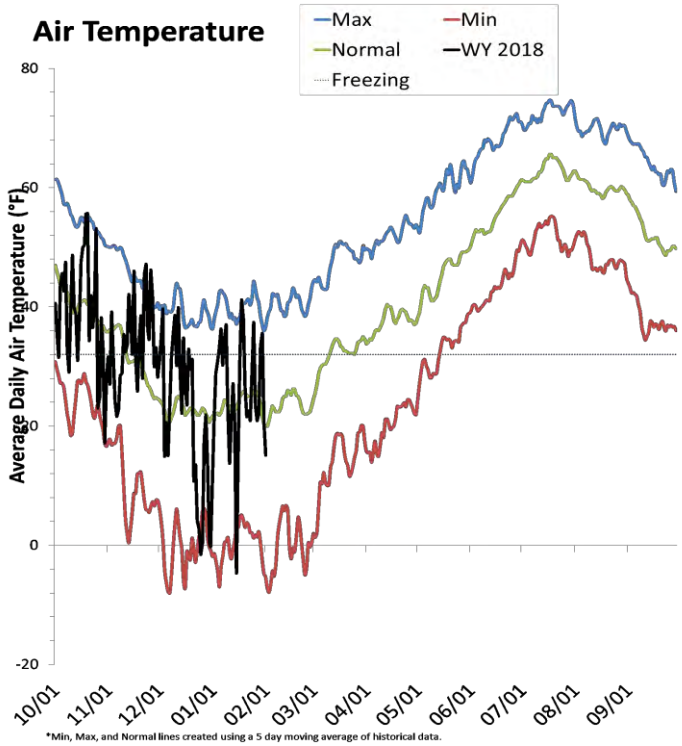
Cheyenne River Basin

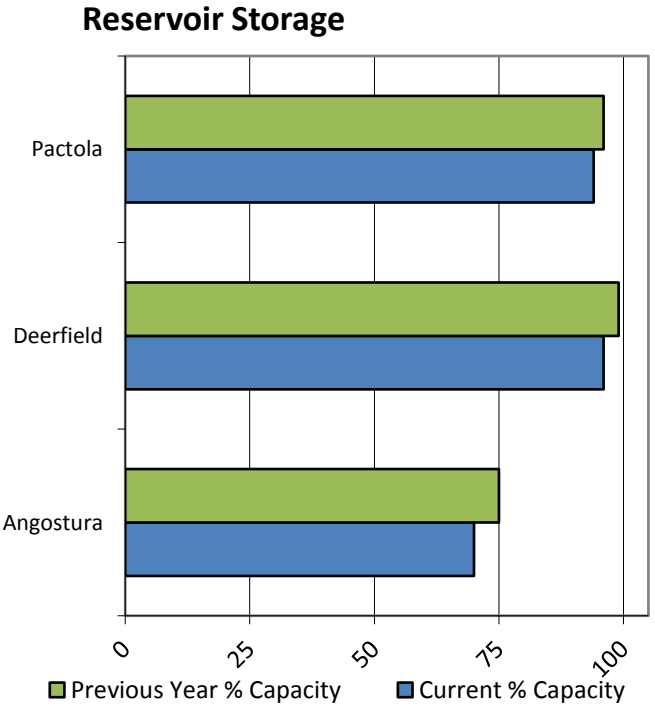
February 1, 2018

Snowpack in the Cheyenne River Basin is near normal at 106% of normal, compared to 106% last year. Precipitation in January was above average at 110%, which brings the seasonal accumulation (Oct-Jan) to 86% of average. Reservoir storage is at 79% of capacity, compared to 83% last year. Forecast streamflow volumes range from 96% to 105% of average.









SNOTEL Data

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Cheyenne River Basin
Streamflow Forecasts - February 1, 2018

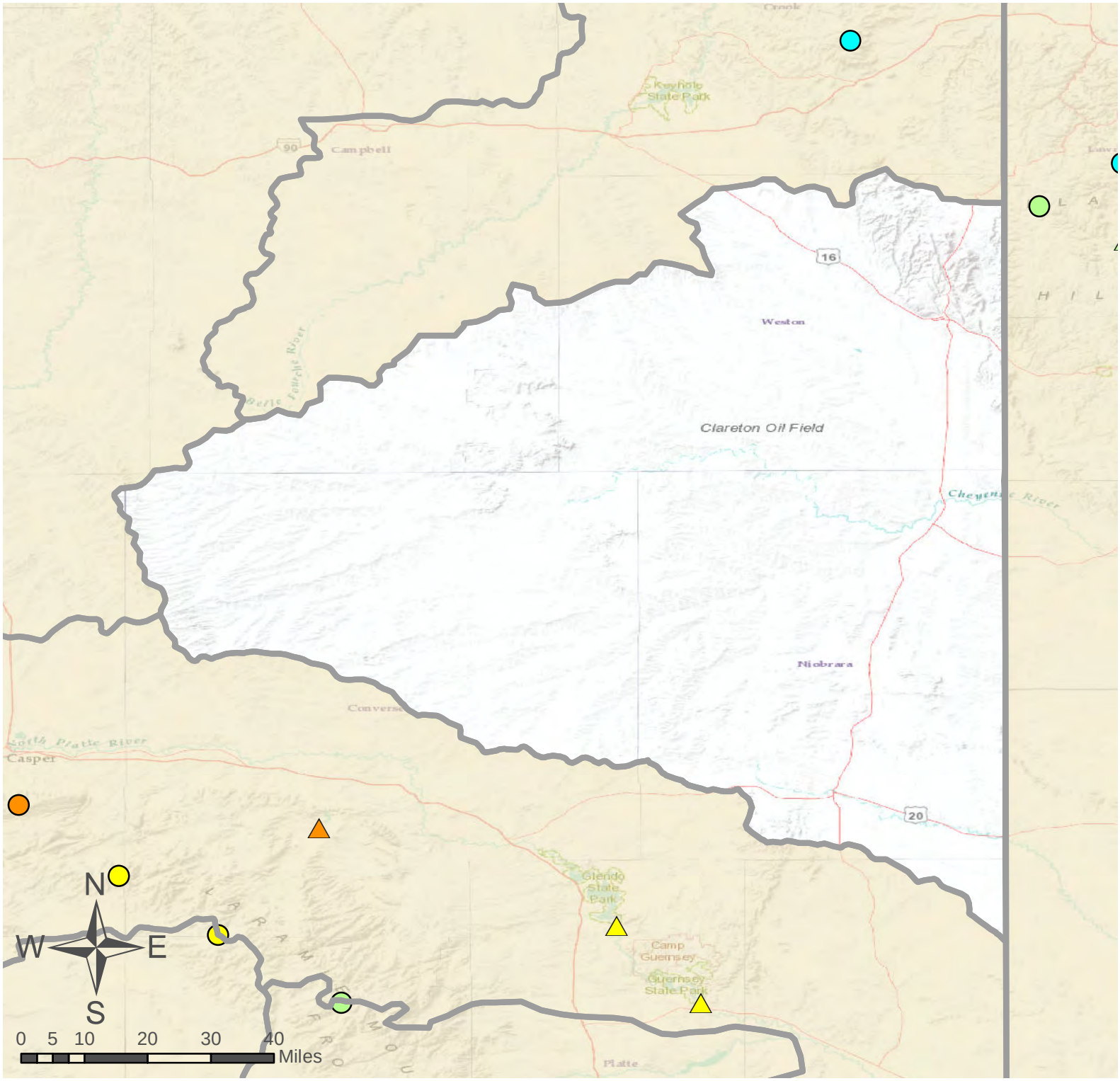
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

CHEYENNE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Deerfield Reservoir Inflow								
	MAR-JUL	2.8	5	6.5	105%	8	10.3	6.2
	APR-JUL	1.97	4	5.3	102%	6.7	8.7	5.2
Pactola Reservoir Inflow								
	MAR-JUL	8	17.5	24	96%	30	40	25
	APR-JUL	5.7	14.7	21	95%	27	36	22

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Angostura	85.8	91.4	83.2	122.1
Deerfield	14.6	15.0	13.7	15.2
Pactola	51.5	52.7	45.5	55.0
Basin-wide Total	151.9	159.1	142.4	192.3
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
CHEYENNE RIVER	7	93%	103%



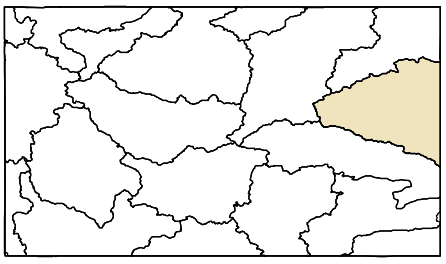
Cheyenne River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

106% of Normal SWE

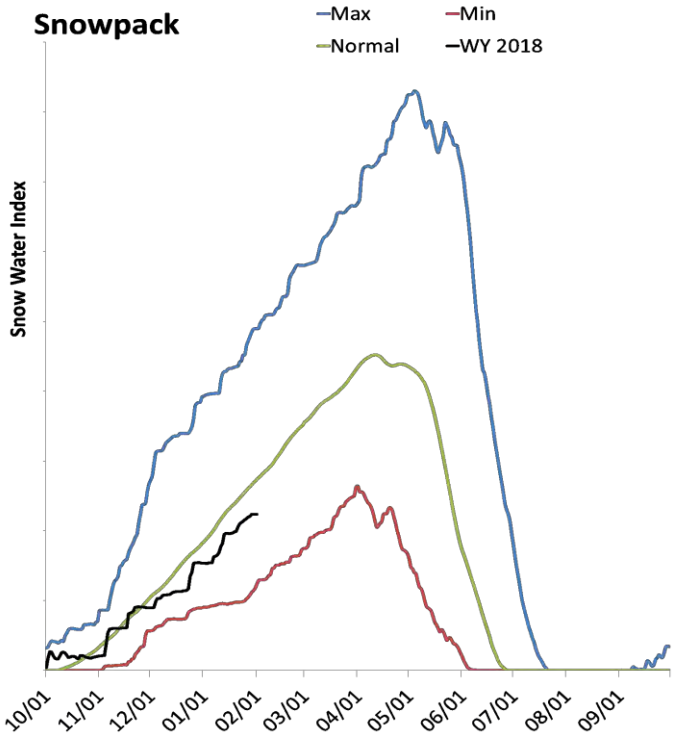
86% of Normal Precipitation

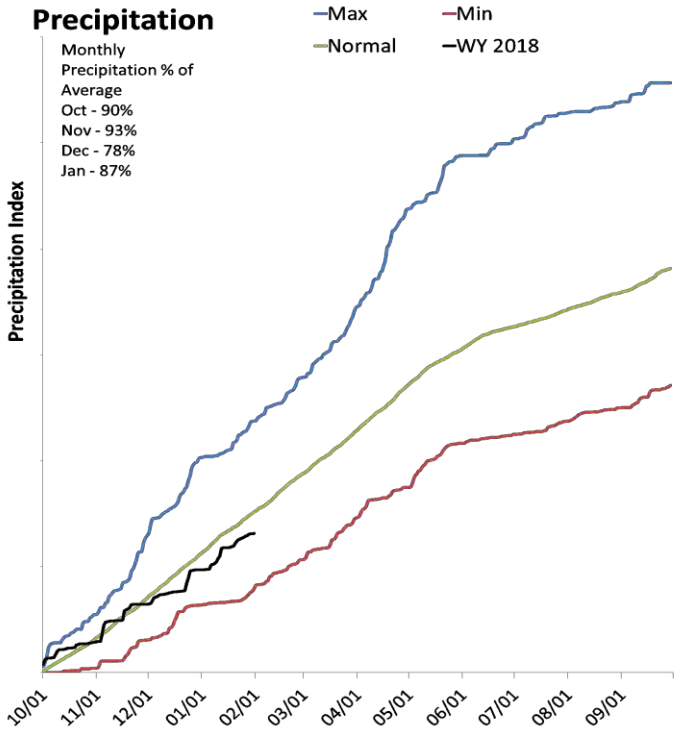
110% of Normal Precipitation Last Month

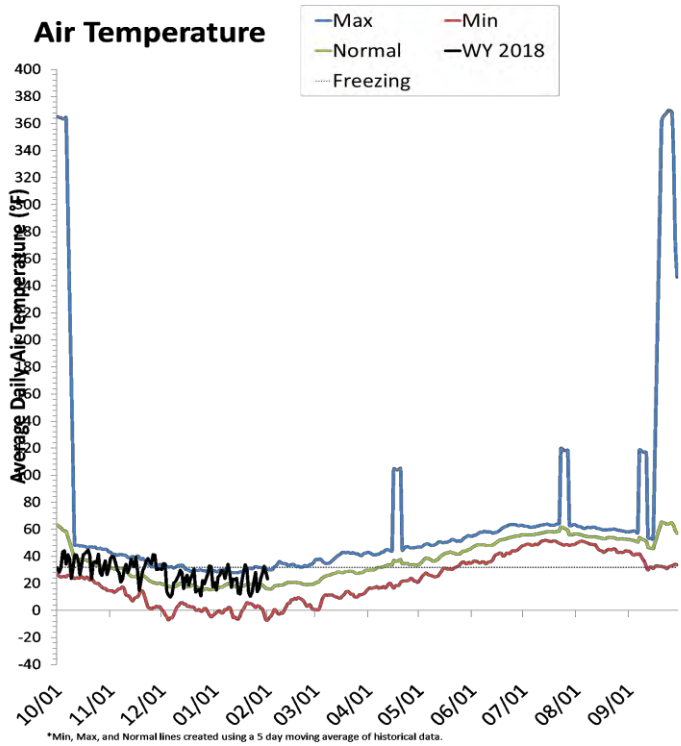
Upper North Platte River Basin

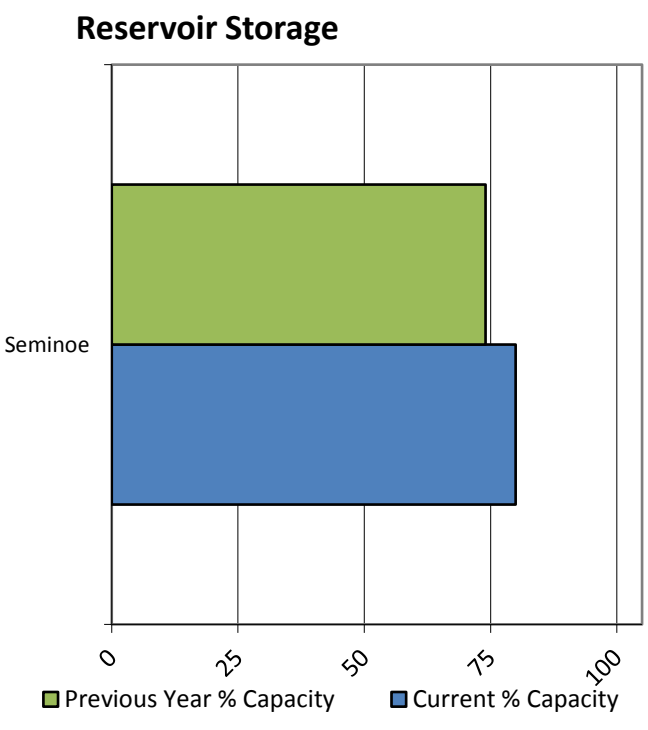
February 1, 2018

Snowpack in the Upper North Platte River Basin is below normal at 82% of normal, compared to 127% last year. Precipitation in January was below average at 88%, which brings the seasonal accumulation (Oct-Jan) to 87% of average. Soil moisture at sites with sensors is at 49% of saturation. Reservoir storage is at 80% of capacity, compared to 74% last year. The forecast streamflow volume for Manti Creek is 82% of average.









SNOTEL Data

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Upper North Platte River Basin
Streamflow Forecasts - February 1, 2018

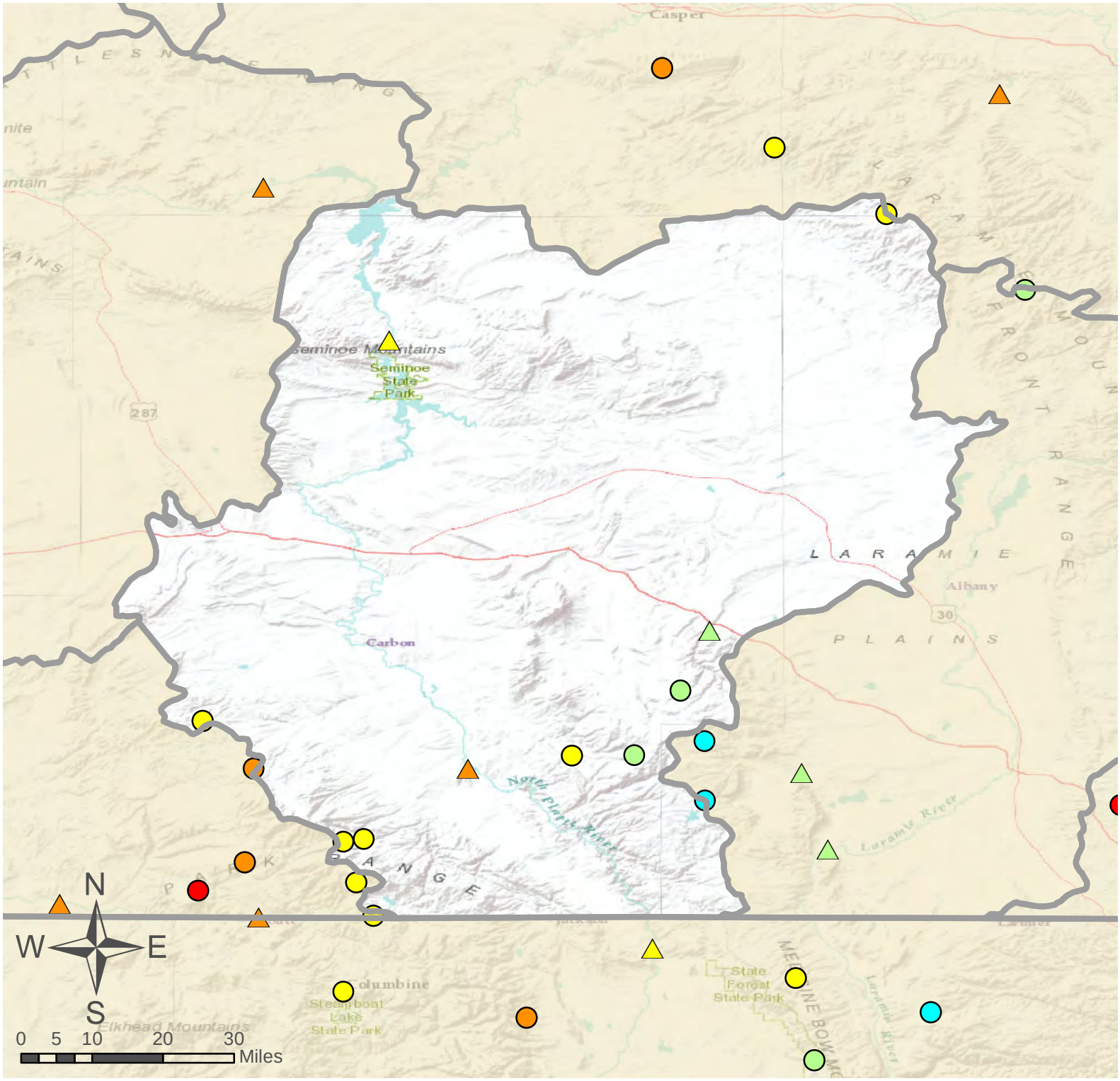
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

UPPER NORTH PLATTE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
North Platte R nr Northgate								
	APR-JUL	55	132	185	82%	235	315	225
	APR-SEP	63	147	205	82%	260	345	250
Encampment R nr Encampment[2]								
	APR-JUL	22	58	82	64%	106	141	129
	APR-SEP	26	63	88	64%	113	149	138
Rock Ck ab King Canyon Cnl nr Arlington								
	APR-JUL	32	43	51	104%	58	69	49
	APR-SEP	34	46	53	102%	61	72	52
Sweetwater R nr Alcova								
	APR-JUL	1.92	23	37	63%	52	73	59
	APR-SEP	2.8	25	41	64%	56	78	64
Seminoe Reservoir Inflow								
	APR-JUL	192	420	575	80%	730	960	715
	APR-SEP	215	455	615	80%	780	1020	770

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Seminoe	808.9	757.3	520.8	1016.7
Basin-wide Total	808.9	757.3	520.8	1016.7
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
N PLATTE above Northgate	11	80%	134%
ENCAMPMENT RIVER	4	79%	138%
BRUSH CREEK	5	111%	118%
MEDICINE BOW & ROCK CREEKS	3	108%	122%
UPPER NORTH PLATTE RIVER	24	87%	129%



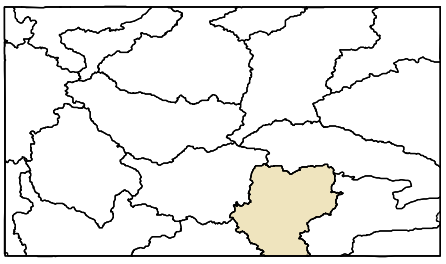
Upper North Platte River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

82% of Normal SWE

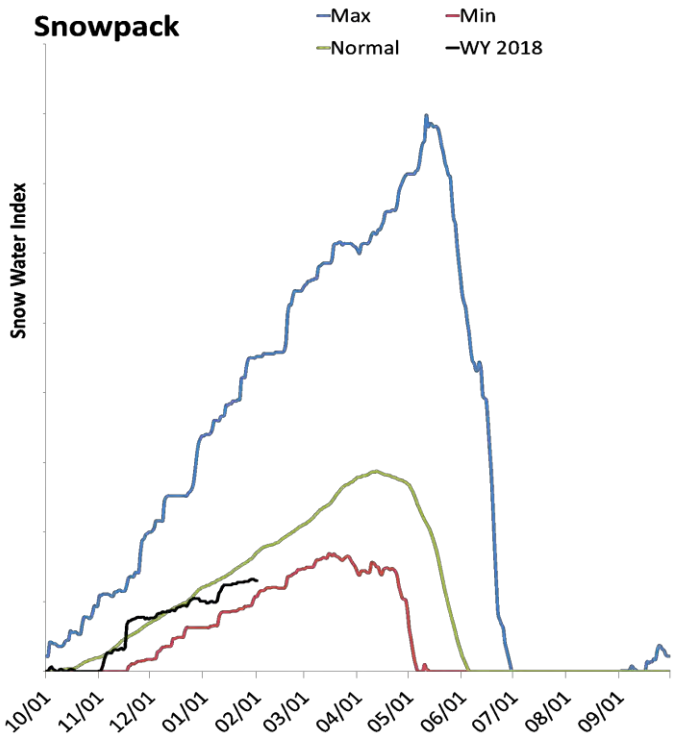
87% of Normal Precipitation

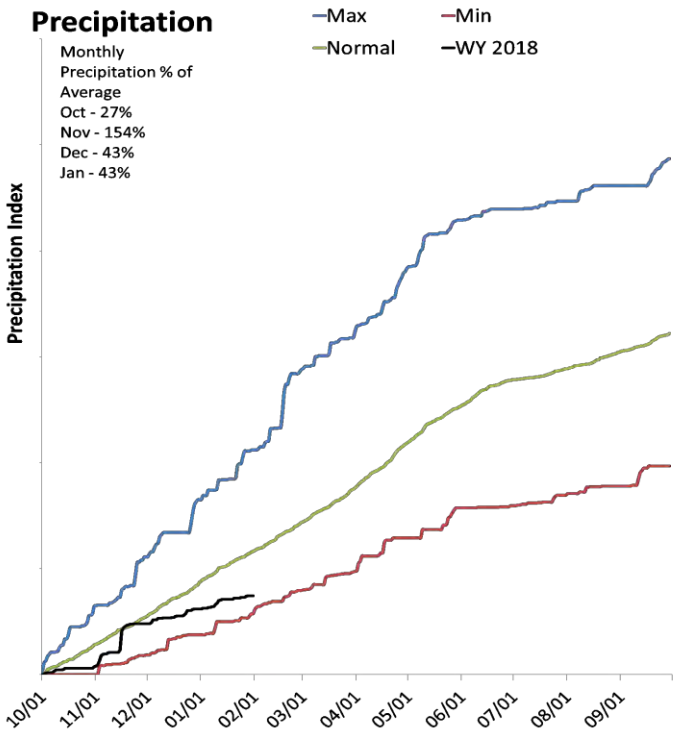
88% of Normal Precipitation Last Month

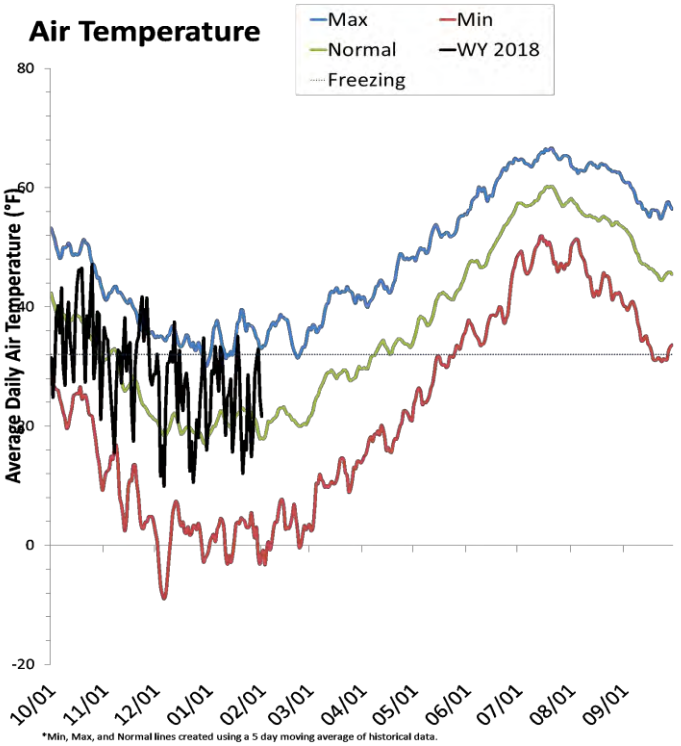
Sweetwater River Basin

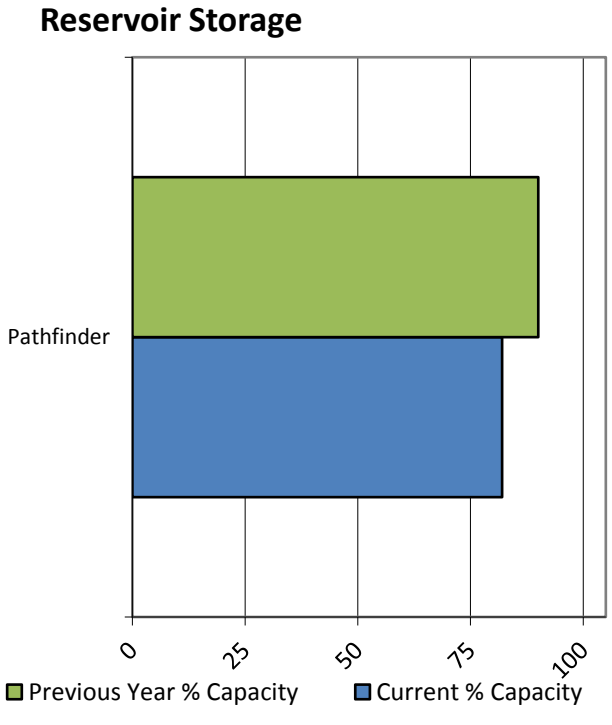
February 1, 2018

Snowpack in the Sweetwater River Basin is below normal at 76% of normal, compared to 185% last year. Precipitation in January was much below average at 42%, which brings the seasonal accumulation (Oct-Jan) to 64% of average. Soil moisture at sites with sensors is at 20% of saturation. Reservoir storage is at 82% of capacity, compared to 90% last year. Forecast streamflow volumes range from 63% to 63% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:55:39 AM

Sweetwater River Basin
Streamflow Forecasts - February 1, 2018

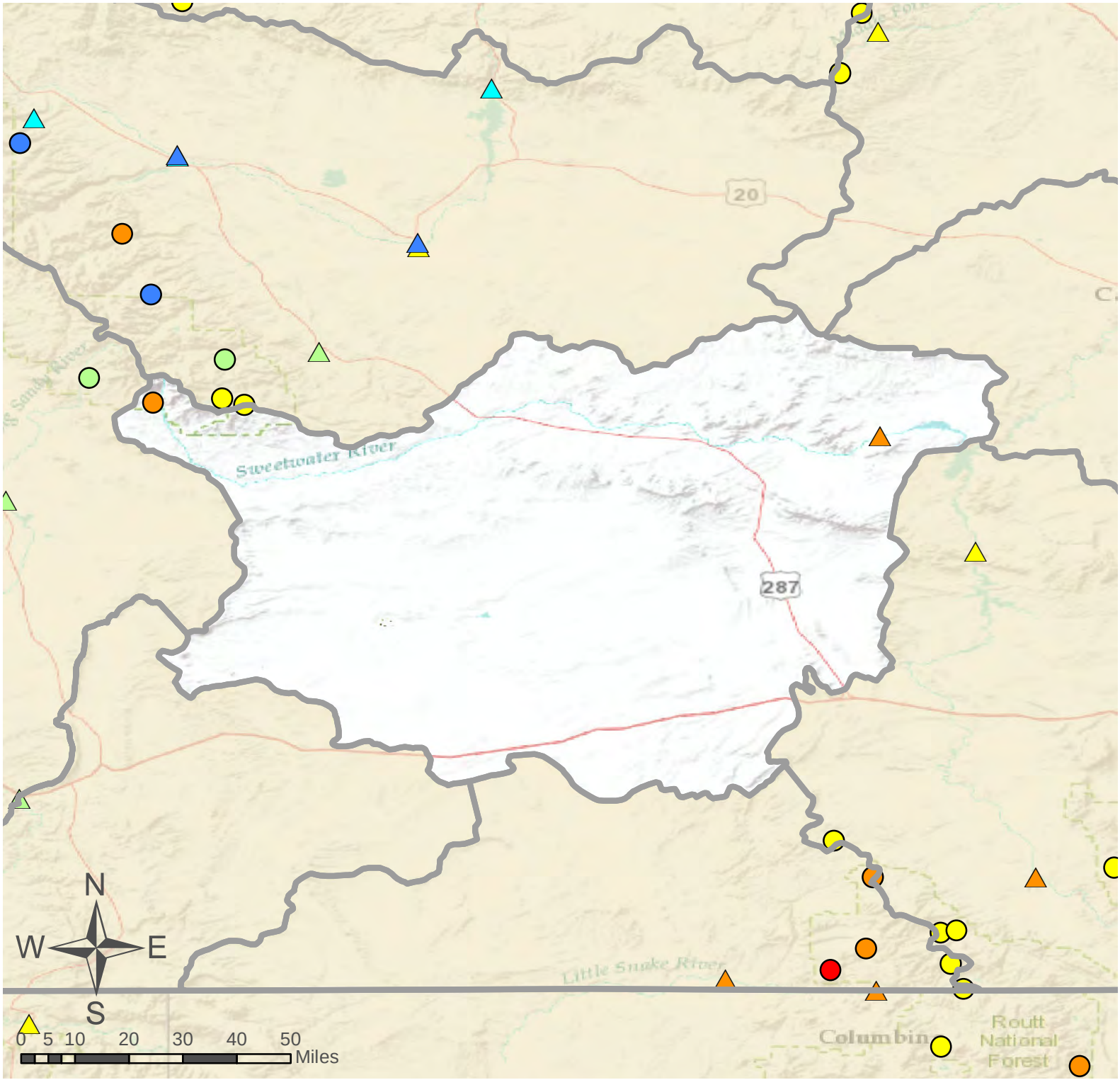
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

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	1.92	23	37	63%	52	73	59
	APR-SEP	2.8	25	41	64%	56	78	64

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Pathfinder	830.7	912.4	559.0	1016.5
Basin-wide Total	830.7	912.4	559.0	1016.5
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
SWEETWATER RIVER	5	75%	195%



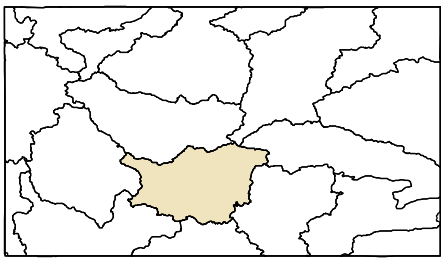
Sweetwater River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

76% of Normal SWE

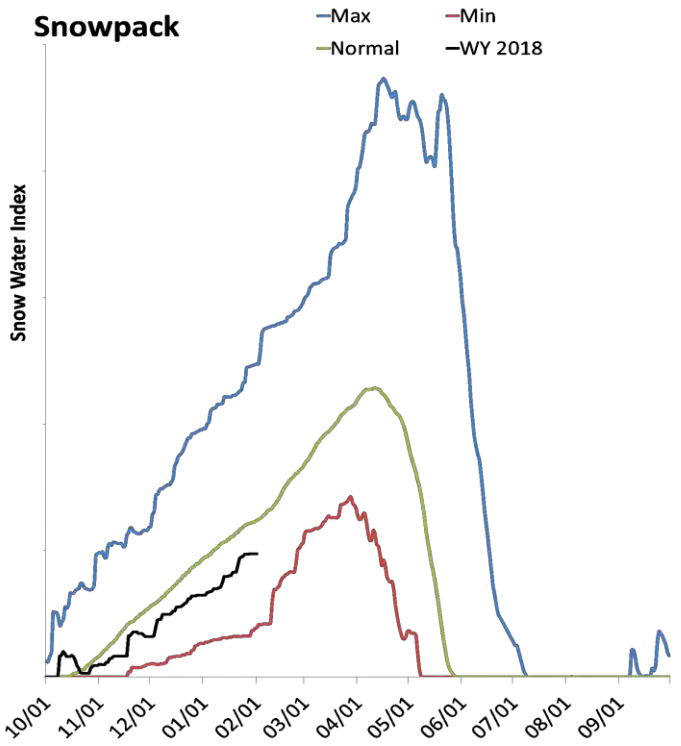
64% of Normal Precipitation

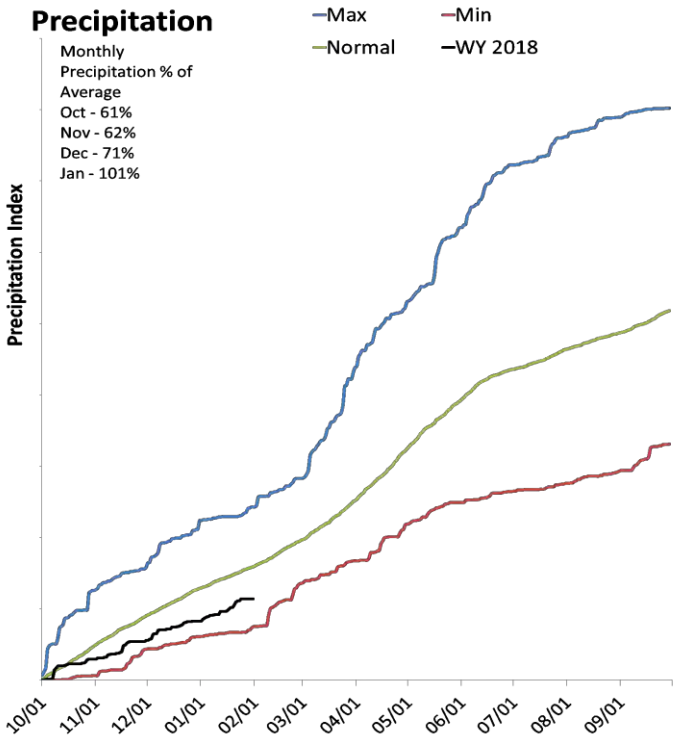
42% of Normal Precipitation Last Month

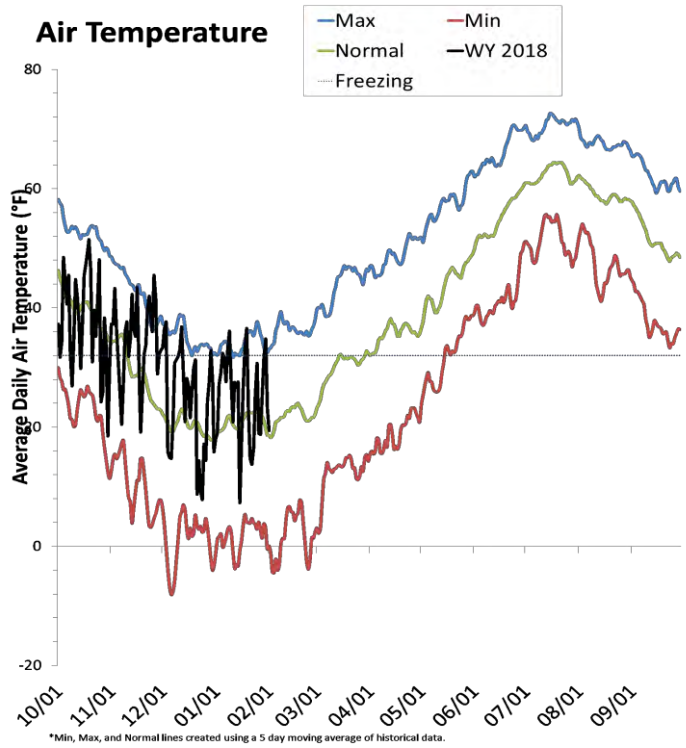
Lower North Platte River Basin

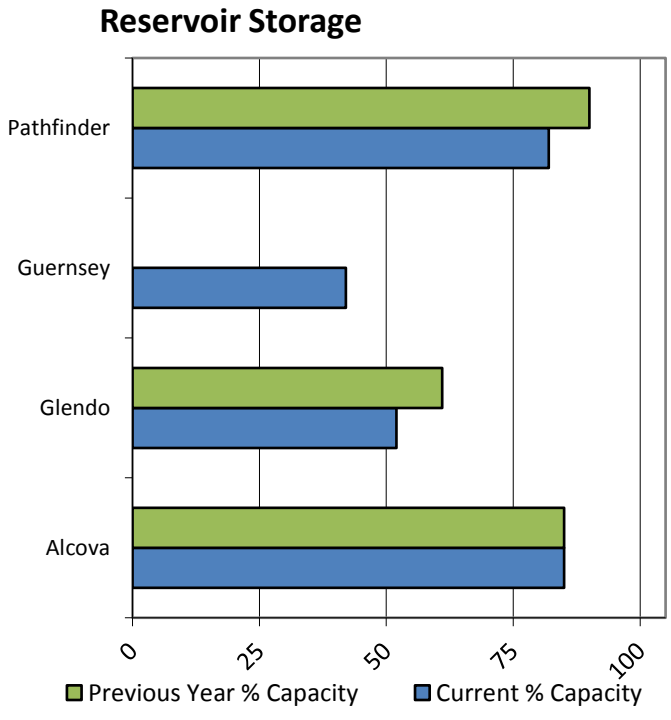
February 1, 2018

Snowpack in the Lower North Platte River Basin is below normal at 79% of normal, compared to 109% last year. Precipitation in January was near average at 103%, which brings the seasonal accumulation (Oct-Jan) to 71% of average. Soil moisture at sites with sensors is at 13% of saturation. Reservoir storage is at 72% of capacity, compared to 79% last year. The forecast streamflow volume for the Beaver River is 74% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:55:44 AM

Lower North Platte River Basin
Streamflow Forecasts - February 1, 2018

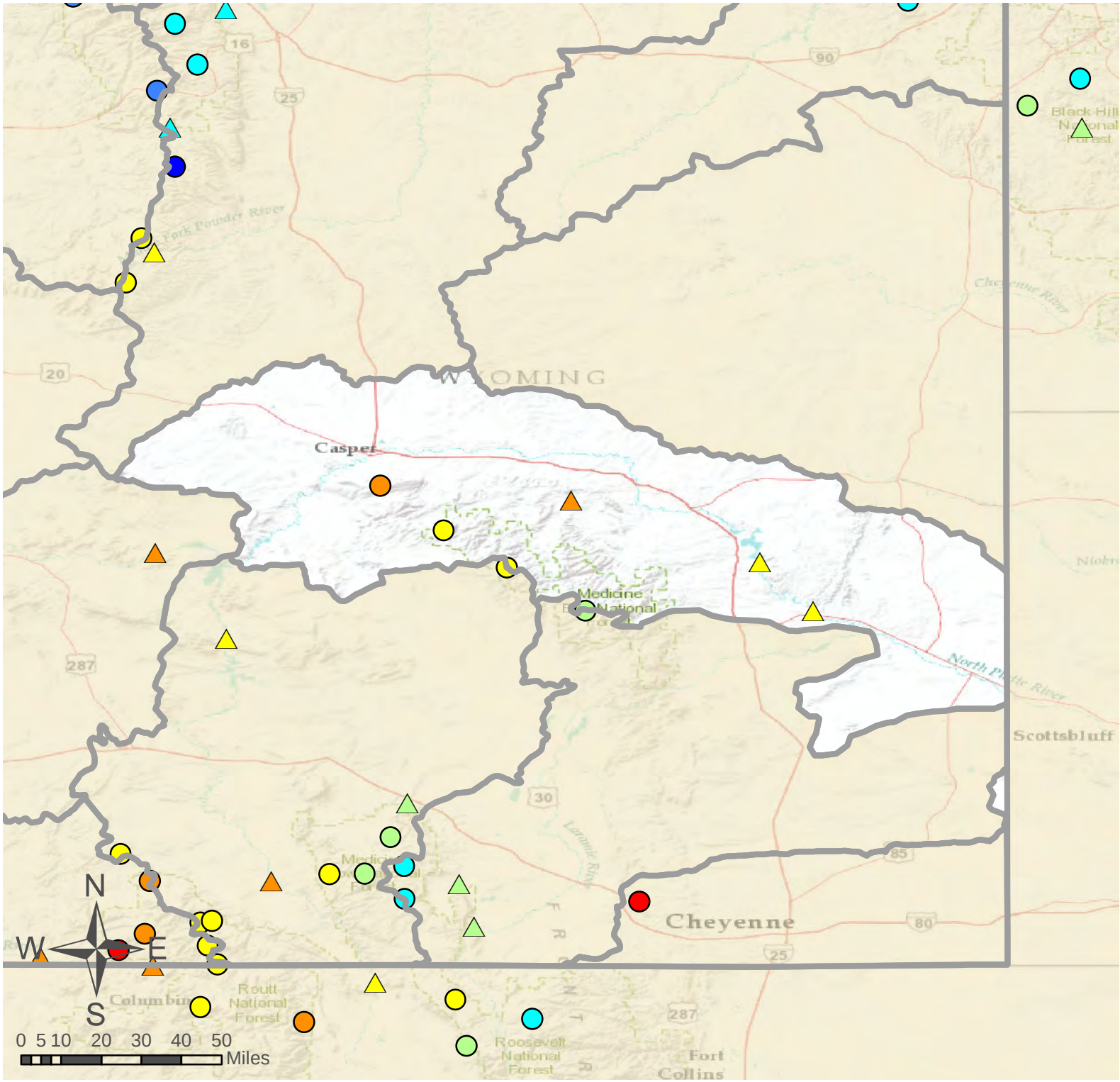
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

LOWER NORTH PLATTE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
La Prele Ck nr Douglas								
	APR-JUL	0.5	4.8	12.1	61%	19.3	30	19.9
	APR-SEP	0.5	5.1	12.5	63%	19.8	31	19.9
North Platte R bl Glendo Reservoir								
	APR-JUL	77	395	610	74%	825	1140	820
	APR-SEP	75	400	625	74%	845	1170	850
North Platte R bl Guernsey Reservoir								
	APR-JUL	54	380	605	74%	825	1150	820
	APR-SEP	53	390	620	73%	845	1180	850

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Alcova	156.8	157.3	155.0	184.3
Glendo	264.1	307.4	301.5	506.4
Guernsey	19.1	0.0	11.4	45.6
Pathfinder	830.7	912.4	559.0	1016.5
Basin-wide Total	1270.7	1377.1	1026.9	1752.8
# of reservoirs	4	4	4	4

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
DEER & LaPRELE CREEKS	2	79%	111%
LOWER NORTH PLATTE RIVER	4	79%	109%



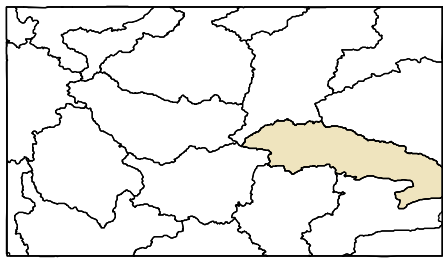
Lower North Platte River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

79% of Normal SWE

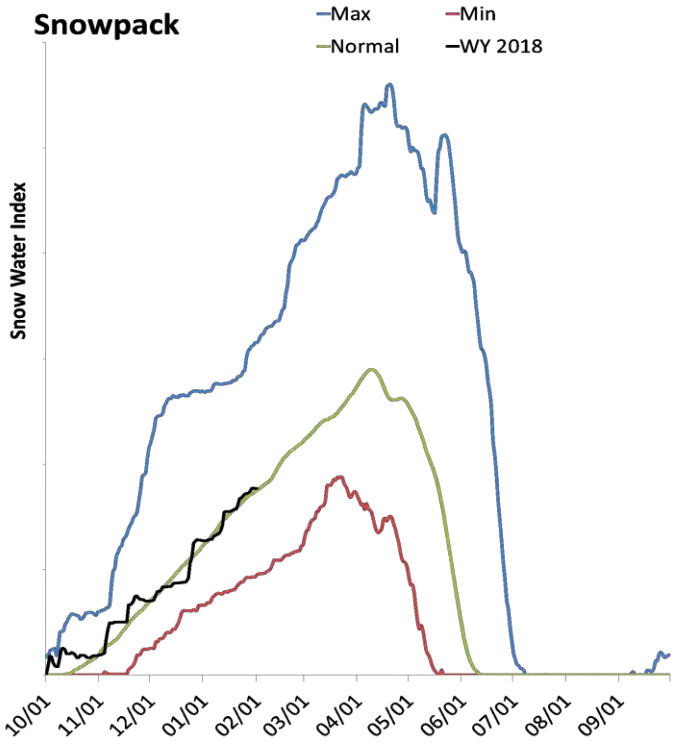
71% of Normal Precipitation

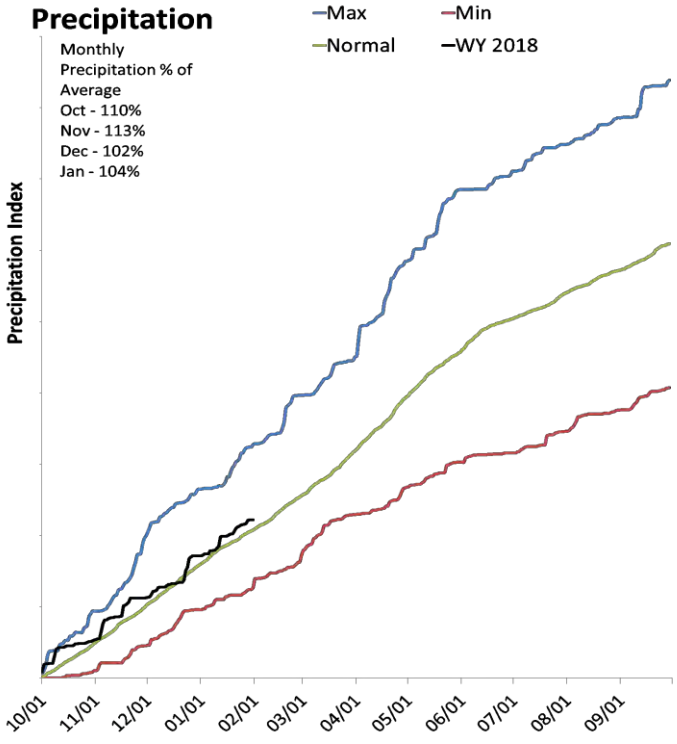
103% of Normal Precipitation Last Month

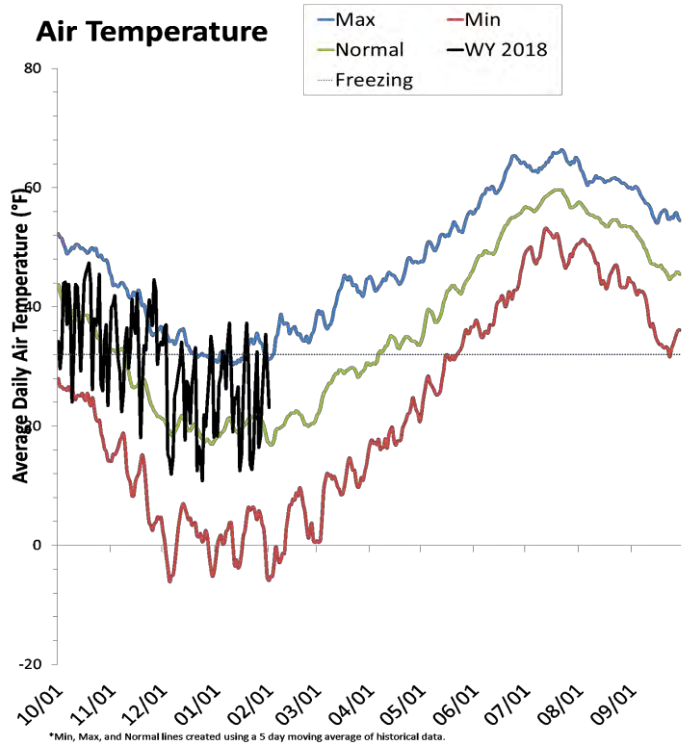
Laramie River Basin

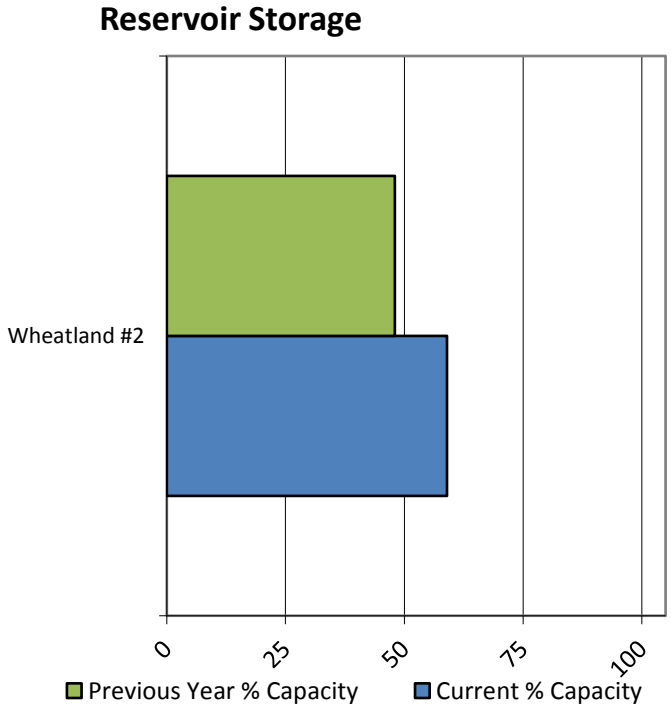
February 1, 2018

Snowpack in the Laramie River Basin is near normal at 101% of normal, compared to 124% last year. Precipitation in January was near average at 105%, which brings the seasonal accumulation (Oct-Jan) to 107% of average. Soil moisture at sites with sensors is at 42% of saturation. Reservoir storage is at 59% of capacity, compared to 48% last year. The forecast streamflow volume for the Beaver River is 108% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:55:48 AM

Laramie River Basin
Streamflow Forecasts - February 1, 2018

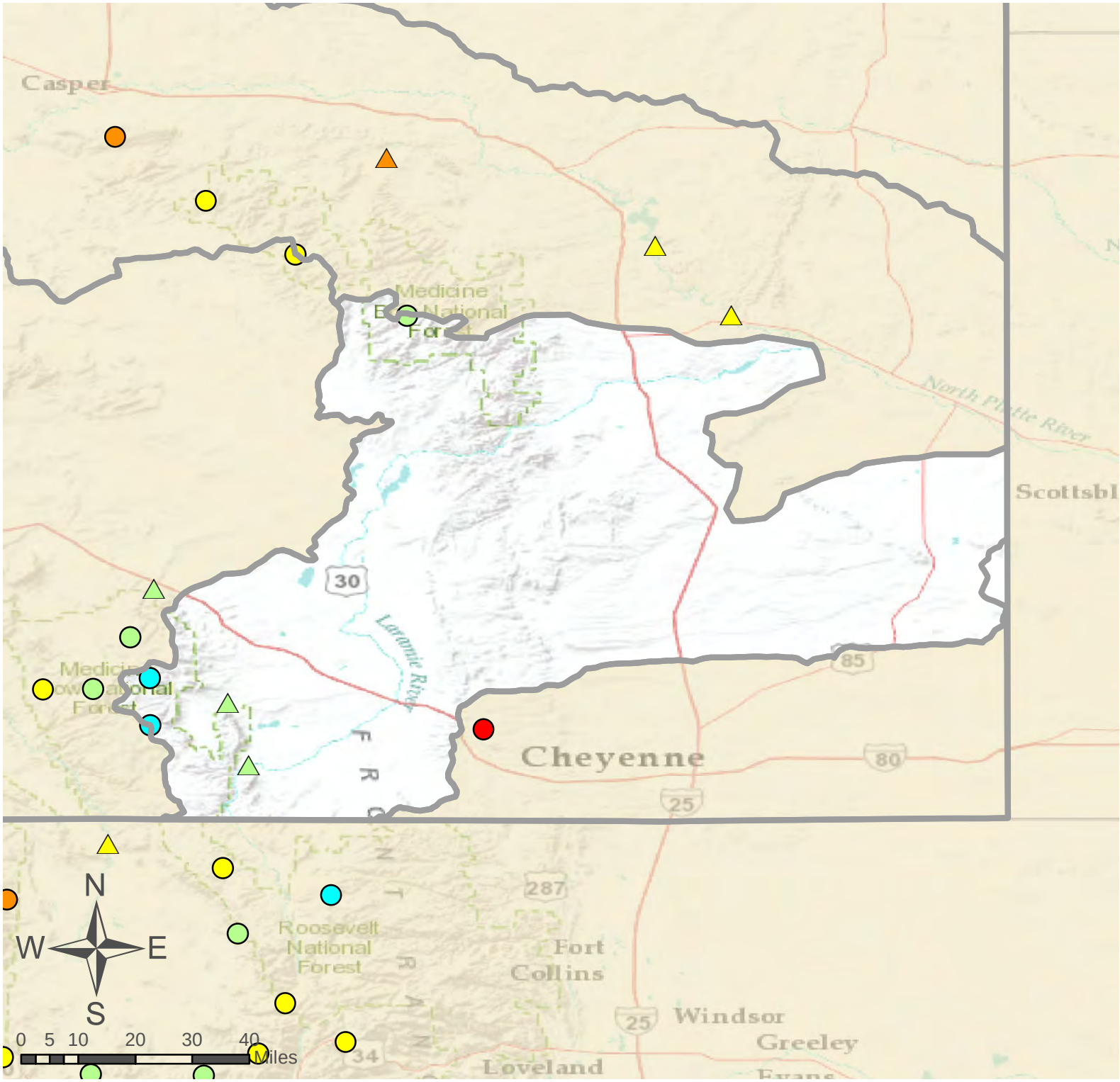
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

LARAMIE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Laramie R and Pioneer Cnl nr Woods Lg								
	APR-JUL	54	89	113	98%	137	172	115
	APR-SEP	62	99	125	99%	151	188	126
Little Laramie R nr Filmore								
	APR-JUL	33	46	55	108%	64	77	51
	APR-SEP	36	50	59	107%	68	82	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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Wheatland #2	57.9	47.5	40.9	98.9
Basin-wide Total	57.9	47.5	40.9	98.9
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
LARAMIE RIVER abv Laramie	7	83%	135%
LITTLE LARAMIE RIVER	5	117%	127%
LARAMIE RIVER	13	100%	131%
NORTH PLATTE TOTAL RIVER	40	90%	134%



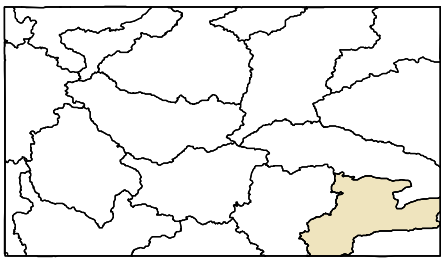
Laramie River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

101% of Normal SWE

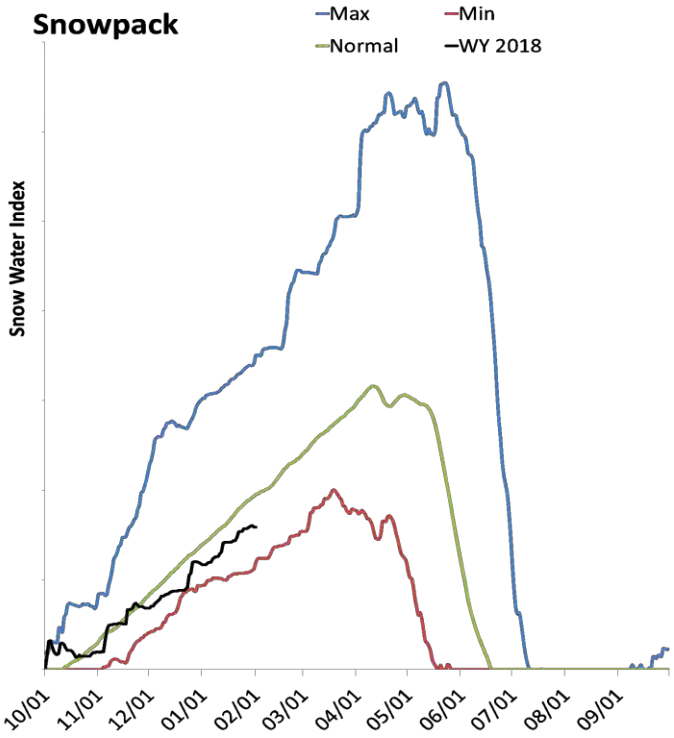
107% of Normal Precipitation

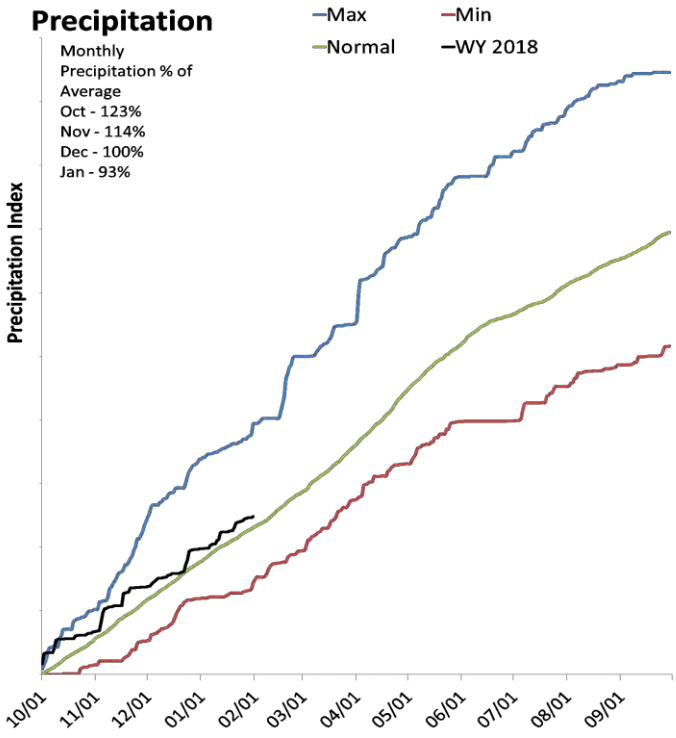
105% of Normal Precipitation Last Month

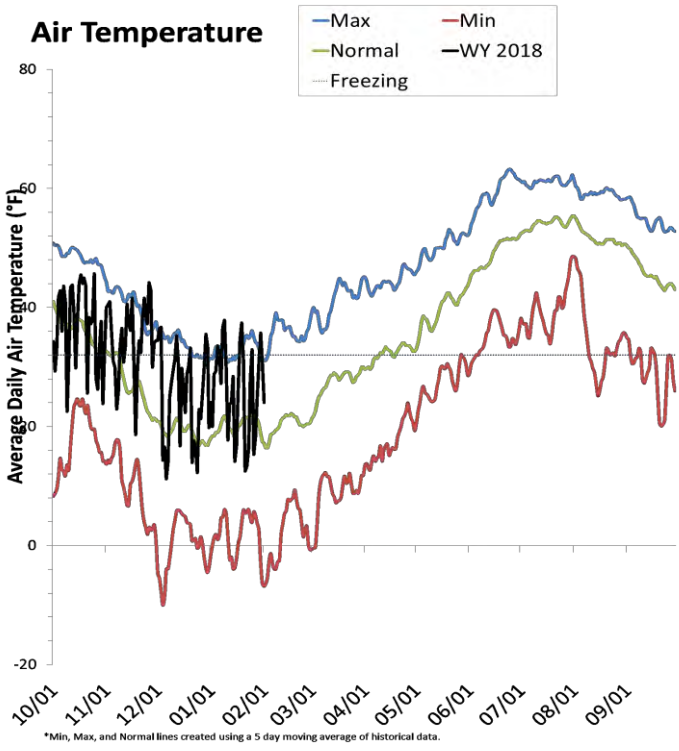
South Platte River Basin

February 1, 2018

Snowpack in the South Platte River Basin is below normal at 82% of normal, compared to 117% last year. Precipitation in January was near average at 94%, which brings the seasonal accumulation (Oct-Jan) to 108% of average. Soil moisture at sites with sensors is at 48% of saturation. Forecast streamflow volumes range from 0% to 0% of average.





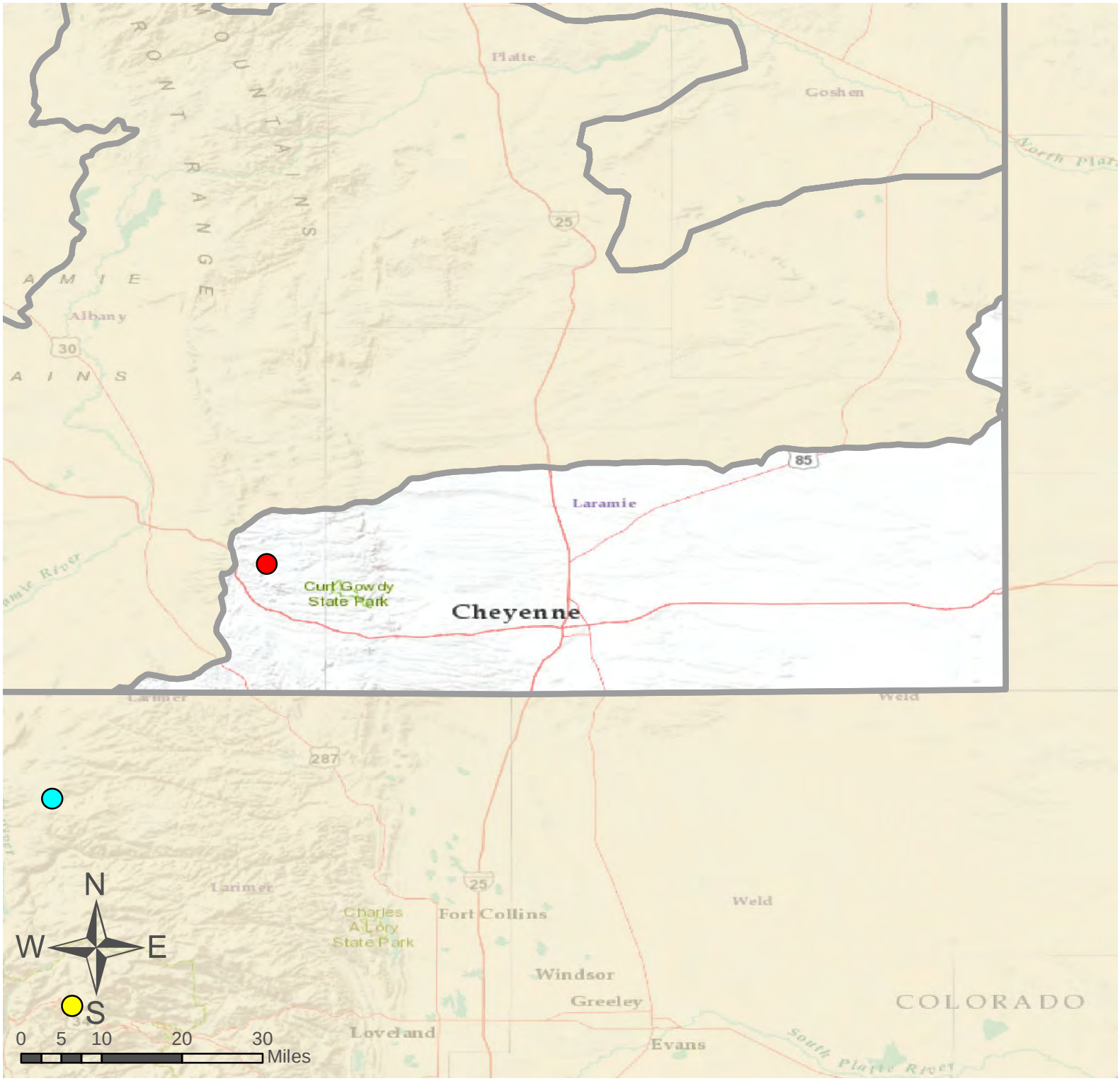


SNOTEL Data

Data Current as of: 2/6/2018 9:55:53 AM

South Platte River Basin - February 1, 2018

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
SOUTH PLATTE RIVER	8	84%	134%



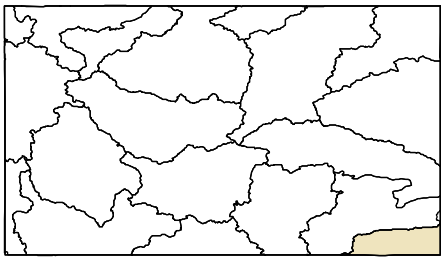
South Platte River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

82% of Normal SWE

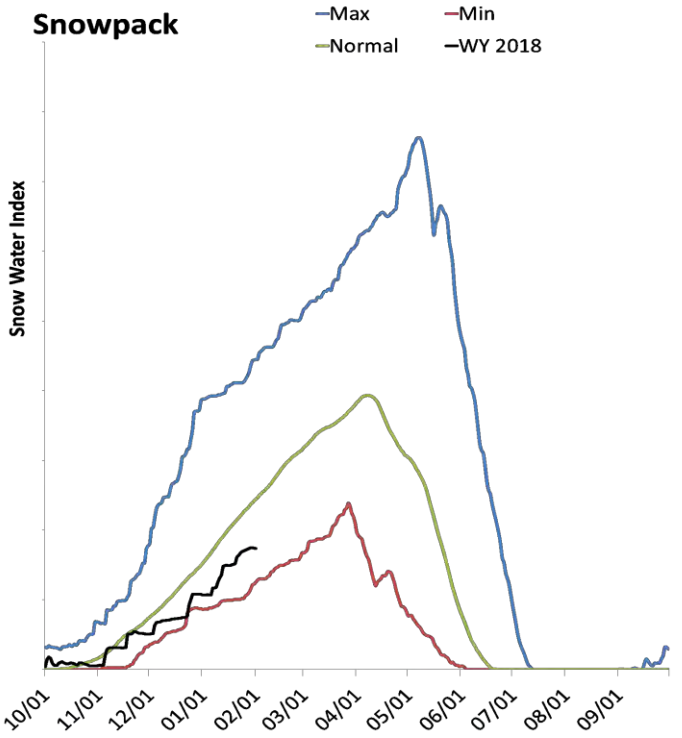
108% of Normal Precipitation

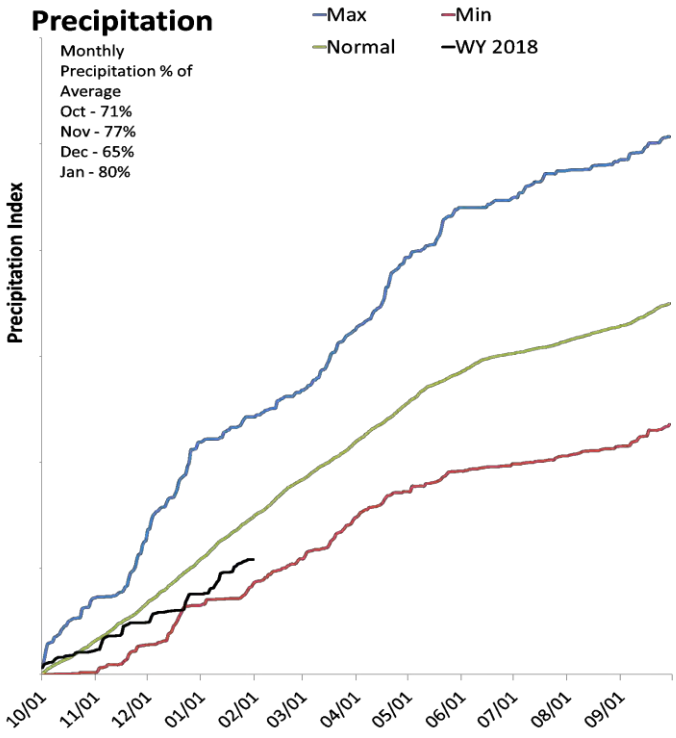
94% of Normal Precipitation Last Month

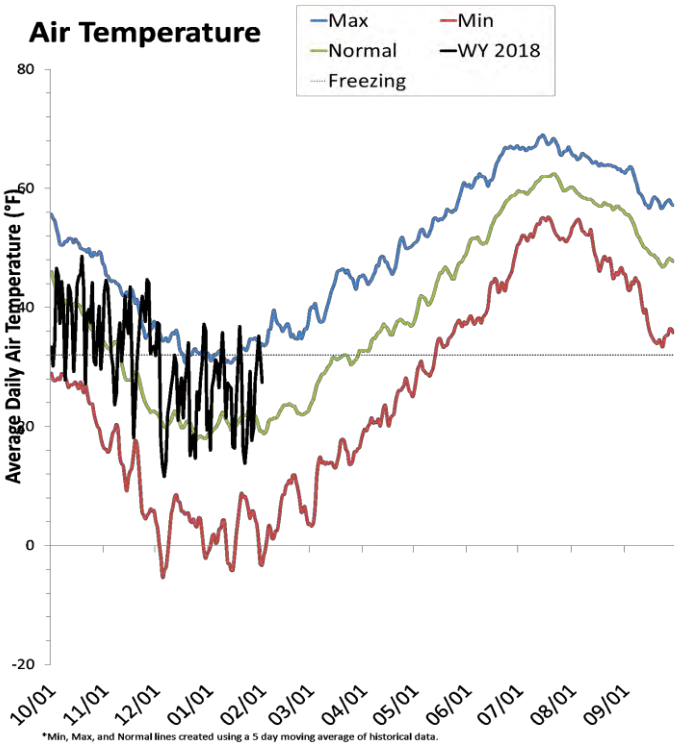
Little Snake River Basin

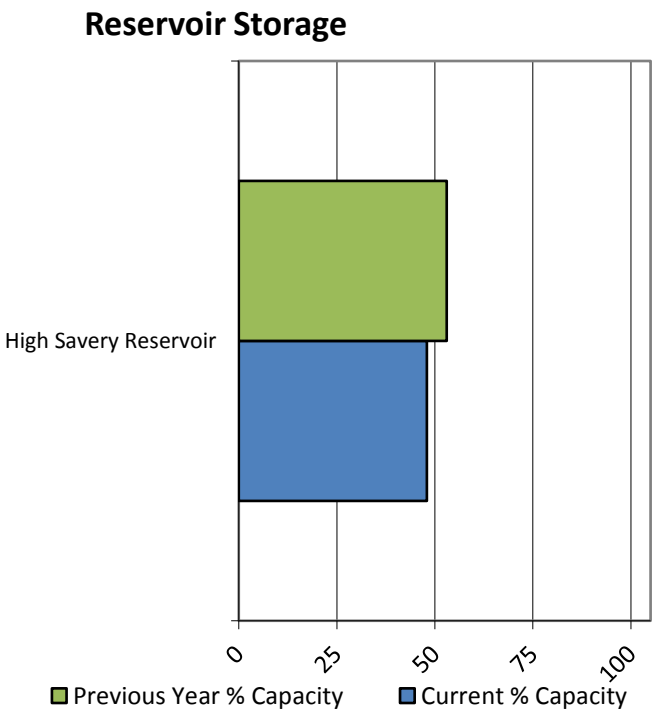
February 1, 2018

Snowpack in the Little Snake River Basin is below normal at 71% of normal, compared to 131% last year. Precipitation in January was below average at 80%, which brings the seasonal accumulation (Oct-Jan) to 73% of average. Soil moisture at sites with sensors is at 69% of saturation. Reservoir storage is at 48% of capacity, compared to 53% last year. Forecast streamflow volumes range from 53% to 67% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:55:57 AM

Little Snake River Basin
Streamflow Forecasts - February 1, 2018

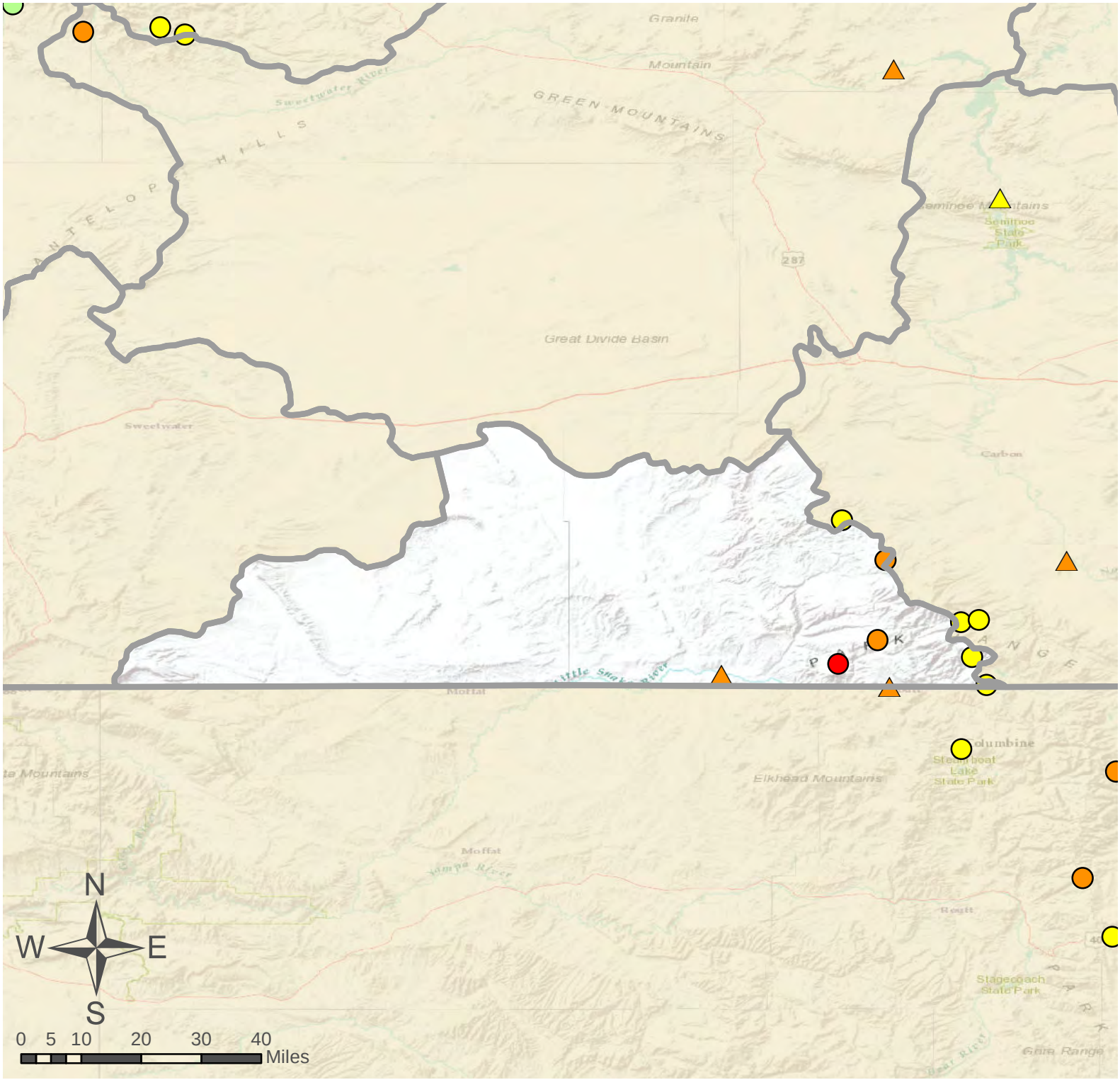
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

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[2]	APR-JUL	63	86	105	67%	131	169	156
Little Snake R nr Dixon[2]	APR-JUL	115	155	182	53%	240	330	345

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
High Savery Reservoir	10.8	12.0	11.9	22.4
Basin-wide Total	10.8	12.0	11.9	22.4
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
LITTLE SNAKE RIVER	10	72%	132%



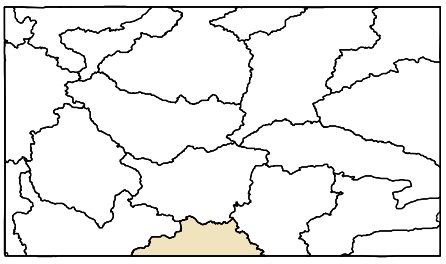
Little Snake River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

71% of Normal SWE

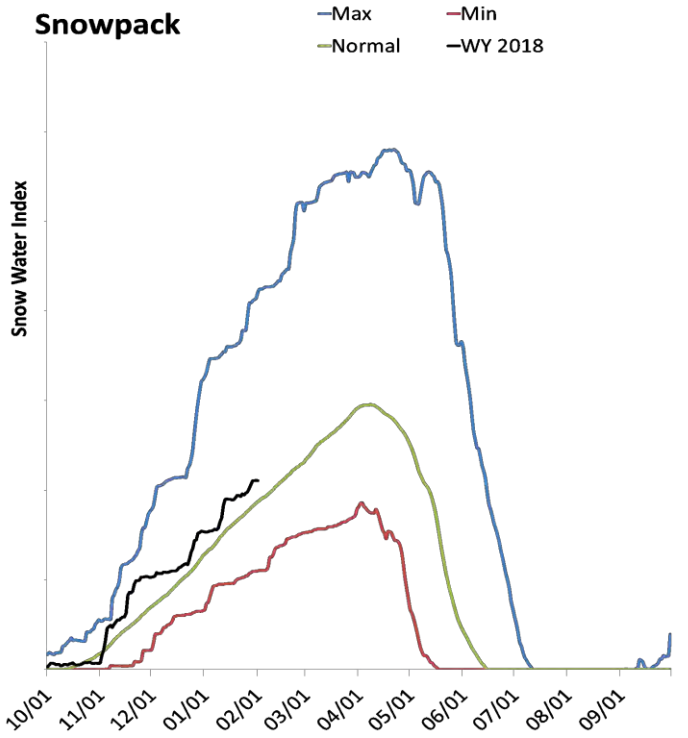
73% of Normal Precipitation

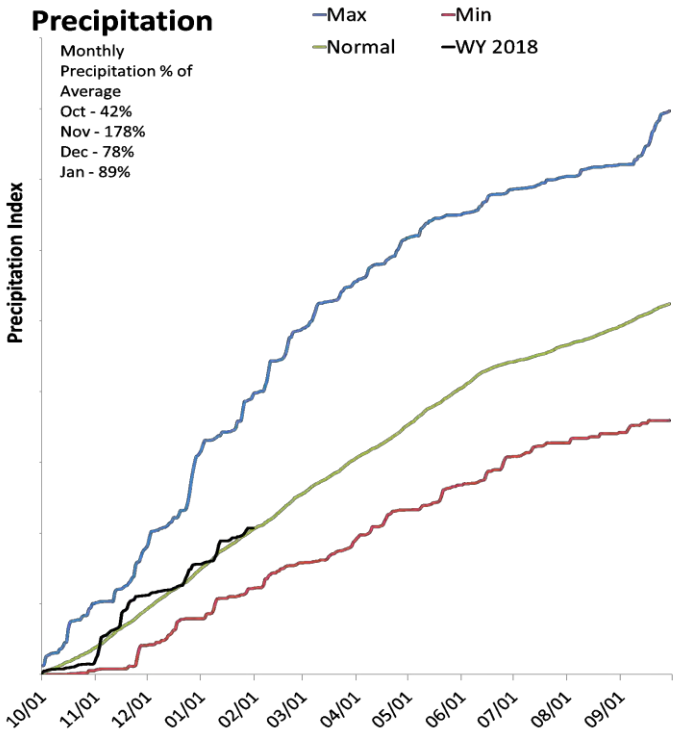
80% of Normal Precipitation Last Month

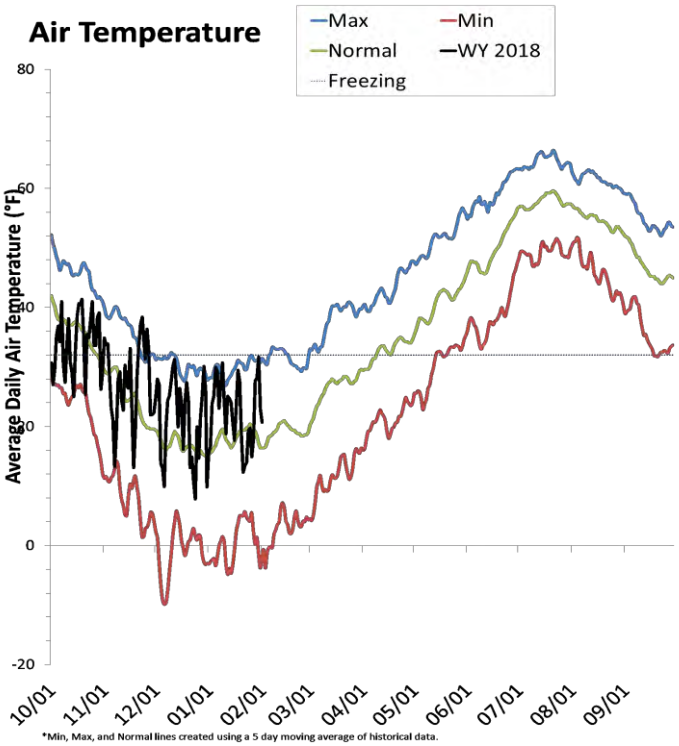
Upper Green River Basin

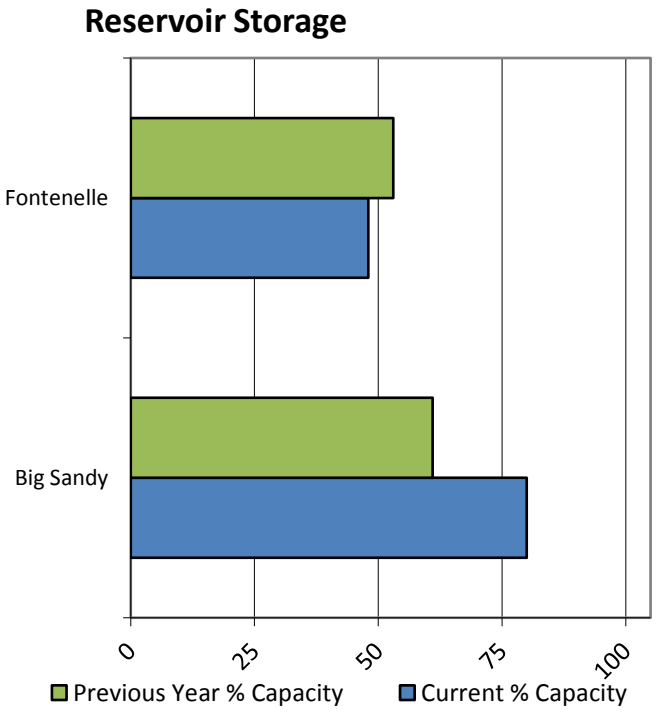
February 1, 2018

Snowpack in the Upper Green River Basin is above normal at 113% of normal, compared to 152% last year. Precipitation in January was below average at 88%, which brings the seasonal accumulation (Oct-Jan) to 101% of average. Soil moisture at sites with sensors is at 45% of saturation. Reservoir storage is at 51% of capacity, compared to 54% last year. Forecast streamflow volumes range from 96% to 104% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:56:03 AM

Upper Green River Basin
Streamflow Forecasts - February 1, 2018

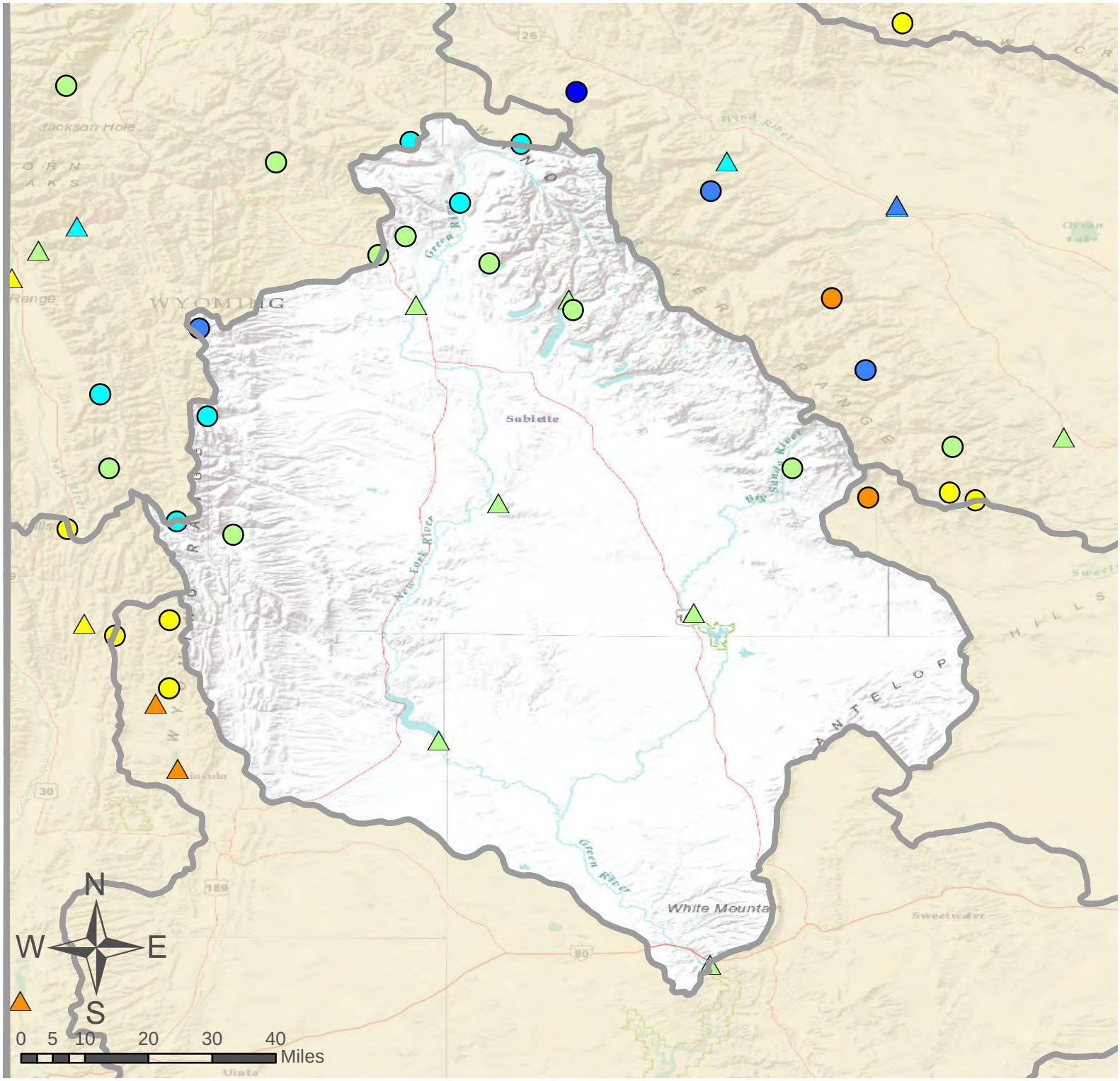
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

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	168	215	245	100%	275	320	245
Pine Creek ab Fremont Lake	APR-JUL	76	89	98	100%	107	120	98
New Fork R nr Big Piney	APR-JUL	225	310	370	104%	430	515	355
Fontenelle Reservoir Inflow	APR-JUL	330	550	700	97%	850	1070	725
Big Sandy R nr Farson	APR-JUL	29	42	50	96%	58	71	52

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Big Sandy	30.8	23.5	17.0	38.3
Fontenelle	165.2	184.2	150.1	344.8
Basin-wide Total	196.0	207.7	167.1	383.1
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
GREEN above Warren Bridge	5	111%	146%
UPPER GREEN - West Side	5	116%	158%
NEWFORK RIVER	3	108%	94%
BIG SANDY-EDEN VALLEY	3	84%	177%
GREEN above Fontenelle	15	112%	146%
UPPER GREEN RIVER	15	112%	146%



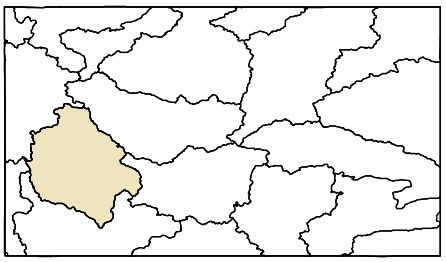
Upper Green River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

113% of Normal SWE

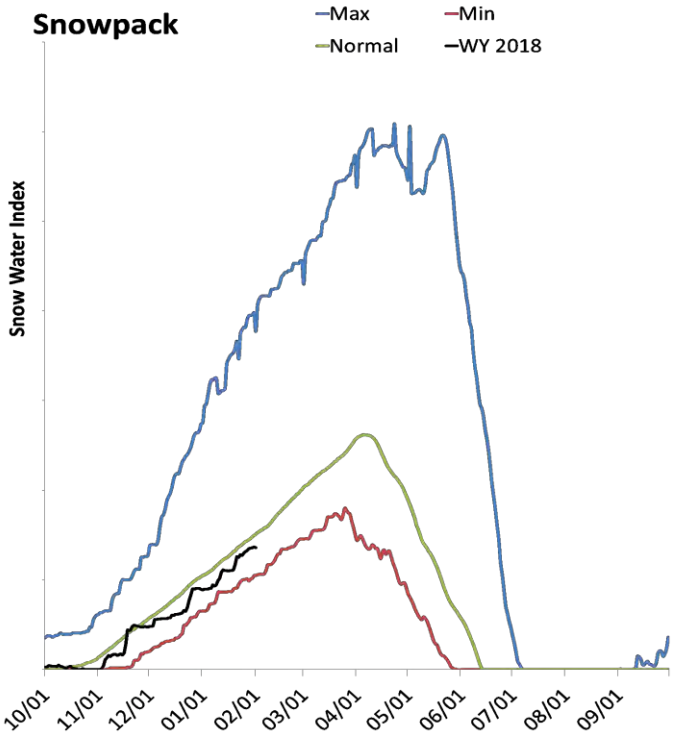
101% of Normal Precipitation

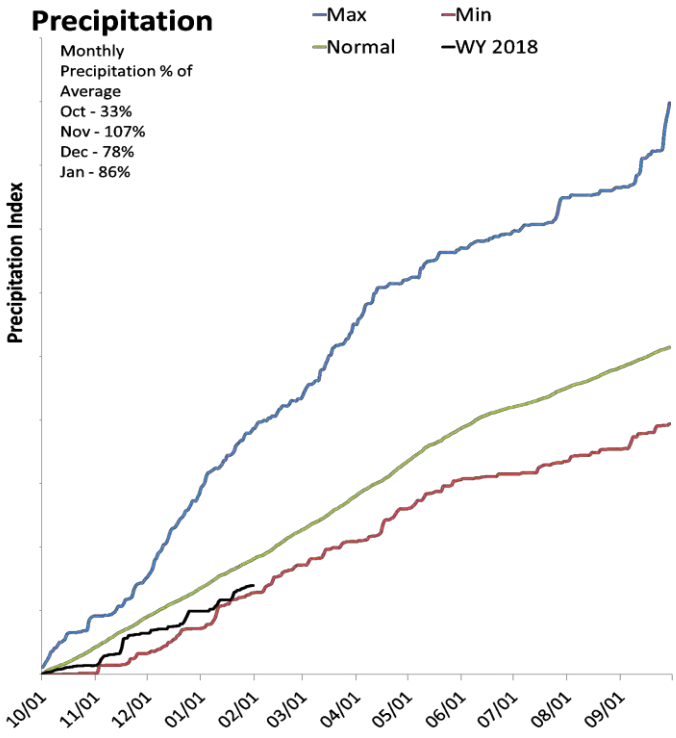
88% of Normal Precipitation Last Month

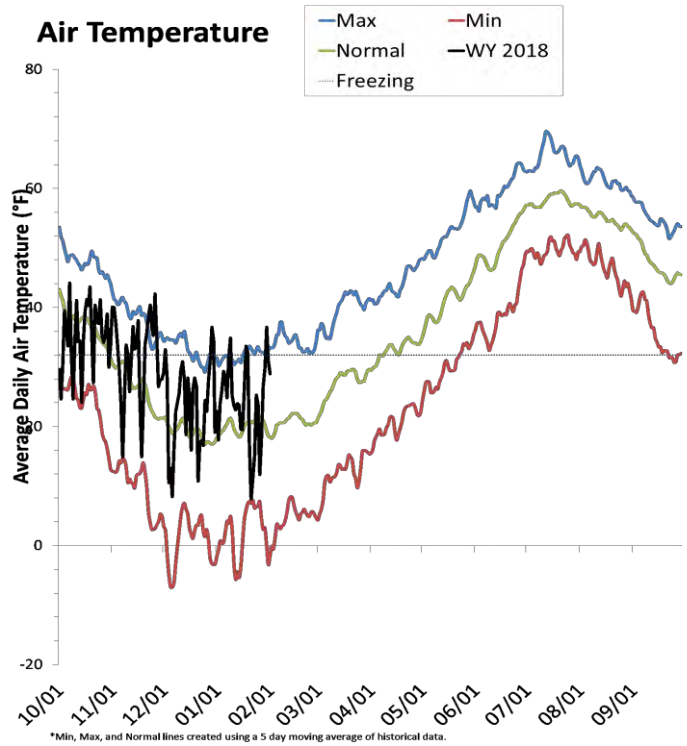
Lower Green River Basin

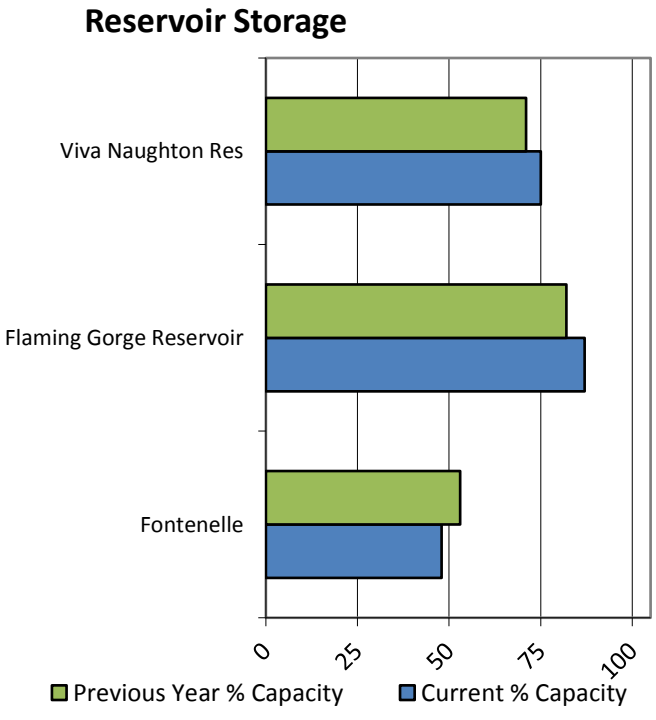
February 1, 2018

Snowpack in the Lower Green River Basin is near normal at 90% of normal, compared to 152% last year. Precipitation in January was below average at 88%, which brings the seasonal accumulation (Oct-Jan) to 77% of average. Soil moisture at sites with sensors is at 53% of saturation. Reservoir storage is at 84% of capacity, compared to 80% last year. Forecast streamflow volumes range from 62% to 98% of average.









SNOTEL Data

Data Current as of: 2/6/2018 9:56:07 AM

Lower Green River Basin
Streamflow Forecasts - February 1, 2018

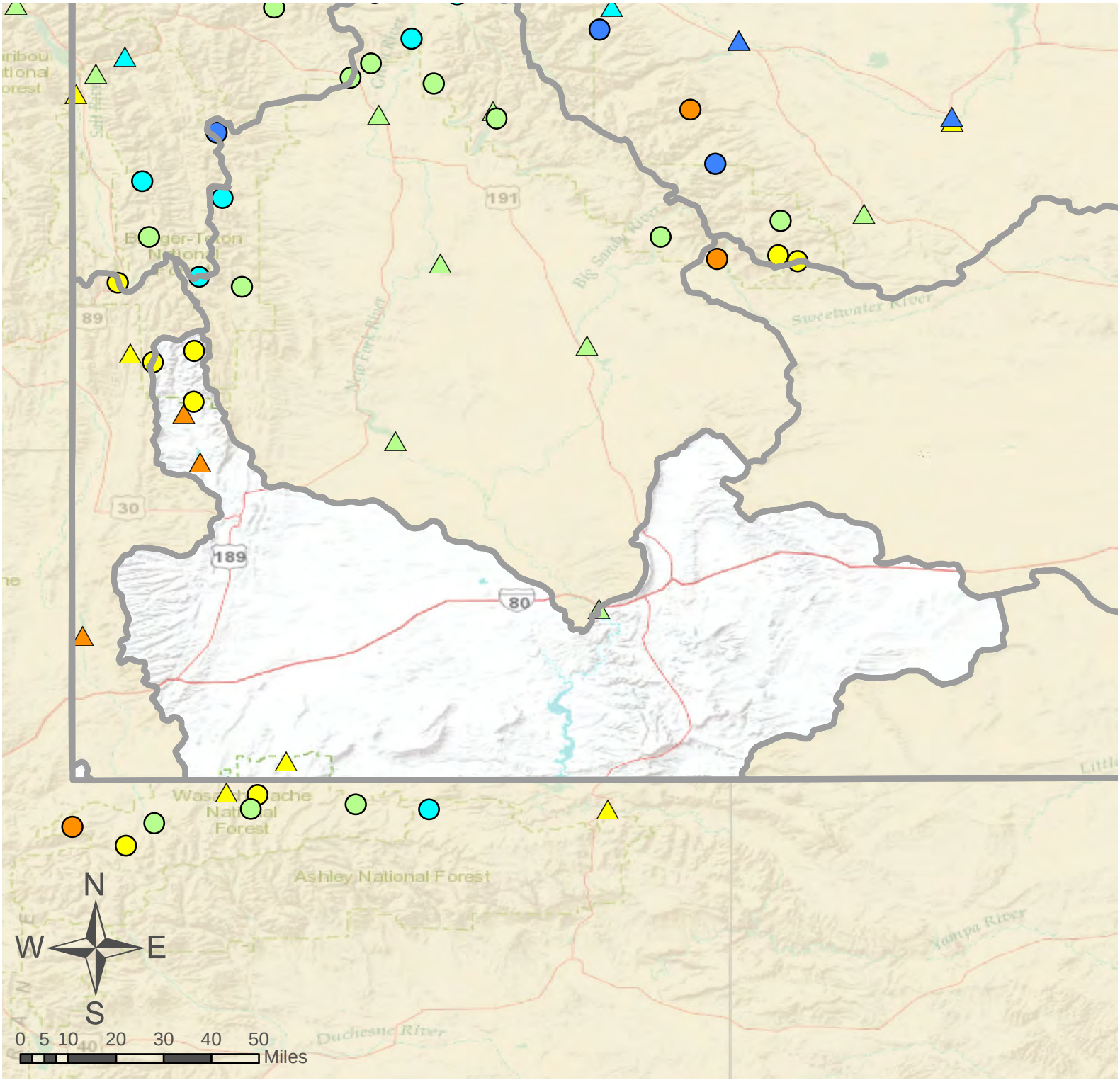
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

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, WY [2]	APR-JUL	325	560	715	98%	870	1100	730
Blacks Fk nr Robertson	APR-JUL	42	60	72	84%	84	102	86
EF of Smiths Fork nr Robertson [2]	APR-JUL	12.8	18.3	22	81%	26	31	27
Hams Fk bl Pole Ck nr Frontier	APR-JUL	8.1	25	37	69%	49	66	54
Viva Naughton Reservoir Inflow	APR-JUL	15	27	46	62%	65	92	74
Flaming Gorge Reservoir Inflow [2]	APR-JUL	280	610	840	86%	1060	1400	980

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Fontenelle	165.2	184.2	150.1	344.8
Flaming Gorge Reservoir	3259.2	3087.3	3049.0	3749.0
Viva Naughton Res	31.6	30.3	30.1	42.4
Basin-wide Total	3456.1	3301.8	3229.2	4136.2
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
HAMS FORK RIVER	4	88%	161%
BLACKS FORK	2	94%	144%
HENRYS FORK	2	109%	144%
LOWER GREEN RIVER	8	92%	155%
GREEN above FLAMING GORGE	22	106%	148%



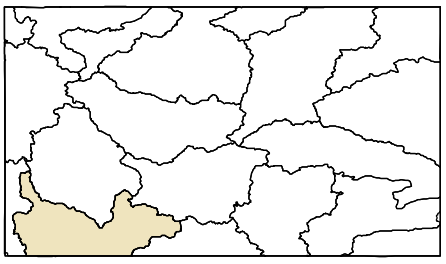
Lower Green River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



<u>As of February 1, 2018:</u>

90% of Normal SWE

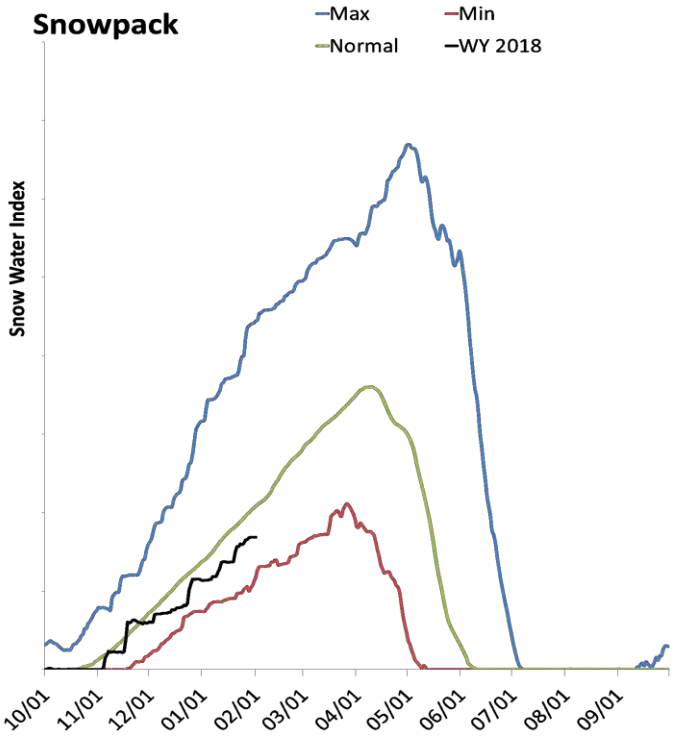
77% of Normal Precipitation

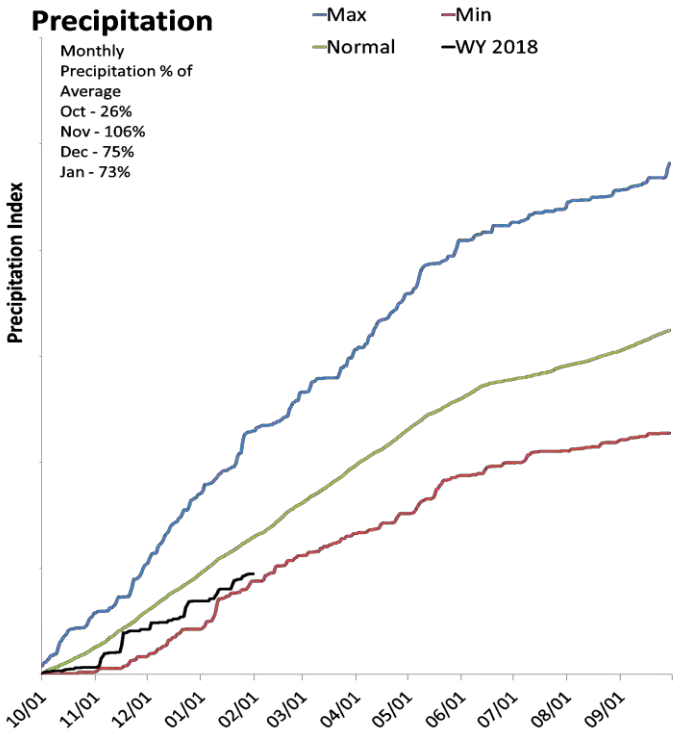
88% of Normal Precipitation Last Month

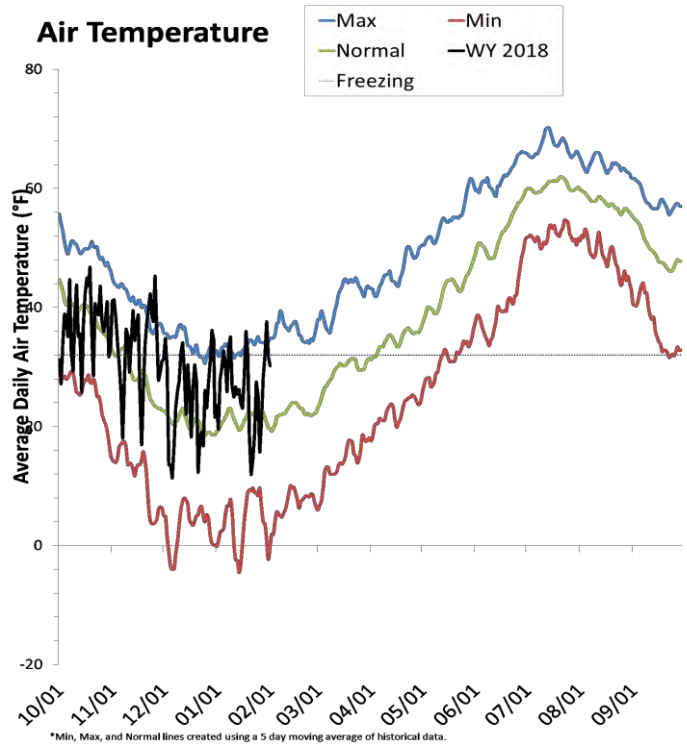
Upper Bear River Basin

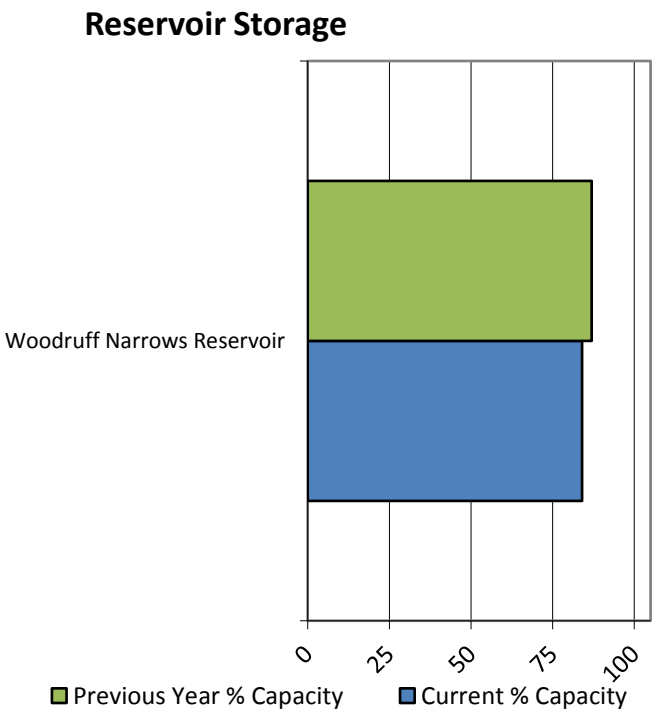
February 1, 2018

Snowpack in the Upper Bear River Basin is below normal at 81% of normal, compared to 164% last year. Precipitation in January was below average at 73%, which brings the seasonal accumulation (Oct-Jan) to 73% of average. Soil moisture at sites with sensors is at 69% of saturation. Reservoir storage is at 84% of capacity, compared to 87% last year. Forecast streamflow volumes range from 68% to 88% of average.









Data Current as of: 2/6/2018 9:56:11 AM

Upper Bear River Basin
Streamflow Forecasts - February 1, 2018

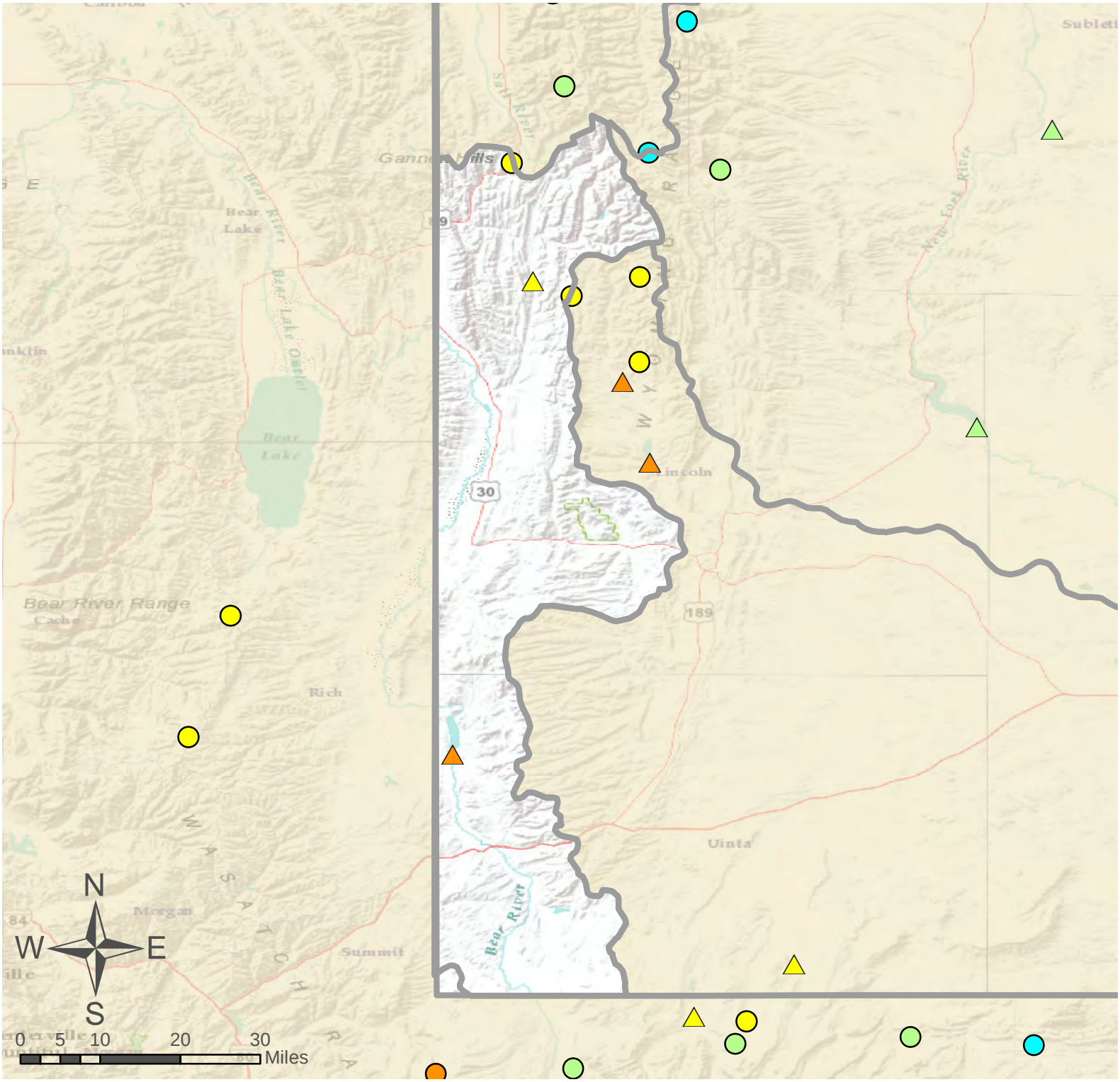
Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

UPPER BEAR RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Bear R nr UT-WY State Line								
	APR-JUL	42	66	82	73%	99	123	112
	APR-SEP	47	73	91	74%	109	136	123
Bear R ab Resv nr Woodruff								
	APR-JUL	7.3	46	82	68%	118	170	121
	APR-SEP	5.1	43	82	64%	121	178	128
Smiths Fk nr Border								
	APR-JUL	49	66	78	88%	90	107	89
	APR-SEP	59	79	93	89%	107	127	104

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

Reservoir Storage End of January, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Woodruff Narrows Reservoir	48.0	49.6	29.0	57.3
Basin-wide Total	48.0	49.6	29.0	57.3
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2018	# of Sites	% Median	Last Year % Median
UPPER BEAR RIVER in Utah	3	79%	165%
SMITHS & THOMAS FORKS	4	98%	159%
UPPER BEAR RIVER	8	84%	165%



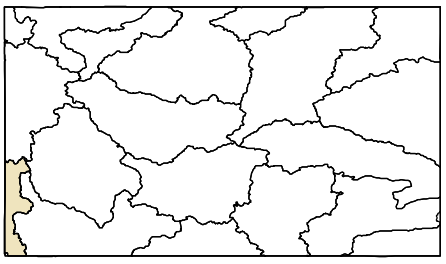
Upper Bear River Basin

SNOTEL Site

Forecast Point

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%



As of February 1, 2018:

81% of Normal SWE

73% of Normal Precipitation

73% of Normal Precipitation Last Month

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Wyoming Water Supply Outlook Report

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