United States Department of Agriculture

Natural Resources Conservation Service

# Wyoming Basin Outlook Report May 1, 2013



Webber Springs SNOTEL (Sierra Madre Mts.)

USDA

# **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 is 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 just below normal for May 1<sup>st</sup> at 98%. Monthly precipitation for the basins varied from 67-142% of average. Year-to-date precipitation for Wyoming basins varies from 64-100% of average for an averall average of 88%. Forecasted runoff varies from 48-131% of average across the Wyoming basins for an overall average of 78%. Basin reservoir levels for Wyoming vary from 23-154% of average for an overall average of 98%.

## Snowpack

Snow water equivalent (SWE), across Wyoming is slightly short of normal for this time of year at 98%. SWE in the NW portion of Wyoming is now about 104% of normal (125% of last year). NE Wyoming SWE is currently about 124% of normal (199% of last year). The SE Wyoming SWE is currently about 94% of normal (278% of last year). The SW Wyoming SWE is about 92% of normal (227% of last year).

# **Precipitation**

Last month's precipitation was above average across Wyoming. The South Platte River Basin had the highest precipitation for the month at 142% of average. The Sweetwater River Basin had the lowest precipitation amount at 67% of average. The following table displays the major river basins and their departure from average for this month.

	Departure	D	eparture
Basin	from average	Basin from	average
Snake River	+11%	Upper North Platte River	+33%
Madison-Gallatin	-17%	Sweetwater River	-33%
Yellowstone	+07%	Lower North Platte	+05%
Wind River	-12%	Laramie River	+33%
Bighorn	+07%	South Platte	+42%
Shoshone	+15%	Little Snake River	+37%
Powder River	+02%	Upper Green River	+26%
Tongue River	+01%	Lower Green River	+28%
Belle Fourche	+12%	Upper Bear River	+10%
Cheyenne	+07%		

# Streams

Stream flow yield for May to September is expected to be below average across Wyoming. Most probable yield for the entire State of Wyoming is forecast to be about 78% (varying from 27-141% of average). The Snake River and Madison River Basins are expected to yield about 82% and 93% of average, respectively; 82-95% of average for the various forecast points in the basins. Yields from the Yellowstone and Clark's Fork are expected to be 91% and 95% respectively. Yields from the Wind and Bighorn River Basins are expected to be about 67% and 72% of average; varying from 57-100% of average in the basins. Yield from the Shoshone River Basin of Wyoming is expected to be about 88%, varying from 84-95% of average. Yields from the Powder & Tongue River Basins are expected to be about 105% and 84% of average, respectively; varying from 82-127% of average. Yield for the Cheyenne River Basin is expected to be about 131% of average. Yields for the Upper N. Platte, Sweetwater, Lower N. Platte and Laramie Rivers of Wyoming are expected to be about 69%, 33%, 69%, and 88% of average, respectively; varying from 27-88% of average. Yields for the Little Snake, Green River, and Bear of Wyoming are expected to be 54%,

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59%, and 48% of average respectively; yield estimates vary from 48-79% of average.

## Reservoirs

Reservoir storage varies widely across the state however reservoir storage is at 98% of average for the entire state. Reservoirs in the Wind River Basin are above average at 102%. Reservoirs on the Big Horn are above average at 108%. The Buffalo Bill Reservoir on the Shoshone is above average at 125%. Reservoirs in the Belle Fourche River Basin are above average in storage at 103%. Reservoirs in the Cheyenne River Basin are below average in storage at 83%. Reservoirs on the North Platte River are below average at 83%. Reservoirs on the Green River are near average at 99%. See the following table for further information about reservoir storage.

## Major Reservoirs in Wyoming May 1, 2013

BASIN AREA CURRENI RESERVOIR % CAPAC		LAST YR AS % CAPACITY	AVERAGE AS % CAPACITY	CURRENT AS % AVERAGE	CURRENT AS % LAST YR			
WYOMING AND SURROUND			% CAFACITI	- AVENAGE	<sup>10</sup> IGAI IK			
ALCOVA	98	97	97	101	101			
ANGOSTURA	64	88	93	69	73			
BELLE FOURCHE	73	95	82	89	77			
BIG SANDY	27	78	60	45	35			
BIGHORN LAKE	63	61	57	111	104			
BOYSEN	82	99	80	102	83			
BUFFALO BILL	65	74	52	125	87			
BULL LAKE	52	66	49	105	79			
DEERFIELD	101	101	89	113	101			
ENNIS LAKE			NO REPORT					
FLAMING GORGE	80	85	81	99	94			
FONTENELLE	37	46	36	102	80			
GLENDO	76	94	86	89	81			
Grassy Lake	88	87	84	104	101			
GUERNSEY	15	44	66	23	34			
HEBGEN LAKE	73	81	73	100	90			
HIGH SAVERY	44	72	67	65	60			
Jackson Lake	77	86	53	146	89			
KEYHOLE	78	95	51	154	83			
PACTOLA	94	99	87	108	96			
Palisades	54	75	65	83	72			
PATHFINDER	39	89	61	65	44			
PILOT BUTTE	76	89	83	92	86			
SEMINOE	48	81	48	100	59			
SHADEHILL	46	51	80	57	89			
TONGUE RIVER	74	84	44	168	88			
VIVA NAUGHTON RES	70	100	75	93	69			
WHEATLAND #2 AVERAGE NOT ESTABLISHED								
WOODRUFF NARROWS	30	103	79	38	29			
TOTAL 26 RESERVOIRS	66	81	67	98	81			
Raw KAF Totals Curre	ent=86	84 Last Yea	r=10595 Aver	age=8837 Cap	acity=13069			

# BASIN SUMMARY OF SNOTEL and SNOW COURSE DATA

MAY 2013

SNOW SITE EL	EVATION		SNOW DEPTH	WATER CONTENT	LAST YEAR	NORMAL 81-10
WYOM	IING Snow	Course and	d SNOI	TEL Stations	3	
ALBANY	9400	4/26/13	37	11.7	3.6	9.6
ARAPAHO RIDGE SNTL	10960	5/01/13	67	22.0	11.5	
BALD MOUNTAIN SNOTEL	9380	5/01/13	58	17.5	23.2	20.5
BASE CAMP SNOTEL	7030	5/01/13		10.5	6.0	9.3
BATTLE MTN. SNOTEL	7440	5/01/13	2	1.6	.0	.0
BEARLODGE DIVIDE	4680	4/24/13	8	1.6	.0	.0
BEARTOOTH LK. SNOTEL	9280	5/01/13	70	19.9	26.9	22.8
BEAR RIVER RS SNOTEL	8780	5/01/13	2	1.0	.0	
BEAR TRAP SNOTEL	8200	5/01/13	28	7.7	.0	.9
BIG GOOSE SNOTEL	7760	5/01/13	33	9.1	3.0	9.2
BIG PARK	8620	4/26/13	52	18.5		16.1
BIG SANDY SNOTEL	9080	5/01/13	31	10.3	8.8	10.6
BLACK BEAR SNOTEL	7950	5/01/13	88	40.0	42.1	37.4
BLACK'S FORK JUNCTN	8930	4/26/13	28	6.7	.0	4.0
BLACKS FORK JCT SNT	8870	5/01/13	19	6.0	.0	
BLACKHALL MTN SNOTEL	9820	5/01/13	79	29.1		
BLACKWATER SNOTEL	9780	5/01/13	78	25.9	25.3	25.3
BLIND BULL SNOTEL	8900	5/01/13	65	22.0	23.9	23.1
BLIND PARK SNOTEL	6870	5/01/13	12	3.8	.0	.8
BONE SPGS. SNOTEL	9350	5/01/13	60	17.0	19.0	16.5
BROOKLYN LK. SNOTEL	10220	5/01/13	64	20.0	8.3	23.3
BUCK PASTURE SNOTEL	9700	5/01/13	40	13.4		
BUG LAKE SNOTEL	7950	5/01/13	27	11.5	7.4	15.1
BURGESS JCT. SNOTEL	7880	5/01/13	40	12.3	8.6	12.1
BURROUGHS CRK SNOTEL	8750	5/01/13	44	12.5	11.2	12.9
BUTTER HILL	7880	4/26/13	33	12.2	.0	10.2
BURT'S-MILLER RANCH	7900	4/26/13	0	.0	.0	.0
BURTS-MILLER RANCH S	7860	5/01/13	0	.0	.0	.0
CAMERON PASS	10300	4/30/13	74	26.8	8.0	27.1
CANYON SNOTEL	8090	5/01/13	32	11.3	9.3	10.4
CASPER MTN. SNOTEL	7850	5/01/13	33	12.0	9.0	13.3
CASTLE CREEK SNOTEL	8400	5/01/13	4	.6	.0	
CASTLE CREEK	8400	4/29/13	0	.0	.0	1.0
CCC CAMP	7000	4/25/13	26	10.4	.0	5.3
CHALK CK #1 SNOTEL	9100	5/01/13	52	19.6	9.3	24.2
CHAMBERS LAKE	9000	4/30/13	14	5.8	.0	2.6
CINNABAR PARK SNOTEL	9690	5/01/13	57	14.7	4.4	19.4
CLOUD PEAK SNOTEL	9850	5/01/13	66 10	15.7	11.3	16.5
COLE CANYON SNOTEL	5910	5/01/13	10	3.6	.9	.3
COLD SPRINGS SNOTEL	9630	5/01/13	12	2.0	.0	1.3
COLUMBINE SNOTEL	9300	5/01/13		17.1	.2	18.2
COTTONWOOD CR SNOTEL	7700	5/01/13		16.1	12.7	15.3
CROW CREEK SNOTEL	8830	5/01/13	12	2.4	.0	.0
DARBY CANYON	8250	4/30/13	56 66	20.0	15.8	22.9
DEADMAN HILL SNOTEL	10200	5/01/13	66 96	18.0	13.6 26.2	19.0
DEEP LAKE DEEP LAKE	10500 10500	4/29/13 4/29/13	96 96	34.9 34.9	26.2	
DEER PARK SNOTEL	9700	4/29/13 5/01/13	33	13.0	20.2	16.0
DIVIDE PEAK SNOTEL	8860	5/01/13		13.7	.0	18.0
DOME LAKE SNOTEL	8880	5/01/13	50	11.3	.0 10.6	10.0
DU NOIR	8760	4/26/13	20	6.1	.0	4.1
EF BLACKS FORK GS SN	9360	5/01/13	31	11.4	.0	· · ·
EAST RIM DIV SNOTEL	7930	5/01/13	11	3.1	.0	8.2
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SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
ELKHART PARK SNOTEL	9400	5/01/13		10.1	11.0	11.3
ELK RIVER SNOTEL	8600	5/01/13		12.8	.0	13.2
EVENING STAR SNOTEL	9200	5/01/13	73	26.2	30.0	24.9
FISHER CREEK SNOTEL	9100	5/01/13	97	32.9	39.7	32.7
FOXPARK	9060	4/26/13		7.8	.0	5.0
GEYSER CREEK	8500	4/26/13	16	5.1	1.3	3.3
GLADE CREEK	7040	4/30/13	43	17.4	11.7	18.6
GRAND TARGHEE SNOTE GRANITE CRK SNOTEL	5 9260 6770	5/01/13	103 28	41.8 8.0	37.6 4.0	44.8 8.3
GRANIIE CRK SNOIEL GRASSY LAKE	7270	5/01/13 4/30/13	∠o 47	22.3	4.0 27.0	8.3 28.1
GRASSI LAKE SNOTEL	7270	5/01/13	56	22.5	27.0	20.1
GRAVE SPRINGS SNOTE		5/01/13	27	8.2	3.7	9.4
GROS VENTRE SNOTEL	8750	5/01/13	32	9.9	1.8	11.6
GROVER PARK DIVIDE	7000	4/25/13	16	6.7	.0	1.0
GUNSIGHT PASS SNOTE	9820	5/01/13	33	12.4	9.8	12.5
HAIRPIN TURN	9480	4/29/13	42	13.2	4.6	12.8
HANSEN S.M. SNOTEL	8360	5/01/13	29	7.1	.0	2.5
HAMS FORK SNOTEL	7840	5/01/13	5	1.7	.0	2.9
HASKINS CREEK	8980	4/26/13	74	27.0	15.8	31.2
HOBACK GS	6640	4/29/13	0	.0	.0	.0
HOBBS PARK SNOTEL	10100	5/01/13	41	12.9	9.6	16.0
INDIAN CREEK SNOTEL	9430	5/01/13	 2E	22.6	13.9	23.0
JACKPINE CREEK JOE WRIGHT SNOTEL	7350 10000	4/30/13 5/01/13	35 72	14.1 22.0	14.2 8.0	18.5 23.3
KELLEY R.S. SNOTEL	8180	5/01/13	31	11.2	6.2	11.5
KENDALL R.S. SNOTEL	7740	5/01/13	6	2.0	1.7	4.3
KIRWIN SNOTEL	9550	5/01/13	43	11.1	£.9 6.8	10.4
LA PRELE SNOTEL	8380	5/01/13	12	4.8	.0	6.1
LARSEN CREEK	9020	4/29/13	0	.0		8.0
LARSEN CREEK SNOTEL	9020	5/01/13	0	.0	.0	
LEWIS LAKE DIVIDE	7850	4/30/13	72	34.4	39.4	37.0
LEWIS LAKE SNOTEL	7850	5/01/13	66	27.7	28.7	30.1
LIBBY LODGE	8750	4/29/13	24	8.0	.0	5.8
LITTLE GOOSE SNOTEL	8870	5/01/13	42	10.6	1.7	
LITTLE SNAKE RIVER	8920	5/01/13		20.9	.9	22.3
LITTLE WARM SNOTEL	9370	5/01/13	30	8.9	.4	8.7
LOOMIS PARK SNOTEL LUPINE CREEK	8240 7380	5/01/13 4/30/13	 11	8.3 3.6	2.1	11.0 1.2
MADISON PLT SNOTEL	7750	5/01/13		20.6	.0 25.0	21.3
MARQUETTE SNOTEL	8760	5/01/13		9.2	.4	
MEDICINE LODGE LAKES		4/26/13		13.9		11.0
MIDDLE FORK	7420	4/26/13		13.9	.0	1.8
MIDDLE POWDER SNOTE	<u> </u>	5/01/13		13.1	6.2	11.6
MOSS LAKE	9800	4/30/13	57	20.7	6.9	23.4
NEVER SUMMER SNOTEL	10280	5/01/13		19.6	11.4	
NEW FORK SNOTEL	8340	5/01/13		3.7	.9	6.5
NORRIS BASIN	7500	5/02/13		3.0	.0	5.4
N.E. ENTRANCE SNOTE		5/01/13		3.3	.5	3.0
NORTH BARRETT CREEK		4/30/13		20.3	5.2	22.0
NORTH FRENCH SNOTEL NORTH RAPID CK SNTL	10130 6130	5/01/13 5/01/13		26.0 4.4	14.0 .0	32.9
NORTH RAPID CK SNIL NORTH TONGUE	8450	4/24/13	47	4.4 11.5	.0	.8 11.9
OLD BATTLE SNOTEL	9920	5/01/13	83	30.2	22.6	34.7
OLD FAITHFUL	7400	4/27/13	28	11.9		7.4
ONION GULCH	8780	4/25/13	40	10.4	9.2	7.0
OWL CREEK SNOTEL	8980	5/01/13	22	4.8	.0	1.0
PARKERS PEAK SNOTEL		5/01/13	70	25.6	24.0	21.3
PHILLIPS BNCH SNOTE	L 8200	5/01/13	59	24.0	19.5	25.4
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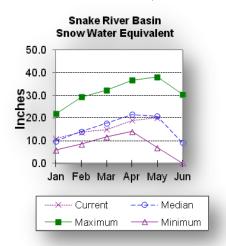
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH		LAST YEAR	MEDIAN 81-10
POCKET CREEK	9350	4/29/13	 32	11.5		10.8
POCKET CREEK SNOTEI		5/01/13		8.5	7.5	
POLE MOUNTAIN	8700	4/26/13		7.7	.0	4.6
POWDER RVR.PASS SNT		5/01/13		13.6	6.1	9.4
PURGATORY GULCH	8970	4/26/13		13.6	.0	10.7
RANGER CREEK	8120	4/26/13		9.9	7.7	6.1
RAWAH SNOTEL	9020	5/01/13		11.2	.0	
RENO HILL SNOTEL	8500	5/01/13		12.0	7.9	12.6
REUTER CANYON	6280	4/24/13		5.7	.0	.4
ROACH SNOTEL	9400	5/01/13		16.1	5.8	17.2
ROWDY CREEK	8300	4/29/13		16.1		18.1
RYAN PARK	8400	4/30/13	22	7.9	.0	5.8
SAGE CK BASIN SNTL	7850	5/01/13		5.3	.0	1.1
SALT RIVER SNOTEL	7600	5/01/13	23	7.4	.0	7.9
SAND LAKE SNOTEL	10050	5/01/13	82	26.1	22.6	31.4
SANDSTONE RS SNOTEI	8150	5/01/13	20	5.3	.0	5.9
SAWMILL DIVIDE	9260	4/24/13	59	14.3		14.3
SHELL CREEK SNOTEL	9580	5/01/13	66	17.5	20.4	15.9
SHERIDAN R.S.	7750	4/26/13	9	2.7	.7	2.1
SNAKE RV STA SNOTEI	6920	5/01/13	20	7.9	3.8	7.4
SNIDER BASIN SNOTEI		5/01/13	13	4.3	2.6	9.4
SNOW KING MTN	7660	4/29/13	18	7.5	4.1	10.3
SOLDIER PARK SNOTEI	8780	5/01/13	26	6.0	.0	
SOLDIER PARK	8780	4/25/13		5.6		4.8
SOUR DOUGH	8460	4/25/13	35	7.8		6.4
SOUTH BRUSH SNOTEL	8440	5/01/13	18	7.8	.0	9.2
SOUTH PASS SNOTEL	9040	5/01/13	35	11.4	7.4	14.9
SPRING CRK. SNOTEL	9000	5/01/13	72	25.1	21.9	24.3
STILLWATER CAMP	8550	4/26/13	20	5.6	.0	4.0
ST LAWRENCE ALT SNI	TL 8620	5/01/13	4	.9	.0	2.5
SUCKER CREEK SNOTEI	8880	5/01/13	51	14.0	8.1	12.2
SYLVAN LAKE SNOTEL	8420	5/01/13	47	17.8	14.7	19.8
SYLVAN ROAD SNOTEL	7120	5/01/13	2	.9	.0	5.8
T CROSS RANCH	7900	4/29/13	3	.9	.0	1.2
TETON PASS W.S.	7740	5/01/13	54	22.0	16.8	25.7
THUMB DIVIDE SNOTEI	7980	5/01/13	33	13.0	9.8	12.4
TIE CREEK SNOTEL	6870	5/01/13	13	4.3	.0	2.7
TIMBER CREEK SNOTEI	7950	5/01/13	18	3.1	.0	3.1
TOGWOTEE PASS	9580	4/28/13	66	25.0	21.7	27.5
TOGWOTEE PASS SNOTE	EL 9580	5/01/13	68	22.9	20.9	24.7
TOWER SNOTEL	10000	5/01/13	108	38.2	26.2	50.0
TOWNSEND CRK SNOTEI	8700	5/01/13	24	7.2	.0	7.5
TRIPLE PEAK SNOTEI	L 8500	5/01/13	53	19.6	10.9	17.5
TWENTY-ONE MILE	7150	4/29/13	29	11.3	8.0	11.3
TWO OCEAN SNOTEL	9240	5/01/13	81	31.6	36.4	29.7
TYRELL RANGER STA.	8300	4/25/13	34	8.9	6.9	4.4
WEBBER SPRING SNOTE	EL 9250	5/01/13	54	20.6	4.3	21.7
WHISKEY PARK SNOTEI	L 8950	5/01/13	62	24.4	7.3	26.5
WHITE MILL SNOTEL	8700	5/01/13	65	24.7	26.2	23.8
WILLOW CREEK SNOTEI	8450	5/01/13	65	25.7	17.5	23.0
WINDY PEAK SNOTEL	7900	5/01/13	11	4.0	.0	4.0
WOLVERINE SNOTEL	7650	5/01/13	17	5.9	.0	2.5
WOOD ROCK G.S.	8440	4/24/13	40	8.8		9.8
YOUNTS PEAK SNOTEL	8350	5/01/13		13.9	13.5	15.5
ZIRKEL SNOTEL	9340	5/01/13		23.7	.0	
NOTE: Missing snow	/ depth enti	cies indio	cate th	e site has	no snow	depth

NOTE: 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.

## **Snake River Basin**

#### Snow

The Snake River Basin snow water equivalent (SWE) is 97% of normal. SWE in the Snake River Basin above Jackson Lake is 96% of normal. Pacific Creek Basin SWE is 1088% of normal. SWE in the Buffalo Fork basin is 92% of normal. Gros Ventre River Basin SWE is 93% of normal. SWE in the Hoback River drainage is 81% of normal. SWE in the Greys River drainage is 105% of normal. In the Salt River area SWE is 126% 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 above average last month. Monthly precipitation for the basin was 111% of average (120% of last year). Last month's percentages range from 77-191% of average for the 26 reporting stations. Water-year-to-date precipitation is 89% of average for the Snake River Basin (88% of last year). Year-to-date percentages range from 76-109% of average.

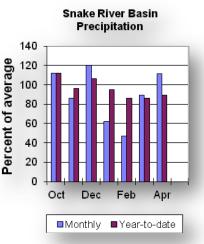
#### Reservoirs

Current reservoir storage is 104% of average for the 3 storage reservoirs in the basin. Grassy Lake storage is about 104% of average (13,300 ac-ft compared to 13,200 last year). Jackson Lake storage is 146% of average (649,400 ac-ft compared to 729,700 ac-ft last year). Palisades Reservoir storage is about 83% of average (756,700 ac-ft compared to 1,047,500 ac-

ft last year).
data is shown on
on the reservoir
beginning of

#### Streamflow

The 50% for May through average for the Moran is 700,000 Snake River Alpine is of average). is 2,600,000 ac-The Snake near ft (82% of Creek near Moran of average).



Detailed reservoir the following page and storage summary at the this report.

exceedance forecasts September are below basin. The Snake near ac-ft 90% of average). above reservoir near 1,860,000 ac-ft (82% The Snake near Irwin ft (83% of average). Heise is 2,790,000 acaverage). Pacific is 153,000 ac-ft (95% Buffalo Fork above

Lava near Moran is 280,000 ac-ft (92% of average). Greys River above Palisades Reservoir is 280,000 ac-ft (89% of average). Salt River near Etna is 270,000 ac-ft (87% of average). See the following page for detailed runoff volumes.

## Snake River Basin Streamflow Forecasts - May 1, 2013

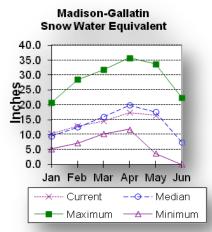
			low Foreca						
		:=====================================	======================================		===== Wette		=================		
			I UCUIC CC	1101 01 010110					
Forecast Pt	=======		Chance of	Exceeding	* ======				
Forecast	90%	70%	50	8	30%	10%	30 Yr Avg		
Period	(1000AF)		) (1000AF)						
Snake R nr M							======		
MAY-JUL	480	580	625	89	670	770	700		
MAY-SEP	535	650	700	90	750	865	775		
Snake R nr A	lpine (1,2	2)							
MAY-JUL	1290	1530	1640	84	1750	1990	1960		
MAY-SEP	1430	1730	1860	82	1990	2290	2280		
Snake R nr I: MAY-JUL	rwin (1,2) 1830	2100	2230	84	2360	2630	2660		
MAY-SEP	2140	2460	2600	83	2360	2030 3060	3150		
Snake R nr H		2100	2000	05	2710	5000	5150		
MAY-JUL	2030	2230	2370	84	2510	2710	2840		
MAY-SEP	2400	2630	2790	82	2950	3180	3390		
Pacific Ck A									
MAY-JUL	102	128	145	95	162	188	152		
MAY-SEP Buffalo Fork	109 ab Lawa r	135 r Moran	153	95	171	197	161		
MAY-JUL	198	225	245	93	265	290	265		
MAY-SEP	225	260	280	92	300	335	305		
Greys R Nr A	lpine								
MAY-JUL	190	215	235	89	255	280	265		
MAY-SEP	225	260	280	89	300	335	315		
Salt R Nr Et		170	21.0	0.0	240	200	045		
MAY-JUL MAY-SEP	131 174	178 230	210 270	86 87	240 310	290 365	245 310		
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.									
the act									
	ual volume	e will ex		lumes in t	the table				
The ave	ual volume rage is co	e will exomputed for	ceed the vo	lumes in t -2010 base	the table e period.				
The ave: (1) - The act	ual volume rage is co values li ually 5% a	e will exponential exponenti exponential exponential exponential exponential exponential e	ceed the vo or the 1981 er the 10% xceedance l	lumes in t -2010 base and 90% Ch evels.	the table e period. nance of 1	Exceeding	are		
The ave: (1) - The act: (2) - The	ual volume rage is co values li ually 5% a value is	e will exponential exponentia	ceed the vo or the 1981 er the 10% xceedance l	lumes in t -2010 base and 90% Ch evels.	the table e period. nance of 1	Exceeding			
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The ave: (1) - The act: (2) - The wate	ual volume rage is co values li ually 5% a value is er managem ian value	e will ex omputed for sted und and 95% es natural ment. used in p	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av	lumes in t -2010 base and 90% Ch evels. etual volur rerage.	the table e period. nance of 1 ne may be	Exceeding affected	are by upstream		
The ave: (1) - The act: (2) - The wat (3) - Med	ual volume rage is co values li ually 5% a value is er managem ian value	e will ex omputed for sted und and 95% en natural ment. used in p	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av	lumes in t -2010 base and 90% Ch evels. tual volur rerage.	the table e period. nance of 1 ne may be	Exceeding affected	are by upstream		
The ave: (1) - The act: (2) - The wat (3) - Med	ual volume rage is cc values li ually 5% a value is er managem ian value	e will ex omputed for sted und and 95% en natural ment. used in p	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av	lumes in t -2010 base and 90% Ch evels. tual volur rerage. BASIN	the table e period. nance of 1 ne may be	Exceeding affected	are by upstream		
The ave: (1) - The (2) - The wat (3) - Med	ual volume rage is cc values li ually 5% a value is er managem ian value ====================================	e will exp omputed for sted undo and 95% ex- natural ment. used in p servoir S	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av ====================================	clumes in t -2010 base and 90% Ch evels. tual volur rerage. BASIN 0AF) End o	the table e period. nance of 1 ne may be essentiate of April	• Exceeding affected	are by upstream		
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The ave: (1) - The act: (2) - The wate (3) - Med ====================================	ual volume rage is cc values li ually 5% a value is er managem ian value ========= Res	e will exp omputed for sted und and 95% e: natural ment. used in p servoir S	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av sNAKE RIVER torage (100 usable Capacity	clumes in t -2010 base and 90% Ch evels. tual volur rerage. BASIN 0AF) End of ******* This Yea	the table e period. nance of 1 me may be of April *** Usable ar Last	Exceeding affected Storage t Year	are by upstream		
The ave: (1) - The act: (2) - The wat (3) - Med ====================================	ual volume rage is cc values li ually 5% a value is er managem ian value ========= Res	e will exp omputed for sted und and 95% e: natural ment. used in p servoir S	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av ====================================	clumes in t -2010 base and 90% Ch evels. tual volur rerage. BASIN DAF) End of ******* This Yea 13.2	the table e period. nance of 1 me may be of April *** Usable ar Last	Exceeding affected Storage t Year 13.2	are by upstream ********* Average 12.8		
The ave: (1) - The act: (2) - The wate (3) - Med ====================================	ual volume rage is cc values li ually 5% a value is er managem ian value ========= Res	e will exp omputed for sted und and 95% e: natural ment. used in p servoir S	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av sNAKE RIVER torage (100 session (100 capacity session (100 capacity session (100 capacity) session (100 capacity)	clumes in t -2010 base and 90% Ch evels. tual volur rerage. BASIN 0AF) End of ******* This Yea	the table e period. nance of 1 me may be of April *** Usable ar Last 3 4	Exceeding affected Storage t Year	are by upstream		
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The ave: (1) - The act: (2) - The wat (3) - Med ====================================	ual volume rage is cc values li ually 5% a value is er managem ian value Res 	e will ex omputed for sted undo and 95% ex natural used in p servoir S servoir S servoir S	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av sNAKE RIVER torage (100 capacity capacity 15.2 847.0 1400.0 capace SNAKE RIVER nowpack Ana	clumes in t -2010 base and 90% Ch evels. tual volur rerage. BASIN DAF) End co this Yea 13.1 649.4 756.7 BASIN lysis - Ma	the table e period. nance of 1 me may be of April *** Usable ar Last 4 7 7 10 ay 1, 2013	Exceeding affected Storage t Year 13.2 729.7 047.5	are by upstream ********* Average 12.8 445.7 911.7		
The ave: (1) - The act: (2) - The wate (3) - Med ====================================	ual volume rage is cc values li ually 5% a value is er managem ian value Res 	e will ex omputed for sted undo and 95% ex natural used in p servoir S servoir S servoir S	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av sNAKE RIVER torage (100 capacity capacity 15.2 847.0 1400.0 capack RIVER nowpack Ana	clumes in t -2010 base and 90% Ch evels. tual volur rerage. BASIN DAF) End co ******* This Yea 13.1 649.4 756.7 BASIN lysis - Ma	the table e period. nance of 1 ne may be of April *** Usable ar Last 4	Exceeding affected Storage t Year 13.2 729.7 047.5	are by upstream ********* Average 12.8 445.7 911.7		
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The ave: (1) - The act: (2) - The water (3) - Med 	ual volume rage is cc values li ually 5% a value is er managem ian value Res eres Res wat uackson La K	e will exponent of the sted under the sted in provide the sted in provide the sted in the sted i	ceed the vo or the 1981 er the 10% xceedance 1 volume - ac place of av sNAKE RIVER torage (100 capacity capacity 15.2 847.0 1400.0 capack Ana sNAKE RIVER nowpack Ana capack Ana capach Ana capack Ana capach Ana capack Ana Capack Ana Capack Ana	clumes in t -2010 base and 90% Ch evels. tual volur rerage. BASIN DAF) End of ******* This Yea 13.1 649.4 756.7 BASIN Llysis - Ma es	the table e period. nance of I me may be of April *** Usable ar Last 4 7 7 10 ay 1, 201 This Ye Last Ye 104 99 107 138	Exceeding affected Storage t Year 13.2 729.7 047.5 3 ear as Per ear n	are by upstream ********* Average 12.8 445.7 911.7 911.7 ercent of Median 96 108		
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Wyoming Water Supply Outlook Report

# **Madison-Gallatin River Basins**

#### Snow

Snow water equivalent (SWE) is at 98% 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 83% of average (57% of last year). The 6 reporting stations percentages range from 61-111% of average. Water-year-to-date precipitation is about 88% of average (73% of last year's amount). Year to date percentage ranges from 77-95%.

#### Reservoirs

Ennis Lake is NO REPORT. Hebgen Lake is storing about 276,400 ac-ft of water (73% of capacity, 100% of average or 90% of last year's

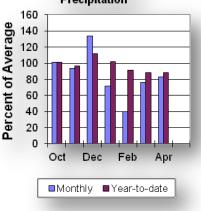
volume).

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 May through September is below average for the basin. Hebgen Reservoir inflow is 375,000 ac-ft (93% of average). See the following page for detailed runoff volumes.





# Madison-Gallatin River Basins

Streamflow Forecasts - May 1, 2013										
===========	======================================	er === Fi	uture Co	nditions	===== Wett	er ===>				
Forecast Pt		===== C] 70% │		5			20 37-0 3-0-0			
Forecast Period	90%  (1000AF) (		50 (1000af)		30% (1000af)	10%   (1000af)	30 Yr Avg (1000af)			
=================						=======================================				
Hebgen Reserv		· · /								
MAY-JUL MAY-SEP	230 315	260 350	280 375	92 93	300 400	330 435	305 405			
	010				100	+35	405			
the actua The avera (1) - The actu (2) - The wate (3) - Med:	<ul> <li>* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1981-2010 base period.</li> <li>(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.</li> <li>(2) - The value is natural volume -actual volume may be affected by upstream water management.</li> <li>(3) - Median value used in place of average.</li> </ul>									
			======== Jsable			e Storage.				
Reservoir			apacity	This Yea	ar Las	st Year	Average			
ENNIS LAKE		.=======	========		======================================	==========				
HEBGEN LAKE			377.5	276.4		307.0	276.7			
	MADISON-GALLATIN RIVER BASINS Watershed Snowpack Analysis - May 1, 2013									
Watershed										
MADISON RIVE			8		99		98			

# Yellowstone River Basin

#### Snow

SWE in the Yellowstone drainage is at 105% of normal. See the "Basin

Yellowstone River Basin Snow Water Equivalent Summary of Snow Course Data" at the front of this report for details.

#### Precipitation

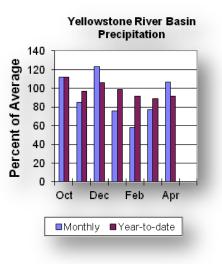
Last month precipitation in the Yellowstone drainage was about 107% of average (91% of last year). The 15 reporting stations percentages range from 87-131% of average. Water-year-to-date precipitation is about 92% of average (81% of last year's amount). Year to date percentage ranges from 64-121%.

#### Reservoirs

No reservoir data for the basin.

#### Streamflow

The 50% exceedance forecasts for May through September are below average for the basin. Yellowstone at Lake Outlet is 635,000 ac-ft (86% of average). Yellowstone at Corwin Springs will yield around 1,610,000 ac-ft (91% of average). Yellowstone near Livingston will yield around 1,830,000 ac-ft (91% of average). The Clark's Fork of the Yellowstone River should yield around 500,000 ac-ft (95% of average). See the following page for detailed runoff volumes.



# Yellowstone River Basin

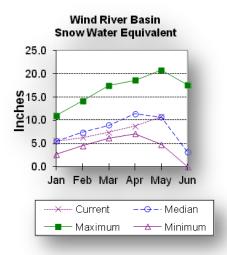
	er ===>									
Forecast Pt	   ========		Chance of 1	Tracadina	*					
Forecast Ft	   90%	 70%			30%	 10%	30 Yr Avg			
			(1000AF)	•						
Yellowstone R at Yellowstone Lake										
MAY-JUL	375	435	475	87	515	575	545			
MAY-SEP	510	585	635	86	685	760	735			
Yellowstone H	at Corwi	n Springs								
MAY-JUL	1100	1260	1360	92	1460	1620	1480			
MAY-SEP	1300	1480	1610	91	1740	1920	1770			
Yellowstone R at Livingston										
MAY-JUL	1220	1410	1540	92	1670	1860	1670			
MAY-SEP	1450	1680	1830	91	1980	2210	2010			
The aver (1) - The actu (2) - The wate	al volume cage is co values li ally 5% a value is er managem ian value	will exc mputed fo sted unde nd 95% ex natural v ent. used in p	eed the vo r the 1981 r the 10% a ceedance le olume -actu	lumes in -2010 bas and 90% Cl evels. ual volum erage.	the table e period. hance of e may be	Exceeding affected k	are Dy upstream			
		Y	ELLOWSTONE	RIVER BA	SIN					
	Wat	ershed Sn	owpack Ana	lysis - M	ay 1, 201	3				
============										
Watershed			Number o: Data Site	es	This Y Last Y		cent of Iedian			
YELLOWSTONE H	== RIVER in W		10		 103		107			
CLARKS FORK			8		94		104			

Streamflow	Forecasts	-	May	1,	2013
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# Wind River Basin

#### Snow

The Wind River Basin above Boysen Reservoir is 101% of normal for snow water equivalent at this time of the year. SWE in the Wind River above Dubois is 104% of normal. The Little Wind SWE is 75% of normal, and the Popo Agie drainage SWE is about 104% 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 40-168% of average. Precipitation, for the basin, was about 88% of average from the 14 reporting stations; that is about 193% of last year's amount. Water year-to-date precipitation is 79% of average and about 91% of last year at this time. Year-to-date percentages range from 59-111% of average.

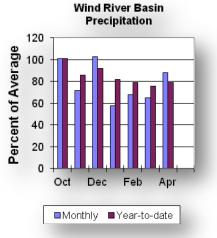
#### Reservoirs

Current storage in Bull Lake is about 78,700 ac-ft (105% of average) - the reservoir is at 79% of last year. Boysen Reservoir is storing about 102% of average (487,700 ac-ft) - the

reservoir is about 83% of last year. Pilot Butte is at 92% of average (24,100 ac-ft) - the reservoir is at 86% 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 May through September runoff period are below average. Dinwoody Creek near Burris is 80,000 ac-ft (88% of average). The Wind River above Bull Lake Creek is 370,000 acft (80% of average). Bull Lake Creek near Lenore is 138,000 ac-ft (83% of average). Wind River at Riverton will yield around 395,000 ac-ft (75% of average). Little Popo Agie River near Lander is around 29,000 ac-ft (63% of average). South Fork of Little Wind near Fort Washakie will yield around 64,000 ac-ft (82% of average). Little Wind River near Riverton will yield around 160,000 ac-ft (58% of



average). Boysen Reservoir inflow will yield around 410,000 ac-ft (67% of average). See the following page for detailed runoff volumes.

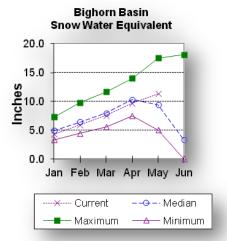
Streamflow Forecasts - May 1, 2013									
======================================									
	<=== Drie	er === ]	uture Co	nditions	=== Wett	er ===>			
Foregoat Dt			Chance of	Freeding	. *				
Forecast Pt Forecast	========   90%	( 70%	50	-			30 Yr Avq		
					30%	10%	9		
			(1000AF)				(1000AF)		
======================================									
MAY-JUL	46	52	56	86	60	66	65		
MAY-SEP	40 67	75	80	88	85	93	91		
Wind R ab Bu			00	00	05	25	71		
MAY-JUL	200	255	295	79	335	390	375		
MAY-SEP	260	325	370	80	415	480	465		
Bull Lake Ck			370	00	11.5	100	105		
MAY-JUL	83	100	112	83	124	141	135		
MAY-SEP	101	123	138	83	153	175	166		
Wind R at Ri									
MAY-JUL	230	295	340	76	385	450	445		
MAY-SEP	260	340	395	75	450	530	525		
Little Popo .	Agie R nr La	ander							
MAY-JUL	14.8	20	24	62	28	33	39		
MAY-SEP	18.8	25	29	63	33	39	46		
SF Little Wi	nd R nr Fort	Washak	ie						
MAY-JUL	40	50	57	83	64	74	69		
MAY-SEP	44	56	64	82	72	84	78		
Little Wind :	R nr Riverto	on							
MAY-JUL	23	93	140	57	187	255	245		
MAY-SEP	35	109	160	58	210	285	275		
Boysen Reser	voir Inflow	(2)							
MAY-JUL	128	275	375	67	475	620	560		
MAY-SEP =========	124	295	410	67	525	695	615		
the act The ave (1) - The act (2) - The wat	, 50%, 30%, ual volume w rage is comp values list ually 5% and value is na er managemen	vill exce puted for ed under 1 95% exc atural vo nt.	eed the vo r the 1981 r the 10% ceedance l olume -act	lumes in -2010 bas and 90% C evels. ual volum	the table e period. Chance of	Exceeding	are		
(3) - Med	ian value us	-							
			IND RIVER						
	Reser		orage (100		of April				
		=========	===========	==========	-				
			Usable	* * * * * * *	*** Usabl	e Storage	* * * * * * * *		
Reservoir		(	Capacity	This Ye	ar Las	t Year	Average		
===========		========		=========	========				
BULL LAKE			151.8	78.	7	99.8	75.1		
BOYSEN			596.0	487.	7	587.4	476.4		
PILOT BUTTE			31.6	24.	1	28.1	26.1		
===========	==============	========		=========	=========	===========	======		
	Water		IND RIVER owpack Ana		lay 1, 201	3			
==========									
Mathews 1 3			Number o	-		ear as Per			
Watershed			Data Sit		Last Y		ledian		
WIND DIVED o			======= 7		======================================		104		
WIND RIVER a LITTLE WIND	DOVE DUDOIS		2		144		75		
POPO AGIE			2 5		242		104		
WIND above B	oven Pear		5 15		193		104		
MITTA ADOVE B	CYBCII KESV		CT.		267		TOT		

Wind River Basin Streamflow Forecasts - May 1, 2013

# **Bighorn River Basin**

#### Snow

The Bighorn River Basin SWE above Bighorn Reservoir is at 120% of normal. The Nowood River is at 141% of normal. The Greybull River SWE is at 105% of normal. Shell Creek SWE is 105% of normal. See the "Basin Summary of Snow Course Data" at the front of this



Precipitation

report for details.

Last month's precipitation was 107% of average (124% of last year). Sites ranged from 40-145% of average for the month. Year-to-date precipitation is 87% of average; that is 78% of last year at this time. Year-to-date percentages, from the 13 reporting stations, range from 60-112%.

#### Reservoirs

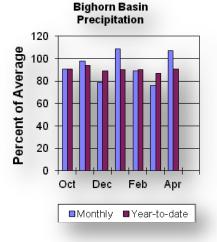
Boysen Reservoir is currently storing 487,700 ac-ft (102% of average). Bighorn

Lake is now at 857,900 ac-ft (111%

of average). Boysen is currently storing 83% of last year volume at this time and Big Horn Lake is storing 104% 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 May through September runoffs are anticipated to be below average. Boysen Reservoir inflow should yield 410,000 ac-ft (67% of average); the Greybull River near Meeteetse should yield around 153,000 ac-ft (90% of average);



Shell Creek near Shell should yield around 63,000 ac-ft (100% of average) and the Bighorn River at Kane should yield around 600,000 ac-ft (72% of average). See the following page for detailed runoff volumes.

	<pre>&lt;=== Drier === Future Conditions === Wetter ===&gt;</pre>									
Foregoat Dt			Chance of	Eugooding	*					
Forecast Pt Forecast	========   90%	 70%				10%	30 Yr Avg			
	1		) (1000AF)				-			
===========										
Boysen Reservoir Inflow (2)										
MAY-JUL	128	275	375	67	475	620	560			
MAY-SEP	124	295	410	67	525	695	615			
Greybull R nr Meeteetse										
MAY-JUL	93	106	115	93	124	137	124			
MAY-SEP	106	134	153	90	172	200	170			
Shell Ck nr	Shell									
MAY-JUL	38	46	52	100	58	66	52			
MAY-SEP	48	57	63	100	69	78	63			
Bighorn R at	Kane (2)									
MAY-JUL	260	445	575	75	705	890	770			
MAY-SEP	250	460	600	72	740	950	830			
(1) - The act (2) - The wat	values li ually 5% a value is er managem	sted unde Ind 95% ex natural v Ment.	or the 1981 er the 10% cceedance l volume -act	and 90% Ch evels. ual volume	ance of	Exceeding	are y upstream			
					=======					
	Dee		BIGHORN RIV		f April					
			corage (100		-		==========			
			Usable			e Storage				
Reservoir			Capacity	This Yea		t Year	Average			
======================================		=======	======================================	487.7						
BOYSEN BIGHORN LAKE			1356.0	407.7		587.4 824.3	476.4 773.6			
===========		===========								
			BIGHORN RIV			_				
			nowpack Ana	-	-					
			Number o			ear as Per				
Watershed			Data Sit		Last Y		ledian			
================		==========					=========			
NOWOOD RIVER			7		193		141			
GREYBULL RIV	ER		2		325		105			
SHELL CREEK			4		88		105			
BIGHORN (Boy	sen-Bighor	n)	13		134		120			

**Bighorn River Basin** Streamflow Forecasts - May 1, 2013

# Shoshone River Basin

#### Snow



Snow Water Equivalent (SWE) is 93% of normal in the Shoshone River Basin. The Clarks Fork River drainage SWE is 104% of normal. See the "Basin Summary of Snow Course Data" at the front of this report for details.

#### Precipitation

Precipitation for last month was 115% of average (110% of last year). Monthly percentages range from 47-133% of average. The basin year-to-date precipitation is now 99% of average (79% of last year). Year-to-date percentages range from 56-117% of average for the 11 reporting stations.

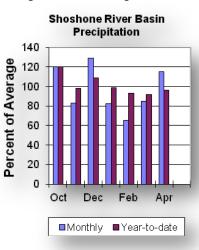
#### Reservoirs

Current storage in Buffalo Bill Reservoir is about 125% of average (87% of last year's storage) - the reservoir is at about 65% of capacity. Currently, about

420,500 ac-ft are stored in the reservoir compared to 480,600 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 May through September period are expected to be below average for the basin. The North Fork Shoshone River at Wapiti is 460,000 ac-ft (95% of average). The South Fork of the Shoshone River near Valley is 205,000 ac-ft (87% of average), and the South Fork above Buffalo Bill Reservoir runoff is 162,000 acft (84% of average). The Buffalo Bill Reservoir inflow is expected to yield around 615,000 ac-ft (88% of average). See the following page for detailed runoff volumes.

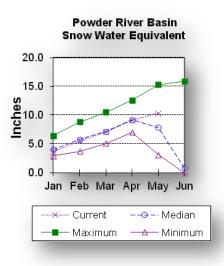


	<pre>&lt;=== Drier === Future Conditions === Wetter ===&gt;</pre>										
Forecast Pt	=========	(	hance of	Evceeding	*						
Forecast	90%	70%	50		30%	10%	30 Yr Avg				
Period	(1000AF)	(1000AF)	(1000AF)	(% AVG.) (	1000AF)	(1000AF)	(1000AF)				
NF Shoshone MAY-JUL	R at wapit: 330	380	410	95	440	490	430				
MAY-SEP	370	425	460	95	495	550	485				
SF Shoshone		-	170	0.0	101	210	200				
MAY-JUL MAY-SEP	146 168	165 190	178 205	89 87	191 220	210 240	200 235				
	100	190	205	0,	220	210	200				
SF Shoshone R ab Buffalo Bill Res											
MAY-JUL	106	136	157	85	178	210	184				
MAY-SEP	107	140	162	84	184	215	192				
Buffalo Bill	Reservoir	Inflow (2	2)								
MAY-JUL	430	505	555	88	605	680	630				
MAY-SEP	475	560	615	88	670	755	700				
Clarks Fk Ye	llowstone	R nr Belfr	ŶV								
MAY-JUL	390	430	460	96	490	530	480				
MAY-SEP	415	465	500	95	535	585	525				
the act The aver (1) - The act (2) - The wat (3) - Med	ual volume age is comp values lis ually 5% as value is p er managem ian value	will exce puted for sted under nd 95% exc natural vo ent. used in pl	eed the vo the 1981- the 10% ceedance l olume -act	lumes in t 2010 base and 90% Ch evels. ual volume erage.	he table period. ance of may be	Exceeding affected k	by upstream				
==========			HOSHONE RI		=======						
	Res			OAF) End o	f April						
			<b>.</b>	===========	=======						
			Usable			e Storage	_				
Reservoir			Capacity			t Year ==========	Average				
BUFFALO BILI			646.6	420.5		480.6	336.3				
===========	===========					=========					
		ershed Sno	-	lysis - Ma							
	========		Number o	======= f		ear as Per	cent of				
Watershed			Data Sit		Last Y		ledian				
===========	===========				=======	=========					
SHOSHONE RIV	ER		5		112		93				

Shoshone River Basin Streamflow Forecasts - May 1, 2013

# Powder River Basin

#### Snow



Snow water equivalent (SWE) in the Upper Powder River drainage is 138% of normal. SWE in the Clear Creek drainage is 120% of normal. Crazy Woman Creek drainage is 139% of normal. Powder River Basin SWE in Wyoming is 130% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

#### Precipitation

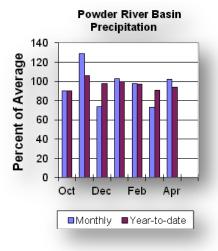
Last month's precipitation was 102% of average for the 11 reporting stations (112% of last year). Monthly percentages range from 9-145% of average. Year-todate precipitation is 94% of average in the basin; this is 91% of last year at this time. Precipitation for the year ranges from 71-112% of average.

#### Reservoirs

No reservoir data for the basin.

#### Streamflow

The 50% exceedance forecasts for the May through September period are expected to be above average for the basin. The Middle Fork of the Powder River near Barnum is The North 15,700 ac-ft (108% of average). Fork of the Powder River near Hazelton should yield around 11,300 ac-ft (126% of average). Rock Creek near Buffalo will yield about 19,700 ac-ft (94% of average),



and Piney Creek at Kearny should yield about 38,000 ac-ft (88% of The Powder River at Moorhead is 178,000 ac-ft (105% of average). The Powder River near Locate is 195,000 ac-ft (105% of average). average). See the following page for detailed runoff volumes.

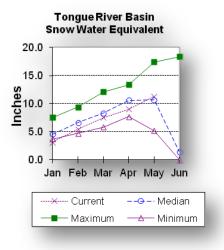
=======================================			ow Foreca:	-			==========
		ier === H					
Forecast Pt	=======	======= (	Chance of	Exceeding	y * ======	=======	
Forecast	90%	70%	50	8	30%	10%	30 Yr Avg
	(1000AF)		(1000AF)				(1000AF)
MF Powder R							
MAY-JUL	9.8	12.8	14.8	108	16.8	19.8	13.7
MAY-SEP	10.5	13.6	15.7	108	17.8	21	14.6
NF Powder R	nr Hazelto	n					
MAY-JUL	7.8	9.4	10.5	127	11.6	13.2	8.3
MAY-SEP	8.4	10.1	11.3	126	12.5	14.2	9.0
Rock Ck nr B	uffalo						
MAY-JUL	10.0	13.7	16.2	92	18.7	22	17.7
MAY-SEP	13.0	17.0	19.7	94	22	26	21
Piney Ck at 1	Kearny						
MAY-JUL	19.2	29	35	88	41	51	40
MAY-SEP	21	31	38	88	45	55	43
Powder R at 1	Moorhead						
MAY-JUL	70	121	156	103	191	240	151
MAY-SEP	88	142	178	105	215	270	170
Powder R nr 1	Locate						
MAY-JUL	62	127	171	104	215	280	164
MAY-SEP	76	147	195	105	245	315	185
<ul> <li>* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1981-2010 base period.</li> <li>(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.</li> <li>(2) - The value is natural volume -actual volume may be affected by upstream water management.</li> <li>(3) - Median value used in place of average.</li> </ul>							
==========			WDER RIVE				
		ershed Sno					
===========			Number o			========= ear as Per	
Watershed			Data Sit	es	Last Y	ear M	ledian
UPPER POWDER			5		210		138
CLEAR CREEK	~~~~		4		255		120
CRAZY WOMAN			3		157		139
POWDER RIVER	TU MA		9		224		130

**Powder River Basin** Streamflow Forecasts - May 1, 2013

# **Tongue River Basin**

#### Snow

Snow water equivalent (SWE) in the Tongue River drainage is 102% of normal. The Goose Creek drainage is 99% of normal. For more information



Precipitation

Last month's precipitation was 101% of average for the 9 reporting stations (107% of last year). Monthly percentages range from 71-230% of average. Year-to-date precipitation is 78% of average in the basin; this is 67% of last year at this time. Precipitation for the year ranges from 76-158% of average.

see "Basin Summary of Snow Course Data" at

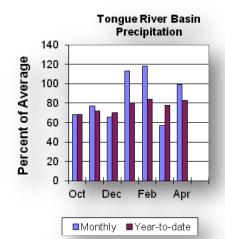
the beginning of this report.

#### Reservoirs

The Tongue River Reservoir currently is storing 168% of average (58,300 ac-ft) compared to 88% of last year's storage.

### Streamflow

The 50% exceedance forecasts for the May through September period are expected to be below average for the basin. The yield for Tongue River near Dayton is 86,000 ac-ft (94% of average). Big Goose Creek near Sheridan is 44,000 ac-ft (85% of average). Little Goose Creek near Bighorn is 31,000 ac-ft (84% of average). The Tongue River Reservoir Inflow is 166,000 ac-ft (84% of average). See the following page for detailed runoff volumes.



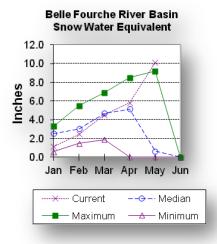
	=========	==========	========	===========	=======	===========	
	<=== Dr:	ier === F	'uture Co	nditions	=== Wett	er ===>	
Forecast Pt	   =========	====== (	hance of i	Exceeding	* ======	=======	
Forecast	90%	70%	50	-	30%	10%	30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF)	(% AVG.) (	1000AF)	(1000AF)	(1000AF)
==========				=======	=======	==========	=====
Tongue R nr 1							
MAY-JUL	47	63	74	93	85	101	80
MAY-SEP	57	74	86	94	98	115	92
Big Goose Ck	nr Sherida	an					
MAY-JUL	22	31	36	82	41	50	44
MAY-SEP	30	38	44	85	50	58	52
Tittle Coore	Olt my Dial	0.030					
Little Goose MAY-JUL	15.6	21	24	83	27	32	29
MAY-SEP	22	21	31	84	35	40	37
MAI SEF	22	27	51	101	55	40	57
Tongue River	Reservoir	Inflow (2	2)				
MAY-JUL	55	109	145	83	181	235	175
MAY-SEP	70	127	166	84	205	260	198
The ave: (1) - The act: (2) - The wate	ual volume rage is con values li; ually 5% an value is n er manageme ian value n	mputed for sted under nd 95% exc natural vo ent.	the 1981 the 10% ceedance lo lume -act	-2010 base and 90% Ch evels. ual volume	period. ance of	Exceeding	are y upstream
=================	============	===========	===========	===========	=======	===========	========
	_	-	NGUE RIVE				
=================				0AF) End o 	-		
			Usable			e Storage	
Reservoir		C	apacity	This Yea	r Las	t Year	Average
===========	===========						
TONGUE RIVER			79.1	58.3		66.1	34.7
			NGUE RIVE				
	Wate			lysis - Ma	y 1, 201	3	
===============			-	-			
Watershed			Number o Data Sit	es	Last Y		edian
GOOSE CREEK	===========		3		203	===========	====== 99
TONGUE RIVER	BASTN		3		203 154		99 102
TOINGOR KIVER	עדטעט		2		104		TUZ

**Tongue River Basin** Streamflow Forecasts - May 1, 2013

# **Belle Fourche River Basin**

#### Snow

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



### Precipitation

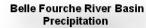
Precipitation for last month was 112% of average or 112% of last year in the Black Hills. There were 6 reporting stations.

Year-to-date precipitation is 83% of average and 90% of last year's amount.

#### Reservoirs

Belle Fourche reservoir is storing 89% of average (129,900 ac-ft), about

73% of capacity. Keyhole reservoir is storing 154% of average (151,400 ac-ft), about 78% of capacity. Shadehill reservoir is storing 57% of average (37,400 ac-ft), about 46% 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.

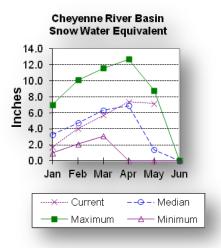
# Belle Fourche River Basin

		amflow Forecas			
		==============		TT-++	
	<=== Drier ==	= Future Co	nditions ==	= Wetter ===>	
Forecast Dt	   ===================================	- Chance of	Freeding *		
Forecast	90% 70%			0% 10%	   30 Yr Avq
	(1000AF) (1000		-		
=================				=======================================	1
the acturnation the aver (1) - The acturnation (2) - The wate	, 50%, 30%, and aal volume will rage is computed values listed u ally 5% and 95% value is natura er management. ian value used i	exceed the vo for the 1981 nder the 10% exceedance l l volume -act	lumes in the -2010 base p and 90% Char evels. ual volume m	e table. Deriod. Noce of Exceeding	are
					======
	Deservesion	Storage (100	HE RIVER BAS		
		Storage (100	,	-	
		Usable	********	Usable Storage	*****
Reservoir		Capacity	This Year	Last Year	Average
=============					==========
BELLE FOURCH	E	178.4	129.9	168.6	145.7
KEYHOLE		193.8	151.4		98.1
SHADEHILL		81.4	37.4	41.8	65.2
============				=======================================	======
	Watarahad	Snowpack Ana	HE RIVER BAS		
	watersneu	Showpack Ana	19818 - May 	1, 2013	
		Number o	 f	This Year as Pe	ercent of
Watershed		Data Sit	es	Last Year	Median
BELLE FOURCH	 C	======= 3		1211	155

# **Cheyenne River Basin**

#### Snow

The Cheyenne River Basin SWE is well above 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 107% of average or 111% of last year in the Black Hills. There were 5 reporting stations. Monthly percentages range from 78-43%. Year-to-date precipitation is 96% of average and 81% of last year's amount. Yearly percentages range from 89-105% of average.

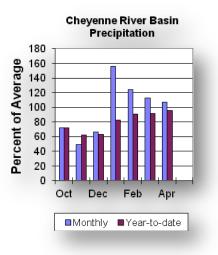
#### Reservoirs

Angostura is currently storing 69% of average (78,600 ac-ft), about 64% of capacity. Deerfield reservoir is storing 113% of average (15,400 ac-ft), about 101% of capacity. Pactola reservoir is storing 108% of average (51,900 ac-ft), about 94%

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 runoff values are the 50% exceedance forecasts for the May through July period. The Deerfield Reservoir Inflow is expected to be 5,500 ac-ft (141% of average). Pactola Reservoir Inflow is expected to yield around 23,000 ac-ft (131% of average). See the following page for detailed runoff volumes.



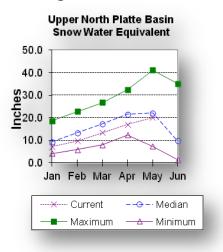
## **Cheyenne River Basin** Streamflow Forecasts - May 1, 2013

	St	reamflow For	ecasts - May	1, 2013		
===========	======================================	======================================	Conditions	===== Wett	======================================	
		ideale	condicions	Weee	CI	
Forecast Pt	====================================	==== Chance	of Exceeding		=======	
Forecast	1	70%	50%	30%	10%	30 Yr Avg
	(1000AF) (1					
	servoir Inflo		=============			
MAY-JUL		4.1 5.5	141	6.9	9.0	3.9
Pactola Rese	rvoir Inflow	(2)				
MAY-JUL	4.2 1	5.4 23		31	42	17.5
The ave: (1) - The actr (2) - The wate (3) - Med:	ual volume wi rage is compu- values lister ually 5% and value is nat- er management ian value user	ted for the 1 d under the 1 95% exceedanc ural volume - d in place of ETHEVENNE	981-2010 base 0% and 90% Ch e levels. actual volume average. E RIVER BASIN	e period. nance of e may be	Exceeding affected b	by upstream
	Reserv		1000AF) End c	-		
		Usable			e Storage	
Reservoir		Capacit	y This Yea	ar Las	t Year	Average
ANGOSTURA		122.1		-	107.9	113.7
DEERFIELD PACTOLA		15.2		_	15.3 54.3	13.6 47.9
	==================	==================				========
		CHEYENNE	RIVER BASIN			
		-	Analysis - Ma			
==========		Numbe			ear as Pei	
Watershed			Sites	Last Y		ledian
CHEYENNE BAS	IN		2	0		512

# **Upper North Platte River Basin**

#### Snow

The stations above Seminoe Reservoir are showing about 91% of normal (SWE) for this time of the year. SWE in the drainage area above Northgate is 94% of normal at this time. SWE in the Encampment River drainage is about 95% of normal. Brush Creek SWE for the year is about



89% of normal. Medicine Bow and Rock Creek drainages SWE are about 85% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

### Precipitation

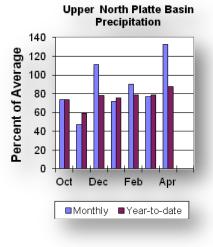
Thirteen reporting stations show last month's precipitation at 133% of average or 229% of last year's amount. Precipitation varied from 71-200% of average last month. Total water-year-todate precipitation is about 88% of average for the basin, which is about 113% of last year's amount. Year to date percentage ranges from 48-119% of average.

#### Reservoirs

Seminoe Reservoir is estimated to be storing 491,600 ac-ft or 48% of capacity. Seminoe Reservoir is also storing about 100% of average for this time of the year and 59% 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 May through September period and are expected to be below average for the Upper North Platte River Basin. Yield for the North Platte River near Northgate will be around 174,000 ac-ft (83% of average). The Encampment River near Encampment is 98,000 ac-ft (77% of average). Rock Creek near Arlington is 39,000 ac-ft (78% of average). Seminoe Reservoir inflow should be around 460,000 ac-ft (69% of average). See the following table for more detailed information on projected runoff.



# Upper North Platte River Basin Streamflow Forecasts - May 1, 2013

============							=======
	<=== Dri 	er ===	Future Con	nditions	=== Wett	er ===>   	
Forecast Pt	=========			-			
Forecast Period	90%  (1000AF)	70% (1000 \ \ \ \	509 ) (1000AF)	1	30% (10007E)	10%   (1000AF)	30 Yr Avg (1000AF)
=======================================							,
North Platte		2					
MAY-JUL MAY-SEP	74 80	122 136	155 174	83 83	188 210	235 270	187 210
MAI-SEP	80	130	1/4	0.5	210	270	210
Encampment R	-						
MAY-JUL MAY-SEP	58 63	78 84	91 98	77 77	104 112	124 133	118 127
MAI-SEP	03	04	90	11		133	127
Rock Ck nr A	-						
MAY-JUL	26	32	37	77	42	48	48
MAY-SEP	27	34	39	78	44	51	50
Sweetwater R	nr Alcova						
MAY-JUL	1.0	4.7	14.0	30	23	37	46
MAY-SEP	2.7	6.4	16.6	33	27	42	50
Seminoe Rese	rvoir Inflo	w (2)					
MAY-JUL	127	300	420	68	540	715	615
MAY-SEP	136	330	460	69	590	785	670
The ave: (1) - The actr (2) - The wate	rage is com values lis ually 5% an value is n er manageme ian value u	puted f ted und d 95% e atural nt. sed in j	ceed the volor or the 1981- er the 10% a xceedance le volume -actu place of ave	-2010 base and 90% Cl evels. ual volume erage.	e period. hance of e may be	Exceeding affected b	y upstream
	Rese	rvoir S	UPPER NORTH torage (1000	PLATTE R DAF) End (	IVER BASI of April	N	
		======	Usable			======== e Storage	
Reservoir			Capacity	This Yea	ar Las	t Year	Average
SEMINOE			1016.7	491.	6	826.5	492.5
	Wate	rshed S	UPPER NORTH nowpack Ana	PLATTE R lysis – Ma	IVER BASI ay 1, 201	N 3	
============			Number of			========= ear as Per	
Watershed			Data Site		Last Y	ear M	ledian
N PLATTE abo			============== 7	======	======= 297	=	94
ENCAMPMENT R			4		260		95
BRUSH CREEK		FVC	5		317		89
MEDICINE BOW N PLATTE aboy		erd	2 18		147 255		85 91
					200		

# **Sweetwater River Basin**

#### Snow

SWE for the Sweetwater River Basin is at 63% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

Sweetwater River Basin Snow Water Equivalent

#### Precipitation

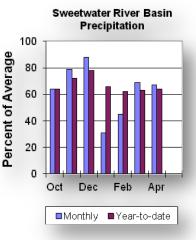
Last month's precipitation was 67% of average or 146% of last year's amount. The water year-to-date precipitation for the basin is currently 64% of average (81% of last year).

#### Reservoirs

Reservoir storage is as follows: Pathfinder 398,900 ac-ft (65% of average). Last year at this time the reservoir was 905,400 ac-ft.

#### Streamflow

The following yields are based on the 50% exceedance forecasts for the May through September period. The Sweetwater River near Pathfinder is forecast to yield about 16,600 ac-ft (33% of average). See the following table for more detailed information on projected runoff.



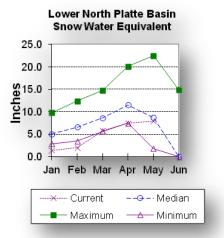
# Sweetwater River Basin

		Stream	flow Foreca	sts - May	1, 2013		
	========   <=== Dr	======= ier ===	Future Co	nditions	==== Wett	er ===>	
Forecast Pt Forecast Period	90% (1000AF)	70% (1000AF	Chance of   50 ) (1000AF)	%   (% AVG.) (	30% (1000AF)	10% (1000AF)	
Sweetwater R MAY-JUL MAY-SEP	nr Alcova 1.0 2.7	4.7 6.4	14.0 16.6	30 33	23 27	37 42	46 50
the act The ave (1) - The act (2) - The wate	al volume rage is co values li ally 5% a value is er managem	will ex mputed f sted und nd 95% e natural ent.	% chances o ceed the vo or the 1981 er the 10% xceedance 1 volume -act place of av	lumes in t -2010 base and 90% Ch evels. ual volume	the table period. nance of	Exceeding	are
	Res		SWEETWATER torage (100				
Reservoir			Usable Capacity	This Yea	*** Usabl ar Las	e Storage t Year	
PATHFINDER			1016.5	398.9	-======= )	905.4	617.9
	Wat	ershed S	============== SWEETWATER nowpack Ana	RIVER BASI	IN		
Watershed			Number c Data Sit	es	Last Y		ledian
SWEETWATER			3		168		63

# Lower North Platte River Basin

#### Snow

SWE for the Lower North Platte River Basin (Laramie Range Mts.) is at 91% of normal. Deer and LaPrele Creek SWE are at 90% of normal. SWE for the



North Platte (includes Upper North Platte, Sweetwater and Laramie River Basins) is 92% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

#### Precipitation

Last month's precipitation was 105% of average or 155% of last year's amount. Of the 5 reporting stations, percentages for the month range from 82-197%. The water year-to-date precipitation for the basin is currently 76% of average (75% of last year). Year-to-date percentages range from 64-101% of average.

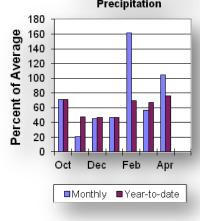
#### Reservoirs

Lower North Platte Basin Precipitation

Reservoir storage is as follows: Alcova 180,300 ac-ft (101% of average); Glendo 385,200 ac-ft (89% of average); Guernsey 6,800 ac-ft (23% of average); Pathfinder 398,900 ac-ft (65% of average). The combined storage of these 4 reservoirs plus Seminoe is 83% of average, 53% of capacity, and 61% of last year at this time.

#### Streamflow

The following yields are based on the 50% exceedance forecasts for the May through September period. North Platte River below Glendo Reservoir is 485,000 ac-ft (69% of average). See the following table for more detailed information on projected runoff.



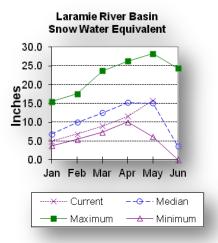
# Lower North Platte River Basin Streamflow Forecasts - May 1, 2013

	==========		==========	============	======	==========				
	<=== Dr:	ier ===	Future Co	nditions =	== Wett	er ===>				
Forecast Pt	   ========	======	Chance of	Exceeding *		   =======				
Forecast		70%	50	8	30%	10%	30 Yr Avg			
Period	1.1		1.1	(% AVG.) (1						
North Platte										
MAY-JUL	-6.0	10.0	26	27	67	128	96			
MAY-SEP	-6.0	11.0	28	27	70	132	104			
North Platte	R bl Gleno	do Res (2	)							
MAY-JUL	215	360	460	69	560	705	670			
MAY-SEP	235	385	485	69	585	735	700			
North Platte	P bl Gueri	ngay Rag	(2)							
MAY-JUL	185	360	480	72	600	775	670			
MAY-SEP	210	390	515	74	640	820	700			
======================================				f exceeding						
				lumes in th		-	ittes that			
The ave	rage is com	mputed fo	r the 1981	-2010 base	period.					
				and 90% Cha	nce of i	Exceeding	are			
	ually 5% an			evels. ual volume	may he	affected b	w unstream			
			orunic act	uai voiume	may be		y upscicam			
		used in p	water management.							
===========	(3) - Median value used in place of average.									
			=========	===========		========				
		- ======== LOWER	NORTH PLA		ASIN					
	R	LOWER LOWER	NORTH PLA Storage (1	TTE RIVER BA	ASIN of Apri ======	1				
	R	LOWER eservoir	NORTH PLA Storage (1 Usable	TTE RIVER BA .000AF) End ====================================	ASIN of Apri ====== * Usabl	l ======= e Storage	*****			
Reservoir	R:	LOWER eservoir	NORTH PLA Storage (1  Usable Capacity	TTE RIVER B .000AF) End 	ASIN of Apri ======= * Usabl Las	l ======= e Storage t Year	********* Average			
Reservoir ====================================	R:	LOWER eservoir	NORTH PLA Storage (1 Usable Capacity 184.3	TTE RIVER BA .000AF) End ********** This Year 180.3	ASIN of Apri ====== * Usabl Las =======	1 ======= storage t Year ====================================	******** Average 178.9			
Reservoir ====== ALCOVA GLENDO	R:	LOWER eservoir	NORTH PLA Storage (1 Usable Capacity 184.3 506.4	TTE RIVER BA .000AF) End ********* This Year 180.3 385.2	ASIN of Apri ====== * Usabl Las =======	1 ========= t Year ====================================	******** Average 178.9 434.5			
Reservoir ======= ALCOVA GLENDO GUERNSEY	R:	LOWER eservoir	NORTH PLA Storage (1 Usable Capacity 184.3 506.4 45.6	TTE RIVER B2 .000AF) End ********* This Year 180.3 385.2 6.8	ASIN of Apri * Usabl Las ======	1 ========= t Year ====================================	Average 178.9 434.5 29.9			
Reservoir ====== ALCOVA GLENDO	R.	LOWER eservoir	NORTH PLA Storage (1 Usable Capacity 184.3 506.4	TTE RIVER BA .000AF) End ********* This Year 180.3 385.2	ASIN of Apri * Usabl Las	1 ========= t Year ====================================	Average 178.9 434.5 29.9 617.9			
Reservoir ====================================	R.	LOWER eservoir	NORTH PLA Storage (1 Usable Capacity 184.3 506.4 45.6 1016.5 NORTH PLA	TTE RIVER B2 .000AF) End ********* This Year 180.3 385.2 6.8 398.9 TTE RIVER B2	ASIN of Apri * Usabl Las ======= ASIN	1 e Storage t Year 179.4 478.1 20.0 905.4	Average 178.9 434.5 29.9 617.9			
Reservoir ====================================	R.	LOWER eservoir 	NORTH PLA Storage (1 Usable Capacity 184.3 506.4 45.6 1016.5 NORTH PLA nowpack Ar	TTE RIVER B2 .000AF) End ********* This Year 180.3 385.2 6.8 398.9 TTE RIVER B2 halysis - Ma	ASIN of Apri ======= * Usabl Las ======= ASIN y 1, 20	1 e Storage t Year 179.4 478.1 20.0 905.4 ==========	********* Average 178.9 434.5 29.9 617.9			
Reservoir ====================================	R.	LOWER eservoir 	NORTH PLA Storage (1 Usable Capacity 184.3 506.4 45.6 1016.5 NORTH PLA nowpack Ar	TTE RIVER B2 .000AF) End ********* This Year 180.3 385.2 6.8 398.9 TTE RIVER B2 halysis - Ma	ASIN of Apri "Usabl Las """""""""""""""""""""""""""""""""""	1 e Storage t Year 179.4 478.1 20.0 905.4 ==========	********* Average 178.9 434.5 29.9 617.9			
Reservoir ALCOVA GLENDO GUERNSEY PATHFINDER ====================================	R.	LOWER eservoir LOWER LOWER tershed S	NORTH PLA Storage (1 Usable Capacity 184.3 506.4 45.6 1016.5 NORTH PLA nowpack Ar Number of Data Sit	TTE RIVER B2 .000AF) End ********* This Year 180.3 385.2 6.8 398.9 TTE RIVER B2 halysis - Ma end f.	ASIN of Apri ====== * Usabl Las ====== ASIN y 1, 20 ====== This Y Last Y	1 e Storage t Year 179.4 478.1 20.0 905.4 =========== 13 ear as Per ear M	Average 178.9 434.5 29.9 617.9 			
Reservoir ALCOVA GLENDO GUERNSEY PATHFINDER ====================================	R.	LOWER eservoir LOWER LOWER tershed S	NORTH PLA Storage (1 Usable Capacity 184.3 506.4 45.6 1016.5 NORTH PLA nowpack Ar Number of Data Sit	TTE RIVER B2 .000AF) End ********* This Year 180.3 385.2 6.8 398.9 TTE RIVER B2 halysis - Ma end f.	ASIN of Apri ====== * Usabl Las ====== ASIN y 1, 20 ====== This Y Last Y ======	1 e Storage t Year 179.4 478.1 20.0 905.4 =========== 13 ear as Per ear M	********* Average 178.9 434.5 29.9 617.9 			
Reservoir ALCOVA GLENDO GUERNSEY PATHFINDER ====================================	Ra 	LOWER eservoir LOWER LOWER tershed S	NORTH PLA Storage (1 Usable Capacity 184.3 506.4 45.6 1016.5 NORTH PLA nowpack Ar Number of Data Sit	TTE RIVER B2 .000AF) End ********* This Year 180.3 385.2 6.8 398.9 TTE RIVER B2 halysis - Ma end f.	ASIN of Apri ====== * Usabl Las ====== ASIN y 1, 20 ====== This Y Last Y	1 e Storage t Year 179.4 478.1 20.0 905.4 =========== 13 ear as Per ear M	Average 178.9 434.5 29.9 617.9 			

# Laramie River Basin

#### Snow

SWE for the Laramie River Basin above mouth is at 105% of normal. SWE for the Laramie River above Laramie is 119% of normal. SWE for the



Little Laramie River is 95% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

### Precipitation

Last month's precipitation was 133% of average or 253% of last year's amount. Of the 8 reporting stations, percentages for the month range from 62-173%. The water year-to-date precipitation for the basin is currently 85% of average (101% of last year). Year-to-date percentages range from 64-112% of average.

Reservoirs

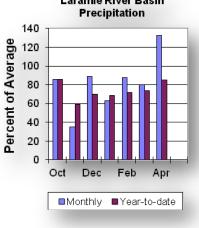
Laramie River Basin

Reservoir

storage is as follows: Wheatland #2 32,400 ac-ft (last year it was at 95,000 ac-ft).

#### Streamflow

The following yields are based on the 50% exceedance forecasts for the May through September period. Laramie River near Woods Landing should yield around 105,000 ac-ft (88% of average). The Little Laramie near Filmore should produce about 39,000 ac-ft (75% of average). See the following table for more detailed information on projected runoff.



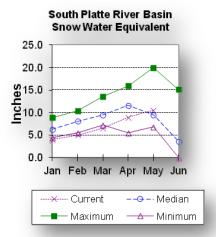
				ists - May			
	<=== Drier				=== Wett		
							İ
	===========			<u> </u>			
Forecast	90%	70%		) %	30%	10%	30 Yr Avg
Period	(1000AF) (1 =============			(% AVG.) (			•
Laramie R nr							
MAY-JUL	61	81	95	88	109	129	108
MAY-SEP	67	90	105	88	120	143	119
	ie R nr Filmo						
MAY-JUL	22	30	36	75	42	50	48
MAY-SEP	23 ===========	33	39	75	45	55	52
The ave: (1) - The act (2) - The	ual volume wi rage is compu values liste ually 5% and value is nat	uted for ed under 95% exce	the 1983 the 10% edance 3	l-2010 base and 90% Ch levels.	e period. Nance of	Exceeding	
(3) - Med		ed in pla ======= LAR voir Stor	ce of av ======== AMIE RIV age (100	verage. ======== VER BASIN DOAF) End c	of April		
(3) - Med	ian value use ======	ed in pla LAR voir Stor	ce of av ======== AMIE RIV age (100	verage. VER BASIN DOAF) End c	)f April		
(3) - Med	ian value use ====== Reserv	ed in pla LAR voir Stor UU	ce of av ======= AMIE RIV age (100 ===================================	verage. VER BASIN DOAF) End c	of April ====================================		
(3) - Med ======= Reservoir	ian value use ====== Reserv	ed in pla LAR voir Stor U Ca	ce of av ======= AMIE RIV age (100 ======= sable pacity =======	verage. VER BASIN DOAF) End c ******* This Yea	of April 	e Storage t Year	====== ******** Average
(3) - Med ========= Reservoir =========== WHEATLAND #2	ian value use Reserv	ed in pla LAR roir Stor U Ca	ce of av AMIE RIV age (100 sable pacity 98.9	verage. VER BASIN DOAF) End c ******* This Yea 32.4	of April *** Usabl rr Las	e Storage t Year 95.0	******** Average
(3) - Med	ian value use Reserv	ed in pla LAR voir Stor Ca LAR LAR LAR	ce of av ======= AMIE RIV age (100 ======= sable pacity ======= 98.9 ======= 98.9 ======= AMIE RIV pack Ana	Verage. VER BASIN DOAF) End control ******** This Yea 32.4 Second Second VER BASIN alysis - Ma	of April *** Usabl r Las =======	e Storage t Year 95.0	********* Average
(3) - Med	ian value use Reserv	ed in pla LAR voir Stor Ca LAR LAR LAR	ce of av AMIE RIV age (100 sable pacity 98.9 ======= AMIE RIV pack Ana	Verage. VER BASIN DOAF) End control ******** This Yea 32.4 Second Second VER BASIN alysis - Ma	of April *** Usabl r Las 	e Storage t Year 95.0 3	********* Average
(3) - Med	ian value use Reserv	ed in pla LAR voir Stor Ca LAR LAR LAR	ce of av ======= AMIE RIV age (100 ======= sable pacity ======= 98.9 ======= AMIE RIV pack Ana =======	verage. VER BASIN DOAF) End control ******** This Yea 32.4 Second Second VER BASIN alysis - Ma Second Secon	of April *** Usabl r Las ======= y 1, 201 ======= This Y	e Storage t Year 95.0 3 ear as Pe:	********* Average
<pre>(3) - Med</pre>	ian value use Reserv	ed in pla LAR voir Stor Ca LAR LAR LAR	ce of av ====================================	verage. VER BASIN DOAF) End co ******** This Yea 32.4 Second Second VER BASIN alysis - Ma Second Sec	of April *** Usabl ar Las y 1, 201 This Y Last Y	e Storage t Year 95.0 3 ear as Pe ear I	Average
(3) - Med 	ian value use Reserv	ed in pla LAR voir Stor Ca LAR LAR LAR shed Snow	ce of av ======= AMIE RIV age (100 ======= sable pacity ======= 98.9 ======= 98.9 ======= AMIE RIV pack Ana ======= Number of Data Sit =======	verage. VER BASIN DOAF) End co ******** This Yea 32.4 Second Second VER BASIN alysis - Ma Second Sec	of April *** Usabl ar Las y 1, 201 This Y Last Y	e Storage t Year 95.0 3 ear as Pe ear I	Average
<pre>(3) - Med</pre>	ian value use Reserv Waters Raby Laramie IE RIVER	ed in pla LAR voir Stor Ca LAR LAR LAR shed Snow	ce of av ======= AMIE RIV age (100 ======= sable pacity ======= 98.9 ======= AMIE RIV pack And ======= Number ( Data Sit ======= 6 5	verage. VER BASIN DOAF) End co ******** This Yea 32.4 Second Second VER BASIN alysis - Ma Second Sec	of April *** Usabl ar Las y 1, 201 This Y Last Y 356 323	e Storage t Year 95.0 3 ear as Pe ear I	Average        -
<pre>(3) - Med</pre>	ian value use Reserv Waters Rabv Laramie R abv Laramie R above mouth	ed in pla LAR voir Stor Ca LAR LAR LAR shed Snow	ce of av ======= AMIE RIV age (100 ======= sable pacity ======= 98.9 ======= AMIE RIV pack Ana ======= Number ( Data Sit ======= 6 5 12	verage. VER BASIN DOAF) End co ******** This Yea 32.4 Second Second VER BASIN alysis - Ma Second Sec	of April *** Usabl ar Las y 1, 201 This Y Last Y 356 323 349	e Storage t Year 95.0 3 ear as Pe ear I	Average   rcent of Median 119 95 105
<pre>(3) - Med</pre>	ian value use Reserv Waters Raby Laramie IE RIVER	ed in pla LAR voir Stor Ca LAR Ca LAR shed Snow Ca LAR Shed Snow	ce of av ======== AMIE RIV age (100 ======= sable pacity ======= 98.9 ======= AMIE RIV pack Ana ======= AMIE RIV pack Ana ======= 0 Data Sit ======= 6 5 12 34	verage. VER BASIN DOAF) End constraints This Yea 32.4 VER BASIN alysis - Ma cof tes	of April *** Usabl ar Las y 1, 201 This Y Last Y 356 323	e Storage t Year 95.0 3 ear as Pe ear I	Average        -

# Laramie River Basin Streamflow Forecasts - May 1, 2013

# South Platte River Basin

#### Snow

SWE for the South Platte River Basin is at 111% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of



this report.

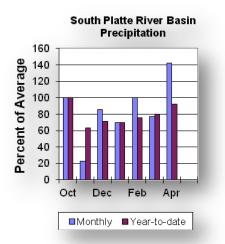
### Precipitation

Last month's precipitation was 142% of average or 63% of last year's amount. The water year-to-date precipitation for the basin is currently 92% of average (107% of last year).

#### Reservoirs

No reservoir data for the basin.

Streamflow



There are no streamflow forecast points for the basin.

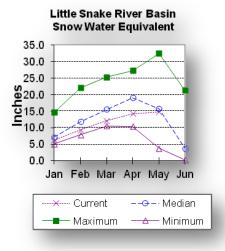
# South Platte River Basin

	Watershed Snowpack Analysis -	May 1, 2013					
Watershed	Number of Data Sites	This Year as Last Year	Percent of Median				
SOUTH PLATTE RIVER	7	353	111				

# Little Snake River Basin

#### Snow

Currently, snow water equivalent (SWE) in the Little Snake River drainage is 94% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.



### Precipitation

Precipitation across the basin was 138% of average (261% of last year) for the 8 reporting stations. Last month's precipitation ranged from 91-168% of average. The Little Snake River basin water-year-to-date precipitation is currently 84% of average (109% of last year). Year-to-date percentages range from 70-105% of average.

#### Reservoirs

High Savery Dam is currently holding 9,800 ac-ft. This is 65% of average and 44% of capacity.

Percent of Average

40

20

n

#### Streamflow

#### The 50% exceedance forecast for the May through July time frame on the Little Snake River drainage is expected to be below average this year. The Little Snake River near Slater should yield around 86,000 ac-ft (62% of average). The Little Snake River at Dixon is estimated to yield around 158,000 ac-ft (54% of average). See the following table for more detailed information on projected runoff.





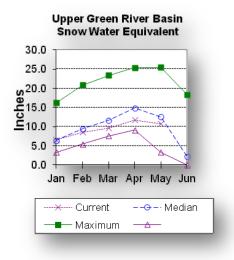
# Little Snake River Basin Streamflow Forecasts - May 1, 2013

	<pre>&lt;=== Drier === Future Conditions === Wetter ===&gt;   </pre>								
Forecast Pt	========	======	Chance of	Exceeding	* =====	=======			
Forecast	90%	70%	50		30%	10%	30 Yr Avg		
			(1000AF)						
Little Snake		- ( )	0.2	ГО	100	1.0.0	1 5 6		
APR-JUL MAY-JUL	68 62	82 76	92 86	59 62	103 97	120 113	156 138		
MAI-00L	02	70	00	02	97	113	130		
Little Snake	R nr Dixo	on (2)							
APR-JUL	100	140	172	50	207	265	345		
MAY-JUL	86	126	158	54	193	251	295		
actually 5% and 95% exceedance levels. (2) - The value is natural volume -actual volume may be affected by upstream water management. (3) - Median value used in place of average. LITTLE SNAKE RIVER BASIN Reservoir Storage (1000AF) End of April									
Usable ********* Usable Storage ********									
Reservoir			Capacity			-	Average		
==================							-		
HIGH SAVERY			22.4	9.8	3	16.2	15.1		
LITTLE SNAKE RIVER BASIN Watershed Snowpack Analysis - May 1, 2013									
Number ofThis Year as Percent ofWatershedData SitesLast YearMedian							cent of Nedian		
LITTLE SNAKE RIVER 10 329 94									
===============		=========	==========	=========		==========			

# **Upper Green River Basin**

#### Snow

SWE in the Green River Basin above Warren Bridge is about 75% of normal. SWE for the West Side of Upper Green River Basin is about 94% of normal. Newfork River Basin SWE is now about 88% of normal. Big Sandy-Eden



Valley Basin is 55% of normal. SWE in the Green River Basin above Fontenelle Reservoir is about 90% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

#### Precipitation

The 12 reporting precipitation sites in the basin were 126% of average last month (171% of last year). Last month's precipitation varied from 86-184% of average. Water year-to-date precipitation is about 84% of average (86% of last year). Year to date percentage of average ranges from 66-97% for the reporting stations.

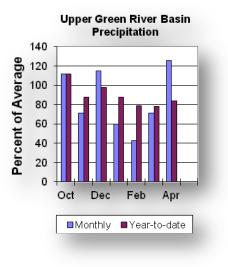


Storage in Big Sandy Reservoir is 10,500 ac-ft or 27% of capacity. This is 45% of average. Fontenelle Reservoir is 127,600 ac-ft or 37% of

capacity; 102% of last year). This for the Upper Green Detailed reservoir following page and storage summary at this report.

#### Streamflow

The 50% exceedance May through July Upper Green River to be below on the Green River 161,000 ac-ft (72% Creek above Fremont (73% of average). Big Piney is



average.(111% of is 93% of average River basin. data is shown on the on the reservoir the beginning of

forecasts for the runoff period in the Basin are forecast average. The yield at Warren Bridge is of average). Pine Lake is 70,000 ac-ft New Fork River near 195,000 ac-ft (59%

of average). Fontenelle Reservoir Inflow is estimated to be 350,000 acft (55% of average), and Big Sandy near Farson is expected to be around 28,000 ac-ft (58% of average). See the following table for more detailed information on projected runoff.

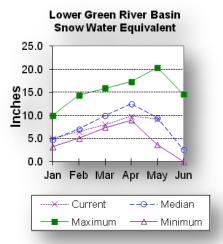
# **Upper Green River Basin** Streamflow Forecasts - May 1, 2013

	<=== Dr	ier ===	Future Co	onditions	=== Wett	er ===>	
Forecast Pt	====================================						
Forecast	90%	70%	50	)응	30%	10%	30 Yr Avg
			) (1000AF)				
======================================							========
APR-JUL	136	.ge 157	172	70	188	210	245
MAY-JUL	125	146	161	72	177	200	225
	1						
Pine Ck ab F APR-JUL	remont Lak 59	.e 66	71	72	76	85	98
MAY-JUL	59	65	70	72	70	84	96
	00					01	20
New Fork R n	-	-					
APR-JUL	140	176	205	58	235	280	355
MAY-JUL	132	168	195	59	225	270	330
Fontenelle R	eservoir I	nflow (2	)				
APR-JUL	250	335	400	55	470	590	725
MAY-JUL	200	285	350	55	420	540	640
	-						
Big Sandy R : APR-JUL	nr Farson 21	26	30	58	34	41	52
MAY-JUL	19.1	24	28	58	32	39	48
		=======					
<ul> <li>* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1981-2010 base period.</li> <li>(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.</li> <li>(2) - The value is natural volume -actual volume may be affected by upstream water management.</li> <li>(3) - Median value used in place of average.</li> </ul>							
=========			UPPER GREEN				
		ervoir S	torage (100	0AF) End	of April		
Usable ********** Usable Storage ********							
			Capacity			t Year	Average
		=======					-
BIG SANDY			38.3	10.		30.0	23.1
FONTENELLE			344.8			160.1	
UPPER GREEN RIVER BASIN							
Watershed Snowpack Analysis - May 1, 2013							
Number of     This Year as Percent of       Watershed     Data Sites     Last Year							
GREEN above			=======================================		235		76
UPPER GREEN (West Side)			5		120		94
NEWFORK RIVE			3		115		89
BIG SANDY/ED			2		117		55
GREEN above Fontenelle 14 138 91						91	

# Lower Green River Basin

#### Snow

SWE in the Green River Basin above Flaming Gorge is 95% of normal. SWE in the Hams Fork Basin is 101% of normal. Blacks Fork Basin SWE is currently 120% of normal. In the Henrys Fork drainage SWE is 138%. For



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

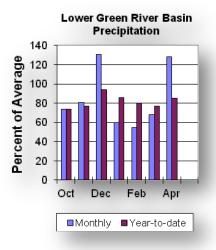
### Precipitation

Precipitation for the 12 reporting stations during last month was at 128% of average or 187% of last year. Precipitation ranged from 47-183% of average for the month. The basin year-to-date precipitation is currently 85% of average (95% of last year). Year-to-

date percentages range from 27-122% of average.

#### Reservoirs

Fontenelle Reservoir is currently storing 127,600 ac-ft; this is 102% of average (80% of last year). Flaming Gorge is currently storing 3,006,900 ac-ft; compared to 3,205,000 at this time last year. Viva Naughton is currently storing 29,500 ac-ft, 93% of average or 70% 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 50% exceedance forecasts for the May through July runoff period in the Lower Green River Basin are forecast to be below average. The Green River near Green River is forecast to yield about 350,000 ac-ft (55% of average). The Blacks Fork near Robertson is forecast to yield 67,000 acft (79% of average). East Fork of Smiths Fork near Robertson is forecast to yield 19,000 ac-ft (73% of average). Hams Fork below Pole Creek near Frontier is forecast to be 26,000 ac-ft (48% of average). The Hams Fork Inflow to Viva Naughton Reservoir is forecast to be 31,000 ac-ft (65% of average). The Flaming Gorge Reservoir inflow will be about 500,000 ac-ft (59% of average). See the following table for more detailed information on projected runoff.

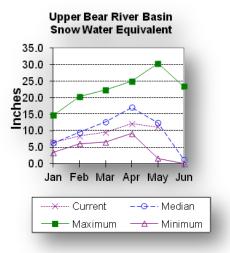
	<pre>  &lt;=== Drier === Future Conditions === Wetter ===&gt;  </pre>							
Forecast Pt	   ========		Chance of	Exceeding	* ======	=======		
Forecast	90%	70%		0%	30%	10%	30 Yr Avg	
Period	(1000AF) ========			(% AVG.)				
Green R nr G	reen River,	, WY (2	)					
APR-JUL	240	330	400	55	475	605	730	
MAY-JUL	192	280	350	55	425	555	640	
Blacks Fk nr Robertson								
APR-JUL	56	64	70	79	76	86	89	
MAY-JUL	53	61	67	79	73	83	85	
EF of Smiths	Fork nr Ro	obertson	(2)					
APR-JUL	12.2	16.4	19.6	75	24	29	26	
MAY-JUL	11.6	15.8	19.0	73	23	28	26	
Hams Fk bl P	ole Ck nr B	rontier						
APR-JUL	26	31	35	65	39	46	54	
MAY-JUL	22	27	31	65	35	42	48	
Viva Naughton	n Reservoir	r Inflow	(2)					
APR-JUL	31	39	45	61	52	63	74	
MAY-JUL	24	32	38	61	45	56	62	
Flaming Gorge	e Reservoir	r Inflow	(2)					
APR-JUL	405	500	570	58	645	770	980	
MAY-JUL	335	430	500	59	575	700	845	
<ul> <li>* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1981-2010 base period.</li> <li>(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.</li> <li>(2) - The value is natural volume -actual volume may be affected by upstream water management.</li> </ul>								
(3) - Median value used in place of average.								
LOWER GREEN RIVER BASIN Reservoir Storage (1000AF) End of April								
Usable ********* Usable Storage ********								
Reservoir			Capacity		ar Las		Average	
FONTENELLE FLAMING GORG	r		344.8 3749.0	127. 3006.		160.1 205.0	125.0 3039.0	
VIVA NAUGHTO			42.4	29.		42.5	31.6	
===============	============			===========	=======			
LOWER GREEN RIVER BASIN Watershed Snowpack Analysis - May 1, 2013								
watershed Showpack Analysis - May 1, 2015								
	Number of				This Year as Percent of			
Watershed			Data Si =========		Last Y ========		ledian =========	
HAMS FORK RI			4		 177		101	
BLACKS FORK			4		656		120	
HENRYS FORK			3		3200		136	
GREEN above i	Flaming Gor	rge	26		194		95	

Lower Green River Basin Streamflow Forecasts - May 1, 2013

# **Upper Bear River Basin**

#### Snow

Snow water equivalent (SWE) in the Upper Bear River Basin in Utah is estimated to be 96% of normal. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is at 105% of normal. Bear



River Basin SWE, above the Idaho State line, is 93% of normal. For more information see "Basin Summary of Snow Course Data" at the beginning of this report.

#### Precipitation

Precipitation for last month was 110% of average for the 8 reporting stations; this is 148% of the precipitation received last year. Precipitation ranged from 44-139% of average for the month. The year-todate precipitation, for the basin, is 81% of average; this is 99% of last year's amount.

Year-to-date percentages range from

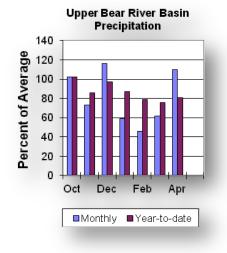
60-86% of average.

#### Reservoirs

Storage in Woodruff Narrows reservoir is 17,300 ac-ft. Reservoir storage last year at this time was 58,900 ac-ft.

#### Streamflow

The following 50% exceedance forecasts are for the May through September period. The Bear River near the Utah-Wyoming State Line is 70,000 ac-ft (60% of average). The Bear River above Reservoir near Woodruff is 53,000 ac-ft (48% of average). The Smiths



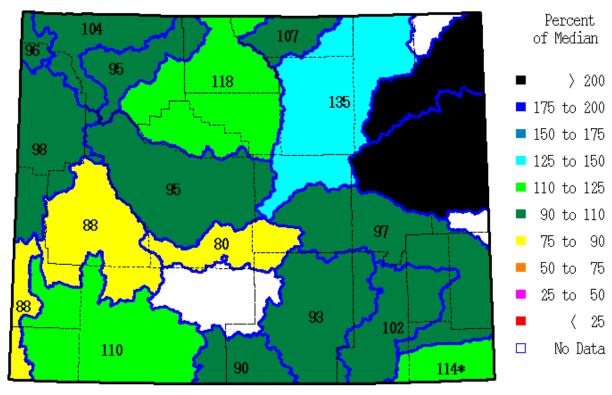
Fork River near Border Jct. is 55,900 ac-ft (59% of average). See the following table for more detailed information on projected runoff.

# **Upper Bear River Basin** Streamflow Forecasts - May 1, 2013

	<pre>&lt;=== Drier === Future Conditions === Wetter ===&gt;</pre>						
Forecast Pt	====================================						
Forecast	90%	70%	1		30%	10%	30 Yr Avg
			(1000AF)		•		
Bear R nr UT APR-JUL	-wi State 47	61	70	63	79	93	112
APR-JUL APR-SEP	47 51	66	70	62	86	93 101	123
MAY-JUL	43	56	78 64	62	80 72	85	104
MAY-SEP	43	50 61	70	60	72	93	116
MAI-SEP	47	01	70	00	19	23	110
Bear R ab Re	s nr Woodr	uff					
APR-JUL	29	47	60	50	73	91	121
APR-SEP	32	50	63	49	76	94	128
MAY-JUL	21	38	50	48	62	79	105
MAY-SEP	24	41	53	48	65	82	111
Smiths Fk nr	Border						
APR-JUL	42	50	55	62	60	68	89
APR-SEP	46	55	62	60	69	78	104
MAY-JUL	36	44	49	61	54	62	80
MAY-SEP	40	49	56	59	63	72	95
<ul> <li>* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1981-2010 base period.</li> <li>(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.</li> <li>(2) - The value is natural volume -actual volume may be affected by upstream water management.</li> <li>(3) - Median value used in place of average.</li> </ul>							
	_		JPPER BEAR				
			corage (10)		-		
			Usable			e Storage	
Reservoir			Capacity			t Year	Average
=======================================							5
WOODRUFF NAR	ROWS		57.3	17	.3	58.9	45.5
UPPER BEAR RIVER BASIN							
Watershed Snowpack Analysis - May 1, 2013							
Number of This Year as Percent of							
Watershed	Data Sites Last Year Median						
UPPER BEAR R			6		 506	· <b>-</b> -	97
SMITHS & THO			3		300		105
BEAR RIVER abv ID line			11		297		93
BEAK RIVER ADVID TIME II 237 35							

Issued by Released by

Jason Weller (Acting Chief) U.S.D.A. Natural Resources Conservation Service Washington D.C. Astrid Martinez State Conservationist N R C S Casper, Wyoming



### SWE % of Median as of Thursday, 02 May 2013

\* = Data may not provide a valid measure of conditions

# 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:

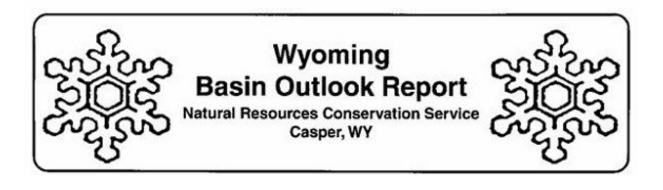
The Wyoming State Engineer's Office

The University of Wyoming

# Local:

The City of Cheyenne

The City of Rawlins





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«MailingListID»