

# Wyoming Basin Outlook Report

## February 1, 2014



Casper Mountain SNOTEL (Laramie Range)

# Basin Outlook Reports

## And

### Federal - State - Private

### Cooperative Snow Surveys

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#### *How forecasts are made*

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

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

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

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# Wyoming Water Supply Outlook Report

## General

The snow water equivalent (SWE) across Wyoming is above normal for February 1<sup>st</sup> at 116%. Monthly precipitation for the basins varied from 44-190% of average. Year-to-date precipitation for Wyoming basins varies from 81-175% of average. Forecasted runoff varies from 42-186% of average across the Wyoming basins for an overall average of 96%. Basin reservoir levels for Wyoming vary from 51-197% of average for an overall average of 91%.

## Snowpack

Snow water equivalent (SWE), across Wyoming is above normal for this time of year at 116%. SWE in the NW portion of Wyoming is now about 102% of normal (108% of last year). NE Wyoming SWE is currently about 136% of normal (162% of last year). The SE Wyoming SWE is currently about 115% of normal (165% of last year). The SW Wyoming SWE is about 102% of normal (110% of last year).

## Precipitation

Last month's precipitation varied considerably across Wyoming. The South Platte Basin had the highest precipitation for the month at 190% of average. The Sweetwater Basin had the lowest precipitation amount at 44% of average. The following table displays the major river basins and their departure from average for last month.

Basin	Departure from average	Basin	Departure from average
Snake River	-17%	Upper North Platte River	+32%
Madison-Gallatin	-31%	Sweetwater River	-56%
Yellowstone	+08%	Lower North Platte	+15%
Wind River	-21%	Laramie River	+59%
Bighorn	+23%	South Platte	+90%
Shoshone	+22%	Little Snake River	+17%
Powder River	+38%	Upper Green River	-04%
Tongue River	+14%	Lower Green River	-09%
Belle Fourche	+12%	Upper Bear River	-15%
Cheyenne	+44%		

## Streams

Stream flow yield for April to September is expected to be overall near average across Wyoming. Most probable yield for the entire State of Wyoming is forecast to be about 96% (varying from 42-186% of average). The Snake River and Upper Yellowstone & Madison River Basins are expected to yield about 86% and 99% of average, respectively; 86-99% of average for the various forecast points in the basins. Yields from the Wind and Bighorn River Basins are expected to be about 98% and 109% of average, respectively; varying from 57-116% of average in the basins. Yields from the Shoshone and Clarks Fork River Basins of Wyoming are expected to yield about 105% and 108% of average, respectively. Yields from the Powder & Tongue River Basins are expected to be about 141% and 107% of average, respectively; varying from 104-141% of average. Yield for the Cheyenne River Basin is expected to be about 186% of average. Yields for the Upper North Platte, Sweetwater, Lower North Platte, and Laramie Rivers of Wyoming are expected to be about 107%, 42%, 105%, and 106% of average,

respectively; varying from 42-118% of average. Yields for the Little Snake, Green River, and Little Bear of Wyoming are expected to be 109%, 80%, and 87% of average respectively.

## Reservoirs

Reservoir storage varies widely across the state however reservoir storage is at 91% of average for the entire state. Reservoirs in the Wind River Basin are above average at 110%. Reservoirs on the Big Horn are above average at 110%. The Buffalo Bill Reservoir on the Shoshone is above average at 133%. Reservoirs in the northeast are above average in storage at 132%. Reservoirs on the North Platte River are below average at 74%. Reservoirs on the Green River are below average at 94%. See the following table for further information about reservoir storage.

### Major Reservoirs in Wyoming

Feb 1, 2014

BASIN AREA RESERVOIR	CURRENT AS % CAPACITY	LAST YR AS % CAPACITY	AVERAGE AS % CAPACITY	CURRENT AS % AVERAGE	CURRENT AS % LAST YR
WYOMING AND SURROUNDING STATES					
ALCOVA	79	85	84	93	92
ANGOSTURA	79	57	80	98	138
BELLE FOURCHE	79	55	57	140	145
BIG SANDY	22	17	44	50	131
BIGHORN LAKE	68	65	61	111	105
BOYSEN	91	80	85	107	113
BUFFALO BILL	73	67	55	133	109
BULL LAKE	65	51	50	132	129
DEERFIELD	97	99	84	115	97
ENNIS LAKE	70	67	73	97	105
FLAMING GORGE	76	80	81	93	96
FONTENELLE	47	48	44	108	99
GLENDON	59	49	60	99	122
Grassy Lake	88	84	78	113	106
GUERNSEY	20	11	25	81	180
HEBGEN LAKE	82	80	74	111	103
Jackson Lake	24	73	51	46	32
KEYHOLE	81	77	45	180	106
PACTOLA	92	88	83	111	105
Palisades	34	40	65	53	86
PATHFINDER	36	41	55	66	87
PILOT BUTTE	80	78	73	109	102
SEMINOE	31	49	51	61	64
SHADEHILL	76	43	60	126	177
TONGUE RIVER	67	59	34	197	113
VIVA NAUGHTON RES	60	57	71	84	105
WHEATLAND #2	46	22	41	110	203
WOODRUFF NARROWS			NO REPORT		
TOTAL 27 RESERVOIRS	60	63	66	91	94
Raw KAF Totals	Current=7895	Last Year=8392	Average=8704	Capacity=13231	

# BASIN SUMMARY OF SNOTEL and SNOW COURSE DATA

February 2014

SNOW SITE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	NORMAL 81-10
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WYOMING Snow Course and SNOTEL Stations						
ALBANY	9400	1/29/14	36	8.3	2.8	7.9
ARAPAHO RIDGE SNTL	10960	2/01/14	59	15.1	11.1	--
ASTER CREEK	7750	1/28/14	41	12.3	17.8	17.0
BALD MOUNTAIN SNOTEL	9380	2/01/14	61	15.5	8.4	10.8
BASE CAMP	7030	1/29/14	42	11.3	11.7	12.0
BASE CAMP SNOTEL	7030	2/01/14	52	11.7	11.9	10.8
BATTLE MTN. SNOTEL	7440	2/01/14	34	7.6	5.0	7.1
BEARLODGE DIVIDE	4680	1/29/14	8	2.0	1.5	1.5
BEARTOOTH LK. SNOTEL	9280	2/01/14	63	15.1	11.4	13.9
BEAR RIVER RS SNOTEL	8780	2/01/14	28	4.7	5.1	--
BEAR TRAP SNOTEL	8200	2/01/14	31	6.4	5.3	3.4
BIG GOOSE SNOTEL	7760	2/01/14	26	5.5	3.7	4.9
BIG PARK	8620	2/03/14	41	9.7	10.3	10.0
BIG SANDY SNOTEL	9080	2/01/14	35	6.6	7.4	8.2
BLACK BEAR SNOTEL	7950	2/01/14	79	21.5	26.4	23.3
BLACKS FORK JCT SNT	8870	2/01/14	29	4.0	4.2	--
BLACKHALL MTN SNOTEL	9820	2/01/14	81	20.9	14.0	--
BLACKWATER SNOTEL	9780	2/01/14	63	16.9	14.5	14.8
BLIND BULL SNOTEL	8900	2/01/14	64	15.6	12.7	13.8
BLIND PARK SNOTEL	6870	2/01/14	28	6.6	3.9	4.6
BLUE RIDGE	9620	1/28/14	15	4.4	3.6	5.5
BONE SPGS. SNOTEL	9350	2/01/14	53	12.2	8.9	9.8
BROOKLYN LK. SNOTEL	10220	2/01/14	66	16.6	9.2	12.0
BUCK PASTURE SNOTEL	9700	2/01/14	40	6.8	--	--
BUG LAKE SNOTEL	7950	2/01/14	37	9.8	10.1	10.7
BURGESS JCT. SNOTEL	7880	2/01/14	37	8.6	5.0	6.6
BUTTER HILL	7880	1/29/14	37	9.1	6.4	7.9
BURTS-MILLER RANCH S	7860	2/01/14	16	3.8	3.7	3.0
CAMERON PASS	10300	1/30/14	63	17.2	8.6	14.4
CANYON SNOTEL	8090	2/01/14	37	7.8	7.5	8.2
CASPER MTN. SNOTEL	7850	2/01/14	41	11.9	2.2	7.5
CASTLE CREEK SNOTEL	8400	2/01/14	24	4.5	4.6	--
CASTLE CREEK	8400	1/28/14	17	2.9	3.4	2.6
CCC CAMP	7000	1/30/14	33	7.6	7.8	7.2
CHALK CK #1 SNOTEL	9100	2/01/14	46	11.7	11.6	13.4
CHAMBERS LAKE	9000	1/30/14	30	5.4	2.6	4.4
CINNABAR PARK SNOTEL	9690	2/01/14	65	14.6	9.3	13.2
CLOUD PEAK SNOTEL	9850	2/01/14	45	11.6	7.1	8.3
COLE CANYON SNOTEL	5910	2/01/14	23	4.3	2.6	3.2
COLD SPRINGS SNOTEL	9630	2/01/14	28	5.8	5.1	4.5
COLUMBINE SNOTEL	9300	2/01/14	76	19.2	11.4	14.7
COTTONWOOD CR SNOTEL	7700	2/01/14	---	14.3	12.0	12.9
CROW CREEK SNOTEL	8830	2/01/14	20	5.6	2.0	5.7
DARBY CANYON	8250	1/28/14	40	10.8	14.1	14.7
DEADMAN HILL SNOTEL	10200	2/01/14	60	14.1	7.8	10.1
DEEP LAKE			NO REPORT			
DEER PARK SNOTEL	9700	2/01/14	29	5.7	7.9	9.4
DIVIDE PEAK SNOTEL	8860	2/01/14	44	11.4	9.0	12.3
DITCH CREEK	6870	1/30/14	15	2.9	1.1	2.2
DOMELAKE SNOTEL	8880	2/01/14	37	6.5	5.6	6.8

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
DU NOIR	8760	1/29/14	19	4.1	3.9	3.8
EF BLACKS FORK GS SN	9360	2/01/14	30	3.0	9.0	--
EAST RIM DIV SNOTEL	7930	2/01/14	37	8.1	6.8	6.8
ELBO RANCH	7100	1/30/14	32	6.0	6.7	7.2
ELKHART PARK SNOTEL	9400	2/01/14	---	8.4	6.8	7.5
ELK RIVER SNOTEL	8600	2/01/14	50	12.7	8.5	11.2
EVENING STAR SNOTEL	9200	2/01/14	78	21.1	16.6	16.4
FISHER CREEK SNOTEL	9100	2/01/14	80	22.7	23.3	20.6
FOUR MILE MEADOWS	7860	1/30/14	34	6.5	7.4	7.5
FOXPARK	9060	1/29/14	17	3.6	1.1	4.6
GEYSER CREEK	8500	1/29/14	16	3.6	3.4	3.4
GLADE CREEK	7040	1/29/14	45	12.2	13.5	14.8
GRAND TARGHEE SNOTEL	9260	2/01/14	97	27.0	25.6	23.6
GRANITE CRK SNOTEL	6770	2/01/14	43	9.3	9.4	10.6
GRANNIER MEADOWS	8860	1/28/14	22	4.4	4.2	7.6
GRASSY LAKE	7270	1/29/14	56	17.3	16.5	21.1
GRASSY LAKE SNOTEL	7270	2/01/14	73	19.1	18.3	20.3
GRAVE SPRINGS SNOTEL	8550	2/01/14	33	7.7	3.4	4.9
GROS VENTRE SNOTEL	8750	2/01/14	41	8.1	7.8	8.4
GROVER PARK DIVIDE	7000	1/30/14	30	6.8	6.4	6.4
GUNSIGHT PASS SNOTEL	9820	2/01/14	40	9.5	8.3	8.3
HAIRPIN TURN	9480	1/28/14	39	9.7	3.8	8.9
HANSEN S.M. SNOTEL	8360	2/01/14	21	4.7	3.8	4.0
HAMS FORK SNOTEL	7840	2/01/14	28	6.4	6.2	7.1
HASKINS CREEK	8980	1/31/14	73	19.8	12.0	18.2
HOBACK GS	6640	1/29/14	23	5.3	6.5	6.8
HOBBS PARK SNOTEL	10100	2/01/14	36	8.0	6.9	8.0
HUCKLEBERRY DIVIDE	7300	1/28/14	35	9.1	11.6	12.8
INDIAN CREEK SNOTEL	9430	2/01/14	---	12.5	12.5	14.6
JACKPINE CREEK	7350	1/28/14	38	10.8	12.6	13.1
JOE WRIGHT SNOTEL	10000	2/01/14	58	11.6	7.0	13.0
KELLEY R.S. SNOTEL	8180	2/01/14	39	8.6	8.1	9.0
KENDALL R.S. SNOTEL	7740	2/01/14	40	8.4	7.2	7.8
KIRWIN SNOTEL	9550	2/01/14	41	8.9	--	5.9
LAKE CAMP	7780	1/31/14	27	4.6	6.4	6.0
LA PRELE SNOTEL	8380	2/01/14	23	4.7	1.8	5.4
LARSEN CREEK	9020	1/28/14	19	3.6	6.0	6.4
LARSEN CREEK SNOTEL	9020	2/01/14	22	4.5	5.3	--
LEWIS LAKE SNOTEL	7850	2/01/14	70	16.1	19.7	20.0
LIBBY LODGE	8750	1/28/14	34	8.3	3.0	6.3
LITTLE BEAR RUN	6240	1/30/14	18	3.8	1.6	2.6
LITTLE GOOSE SNOTEL	8870	2/01/14	30	6.4	4.4	--
LITTLE SNAKE RIVER	8920	2/01/14	70	17.3	12.1	15.5
LITTLE WARM SNOTEL	9370	2/01/14	35	7.3	6.6	6.4
LOOMIS PARK SNOTEL	8240	2/01/14	---	9.9	8.0	9.5
LUPINE CREEK	7380	2/04/14	23	4.8	6.0	4.8
MADISON PLT SNOTEL	7750	2/01/14	50	12.2	15.8	14.1
MALLO	6420	1/31/14	29	6.9	3.0	4.6
MARQUETTE SNOTEL	8760	2/01/14	23	5.2	3.1	--
MEDICINE LODGE LAKES	9340	1/29/14	37	8.7	5.8	6.4
MIDDLE FORK	7420	1/28/14	11	1.9	.7	3.2
MIDDLE POWDER SNOTEL	7760	2/01/14	41	10.7	5.5	6.3
MORAN	6750	1/29/14	33	7.7	6.6	8.0
MOSS LAKE	9800	2/01/14	62	15.2	6.2	12.0
MOUNT TOM	5560	1/31/14	17	3.5	1.5	2.9
NEVER SUMMER SNOTEL	10280	2/01/14	58	13.3	8.0	--
NEW FORK SNOTEL	8340	2/01/14	32	6.6	5.6	6.8

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
NORRIS BASIN	7500	2/01/14	30	6.1	5.4	6.5
N.E. ENTRANCE SNOTEL	7350	2/01/14	34	7.3	5.0	6.4
NORTH BARRETT CREEK	9400	2/01/14	59	15.4	8.2	12.1
NORTH FRENCH SNOTEL	10130	2/01/14	---	20.5	12.4	16.0
NORTH RAPID CK SNTL	6130	2/01/14	29	6.3	3.7	4.3
NORTH TONGUE	8450	1/29/14	37	8.8	4.6	7.2
OLD BATTLE SNOTEL	9920	2/01/14	72	19.4	15.6	19.1
OLD FAITHFUL	7400	1/30/14	31	7.4	9.5	8.8
ONION GULCH	8780	1/28/14	23	4.7	3.7	4.2
OWL CREEK SNOTEL	8980	2/01/14	20	4.1	3.3	3.1
PARKERS PEAK SNOTEL	9400	2/01/14	66	16.8	14.1	13.0
PHILLIPS BNCH SNOTEL	8200	2/01/14	54	14.3	14.2	16.0
POCKET CREEK	9350	1/28/14	25	6.1	8.5	7.1
POCKET CREEK SNOTEL	9350	2/01/14	35	5.2	7.2	--
POLE MOUNTAIN	8700	1/29/14	30	6.7	2.7	5.4
POWDER RVR.PASS SNTL	9480	2/01/14	45	9.5	7.1	6.5
PURGATORY GULCH	8970	1/31/14	33	7.8	5.4	7.2
RANGER CREEK	8120	1/29/14	22	4.3	4.8	5.4
RAWAH SNOTEL	9020	2/01/14	40	8.8	5.3	--
RENO HILL SNOTEL	8500	2/01/14	42	11.0	2.7	7.7
REUTER CANYON	6280	1/31/14	29	8.6	2.8	5.4
ROACH SNOTEL	9400	2/01/14	50	10.9	7.0	10.0
ROWDY CREEK	8300	1/29/14	37	10.7	8.4	11.4
RYAN PARK	8400	2/01/14	33	8.0	5.0	6.8
SAGE CK BASIN SNTL	7850	2/01/14	29	6.7	6.7	8.4
SALT RIVER SNOTEL	7600	2/01/14	35	7.7	7.0	7.8
SAND LAKE SNOTEL	10050	2/01/14	75	19.1	11.9	16.5
SANDSTONE RS SNOTEL	8150	2/01/14	39	8.1	7.3	8.0
SAWMILL DIVIDE	9260	1/27/14	37	8.7	6.7	8.0
SHELL CREEK SNOTEL	9580	2/01/14	50	11.0	9.0	9.1
SHERIDAN R.S.	7750	1/29/14	15	3.2	2.2	3.5
SNAKE RIVER STATION	6920	1/28/14	38	10.1	10.9	12.7
SNAKE RV STA SNOTEL	6920	2/01/14	50	10.2	9.6	10.9
SNIDER BASIN SNOTEL	8060	2/01/14	40	9.0	6.3	7.5
SNOW KING MTN	7660	1/31/14	32	6.7	7.0	8.8
SOLDIER PARK SNOTEL	8780	2/01/14	20	5.3	2.3	--
SOLDIER PARK	8780	1/30/14	16	2.9	2.9	2.8
SOUR DOUGH	8460	1/30/14	26	4.6	3.3	3.4
SOUTH BRUSH SNOTEL	8440	2/01/14	34	7.6	5.2	7.3
SOUTH PASS SNOTEL	9040	2/01/14	34	7.4	6.4	8.9
SPRING CRK. SNOTEL	9000	2/01/14	61	15.2	13.6	14.4
ST LAWRENCE ALT SNTL	8620	2/01/14	15	3.4	2.2	4.2
SUCKER CREEK SNOTEL	8880	2/01/14	43	10.1	6.6	7.1
SYLVAN LAKE SNOTEL	8420	2/01/14	49	13.4	12.3	13.0
SYLVAN ROAD SNOTEL	7120	2/01/14	36	8.3	6.6	7.8
T CROSS RANCH	7900	1/29/14	20	4.0	2.8	4.0
TETON PASS W.S.	7740	1/31/14	56	15.1	11.9	16.5
THUMB DIVIDE	7980	1/28/14	27	6.6	10.3	10.2
THUMB DIVIDE SNOTEL	7980	2/01/14	36	7.7	11.3	9.6
TIE CREEK SNOTEL	6870	2/01/14	18	4.4	2.4	3.4
TIMBER CREEK SNOTEL	7950	2/01/14	15	3.9	2.2	2.9
TOGWOTEE PASS SNOTEL	9580	2/01/14	64	16.0	13.6	15.0
TOWER SNOTEL	10000	2/01/14	196	29.1	18.1	27.5
TOWNSEND CRK SNOTEL	8700	2/01/14	22	4.0	2.5	5.2
TRIPLE PEAK SNOTEL	8500	2/01/14	60	14.8	11.7	13.3
TURPIN MEADOWS	6900	1/30/14	32	6.1	6.1	6.6
TWENTY-ONE MILE	7150	1/30/14	35	7.4	13.0	10.0

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
TWO OCEAN SNOTEL	9240	2/01/14	75	19.8	18.9	17.6
TYRELL RANGER STA.	8300	1/28/14	21	4.1	3.2	4.4
WEBBER SPRING SNOTEL	9250	2/01/14	59	14.2	11.7	13.7
WHISKEY PARK SNOTEL	8950	2/01/14	---	23.9	13.1	16.0
WHITE MILL SNOTEL	8700	2/01/14	65	17.0	14.8	14.6
WILLOW CREEK SNOTEL	8450	2/01/14	66	17.4	15.6	17.1
WINDY PEAK SNOTEL	7900	2/01/14	19	4.0	1.1	4.2
WOLVERINE SNOTEL	7650	2/01/14	36	9.5	6.8	7.1
WOOD ROCK G.S.	8440	1/27/14	30	5.8	3.4	5.4
ZIRKEL SNOTEL	9340	2/01/14	---	20.6	12.8	--

NOTE: Snow Depth, Water Content, Last Year, Median values in inches of snow/water. Missing snow depth entries indicate the site has no snow depth sensor or the sensor is malfunctioning. Missing data under Median 81-10 indicates the site is relatively new without an established Median.

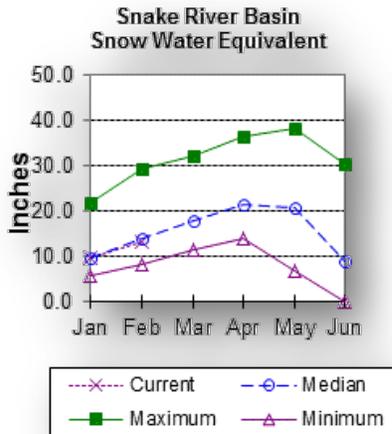
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# Snake River Basin

## Snow

The Snake River Basin snow water equivalent (SWE) is 96% of normal. SWE in the Snake River Basin above Jackson Lake is 87% of normal. Pacific Creek Basin SWE is 108% of normal. Gros Ventre River Basin SWE is 102% of normal. SWE in the Hoback River drainage is 96% of normal. SWE in the Greys River drainage is 108% of normal. In the Salt River area SWE is 105% of normal. SWE in the Snake River Basin above Palisades is 96% of

normal. See the "Basin Summary of Snow Course Data" at the beginning of this report for a detailed listing of snow course information.



## Precipitation

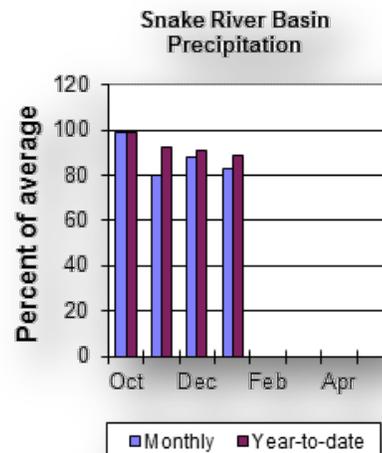
Precipitation across the basin was below average last month. Monthly precipitation for the basin was 83% of average (132% of last year). Last month's percentages range from 53-117% of average for the 27 reporting stations. Water-year-to-date precipitation is 89% of average for the Snake River Basin (92% of last year). Year-to-date percentages range from 61-104% of average.

## Reservoirs

Current reservoir storage is 51% of average for the 3 storage reservoirs in the basin. Grassy Lake storage is about 113% of average (13,400 ac-ft compared to 12,700 last year). Jackson Lake storage is 46% of average (200,200 ac-ft compared to 618,200 ac-ft last year). Palisades Reservoir storage is about 53% of average (482,900 ac-ft compared to 559,400 ac-ft last year). Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The 50% exceedance forecasts for April through September are below average for the basin. The Snake near Moran is 745,000 ac-ft (88% of average). Snake River above reservoir near Alpine is 2,150,000 ac-ft (86% of average). The Snake near Irwin is 3,010,000 ac-ft (86% of average). The Snake near Heise is 3,240,000 ac-ft (86% of average). Pacific Creek near Moran is 170,000 ac-ft (98% of average). Buffalo Fork above Lava near Moran is 310,000 ac-ft (97% of average). Greys River above Palisades Reservoir is 345,000 ac-ft (96% of average). Salt River near Etna is 315,000 ac-ft (85% of average). See the following page for detailed runoff volumes.



### Snake River Basin Streamflow Forecasts - February 1, 2014

SNAKE RIVER BASIN	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						30yr Avg (KAF)
		90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	
Snake R nr Moran <sup>1,2</sup>	APR-JUL	485	610	670	88%	730	855	765
	APR-SEP	535	680	745	88%	810	955	845
Snake R ab Reservoir nr Alpine <sup>1,2</sup>	APR-JUL	1320	1690	1860	86%	2030	2400	2170
	APR-SEP	1530	1960	2150	86%	2340	2770	2500
Snake R nr Irwin <sup>1,2</sup>	APR-JUL	1820	2350	2590	86%	2830	3360	3010
	APR-SEP	2140	2740	3010	86%	3280	3880	3500
Snake R nr Heise <sup>2</sup>	APR-JUL		2500	2770	85%	3040		3240
	APR-SEP		2940	3240	86%	3540		3780
Pacific Ck at Moran	APR-JUL	119	144	161	98%	178	205	164
	APR-SEP	126	152	170	98%	188	215	173
Buffalo Fk ab Lava Ck nr Moran	APR-JUL	215	250	275	98%	300	335	280
	APR-SEP	245	285	310	97%	335	375	320
Greys R ab Reservoir nr Alpine	APR-JUL	205	260	295	97%	330	385	305
	APR-SEP	240	305	345	96%	385	450	360
Salt R ab Reservoir nr Etna	APR-JUL	114	198	255	85%	310	395	300
	APR-SEP	149	250	315	85%	380	480	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

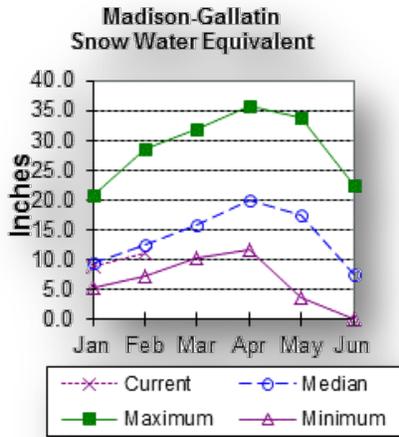
Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
GRASSY LAKE	13.4	12.7	11.9	15.2
JACKSON LAKE	200.2	618.2	431.2	847.0
PALISADES RES NR IRWIN	482.9	559.4	911.2	1400.0
Basin-wide Total	696.4	1190.3	1354.3	2262.2
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
SNAKE above Jackson Lake	9	87%	97%
PACIFIC CREEK	3	108%	103%
BUFFALO FORK	2	102%	91%
GROS VENTRE RIVER	4	102%	94%
HOBACK RIVER	5	96%	91%
GREYS RIVER	5	108%	92%
SALT RIVER	5	105%	95%
SNAKE RIVER BASIN	30	96%	97%

# Madison-Gallatin Rivers Basin

## Snow

Snow water equivalent (SWE) is at 89% of normal in the Madison-Gallatin drainage. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

Last month precipitation in the Madison-Gallatin drainage was about 69% of average. The 6 reporting stations percentages range from 55-90% of average. Water-year-to-date precipitation is about 81% of average, or about 80% of last year. Year to date percentage ranges from 75-86%.

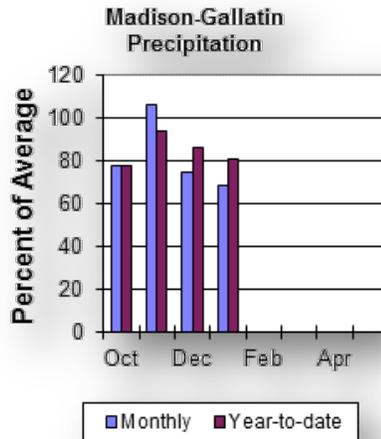
## Reservoirs

Ennis Lake is storing about 28,900 ac-ft of water (70% of capacity, 97% of average or 105% of last year's volume). Hebgen Lake is storing about 311,000 ac-ft of water (82%

of capacity, 111% of average or 103% of last year's volume). Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The 50% exceedance forecast for April through September is below average for the basin. Hebgen Reservoir inflow is 415,000 ac-ft (88% of average). See the following page for detailed runoff volumes.



### Madison-Gallatin River Basins Streamflow Forecasts - February 1, 2014

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	295	325	88%	355	395	370
	APR-SEP	330	380	415	88%	450	500	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

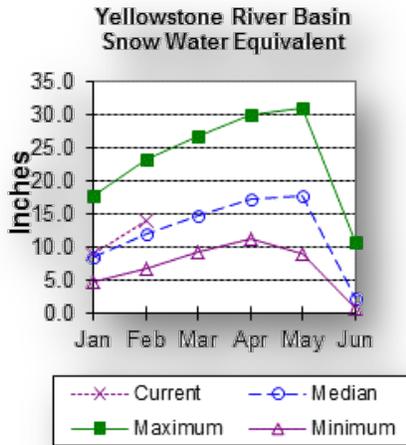
<b>Reservoir Storage End of January, 2014</b>	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
ENNIS LAKE - LOWER MADISON RES	28.9	27.5	29.8	41.0
HEBGEN LAKE	311.0	302.2	279.0	377.5
Basin-wide Total	339.9	329.6	308.8	418.5
# of reservoirs	2	2	2	2

<b>Watershed Snowpack Analysis February 1, 2014</b>	# of Sites	% Median	Last Year % Median
MADISON-GALLATIN RIVER BASINS	8	89%	105%

# Yellowstone River Basin

## Snow

SWE in the Yellowstone River drainage is at 108% of normal. The Clarks Fork of the Yellowstone River drainage in Wyoming SWE is 125% of normal. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

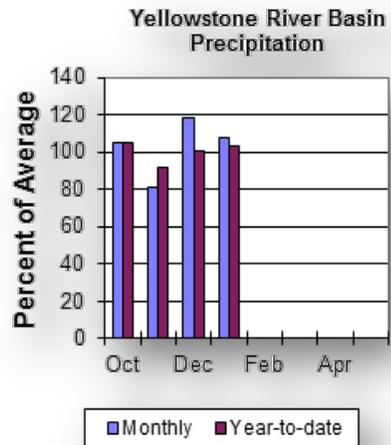
Last month precipitation in the Yellowstone drainage was about 108% of average. The 16 reporting stations percentages range from 53-219% of average. Water-year-to-date precipitation is about 103% of average, which is about 104% of last year. Year to date percentage ranges from 68-154%.

## Reservoirs

No reservoir data for the basin.

## Streamflow

The 50% exceedance forecasts for April through September are near average for the basin. Yellowstone at Lake Outlet is 680,000 ac-ft (88% of average). Yellowstone at Corwin Springs will yield around 1,850,000 ac-ft (98% of average). Yellowstone near Livingston will yield around 2,110,000 ac-ft (99% of average). Clarks Fork of the Yellowstone near Belfry 595,000 ac-ft (108% of average). See the following page for detailed runoff volumes.



## Yellowstone River Basin Streamflow Forecasts - February 1, 2014

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 Yellowstone Lake Outlet								
	APR-JUL	415	475	520	90%	560	620	575
	APR-SEP	545	625	680	88%	735	815	770
Yellowstone R at Corwin Springs								
	APR-JUL	1320	1470	1580	99%	1690	1840	1590
	APR-SEP	1540	1720	1850	98%	1970	2160	1880
Yellowstone R at Livingston								
	APR-JUL	1480	1670	1800	100%	1930	2130	1800
	APR-SEP	1730	1960	2110	99%	2270	2500	2140
Clarks Fk Yellowstone R nr Belfry <sup>2</sup>								
	APR-JUL	450	505	540	106%	580	630	510
	APR-SEP	500	555	595	108%	630	685	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

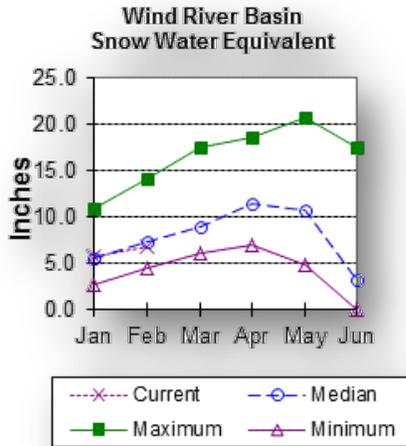
3) Median value used in place of average

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
YELLOWSTONE RIVER in WY	8	108%	106%
CLARKS FORK in WY	8	125%	99%

# Wind River Basin

## Snow

The Wind River Basin above Boysen Reservoir is 92% of normal for snow water equivalent at this time of the year. SWE in the Wind River above Dubois is 106% of normal. The Little Wind SWE is 93% of normal, and the Popo Agie drainage SWE is about 75% of normal. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

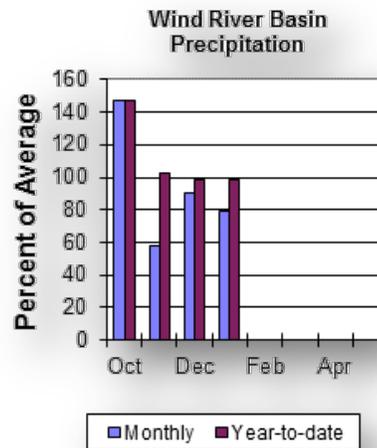
Last month's precipitation in the basin varied from 35-225% of average. Precipitation, for the basin, was about 79% of average from the 14 reporting stations. Water year-to-date precipitation is 98% of average and about 115% of last year at this time. Year-to-date percentages range from 63-226% of average.

## Reservoirs

Current storage in Bull Lake is about 99,400 ac-ft (132% of average) - the reservoir is at 129% of last year. Boysen Reservoir is storing about 107% of average (541,100 ac-ft) - the reservoir is about 113% of last year. Pilot Butte is at 109% of average (25,200 ac-ft) - the reservoir is at 102% of last year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The 50% exceedance forecasts for the April through September runoff period varies but is near average overall. Dinwoody Creek near Burris is 98,000 ac-ft (107% of average). The Wind River above Bull Lake Creek is 515,000 ac-ft (105% of average). Bull Lake Creek near Lenore is 173,000 ac-ft (102% of average). Wind River at Riverton will yield around 560,000 ac-ft (102% of average). Little Popo Agie River near Lander is around 30,000 ac-ft (61% of average). South Fork of Little Wind near Fort Washakie will yield around 70,000 ac-ft (85% of average). Little Wind River near Riverton will yield around 155,000 ac-ft (57% of average). Boysen Reservoir inflow will yield around 650,000 ac-ft (98% of average). See the following page for detailed runoff volumes.



## Wind River Basin Streamflow Forecasts -

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	56	64	70	106%	76	84	66
	APR-SEP	81	91	98	107%	105	115	92
Wind R Ab Bull Lake Ck	APR-JUL	345	425	480	105%	535	615	455
	APR-SEP	375	460	515	105%	570	655	490
Bull Lake Ck nr Lenore	APR-JUL	110	129	142	102%	155	174	139
	APR-SEP	132	157	173	102%	189	215	169
Wind R at Riverton	APR-JUL	300	405	475	100%	550	650	475
	APR-SEP	360	480	560	102%	635	755	550
Little Popo Agie R nr Lander	APR-JUL	3.6	16.6	25	60%	34	47	42
	APR-SEP	7.1	21	30	61%	40	53	49
SF Little Wind R nr Fort Washakie	APR-JUL	39	53	62	86%	72	86	72
	APR-SEP	44	59	70	85%	81	96	82
Little Wind R nr Riverton	APR-SEP	55	109	178	60%	245	345	295
	APR-JUL	40	92	155	57%	220	310	270
Boysen Reservoir Inflow	APR-JUL	171	410	575	94%	740	980	610
	APR-SEP	215	475	650	98%	825	1090	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

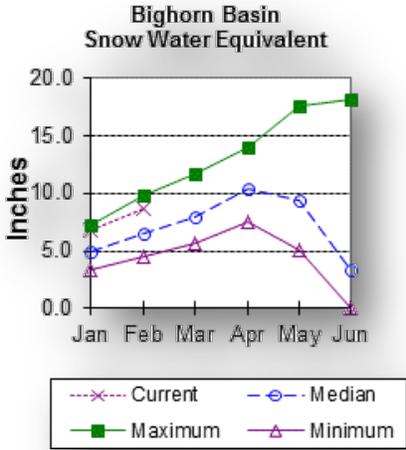
Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
BULL LAKE	99.4	77.3	75.4	151.8
BOYSEN	541.1	477.4	506.0	596.0
PILOT BUTTE	25.2	24.8	23.2	31.6
Basin-wide Total	665.7	579.5	604.6	779.4
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
WIND above Dubois	6	106%	90%
LITTLE WIND	2	93%	90%
POPO AGIE	7	75%	67%
WIND RIVER BASIN	17	92%	81%

# Bighorn River Basin

## Snow

The Bighorn River Basin SWE above Bighorn Reservoir is at 134% of normal. The Nowood River is at 143% of normal. The Greybull River SWE is at 145% of normal. Shell Creek SWE is 123% of normal. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

Last month's precipitation was 123% of average. Sites ranged from 43-214% of average for the month. Year-to-date precipitation is 121% of average; that is 132% of last year at this time. Year-to-date percentages, from the 16 reporting stations, range from 96-181%.

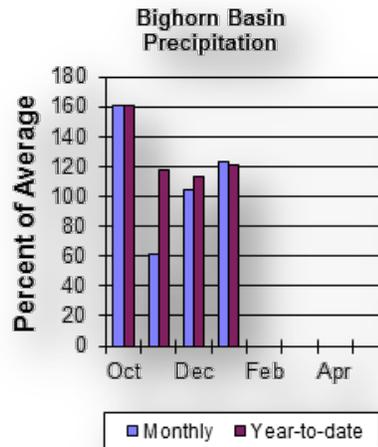
## Reservoirs

Boysen Reservoir is currently storing 541,100 ac-ft (107% of average). Bighorn Lake is now at 917,400 ac-ft (111%

of average). Boysen is currently storing 113% of last year volume at this time and Big Horn Lake is storing 105% of last year's volume. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The 50% exceedance forecasts for the April through September runoffs are anticipated to be above average. Boysen Reservoir inflow should yield 650,000 ac-ft (98% of average); the Greybull River near Meeteetse should yield around 205,000 ac-ft (116% of average); Shell Creek near Shell should yield around 70,000 ac-ft (106% of average) and the Bighorn River at Kane should yield around 985,000 ac-ft (109% of average). See the following page for detailed runoff volumes.



## Bighorn River Basin Streamflow Forecasts - February 1, 2014

 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	171	410	575	94%	740	980	610
	APR-SEP	215	475	650	98%	825	1090	665
Greybull R nr Meeteetse	APR-JUL	116	137	151	115%	165	186	131
	APR-SEP	162	188	205	116%	225	250	177
Shell Ck nr Shell	APR-JUL	43	52	58	105%	64	73	55
	APR-SEP	54	63	70	106%	77	87	66
Bighorn R at Kane	APR-JUL	370	680	890	106%	1100	1410	840
	APR-SEP	430	760	985	109%	1210	1540	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

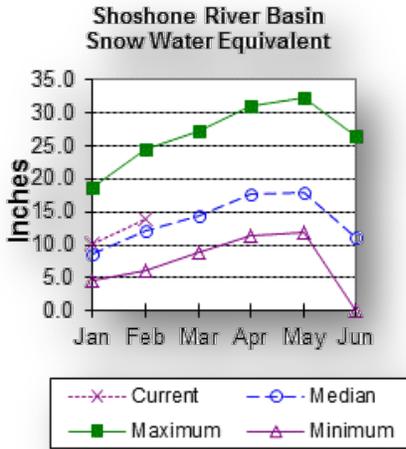
Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
BOYSEN	541.1	477.4	506.0	596.0
BIGHORN LAKE	917.4	875.8	825.9	1356.0
Basin-wide Total	1458.5	1353.2	1331.9	1952.0
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
NOWOOD RIVER	7	143%	94%
GREYBULL RIVER	2	145%	100%
SHELL CREEK	4	123%	89%
BIGHORN RIVER BASIN	14	134%	93%

# Shoshone River Basin

## Snow

Snowpack in this basin is above normal for this time of year. Snow Water Equivalent (SWE) is 115% of normal in the Shoshone River Basin. See the "Basin Summary of Snow Course Data" at the front of this report for details.



## Precipitation

Precipitation for last month was 122% of average (146% of last year). Monthly percentages range from 86-338% of average. The basin year-to-date precipitation is now 116% of average (115% of last year). Year-to-date percentages range from 92-300% of average for the 10 reporting stations.

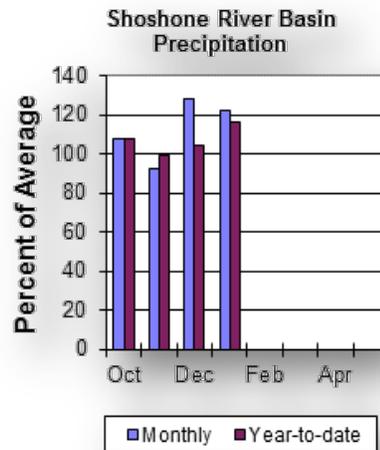
## Reservoirs

Current storage in Buffalo Bill Reservoir is about 133% of average (109% of last year's storage) - the reservoir is at about 73% of capacity. Currently, about 470,900 ac-ft are

stored in the reservoir compared to 430,200 ac-ft last year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The 50% exceedance forecasts for the April through September period are expected to be above average for the basin. The North Fork Shoshone River at Wapiti is 535,000 ac-ft (104% of average). The South Fork of the Shoshone River near Valley is 265,000 ac-ft (108% of average), and the South Fork above Buffalo Bill Reservoir runoff is 220,000 ac-ft (110% of average). The Buffalo Bill Reservoir inflow is expected to yield around 785,000 ac-ft (105% of average). See the following page for detailed runoff volumes.



## Shoshone River Basin Streamflow Forecasts - February 1, 2014

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	395	445	480	104%	515	565	460
	APR-SEP	445	500	535	104%	575	625	515
SF Shoshone R nr Valley	APR-JUL	188	215	230	107%	245	270	215
	APR-SEP	220	245	265	108%	285	310	245
SF Shoshone R ab Buffalo Bill Reservoir	APR-JUL	142	182	210	109%	240	280	193
	APR-SEP	148	191	220	110%	250	290	200
Buffalo Bill Reservoir Inflow <sup>2</sup>	APR-JUL	570	650	710	105%	765	850	675
	APR-SEP	635	725	785	105%	845	935	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

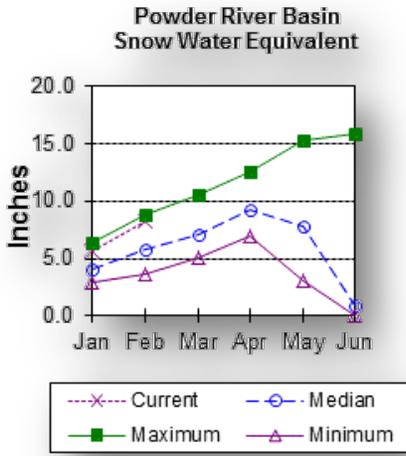
Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
BUFFALO BILL	470.9	430.2	353.8	646.6
Basin-wide Total	470.9	430.2	353.8	646.6
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
SHOSHONE RIVER BASIN	4	115%	96%

# Powder River Basin

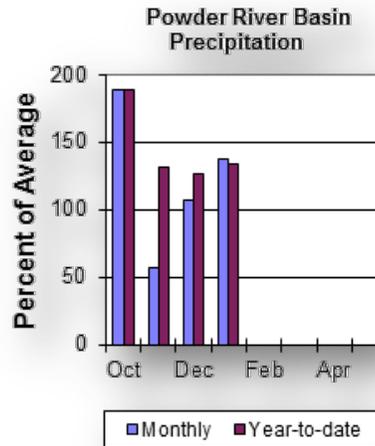
## Snow

Snow water equivalent (SWE) in the Powder River drainage is 143% of normal. Upper Powder River drainage SWE is 154% of normal. SWE in the Clear Creek drainage is 129% of normal. Crazy Woman Creek drainage is 133% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Last month's precipitation was 138% of average for the 9 reporting stations. Monthly percentages range from 53-220% of average. Year-to-date precipitation is 134% of average in the basin; this is 138% of last year at this time. Precipitation for the year ranges from 125-178% of average.



## Reservoirs

No reservoir data for the basin.

## Streamflow

The 50% exceedance forecasts for the April through September period are expected to be above average for the basin. The Middle Fork of the Powder River near Barnum is 23,000 ac-ft (135% of average). The North Fork of the Powder River near Hazelton should yield around 14,000 ac-ft (141% of average). Rock Creek near Buffalo will yield about 26,000 ac-ft (118% of average), and Piney Creek at Kearny should yield about 50,000 ac-ft (106% of average). The Powder River at Moorhead is 270,000 ac-ft (138% of average). The Powder River near Locate is 310,000 ac-ft (141% of average). See the following page for detailed runoff volumes.

**Powder River Basin  
Streamflow Forecasts - February 1, 2014**

Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast
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<b>POWDER RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
MF Powder R nr Barnum	APR-JUL	16.3	19.7	22	137%	24	28	16.1
	APR-SEP	17.1	21	23	135%	25	29	17
NF Powder R nr Hazelton	APR-JUL	10.6	12.1	13.1	144%	14.1	15.6	9.1
	APR-SEP	11.4	12.9	14	141%	15.1	16.6	9.9
Rock Ck nr Buffalo	APR-JUL	16.2	19.8	22	118%	25	28	18.6
	APR-SEP	19.7	24	26	118%	29	33	22
Piney Ck at Kearny	APR-JUL	24	37	46	105%	55	68	44
	APR-SEP	28	41	50	106%	59	72	47
Powder R at Moorehead	APR-JUL	145	205	245	138%	285	345	177
	APR-SEP	167	230	270	138%	310	375	196
Powder R nr Locate	APR-JUL	156	230	280	141%	330	405	199
	APR-SEP	177	255	310	141%	365	445	220

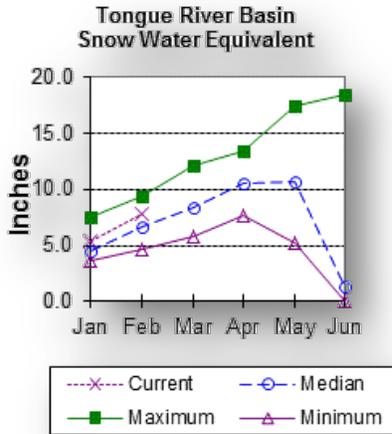
- 1) 90% and 10% exceedance probabilities are actually 95% and 5%
- 2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions
- 3) Median value used in place of average

<b>Watershed Snowpack Analysis February 1, 2014</b>	# of Sites	% Median	Last Year % Median
UPPER POWDER RIVER	5	154%	99%
CLEAR CREEK	4	129%	92%
CRAZY WOMAN CREEK	3	133%	100%
POWDER RIVER BASIN	9	143%	96%

# Tongue River Basin

## Snow

Snow water equivalent (SWE) in the Upper Tongue River drainage is 119% of normal. The Goose Creek drainage is 105% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

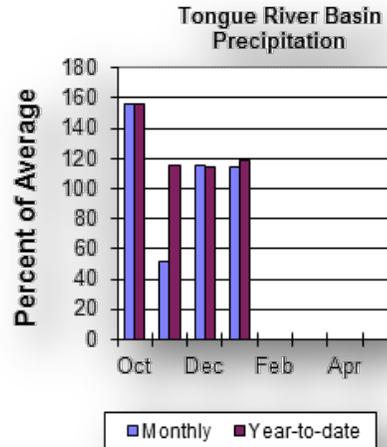
Last month's precipitation was 114% of average for the 9 reporting stations. Monthly percentages range from 75-174% of average. Year-to-date precipitation is 119% of average in the basin; this is 153% of last year at this time. Precipitation for the year ranges from 82-217% of average.

## Reservoirs

The Tongue River Reservoir currently is 197% of average for this time of year.

## Streamflow

The 50% exceedance forecasts for the April through September period are expected to be above average for the basin. The yield for Tongue River near Dayton is 105,000 ac-ft (107% of average). Big Goose Creek near Sheridan is 56,000 ac-ft (104% of average). Little Goose Creek near Bighorn is 41,000 ac-ft (105% of average). The Tongue River Reservoir Inflow is 230,000 ac-ft (107% of average). See the following page for detailed runoff volumes.



### Tongue River Basin Streamflow Forecasts - February 1, 2014

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	60	79	91	106%	104	123	86
	APR-SEP	71	91	105	107%	118	138	98
Big Goose Ck nr Sheridan	APR-JUL	29	41	48	104%	56	67	46
	APR-SEP	37	48	56	104%	64	76	54
Little Goose Ck nr Bighorn	APR-JUL	20	28	33	106%	38	45	31
	APR-SEP	27	35	41	105%	46	54	39
Tongue River Reservoir Inflow	APR-JUL	98	162	205	106%	250	310	193
	APR-SEP	120	187	230	107%	280	345	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

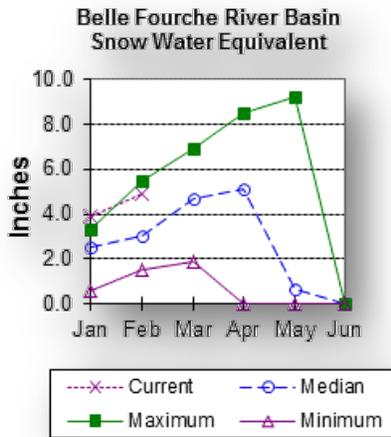
Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
TONGUE RIVER RES	52.7	46.6	26.7	79.1
Basin-wide Total	52.7	46.6	26.7	79.1
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
GOOSE CREEK	3	105%	81%
TONGUE RIVER BASIN	9	119%	79%

# Belle Fourche River Basin

## Snow

The Belle Fourche River Basin SWE is 161% of normal at this time of year. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Precipitation for last month was 112% of average or 109% of last year in the Black Hills. There were 5 reporting stations. Year-to-date precipitation is 175% of average and 241% of last year's amount.

## Reservoirs

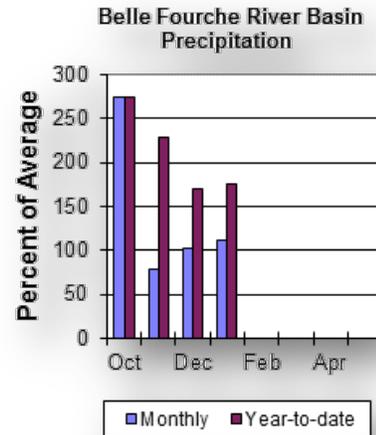
Belle Fourche reservoir is storing 140% of average (141,700 ac-ft), about 79% of capacity. Keyhole reservoir is storing 180% of average (157,900 ac-ft), about 81% of capacity.

Shadehill reservoir is storing 126% of

average (61,700 ac-ft), about 76% of capacity. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

There are no streamflow forecast points for the basin.



**Belle Fourche River Basin - February 1, 2014**

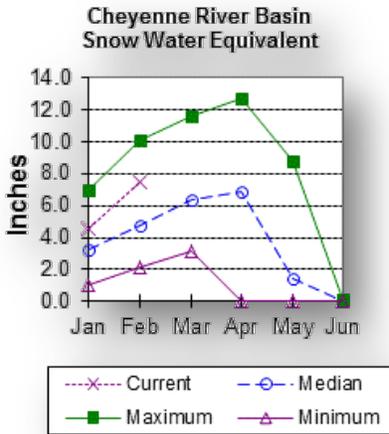
<b>Reservoir Storage End of January, 2014</b>	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
BELLE FOURCHE	141.7	97.9	110.5	178.4
KEYHOLE	157.9	148.8	87.9	193.8
SHADEHILL	61.7	34.8	42.8	81.4
Basin-wide Total	361.3	281.4	241.2	453.6
# of reservoirs	3	3	3	3

<b>Watershed Snowpack Analysis February 1, 2014</b>	# of Sites	% Median	Last Year % Median
BELLE FOURCHE RIVER BASIN	6	161%	66%

# Cheyenne River Basin

## Snow

The Cheyenne River Basin SWE is 157% of normal at this time of year. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Precipitation for last month was 144% of average or 95% of last year in the Black Hills. There were 5 reporting stations. Year-to-date precipitation is 175% of average and 200% of last year's amount.

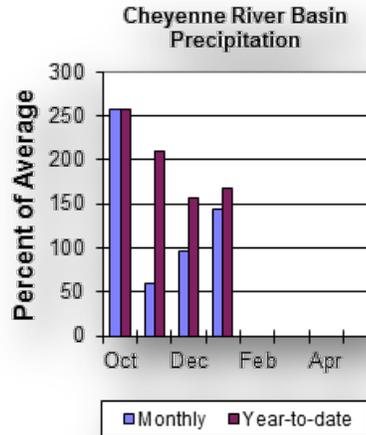
## Reservoirs

Angostura is currently storing 98% of average (96,000 ac-ft), about 79% of capacity. Deerfield reservoir is storing 115% of average (14,700 ac-ft), about 97% of capacity. Pactola reservoir is storing 111% of average (50,800 ac-ft), about 92% of capacity. Detailed reservoir data is shown on the following page and on the reservoir storagesummary at the beginning

of this report.

## Streamflow

The following runoff values are the 50% exceedance forecasts for the April through July period. The Deerfield Reservoir Inflow is expected to be 9,000 ac-ft (173% of average). Pactola Reservoir Inflow is expected to yield around 41,000 ac-ft (186% of average). See the following page for detailed runoff volumes.



**Cheyenne River Basin  
Streamflow Forecasts - February 1, 2014**

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

<b>CHEYENNE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Deerfield Reservoir Inflow	MAR-JUL	6.3	8.7	10.4	168%	12.1	14.5	6.2
	APR-JUL	5.4	7.4	9	173%	10.7	13.5	5.2
Pactola Reservoir Inflow	MAR-JUL	27	38	46	184%	38	65	25
	APR-JUL	21	32	41	186%	32	67	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

<b>Reservoir Storage End of January, 2014</b>	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
ANGOSTURA	96.0	69.7	83.2	122.1
DEERFIELD	14.7	15.1	13.7	15.2
PACTOLA	50.8	48.4	45.5	55.0
Basin-wide Total	161.5	133.3	142.4	192.3
# of reservoirs	3	3	3	3

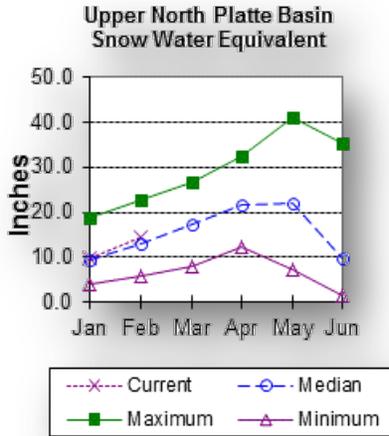
<b>Watershed Snowpack Analysis February 1, 2014</b>	# of Sites	% Median	Last Year % Median
CHEYENNE RIVER BASIN	7	157%	70%

# Upper North Platte River Basin

## Snow

The sites above Seminoe Reservoir are showing about 113% of normal (SWE) for this time of the year. SWE in the drainage area above Northgate is 111% of normal at this time. SWE in the Encampment River drainage is about 117% of normal. Brush Creek SWE for the year is about 123% of normal. Medicine Bow and Rock Creek drainages SWE are about 120% of normal.

For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

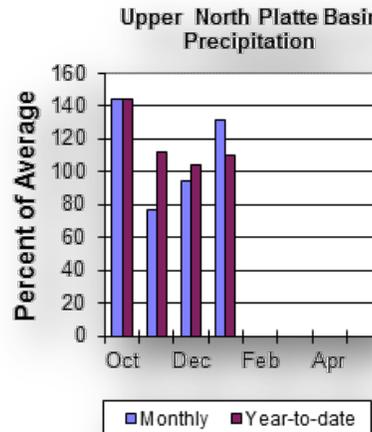
Twelve reporting stations show last month's precipitation at 132% of average. Precipitation varied from 51-182% of average last month. Total water-year-to-date precipitation is about 110% of average for the basin, which is about 144% of last year's amount. Year to date percentage ranges from 63-126% of average.

## Reservoirs

Seminoe Reservoir is estimated to be storing 316,800 ac-ft or 31% of capacity. Seminoe Reservoir is also storing about 61% of average for this time of the year and 64% of last year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The following yields are the 50% exceedance forecasts for the April through September period and are expected to be near average for the Upper North Platte River Basin. Yield for the North Platte River near Northgate will be around 285,000 ac-ft (114% of average). The Encampment River near Encampment is 145,000 ac-ft (105% of average). Rock Creek near Arlington is 59,000 ac-ft (113% of average). Seminoe Reservoir inflow should be around 825,000 ac-ft (107% of average). See the following table for more detailed information on projected runoff.



### Upper North Platte River Basin Streamflow Forecasts - February 1, 2014

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	142	210	260	116%	305	375	225
	APR-SEP	156	235	285	114%	335	415	250
Encampment R nr Encampment <sup>2</sup>	APR-JUL	90	117	136	105%	155	182	129
	APR-SEP	97	126	145	105%	164	193	138
Rock Ck nr Arlington	APR-JUL	39	49	56	114%	63	73	49
	APR-SEP	41	52	59	113%	66	77	52
Sweetwater R nr Alcova	APR-JUL	5	9.5	24	41%	39	61	59
	APR-SEP	6	11.2	27	42%	42	66	64
Seminole Reservoir Inflow	APR-JUL	360	600	765	107%	930	1170	715
	APR-SEP	385	645	825	107%	1000	1260	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

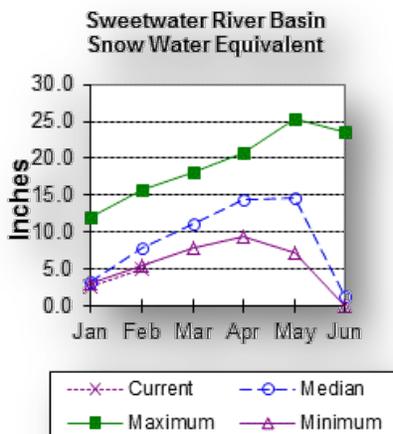
<b>Reservoir Storage End of January, 2014</b>	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
SEMINOE	316.8	496.5	520.8	1016.7
Basin-wide Total	316.8	496.5	520.8	1016.7
# of reservoirs	1	1	1	1

<b>Watershed Snowpack Analysis February 1, 2014</b>	# of Sites	% Median	Last Year % Median
N PLATTE above Northgate	11	111%	70%
ENCAMPMENT RIVER	4	117%	82%
BRUSH CREEK	5	123%	68%
MEDICINE BOW & ROCK CREEKS	2	120%	64%
UPPER NORTH PLATTE RIVER BASIN	24	113%	72%

# Sweetwater River Basin

## Snow

SWE for the Sweetwater River Basin is at 65% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Last month's precipitation was 44% of average. The water year-to-date precipitation for the basin is currently 83% of average. Year-to-date percentages range from 62-181% of average.

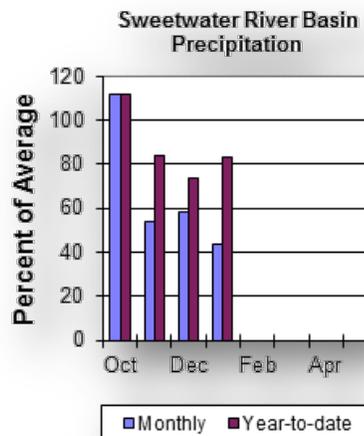
## Reservoirs

Reservoir storage is as follows: Pathfinder 368,300 ac-ft (66% of average).

## Streamflow

The

following yield is based on the 50% exceedance forecast for the April through September period, and is expected to be well below average. The Sweetwater River near Pathfinder is forecast to yield about 27,000 ac-ft (42% of average). See the following table for more detailed information on projected runoff.



### Sweetwater River Basin Streamflow Forecasts - February 1, 2014

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 River Alcova								
	APR-JUL	5	9.5	24	41%	39	61	59
	APR-SEP	6	11.2	27	42%	42	66	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

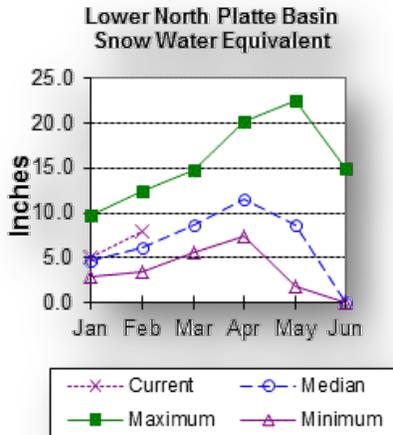
Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
PATHFINDER	368.3	421.0	559.0	1016.5
Basin-wide Total	368.3	421.0	559.0	1016.5
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
SWEETWATER RIVER BASIN	4	65%	76%

# Lower North Platte River Basin

## Snow

SWE for the Laramie Range Mts. is at 127% of normal. Deer and LaPrele Creek SWE are at 118% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

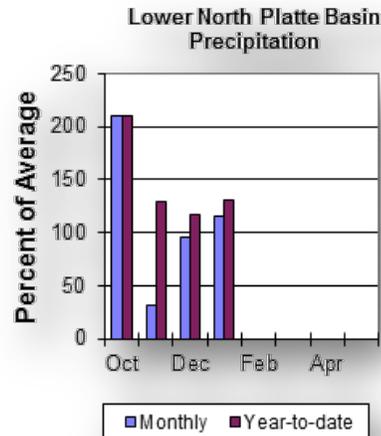
Last month's precipitation was 115% of average. Of the 6 reporting stations, percentages for the month range from 57-145%. The water year-to-date precipitation for the basin is currently 131% of average (266% of last year). Year-to-date percentages range from 88-182% of average.

## Reservoirs

Reservoir storage is as follows: Alcova 144,900 ac-ft (93% of average); Glendo 299,900 ac-ft (99% of average); Guernsey 9,200 ac-ft (81% of average); Pathfinder 368,300 ac-ft (66% of average).

## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through September period, and are expected to be slightly above average. North Platte - Alcova to Orin Gain is forecast to yield 18,000 ac-ft. La Prele Creek above La Prele Reservoir 20,000 ac-ft (101% of average). North Platte River below Glendo Reservoir is 870,000 ac-ft (102% of average), and below Guernsey Reservoir is anticipated to yield around 890,000 ac-ft (105% of average). See the following table for more detailed information on projected runoff.



**Lower North Platte River Basin  
Streamflow Forecasts - February 1, 2014**

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

<b>LOWER NORTH PLATTE RIVER BASIN</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
North Platte R - Alcova to Orin Gain	APR-JUL	-87	-5	51	100%	107	189	51
	APR-SEP	-118	-40	18	90%	76	161	20
La Prele Creek ab La Prele Reservoir	APR-JUL	0.8	28	20	101	12.2	39	19.9
	APR-SEP	0.96	28	20	101	12.4	40	19.9
North Platte R bl Glendo Reservoir	APR-JUL	575	735	840	102%	945	1100	820
	APR-SEP	590	760	870	102%	980	1150	850
North Platte R bl Guernsey Reservoir	APR-JUL	530	725	860	105%	990	1190	820
	APR-SEP	550	750	890	105%	1030	1230	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

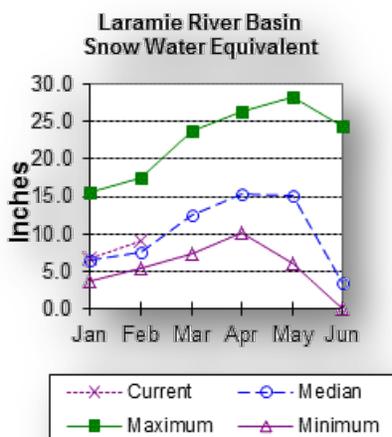
<b>Reservoir Storage End of January, 2014</b>	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
ALCOVA	144.9	156.8	155.0	184.3
GLENDO	299.9	245.8	301.5	506.4
GUERNSEY	9.2	5.1	11.4	45.6
PATHFINDER	368.3	421.0	559.0	1016.5
Basin-wide Total	822.3	828.7	1026.9	1752.8
# of reservoirs	4	4	4	4

<b>Watershed Snowpack Analysis February 1, 2014</b>	# of Sites	% Median	Last Year % Median
DEER & LaPRELE CREEKS	2	118%	34%
LOWER NORTH PLATTE RIVER BASIN	4	127%	31%

# Laramie River Basin

## Snow

SWE for the Laramie River above Laramie is 119% of normal. SWE for the Little Laramie River is 119% of normal. The SWE total for the entire Laramie River Basin (above mouth entering North Platte) is 118% of normal. SWE total for the entire North Platte River Basin is at 111% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

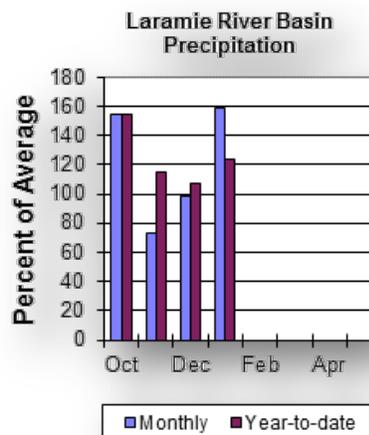
Last month's precipitation was 159% of average or 276% of last year's amount. For the 12 reporting stations, percentages for the month range from 114-244%. The water year-to-date precipitation for the basin is currently 124% of average (178% of last year). Year-to-date percentages range from 99-202% of average.

## Reservoirs

Reservoir storage is as follows: Wheatland #2 45,100 ac-ft (110% of average).

## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through September period, and are expected to be above average. Laramie River near Woods Landing should yield around 134,000 ac-ft (106% of average). The Little Laramie near Filmore should produce about 65,000 ac-ft (118% of average). See the following table for more detailed information on projected runoff.



## Laramie River Basin

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	82	105	121	105%	137	160	115
	APR-SEP	91	116	134	106%	151	176	126
Little Laramie R nr Filmore								
	APR-JUL	41	52	60	118%	68	79	51
	APR-SEP	44	57	65	118%	73	86	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

LARAMIE RIVER BASIN	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
WHEATLAND #2	45.1	22.2	40.9	98.9	46%	22%	41%	110%	54%
Basin-wide Total	45.1	22.2	40.9	98.9	46%	22%	41%	110%	54%
# of reservoirs	1	1	1	1	1	1	1	1	1

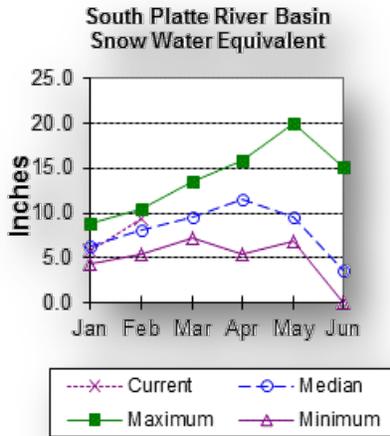
## Laramie River Basin - February 1, 2014

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
LARAMIE RIVER abv Laramie	7	119%	61%
LITTLE LARAMIE RIVER	5	119%	58%
LARAMIE RIVER BASIN	13	118%	58%
NORTH PLATTE TOTAL RIVER BASIN	38	111%	68%

# South Platte River Basin

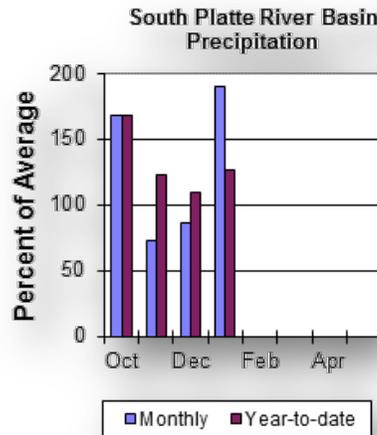
## Snow

SWE for the South Platte River Basin is at 115% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

Last month's precipitation was 190% of average. The water year-to-date precipitation for the basin is currently 126% of average (186% of last year). Year-to-date percentages range from 116-181% of average.



## Reservoirs

No reservoir data for the basin.

## Streamflow

There are no streamflow forecast points for the basin.

Data Current as of: 2/6/2014 11:04:06 AM

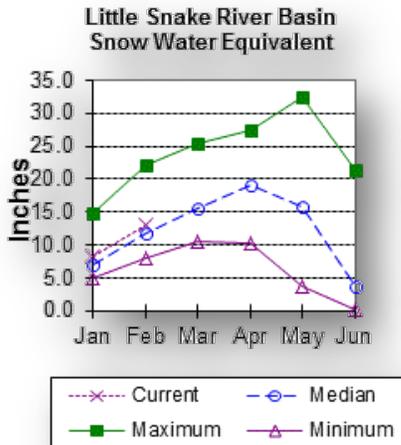
### South Platte River Basin - February 1, 2014

<b>Watershed Snowpack Analysis February 1, 2014</b>	<b># of Sites</b>	<b>% Median</b>	<b>Last Year % Median</b>
SOUTH PLATTE RIVER BASIN	8	115%	63%

# Little Snake River Basin

## Snow

Currently, snow water equivalent (SWE) in the Little Snake River drainage is 110% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

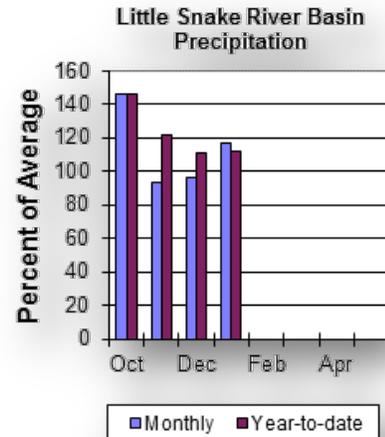
Precipitation across the basin was 117% of average for the 9 reporting stations. Last month's precipitation ranged from 44-158% of average. The Little Snake River basin water-year-to-date precipitation is currently 112% of average (147% of last year). Year-to-date percentages range from 85-143% of average.

## Reservoirs

High Savery Dam - 7,100 ac-ft (55% of average).

## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through July period, and are expected to be above average. The Little Snake River near Slater should yield around 175,000 ac-ft (112% of average). The Little Snake River near Dixon is estimated to yield around 375,000 ac-ft (109% of average). See the following table for more detailed information on projected runoff.



### Little Snake River Basin Streamflow Forecasts - February 1, 2014

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	122	152	175	112%	199	235	156
Little Snake R nr Dixon <sup>2</sup>	APR-JUL	225	310	375	109%	445	560	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

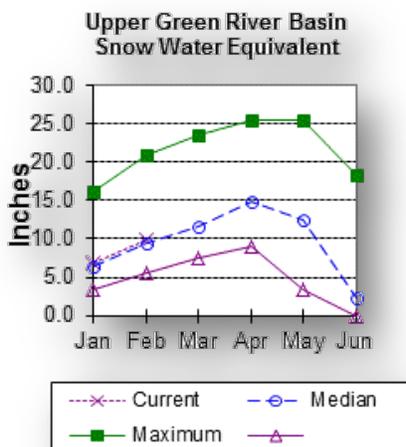
<b>Reservoir Storage End of January, 2014</b>	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
HIGH SAVERY RESERVOIR	7.1	7.1	11.9	22.4
Basin-wide Total	7.1	7.1	11.9	22.4
# of reservoirs	1	1	1	1

<b>Watershed Snowpack Analysis February 1, 2014</b>	# of Sites	% Median	Last Year % Median
LITTLE SNAKE RIVER BASIN	10	110%	77%

# Upper Green River Basin

## Snow

SWE in the Upper Green River Basin above Fontenelle Reservoir is about 104% of normal. SWE in the Green River Basin above Warren Bridge is about 108% of normal. SWE for the West Side of Upper Green River Basin is about



108% of normal. New Fork River SWE is now about 99% of normal. Big Sandy-Eden Valley Basin is 70% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

## Precipitation

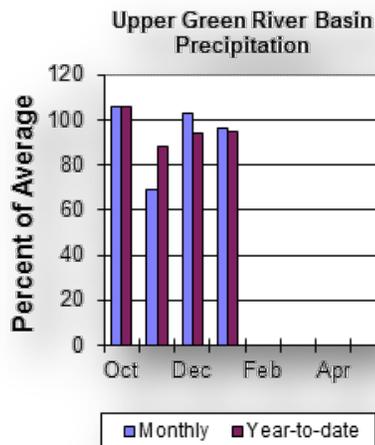
The 13 reporting precipitation sites in the basin were 96% of average last month (160% of last year). Last month's precipitation varied from 62-127% of average. Water year-to-date precipitation is about 95% of average (108% of last year). Year to date percentage of average ranges from 75-104% for the reporting stations.

## Reservoir

Storage in Big Sandy Reservoir is 8,500 ac-ft, or 22% of capacity and 50% of average. Fontenelle Reservoir is 162,100 ac-ft or 47% of capacity and 108% of average. Together this is 102% of average for the Upper Green River basin. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through July period, and are expected to be below average. The yield on the Green River at Warren Bridge is 215,000 ac-ft (88% of average). Pine Creek above Fremont Lake is 93,000 ac-ft (95% of average). New Fork River near Big Piney is 300,000 ac-ft (85% of average). Fontenelle Reservoir Inflow is estimated to be 635,000 ac-ft (88% of average), and Big Sandy near Farson is expected to be around 38,000 ac-ft (73% of average). See the following table for more detailed information on projected runoff.



## Upper Green River Basin Streamflow Forecasts - February 1, 2014

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	156	190	215	88%	240	285	245
Pine Creek ab Fremont Lake	APR-JUL	77	86	93	95%	100	111	98
New Fork R nr Big Piney	APR-JUL	171	245	300	85%	365	465	355
Fontenelle Reservoir Inflow	APR-JUL	355	510	635	88%	770	1000	725
Big Sandy R nr Farson	APR-JUL	22	31	38	73%	45	58	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

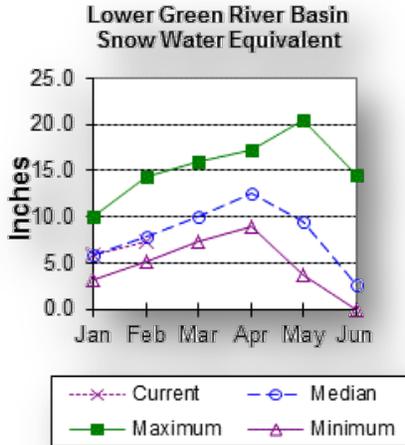
Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
BIG SANDY	8.5	6.5	17.0	38.3
FONTENELLE	162.1	164.4	150.1	344.8
Basin-wide Total	170.6	170.9	167.1	383.1
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
GREEN above Warren Bridge	5	108%	93%
UPPER GREEN - West Side	5	108%	87%
NEWFORK RIVER	3	99%	98%
BIG SANDY-EDEN VALLEY	2	70%	92%
GREEN above Fontenelle	15	104%	92%

# Lower Green River Basin

## Snow

SWE in the Lower Green River Basin is 93% of normal. SWE in the Hams Fork drainage is 91% of normal. Blacks Fork drainage SWE is currently 86% of normal. In the Henrys Fork drainage SWE is 115%. SWE for the entire Green River Basin (above Flaming Gorge) is 101% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

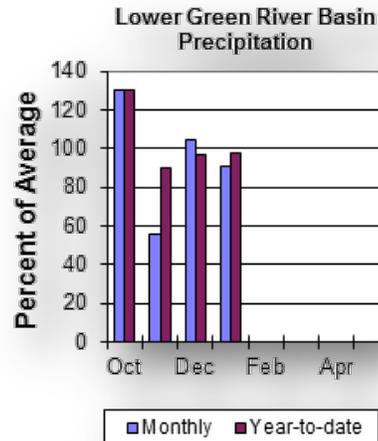
Precipitation for the 13 reporting stations during last month was at 91% of average or 160% of last year. Precipitation ranged from 15-109% of average for the month. The basin year-to-date precipitation is currently 98% of average (113% of last year). Year-to-date percentages range from 75-220% of average.

## Reservoirs

Fontenelle Reservoir is currently storing 162,100 ac-ft; this is 108% of average (99% of last year). Flaming Gorge is currently storing 2,849,300 ac-ft; this is 93% of average (96% of last year). Viva Naughton is currently storing 25,400 ac-ft, 84% of average or 60% of capacity. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The following yields are based on the 50% exceedance forecasts for the April through July period, and are expected to be below average. The Green River near Green River is forecast to yield about 635,000 ac-ft (87% of average). The Blacks Fork near Robertson is forecast to yield 74,000 ac-ft (83% of average). East Fork of Smiths Fork near Robertson is forecast to yield 24,000 ac-ft (89% of average). Hams Fork below Pole Creek near Frontier is forecast to be 41,000 ac-ft (76% of average). The Hams Fork Inflow to Viva Naughton Reservoir is forecast to be 53,000 ac-ft (72% of average). The Flaming Gorge Reservoir inflow will be about 780,000 ac-ft (80% of average). See the following table for more detailed information on projected runoff.



### Lower Green River Basin Streamflow Forecasts - February 1, 2014

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 <sup>2</sup>	APR-JUL	340	505	635	87%	780	1020	730
Blacks Fk nr Robertson	APR-JUL	46	62	74	83%	87	109	89
EF of Smiths Fork nr Robertson <sup>2</sup>	APR-JUL	14.8	20	24	89%	28	35	27
Hams Fk bl Pole Ck nr Frontier	APR-JUL	19.8	32	41	76%	52	70	54
Viva Naughton Reservoir Inflow	APR-JUL APR-SEP	22	39	53	72%	69	98	74
Flaming Gorge Reservoir Inflow <sup>2</sup>	APR-JUL	370	595	780	80%	990	1340	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

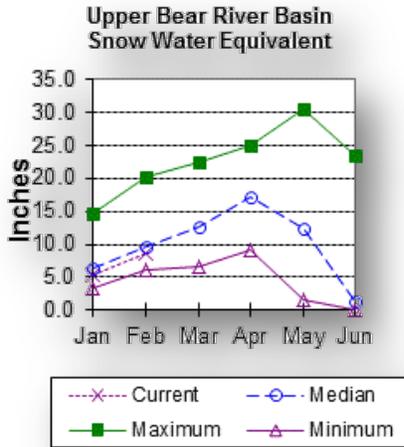
Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
FONTENELLE	162.1	164.4	150.1	344.8
FLAMING GORGE RESERVOIR	2849.3	2982.8	3049.0	3749.0
VIVA NAUGHTON RES	25.4	24.2	30.1	42.4
Basin-wide Total	3036.8	3171.4	3229.2	4136.2
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
HAMS FORK RIVER	4	91%	91%
BLACKS FORK	2	86%	85%
HENRYS FORK	2	115%	114%
GREEN above FLAMING GORGE	22	101%	92%

# Upper Bear River Basin

## Snow

Snow water equivalent (SWE) in the Upper Bear River Basin in Utah is estimated to be 90% of normal. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is at 97% of normal. Bear River Basin SWE, above the Idaho State line, is 90% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



## Precipitation

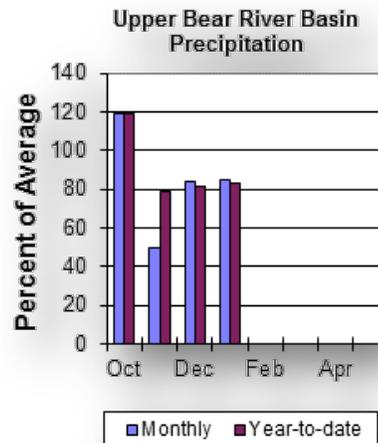
Precipitation for last month was 85% of average for the 8 reporting stations; this is 149% of the precipitation received last year. The year-to-date precipitation, for the basin, is 83% of average; this is 93% of last year's amount.

## Reservoirs

Storage in Woodruff Narrows reservoir was 14,400 ac-ft, about 26% of capacity.

## Streamflow

The following 50% exceedance forecasts are for the April through September period, and are expected to be below average. The Bear River near the Utah-Wyoming State Line is 102,000 ac-ft (83% of average). The Bear River above Reservoir near Woodruff is 111,000 ac-ft (87% of average). The Smiths Fork River near Border Jct. is 86,000 ac-ft (83% of average). See the following table for more detailed information on projected runoff.



### Upper Bear River Basin Streamflow Forecasts - February 1, 2014

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	58	82	94	84%	115	139	112
	APR-SEP	64	91	102	83%	127	153	123
Bear R ab Resv nr Woodruff	APR-JUL	28	84	106	88%	161	217	121
	APR-SEP	5.2	77	111	87%	173	245	128
Smiths Fk nr Border	APR-JUL	40	61	71	80%	90	111	89
	APR-SEP	46	70	86	83%	102	126	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, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
WOODRUFF NARROWS RESERVOIR				57.3
Basin-wide Total				57.3
# of reservoirs	0	0	0	1

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
UPPER BEAR RIVER in Utah	3	90%	85%
SMITHS & THOMAS FORKS	3	97%	95%
UPPER BEAR RIVER BASIN	8	90%	89%

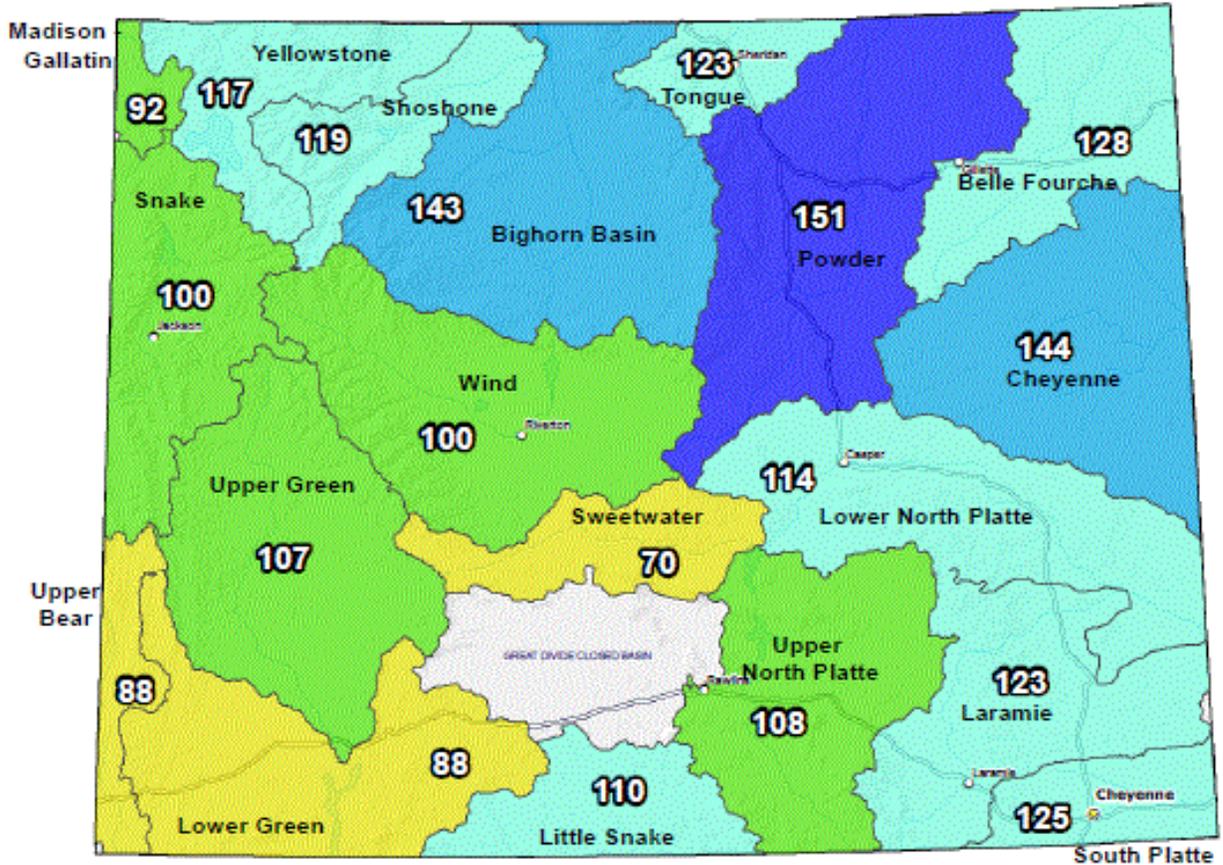
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Casper, Wyoming

As of February 1<sup>st</sup>, 2014

**Wyoming SNOTEL Current Snow Water Equivalent (SWE) % of Normal**



## **The Following Agencies and Organizations Cooperate with the Natural Resources Conservation Service on the Snow Survey Work.**

### **FEDERAL:**

United States Department of the Interior (National Park Service)

United States Department of Agriculture (Forest Service)

United States Department of the Interior (Bureau of Reclamation)

United States Department of Commerce NOAA (National Weather Service)

### **State:**

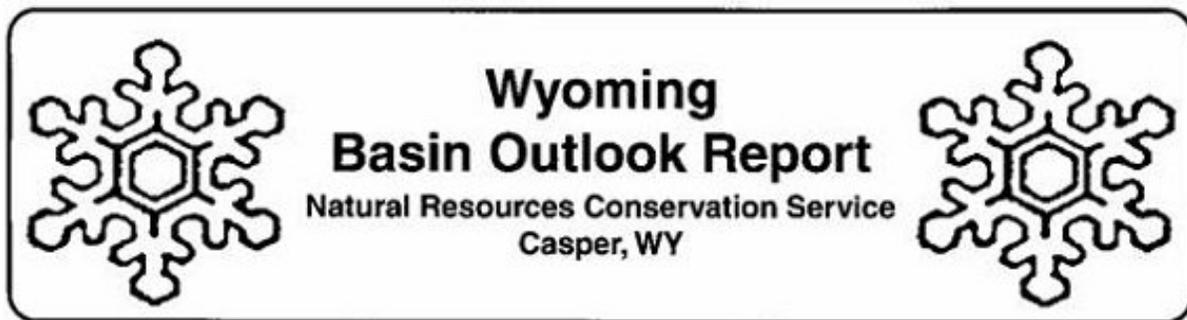
The Wyoming State Engineer's Office

The University of Wyoming

### **Local:**

The City of Cheyenne

The City of Rawlins



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