



United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

# Wyoming

# Basin Outlook Report

# January 1, 2007



# 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. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. 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 either above or below, the predicted value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast is. 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 their operational decisions. 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

Generally, the snow water equivalent (SWE) across Wyoming is below average for this time of the year. Storms have covered Wyoming with snow, sporadically so far. SWE for the State of Wyoming as a whole is 82% of average for early January.

Precipitation for last month in the basins varied from 39% of average to 108% of average for the State. Year-to-date precipitation is also below average for the year and varies from 70-102% of average in the basins. Basin reservoir levels for Wyoming vary from 3-193% of average for an overall average of 88%. Forecasted runoff varies from 50-107% of average across Wyoming.

## Snowpack

Snow water equivalent (SWE), across Wyoming is below average for this time of year at 82%. SWE in the NW portion of Wyoming is now about 79% of average (73% of last year). NE Wyoming SWE is currently about 76% of average (78% of last year). The SE portion of Wyoming SWE is currently about 87% of average (69% of last year). The SW portion of Wyoming SWE is about 79% of average (65% of last year).

## Precipitation

Last month's precipitation was below average across most of Wyoming. The Belle Fourche River Basin had the lowest precipitation for the month at 39% of average. The Lower North Platte River Basin has the highest precipitation amount at 108% of average. The following table displays the major river basins and their departure from average for this month.

Basin	Departure from average	Basin	Departure from average
Snake River	-24%	Upper North Platte River	-15%
Yellowstone & Madison	-15%	Lower North Platte	+08%
Wind River	-27%	Little Snake River	-31%
Big Horn	-43%	Upper Green River	-28%
Shoshone & Clarks Fork	-02%	Lower Green River	-40%
Powder & Tongue River	-42%	Upper Bear River	-42%
Belle Fourche & Cheyenne	-61%		

## Streams

Stream flow yield is expected to be below average across Wyoming. Most probable yield for the entire State of Wyoming is forecast to be at average at 85% (varying from 50-107% of average). The Snake River and Upper Yellowstone & Madison River Basins are expected to yield about 90 and 96% of average, respectively -- 90-97% of average for the various forecast points in the basins. Yields from the Wind and Bighorn River Basins are expected to be about 65 and 58% of average, respectively -- varying from 58-93% of average in the basins. Yields from the Shoshone and Clarks Fork River Basins of Wyoming are expected to yield about 79% of average -- varying from 76-92% of average. Yields from the Powder & Tongue River Basins are expected to be about 54% of average -- varying from 50-84% of average. Yields for the Belle Fourche & Cheyenne River Basins are expected to be about 67% of average. Yields for the Upper and Lower North Platte River of Wyoming are

expected to be about 86 and 79% of average, respectively -- varying from 61-107% of average. Yields for the Little Snake, Green River, and Little Bear of Wyoming are expected to be 79, 78 and 83% of average respectively -- yield estimates vary from 76-89% of average.

## Reservoirs

Two reservoirs did not report. Reservoirs on the North Platte River are well below average at 53% of average. Most of the reservoirs in the northeast are below average in storage at 57%. Reservoirs in the Wind River Basin are below average at 68%. Reservoirs on the Big Horn are below average at 80%. The Buffalo Bill Reservoir on the Shoshone is at 107%. Reservoirs on the Green River are above average at 102%. Reservoir storage varies across the state at this time, however, reservoir storage is at 88% of average for the entire state. See following table for further information about reservoir storage.

### Major Reservoirs in Wyoming

BASIN AREA RESERVOIR	CURRENT AS % CAPACITY	LAST YR AS % CAPACITY	AVERAGE AS % CAPACITY	CURRENT AS % AVERAGE	CURRENT AS % LAST YR
WYOMING AND SURROUNDING STATES					
ALCOVA	85	85	84	101	100
ANGOSTURA	32	39	79	40	83
BELLE FOURCHE	34	27	51	67	127
BIG SANDY	35	64	48	74	55
BIGHORN LAKE	58	67	67	87	87
BOYSEN	73	93	104	70	78
BUFFALO BILL	69	73	65	107	95
BULL LAKE	38	47	57	67	81
DEERFIELD	76	79	81	94	97
EDEN					
NO REPORT					
ENNIS LAKE	69	72	77	90	95
FLAMING GORGE	83	82	81	103	101
FONTENELLE	53	55	61	86	96
GLENDO	46	45	56	83	103
GRASSY LAKE	78	50	76	102	155
GUERNSEY	24	26	16	151	93
HEBGEN LAKE	80	83	71	113	97
JACKSON LAKE	75	45	57	132	167
KEYHOLE	28	37	52	53	75
PACTOLA	57	64	83	68	88
PALISADES	67	56	74	90	120
PATHFINDER	23	27	63	37	85
PILOT BUTTE	2	79	64	3	2
SEMINOE	27	41	62	44	67
SHADEHILL	38	41	62	62	93
TONGUE RIVER					
NO REPORT					
VIVA NAUGHTON RES	80	80	75	107	99
WHEATLAND #2	21	0	43	50	0
WOODRUFF NARROWS	79	52	41	193	152
TOTAL OF 27 RESERVOIRS	62	62	71	88	100
Raw KAF Totals	Current= 8202	Last Year= 8235	Average= 9347	Capacity= 13209	

B A S I N   S U M M A R Y   O F  
S N O W   C O U R S E   D A T A

JANUARY 2007

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
-----						
WYOMING Snow Course and SNOTEL Stations						
ASTER CREEK	7750	12/28/06	42	9.2	24.8	13.1
BALD MOUNTAIN SNOTEL	9380	1/01/07	37	8.8	8.3	9.7
BASE CAMP SNOTEL	7030	1/01/07	---	7.1	10.0	8.2
BATTLE MTN. SNOTEL	7440	1/01/07	16	2.3	6.8	4.1
BEARTOOTH LK. SNOTEL	9280	1/01/07	39	9.0	12.6	11.5
BEAR TRAP SNOTEL	8200	1/01/07	14	2.3	2.9	2.6
BIG GOOSE SNOTEL	7760	1/01/07	12	2.5	3.2	4.4
BIG SANDY SNOTEL	9080	1/01/07	26	5.7	7.4	6.9
BLACKWATER SNOTEL	9780	1/01/07	46	10.4	11.5	12.0
BLIND BULL SNOTEL	8900	1/01/07	---	10.0	13.3	13.2
BLIND PARK SNOTEL	6870	1/01/07	8	.9	4.3	3.5
BONE SPGS. SNOTEL	9350	1/01/07	35	8.1	7.2	7.8
BROOKLYN LK. SNOTEL	10220	1/01/07	38	9.2	12.7	10.8
BURGESS JCT. SNOTEL	7880	1/01/07	20	4.2	5.5	5.5
BURROUGHS CRK SNOTEL	8750	1/01/07	26	6.2	7.5	6.7
CANYON SNOTEL	8090	1/01/07	24	5.3	7.3	6.1
CASPER MTN. SNOTEL	7850	1/01/07	22	4.7	6.2	6.9
CHALK CK #1 SNOTEL	9100	1/01/07	37	10.0	13.9	10.1
CHALK CK #2 SNOTEL	8200	1/01/07	29	6.6	6.5	6.7
CINNABAR PARK SNOTEL	9690	1/01/07	41	10.0	12.6	7.2
CLOUD PEAK SNOTEL	9850	1/01/07	19	4.6	6.4	5.7
COLE CANYON SNOTEL	5910	1/01/07	2	1.1	3.0	3.3
COLD SPRINGS SNOTEL	9630	1/01/07	14	2.7	2.3	4.6
COTTONWOOD CR SNOTEL	7700	1/01/07	---	8.8	12.0	9.7
CROW CREEK SNOTEL	8830	1/01/07	17	4.3	3.7	3.4
DEER PARK SNOTEL	9700	1/01/07	16	4.4	8.8	6.7
DITCH CREEK	6870	12/27/06	4	.7	1.4	--
DIVIDE PEAK SNOTEL	8860	1/01/07	35	9.1	9.1	9.2
DOMELAKE SNOTEL	8880	1/01/07	19	4.3	5.7	6.1
EAST RIM DIV SNOTEL	7930	1/01/07	---	3.8	5.4	5.9
ELBO RANCH	7100	12/28/06	21	3.6	4.7	--
ELKHART PARK SNOTEL	9400	1/01/07	---	4.4	7.1	6.3
EVENING STAR SNOTEL	9200	1/01/07	44	11.0	12.8	13.7
GLADE CREEK	7040	12/29/06	36	7.7	--	10.3
GRANITE CRK SNOTEL	6770	1/01/07	---	6.2	10.3	7.6
GRASSY LAKE SNOTEL	7270	1/01/07	50	11.6	16.8	14.7
GRAVE SPRINGS SNOTEL	8550	1/01/07	13	2.8	4.5	4.0
GROS VENTRE SNOTEL	8750	1/01/07	27	5.7	6.9	6.9
HANSEN S.M. SNOTEL	8360	1/01/07	8	1.1	1.9	3.3
HAMS FORK SNOTEL	7840	1/01/07	---	4.2	6.8	5.5
HOBBS PARK SNOTEL	10100	1/01/07	18	4.2	4.7	7.6
HUCKLEBERRY DIVIDE	7300	12/28/06	38	7.7	--	9.3
INDIAN CREEK SNOTEL	9430	1/01/07	---	9.4	14.7	12.5
KELLEY R.S. SNOTEL	8180	1/01/07	---	6.1	9.3	7.6
KENDALL R.S. SNOTEL	7740	1/01/07	25	5.1	7.3	6.7
KIRWIN SNOTEL	9550	1/01/07	20	4.5	6.1	5.9
LAKE CAMP	7780	12/29/06	21	3.9	4.8	4.2
LA PRELE SNOTEL	8380	1/01/07	20	4.1	3.6	5.3
LEWIS LAKE SNOTEL	7850	1/01/07	46	11.6	19.2	14.8
LEWIS LAKE DIVIDE	7850	12/28/06	58	15.2	--	17.5
LITTLE BEAR RUN	6240	1/03/07	0	.0	2.7	1.7
LITTLE WARM SNOTEL	9370	1/01/07	19	4.1	4.6	5.3
LOOMIS PARK SNOTEL	8240	1/01/07	---	5.4	9.6	8.0
LUPINE CREEK	7380	1/03/07	18	3.4	3.5	4.3
MALLO	6420	1/03/07	9	1.6	3.9	2.9
MARQUETTE SNOTEL	8760	1/01/07	4	.7	1.1	5.0
MIDDLE POWDER SNOTEL	7760	1/01/07	17	3.9	6.6	5.5

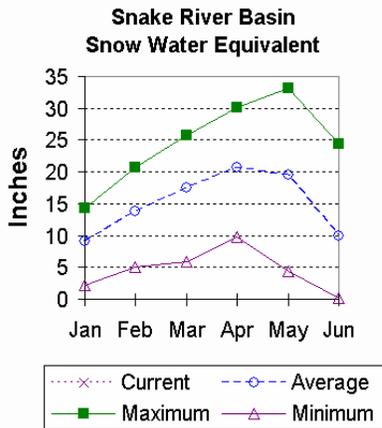
MORAN	6750	12/29/06	26	4.8	--	5.7
NEW FORK SNOTEL	8340	1/01/07	20	4.3	5.3	5.4
NORTH FRENCH SNOTEL	10130	1/01/07	47	11.7	18.2	13.4
NORTH RAPID CK SNTL	6130	1/01/07	5	2.0	3.8	3.3
OLD BATTLE SNOTEL	9920	1/01/07	44	12.4	19.6	14.6
OLD FAITHFUL	7400	12/30/06	26	5.3	5.5	6.0
OWL CREEK SNOTEL	8980	1/01/07	14	2.8	1.2	2.7
PARKERS PEAK SNOTEL	9400	1/01/07	39	9.1	10.5	10.6
PHILLIPS BNCH SNOTEL	8200	1/01/07	39	9.2	15.7	12.6
POWDER RVR.PASS SNTL	9480	1/01/07	17	3.8	4.9	5.3
RENO HILL SNOTEL	8500	1/01/07	27	6.0	6.7	6.6
SAGE CK BASIN SNTL	7850	1/01/07	31	6.6	5.8	5.3
SALT RIVER SNOTEL	7600	1/01/07	---	5.4	7.6	5.4
SAND LAKE SNOTEL	10050	1/01/07	51	12.2	17.6	14.9
SANDSTONE RS SNOTEL	8150	1/01/07	23	4.0	7.6	5.3
SHELL CREEK SNOTEL	9580	1/01/07	31	7.5	6.8	7.3
SNAKE RIVER STATION	6920	12/28/06	34	7.2	--	8.9
SNAKE RV STA SNOTEL	6920	1/01/07	30	6.9	9.5	7.9
SNIDER BASIN SNOTEL	8060	1/01/07	23	5.1	8.8	6.9
SOUTH BRUSH SNOTEL	8440	1/01/07	24	5.6	7.2	5.1
SOUTH PASS SNOTEL	9040	1/01/07	24	5.4	8.2	8.2
SPRING CRK. SNOTEL	9000	1/01/07	41	9.2	14.9	12.5
ST LAWRENCE ALT SNTL	8620	1/01/07	11	2.0	1.1	3.8
SUCKER CREEK SNOTEL	8880	1/01/07	23	5.2	5.7	5.2
SYLVAN LAKE SNOTEL	8420	1/01/07	31	7.4	9.0	10.5
SYLVAN ROAD SNOTEL	7120	1/01/07	22	4.3	5.2	6.2
TETON PASS W.S.	7740	12/29/06	37	9.2	--	--
THUMB DIVIDE SNOTEL	7980	1/01/07	27	5.6	8.9	7.6
THUMB DIVIDE	7980	12/28/06	28	5.4	--	8.1
TIE CREEK SNOTEL	6870	1/01/07	8	1.0	3.0	2.5
TIMBER CREEK SNOTEL	7950	1/01/07	6	.7	1.0	3.0
TOGWOTEE PASS SNOTEL	9580	1/01/07	41	9.4	13.5	11.7
TOWNSEND CRK SNOTEL	8700	1/01/07	12	2.8	2.8	4.4
TRIPLE PEAK SNOTEL	8500	1/01/07	37	9.0	14.1	11.9
TWO OCEAN SNOTEL	9240	1/01/07	---	11.8	19.3	13.5
WEBBER SPRING SNOTEL	9250	1/01/07	36	9.2	13.8	11.5
WHISKEY PARK SNOTEL	8950	1/01/07	34	8.4	17.1	11.1
WILLOW CREEK SNOTEL	8450	1/01/07	---	11.0	15.3	14.3
WINDY PEAK SNOTEL	7900	1/01/07	20	4.0	2.7	3.5
WOLVERINE SNOTEL	7650	1/01/07	17	4.5	5.1	5.8
YOUNTS PEAK SNOTEL	8350	1/01/07	22	5.2	7.7	7.9



# Snake River Basin

## Snow

The Snake River Basin snow water equivalent (SWE) is below average. SWE in the Snake River Basin above Jackson Lake is 79% of average (58% of last year). Pacific Creek Basin SWE is 87% of average (65% of last year). Gros Ventre River Basin SWE is 81% of average (74% of last year). SWE in the Hoback River drainage is 75% of average (68% of last year). SWE in the Greys River drainage is 76% of average (68% of last year). In the Salt River area SWE is 86% of average (72% of last year). SWE in the Snake River Basin above Palisades is 79% of average (63% of last year). See the Basin Summary of Snow Courses at the beginning of this report for a detailed listing of snow course information.



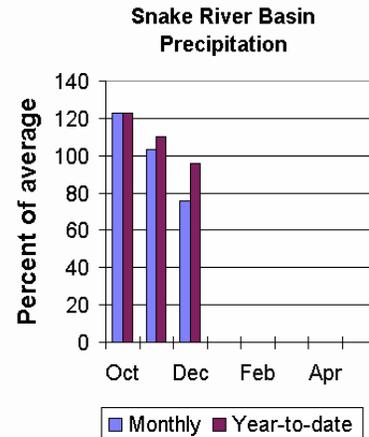
## Precipitation

Precipitation across the basin was below average last month. Monthly precipitation for the basin was 76% of average (56% of last year). Last month's percentages range from 58-116% of average. Water-year-to-date precipitation is 96% of average for the Snake River Basin (80% of last year). Year-to-date percentages range from 80-129% of average.

## Reservoir

Currently, usable reservoir storage is

103% of average for the three storage reservoirs in the basin. Grassy Lake storage is about 102% of average (11,800 ac-ft compared to 7,600 last year). Jackson Lake storage is 132% of average (635,700 ac-ft compared to 381,800 ac-ft last year). Palisades Reservoir storage is about 90% of average (933,700 ac-ft compared to 779,300 ac-ft last year). Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



## Streamflow

The 50% exceedance forecasts for April through September are below average for the basin. The Snake near Moran is 820,000 ac-ft (91% of average). Snake above reservoir near Alpine is 2,460,000 ac-ft (90% of average). The Snake near Irwin is 3,490,000 ac-ft (90% of average). The Snake near Heise is 3,740,000 ac-ft (90% of average). Pacific Creek at Moran is 160,000 ac-ft (90% of average). Greys River above Palisades Reservoir is 370,000 ac-ft (94% of average). Salt River near Etna is 390,000 ac-ft (93% of average). See the following page for detailed runoff volumes.

SNAKE RIVER BASIN  
Streamflow Forecasts - January 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * (1000AF) (1000AF)   (1000AF) (% AVG.)   (1000AF) (1000AF)   (1000AF)					30 Yr Avg (1000AF)
	90%	70%	50%	30%	10%	
SNAKE nr Moran (1,2)						
APR-JUL	535	675	740	91	805	815
APR-SEP	585	745	820	91	895	905
SNAKE ab resv nr Alpine (1,2)						
APR-JUL	1470	1920	2130	90	2340	2370
APR-SEP	1720	2230	2460	90	2690	2730
SNAKE nr Irwin (1,2)						
APR-JUL	2040	2700	3000	90	3300	3330
APR-SEP	2410	3150	3490	90	3830	3870
SNAKE near Heise (2)						
APR-JUL	2400	2880	3200	90	3520	3560
APR-SEP	2830	3370	3740	90	4110	4160
PACIFIC CREEK at Moran						
APR-JUL	111	137	154	90	171	171
APR-SEP	116	142	160	90	178	178
GREYS above Palisades						
APR-JUL	220	280	320	94	360	340
APR-SEP	260	325	370	94	415	395
SALT near Etna						
APR-JUL	200	270	315	93	360	340
APR-SEP	255	335	390	93	445	420

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

SNAKE RIVER BASIN  
Reservoir Storage (1000AF) End of December

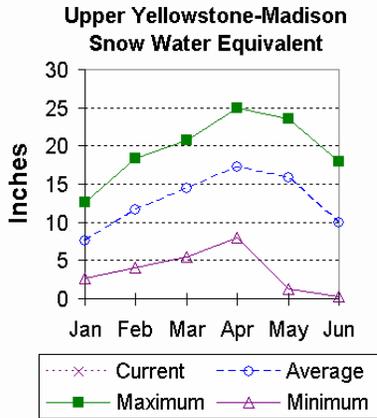
Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
GRASSY LAKE	15.2	11.8	7.6	11.6
JACKSON LAKE	847.0	635.7	381.8	481.7
PALISADES	1400.0	933.7	779.3	1036.5

SNAKE RIVER BASIN  
Watershed Snowpack Analysis - January 1, 2007

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
SNAKE above Jackson Lake	9	58	79
PACIFIC CREEK	3	65	86
GROS VENTRE RIVER	2	72	81
HOBACK RIVER	5	68	75
GREYS RIVER	4	70	78
SALT RIVER	3	72	86
SNAKE above Palisades	21	64	79

# Upper Yellowstone & Madison River Basins

## Snow



Snowfall in these basins has been slow so far this year and the SWE in both basins is below average for this month. Snow water equivalent (SWE) is about 80% of average (69% of last year) in the Madison drainage. SWE in the Yellowstone drainage is about 83% of average (75% of last year at this time). See the "Snow Course Basin Summary" at the beginning of this document for more details on specific sites.

## Precipitation

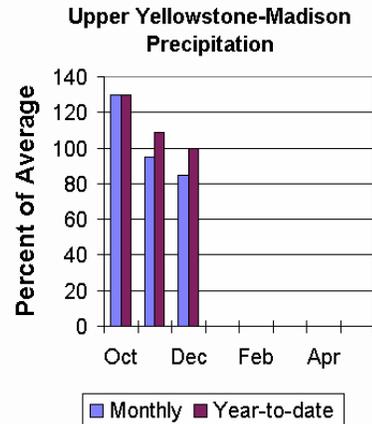
Last month precipitation in the Madison and Yellowstone drainage was about 85% of average (77% of last year) for the 5 reporting stations -- percentages range was from 91-151% of average. Water-year-to-date precipitation is about 100% of average (85% of last year's amount). Year to date percentage ranges from 86-159%.

## Reservoir

Ennis Lake is storing about 28,200 ac-ft of water (72% of capacity, 94% of average or 87% of last year's volume). Hebgen Lake is storing about 303,600 ac-ft of water (69% of capacity, 90% of average or 95% 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

All the following yields are the 50% exceedance forecasts from April through September. Yellowstone at Lake Outlet is 685,000 ac-ft (85% of average). Yellowstone at Corwin Springs will yield around 1,910,000 ac-ft (97% of average). Yellowstone near Livingston will yield around 2,190,000 ac-ft (96% of average). Hebgen Reservoir inflow is 455,000 ac-ft (91% of average). See the following page for detailed runoff volumes.



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UPPER YELLOWSTONE & MADISON RIVER BASINS
   
Streamflow Forecasts - January 1, 2007
   
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Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	* (1000AF)	
YELLOWSTONE at Lake Outlet							
APR-JUL	380	465	520	88	575	660	590
APR-SEP	505	610	685	85	760	865	805
YELLOWSTONE RIVER at Corwin Springs							
APR-JUL	1220	1440	1590	96	1740	1960	1650
APR-SEP	1470	1730	1910	97	2090	2350	1970
YELLOWSTONE RIVER near Livingston							
APR-JUL	1440	1680	1840	97	2000	2240	1900
APR-SEP	1720	2000	2190	96	2380	2660	2280
HEBGEN Reservoir Inflow							
APR-JUL	270	320	355	91	390	440	390
APR-SEP	355	415	455	91	495	555	500

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

=====
   
UPPER YELLOWSTONE & MADISON RIVER BASINS
   
Reservoir Storage (1000AF) End of December
   
=====

Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
ENNIS LAKE	41.0	28.2	29.6	31.5
HEBGEN LAKE	377.5	303.6	312.5	267.6

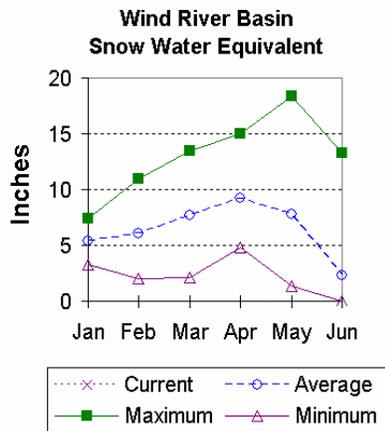
=====
   
UPPER YELLOWSTONE & MADISON RIVER BASINS
   
Watershed Snowpack Analysis - January 1, 2007
   
=====

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
MADISON RIVER in WY	7	69	81
YELLOWSTONE RIVER in WY	11	75	83

# Wind River Basin

## Snow

The Wind River Basin has below average snow water equivalent (SWE) for this time of the year. SWE in the Wind River above Dubois is 83% of average (77% of last year at this time). The Little Wind SWE is 54% of average water content (107% of last year), and the Popo Agie drainage SWE is about 62% of average (69% of last year). The Wind River Basin, above Boysen Reservoir SWE is about 72% of average (80% of last year). See the Basin Summary of Snow Course Data at the front of this report for details.



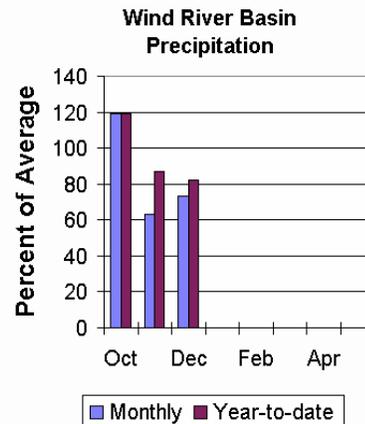
## Precipitation

Last months precipitation in the basin varied from 28-110% of average. Precipitation, for the basin, was about 73% of average from the 8 reporting stations; that is about 66% of last year's amount. Water year-to-date precipitation is 82% of average and about 82% of last year at this time. Year-to-date percentages range from 70-100% of average.

## Reservoirs

Current storage varies from 3-70% of average. Usable storage in Bull

Lake is currently about 57,800 ac-ft (38% of capacity) - last year the reservoir was at 47% of capacity at this time. Boysen Reservoir is storing about 73% of capacity (434,500 ac-ft) – last year the reservoir was at 93% of capacity at this time. Pilot Butte is at 2% of capacity (600 ac-ft) – last year the reservoir was at 79% of capacity at this time. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



## Streamflow

Water supply is estimated to be below average this year. The following values reflect the 50% exceedance forecasts for the April through September runoff period. Dinwoody Creek near Burris is 87,000 ac-ft (93% of average). The Wind River above Bull Lake Creek is 455,000 ac-ft (85% of average). Bull Lake Creek near Lenore is 140,000 ac-ft (77% of average). Wind River at Riverton will yield around 480,000 ac-ft (75% of average). Little Popo Agie River near Lander is around 35,000 ac-ft (66% of average). South Fork of Little Wind near Fort Washakie will yield around 63,000 ac-ft (75% of average). Little Wind River near Riverton will yield around 195,000 ac-ft (62% of average). Boysen Reservoir inflow will yield around 525,000 ac-ft (65% of average). See the following page for detailed runoff volumes.

WIND RIVER BASIN  
Streamflow Forecasts - January 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	
=====						
DINWOODY CREEK nr Burris						
APR-JUL	40	52	60	90	68	80
APR-SEP	63	77	87	93	97	111
WIND RIVER abv Bull Lake Cr (2)						
APR-JUL	200	300	365	84	430	530
APR-SEP	275	380	455	85	530	635
BULL LAKE CR near Lenore (2)						
APR-JUL	68	96	115	78	134	162
APR-SEP	81	116	140	77	164	199
WIND RIVER at Riverton (2)						
APR-JUL	139	300	410	75	520	680
APR-SEP	195	365	480	75	595	765
LT POPO AGIE RIVER nr Lander						
APR-JUL	0.0	16.6	29	63	41	60
APR-SEP	2.8	22	35	66	48	67
SF LT WIND nr Fort Washakie						
APR-JUL	28	44	55	75	66	82
APR-SEP	33	51	63	75	75	93
LT WIND RIVER nr Riverton						
APR-JUL	5.0	106	175	63	242	347
APR-SEP	24	126	195	62	265	365
BOYSEN RESERVOIR Inflow (2)						
APR-JUL	143	340	470	66	600	795
APR-SEP	173	385	525	65	665	875

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

WIND RIVER BASIN  
Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
	BULL LAKE	151.8	57.8	71.4
BOYSEN	596.0	434.5	554.5	620.4
PILOT BUTTE	31.6	0.6	25.1	20.2

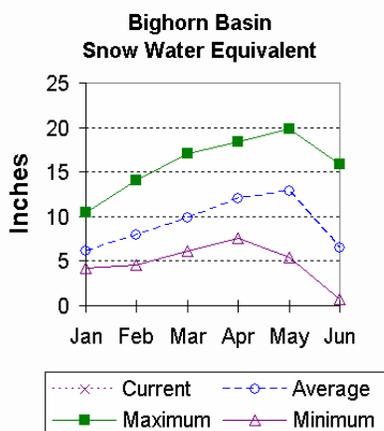
WIND RIVER BASIN  
Watershed Snowpack Analysis - January 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
	WIND RIVER above Dubios	3	74
LITTLE WIND	2	107	54
POPO AGIE	4	69	62
WIND above Boysen Resv	7	78	72

# Bighorn River Basin

## Snow

Snowpack in this basin is below average for this time of year. The Nowood River is at 71% of average (67% of last year). The Greybull River SWE is at 58% of average (73% of last year). Shell Creek SWE is 98% of average (109% of last year). The Bighorn River Basin SWE, as a whole, is currently 84% of average (91% of last year). For more information see Basin Summary of Snow Courses at beginning of report.



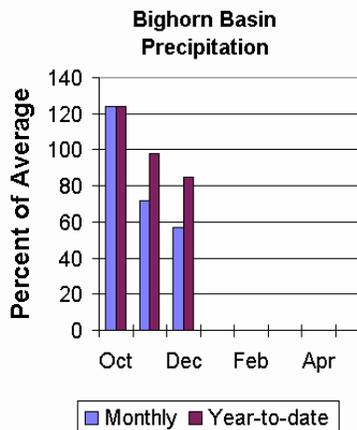
Bighorn Lake is now at 87% of average (791,200 ac-ft). Boysen is currently storing 78% of last year volume at this time and Big Horn Lake is storing 87% of last year's volume. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

The 50% exceedance forecasts for the April through September runoffs are anticipated to be below average. Boysen Reservoir inflow is 525,000 ac-ft (65% of average); the Greybull River near Meeteetse should yield around 120,000 ac-ft (60% of average); Shell Creek near Shell should yield around 59,000 ac-ft (82% of average) and the Bighorn River at Kane should yield around 645,000 ac-ft (58% of average). See the following page for detailed runoff volumes.

## Precipitation

Last month's precipitation was 57% of average (58% of last year). Sites ranged from 37-129% of average for the month. Year-to-date precipitation is 85% of average; that is 85% of last year at this time. Year-to-date percentages, from the 10 reporting stations, range from 37-121%.



## Reservoir

Boysen Reservoir is currently storing 434,500 ac-ft (70% of average).

=====
   
 BIGHORN RIVER BASIN
   
 Streamflow Forecasts - January 1, 2007
   
 =====

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	*	
BOYSEN RESERVOIR Inflow (2)							
APR-JUL	143	340	470	66	600	795	717
APR-SEP	173	385	525	65	665	875	809
GREYBULL RIVER nr Meeteetse							
APR-JUL	44	70	86	58	102	129	148
APR-SEP	68	100	120	60	140	172	200
SHELL CREEK nr Shell							
APR-JUL	34	43	49	82	55	64	60
APR-SEP	44	53	59	82	65	74	72
BIGHORN RIVER at Kane (2)							
APR-JUL	320	475	580	58	685	840	1000
APR-SEP	355	525	645	58	765	935	1110

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

=====
   
 BIGHORN RIVER BASIN
   
 Reservoir Storage (1000AF) End of December
   
 =====

Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
BOYSEN	596.0	434.5	554.5	620.4
BIGHORN LAKE	1356.0	791.2	909.4	911.1

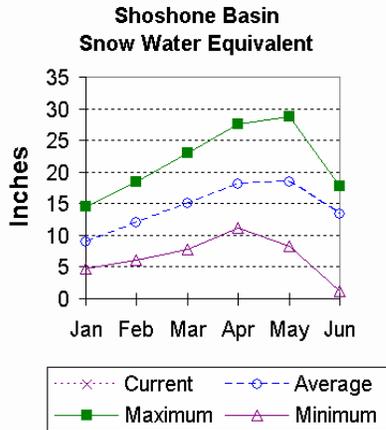
=====
   
 BIGHORN RIVER BASIN
   
 Watershed Snowpack Analysis - January 1, 2007
   
 =====

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
NOWOOD RIVER	2	67	71
GREYBULL RIVER	2	73	58
SHELL CREEK	3	109	98
BIGHORN (Boysen-Bighorn)	7	91	84

# Shoshone and Clarks Fork River Basin

## Snow

Snowpack in these basins are below average for this time of year. Snow Water Equivalent (SWE) is 71% of average (82% of last year) in the Shoshone River Basin. The Clarks Fork River Basin SWE is 85% of average (78% of last year). For more information see the Basin Summary of Snow Course Data at the beginning of this report.



(95% of last year's storage) – the reservoir is at about 69% of capacity. Currently, about 447,200 ac-ft are stored in the reservoir compared to 470,800 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

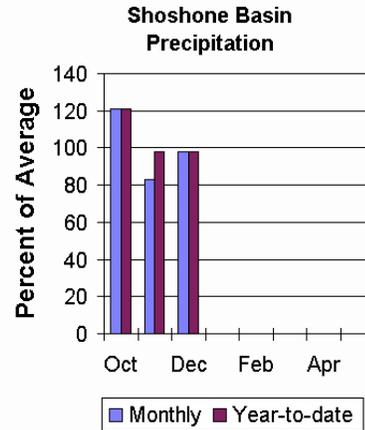
The following values are the 50% exceedance forecasts for the April through September period. The North Fork Shoshone River at Wapiti is 480,000 ac-ft (92% of average). The South Fork of the Shoshone River near Valley is 200,000 ac-ft (76% of average), and the South Fork above Buffalo Bill Reservoir runoff is 150,000 ac-ft (67% of average). The Buffalo Bill Reservoir inflow is expected to yield around 635,000 ac-ft (79% of average). The yield for the Clarks Fork of the Yellowstone near Belfry, Montana is expected to be around 525,000 ac-ft (88% of average). See the following page for detailed runoff volumes.

## Precipitation

Precipitation for last month was 98% of average (93% of last year). Monthly percentages range from 50-126% of average. The basin year-to-date precipitation is now 98% of average (95% of last year). Year-to-date percentages range from 70-116% of average.

## Reservoir

Current storage in Buffalo Bill Reservoir is about 107% of average



```

=====
SHOSHONE & CLARKS FORK RIVER BASINS
Streamflow Forecasts - January 1, 2007
=====
Forecast Pt | <=== Drier === Future Conditions === Wetter ===>
Forecast | ===== Chance of Exceeding * =====
Period | (1000AF) (1000AF) | (1000AF) (% AVG.) | (1000AF) (1000AF) | (1000AF)
=====
NF SHOSHONE RIVER at Wapiti
APR-JUL 365 405 430 94 455 495 460
APR-SEP 410 450 480 92 510 550 520

SF SHOSHONE RIVER nr Valley
APR-JUL 125 155 175 78 193 223 225
APR-SEP 140 176 200 76 225 260 265

SF SHOSHONE RIVER abv Buffalo Bill
APR-JUL 66 113 145 67 177 222 215
APR-SEP 64 115 150 67 185 237 225

BUFFALO BILL DAM Inflow (2)
APR-JUL 375 490 570 79 650 765 720
APR-SEP 420 550 635 79 720 850 805

CLARKS FORK RIVER nr Belfry
APR-JUL 375 435 480 89 525 585 540
APR-SEP 410 480 525 88 570 640 595

```

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

```

=====
SHOSHONE & CLARKS FORK RIVER BASINS
Reservoir Storage (1000AF) End of December
=====
Reservoir | Usable Capacity | ***** Usable Storage ***** |
| | | This Year | Last Year | Average |
=====
BUFFALO BILL | 646.6 | 447.2 | 470.8 | 418.4 |
=====

```

```

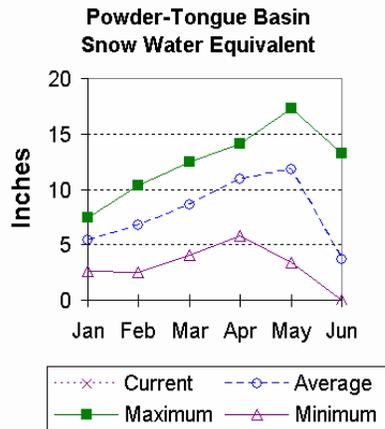
=====
SHOSHONE & CLARKS FORK RIVER BASINS
Watershed Snowpack Analysis - January 1, 2007
=====
Watershed | Number of Data Sites | This Year as Percent of Last Year | Average |
=====
SHOSHONE RIVER | 6 | 82 | 71 |
CLARKS FORK in WY | 7 | 78 | 85 |
=====

```

# Powder and Tongue River Basins

## Snow

Snow water equivalent (SWE) in the Upper Tongue River drainage is 85% of average (88% of last year). The Goose Creek drainage is 65% of average and 76% of last year. SWE in the Clear Creek drainage is 63% of average and 69% of last year. Crazy Woman Creek drainage is 72% of average and 78% of last year. Upper Powder River drainage SWE is 75% of average and 69% of last year. Powder River basin SWE, in Wyoming is 70% of average and 69% of last year. For more information see Basin Summary of Snow Courses at beginning of report.



## Precipitation

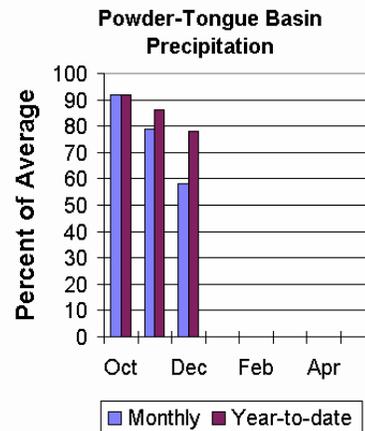
Last month's precipitation was 58% of average for the 9 reporting stations (56% of last year). Monthly percentages range from 37-73% of average. Year-to-date precipitation is 78% of average in the basin; this is 75% of last year at this time. Precipitation for the year ranges from 53-92% of average at the reporting stations.

## Reservoir

No Report

## Streamflow

The following runoff values are the 50% probability forecasts for the April through September period. The yield for Tongue River near Dayton is 92,000 ac-ft (84% of average). Little Goose Creek near Bighorn is 35,000 ac-ft (83% of average). The Tongue River Inflow is 192,000 ac-ft (77% of average). The Middle Fork of the Powder River near Barnum is 11,100 ac-ft (59% of average). The North Fork of the Powder River near Hazelton should yield around 7,300 ac-ft (70% of average). Rock Creek near Buffalo will yield about 13,200 ac-ft (55% of average), and Piney Creek at Kearny should yield about 30,000 ac-ft (58% of average). The Powder River at Moorehead is 142,000 ac-ft (54% of average). The Powder River near Locate is 167,000 ac-ft (50% of average). See the following page for detailed runoff volumes.



POWDER & TONGUE RIVER BASINS  
Streamflow Forecasts - January 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF)					30 Yr Avg (1000AF)
	90%	70%	50%	30%	10%	
=====						
TONGUE RIVER nr Dayton (2)						
APR-JUL	51	68	80	83	92	109
APR-SEP	61	80	92	84	104	123
LITTLE GOOSE CREEK nr Big Horn						
APR-JUL	16.0	23	27	79	31	38
APR-SEP	23	30	35	83	40	47
TONGUE RIVER RESERVOIR Inflow (2)						
APR-JUL	77	132	169	77	205	260
APR-SEP	95	153	192	77	233	288
MIDDLE FORK POWDER nr Barnum						
APR-JUL	2.8	7.3	10.3	58	13.3	17.8
APR-SEP	3.4	8.0	11.1	59	14.2	18.8
NORTH FORK POWDER nr Hazelton						
APR-JUL	4.3	5.7	6.7	70	7.7	9.1
APR-SEP	4.7	6.3	7.3	70	8.3	9.9
ROCK CREEK nr Buffalo						
APR-JUL	4.2	7.7	10.1	51	12.5	16.0
APR-SEP	7.3	10.8	13.2	55	15.6	19.1
PINEY CREEK at Kearny						
APR-JUL	4.0	18.9	29	59	39	54
APR-SEP	4.5	19.7	30	58	40	56
POWDER RIVER at Moorehead						
MAR-JUL	17.0	84	130	54	176	244
MAR-SEP	28	96	142	54	188	255
POWDER RIVER near Locate						
MAR-JUL	74	122	155	50	188	235
MAR-SEP	79	131	167	50	205	255

\* 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 1971-2000 base period.  
(1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

POWDER & TONGUE RIVER BASINS  
Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	***** Usable Storage *****	Average
	This Year	Last Year	
TONGUE RIVER	NO REPORT		

POWDER & TONGUE RIVER BASINS  
Watershed Snowpack Analysis - January 1, 2007

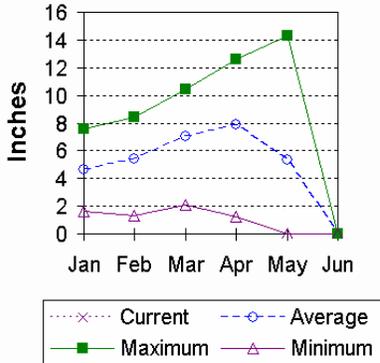
Watershed	Number of Data Sites	This Year as Percent of Last Year	
		Last Year	Average
UPPER TONGUE RIVER	7	88	85
GOOSE CREEK	2	76	65
CLEAR CREEK	2	69	63
CRAZY WOMAN CREEK	1	78	72
UPPER POWDER RIVER	3	69	75
POWDER RIVER in WY	5	69	70

## Belle Fourche and Cheyenne River Basins

### Snow

The Belle Fourche River Basin is currently at 41% of average or 32% of last year at this time. See the Basin summary of Snow Course Data at the beginning of this report for a detailed listing.

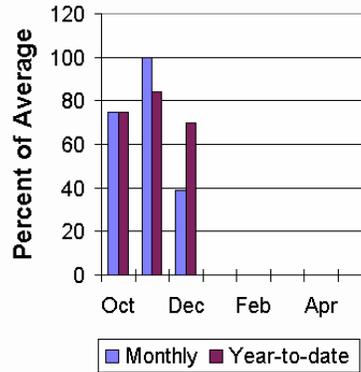
**Belle Fourche - Cheyenne Basin  
Snow Water Equivalent**



### Precipitation

Precipitation for last month was 39% of average or 23% of last year in the Black Hills. There were 2 reporting stations. Monthly percentages range from 33-44%. Year-to-date precipitation is 70% of average and 64% of last year's amount.

**Belle Fourche - Cheyenne Basin  
Precipitation**



### Reservoir

Current reservoir storage is around 57% of average in the basin. Angostura is currently storing 40% of average (38,900 ac-ft), about 32% of capacity. Belle Fourche reservoir is storing 67% of average (60,300 ac-ft), about 27% of capacity. Deerfield reservoir is storing 94% of average (11,600 ac-ft), about 76% of capacity. Keyhole reservoir is storing 53% of average (54,000 ac-ft), 28% of capacity. Pactola reservoir is storing 68% of average (31,100 ac-ft), 57% of capacity. Shadehill reservoir is storing 62% of average (31,300 ac-ft), 38% 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% probability forecasts for the April through July period. The Deerfield Reservoir Inflow is 4,000 ac-ft (78% of average). Pactola Reservoir Inflow is expected to yield around 15,400 ac-ft (67% of average). See the following page for detailed runoff volumes.

BELLE FOURCHE & CHEYENNE RIVER BASINS  
Streamflow Forecasts - January 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	*	
DEERFIELD RESERVOIR Inflow							
MAR-JUL	1.2	3.4	4.8	79	6.2	8.4	6.1
APR-JUL	1.1	2.9	4.0	78	5.2	6.9	5.1
PACTOLA RESERVOIR Inflow							
MAR-JUL	0.8	11.2	17.8	69	24	35	26
APR-JUL	0.5	9.0	15.4	67	22	32	23

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

BELLE FOURCHE & CHEYENNE RIVER BASINS  
Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
ANGOSTURA	122.1	38.9	47.1	96.4
BELLE FOURCHE	178.4	60.3	47.6	90.6
DEERFIELD	15.2	11.6	12.0	12.3
KEYHOLE	193.8	54.0	72.3	101.7
PACTOLA	55.0	31.1	35.2	45.8
SHADEHILL	81.4	31.3	33.7	50.7

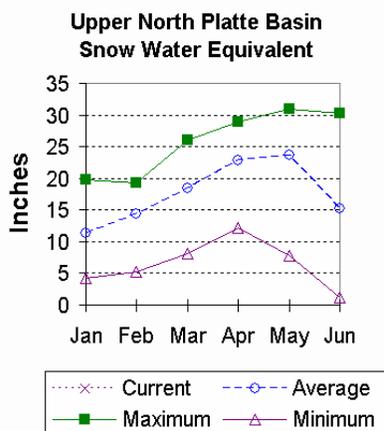
BELLE FOURCHE & CHEYENNE RIVER BASINS  
Watershed Snowpack Analysis - January 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
BELLE FOURCHE	4	33	43

# Upper North Platte River Basin

## Snow

The snotels above Seminoe Reservoir are showing about 88% of average (SWE) for this time of the year (68% of last year). SWE in the drainage area above Northgate is about 92% of average and 69% of last year at this time. SWE in the Encampment River drainage is about 81% of average and 59% of last year. Brush Creek SWE for the year is about 94% of average and 68% of last year's SWE. Medicine Bow and Rock Creek drainages SWE are about 83% of average and 71% of last year at this time. For more information see Basin Summary of Snow Courses at the beginning of this report.



or 27% of capacity. Seminoe Reservoir is also storing about 44% of average for this time of the year and 67% of last year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

## Streamflow

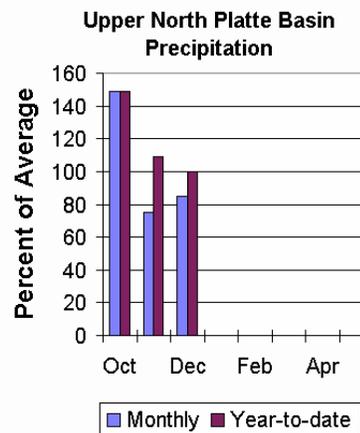
The following yields are the 50% exceedance forecasts for the April through September period. Yield for the North Platte River near Northgate will be around 245,000 ac-ft (91% of average). The Encampment River near Encampment is 150,000 ac-ft (91% of average). Rock Creek near Arlington is 51,000 ac-ft (90% of average). Sweetwater River near Alcova runoff is 57,000 ac-ft (71% of average). Seminoe Reservoir inflow should be around 735,000 ac-ft (86% of average). See the following table for more detailed information on projected runoff.

## Precipitation

Eight reporting stations indicate last month's precipitation at 108% of average or 76% of last year's amount. Precipitation varied from 28-240% of average last month. Total water-year-to-date precipitation is about 102% of average for the basin, which is about 89% of last year's amount. Year to date percentage ranges from 40-147% of average.

## Reservoirs

Seminoe Reservoir is estimated to be storing 275,600 ac-ft



UPPER NORTH PLATTE RIVER BASIN  
Streamflow Forecasts - January 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
=====							
NORTH PLATTE RIVER nr Northgate							
APR-JUL	108	170	220	90	277	372	245
APR-SEP	99	186	245	91	305	390	270
ENCAMPMENT RIVER nr Encampment							
APR-JUL	73	113	140	90	167	207	156
APR-SEP	78	121	150	91	179	220	165
ROCK CREEK nr Arlington							
APR-JUL	29	40	48	91	57	72	53
APR-SEP	31	42	51	90	60	76	57
SWEETWATER RIVER nr Alcova							
APR-JUL	11.3	36	52	70	68	93	74
APR-SEP	42	40	57	71	74	99	80
SEMINOE RESERVOIR Inflow							
APR-JUL	295	530	680	85	830	1060	800
APR-SEP	325	575	735	86	905	1140	860

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

UPPER NORTH PLATTE RIVER BASIN  
Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
SEMINOE	1016.7	275.6	411.9	631.1

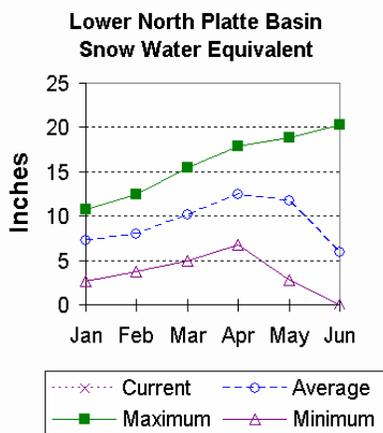
UPPER NORTH PLATTE RIVER BASIN  
Watershed Snowpack Analysis - January 1, 2007

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
N PLATTE above Northgate	5	69	92
ENCAMPMENT RIVER	3	59	81
BRUSH CREEK	2	68	94
MEDICINE BOW & ROCK CREEKS	2	71	83
N PLATTE above Seminoe	13	68	88

# Lower North Platte River Basin

## Snow

SWE for the North Platte River Basin is at 88% of average (71% of last year). The Sweetwater drainage SWE is currently at 66% of average (58% of last year). Deer and LaPrele Creek SWE is at 85% of average (98% of last year). SWE for the North Platte above the Laramie River drainage is 86% of average (69% of last year). SWE for the Laramie River above Laramie is 125% of average (94% of last year). SWE for the Little Laramie River is 107% of average (76% of last year). The Laramie River above mouth, SWE is 115% of average (90% of last year). For more information see Basin Summary of Snow Courses at the beginning of this report.



53%. Reservoir storage is as follows: Alcova 156,200 ac-ft (101% of average); Glendo 234,700 ac-ft (83% of average); Guernsey 10,900 ac-ft (151% of average); Pathfinder 234,100 ac-ft (37% of average); Seminoe 275,600 ac-ft (44% of average); and Wheatland #2 21,000 ac-ft (50% of average).

## Streamflow

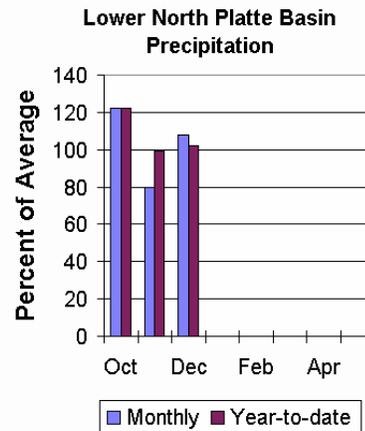
The following yields are based on the 50% exceedance forecasts for the April through September period. The Sweetwater near Alcova is forecast to yield about 57,000 ac-ft (71% of average). Deer Creek at Glenrock is forecast to yield 25,000 ac-ft (61% of average). LaPrele Creek above the reservoir is forecast to yield 14,800 ac-ft (62% of average). North Platte River below Guernsey Reservoir is 795,000 ac-ft (79% of average), and below Glendo Reservoir is anticipated to yield around 770,000 ac-ft (78% of average). Laramie River near Woods Landing should yield around 145,000 ac-ft (107% of average). The Little Laramie near Filmore should produce about 59,000 ac-ft (92% of average). See the following table for more detailed information on projected runoff.

## Precipitation

Last month's precipitation was 108% of average or 76% of last year's amount. Of the 8 reporting stations, percentages for the month range from 28-240%. The water year-to-date precipitation for the basin is currently 102% of average (89% of last year). Year-to-date percentages range from 57-153%.

## Reservoir

The Lower North Platte River basin reservoir storage is below average at



LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS  
Streamflow Forecasts - January 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF)					30 Yr Avg (1000AF)	
	90%	70%	50%	30%	10%		
SWEETWATER RIVER nr Alcova							
APR-JUL	11.3	36	52	70	68	93	74
APR-SEP	42	40	57	71	74	99	80
DEER CREEK at Glenrock							
APR-JUL	11.6	19.0	24	64	29	36	38
APR-SEP	12.3	19.9	25	61	30	38	41
LaPRELE CREEK abv Reservoir							
APR-JUL	0.0	7.8	14.6	61	21	31	24
APR-SEP	0.0	7.9	14.8	62	22	32	24
NORTH PLATTE - Alcova to Orin Gain							
APR-JUL	0.0	53	100	66	147	215	152
APR-SEP	0.0	58	106	66	153	225	161
NORTH PLATTE RIVER blw Glendo Res							
APR-JUL	487	643	750	78	857	1013	960
APR-SEP	492	658	770	78	882	1048	990
NORTH PLATTE RIVER blw Guernsey Res							
APR-JUL	432	627	760	78	893	1088	970
APR-SEP	455	657	795	79	933	1135	1010
LARAMIE RIVER nr Woods							
APR-JUL	68	106	132	107	158	194	123
APR-SEP	75	117	145	107	173	213	135
LITTLE LARAMIE RIVER nr Filmore							
APR-JUL	32	45	54	92	63	76	59
APR-SEP	35	49	59	92	69	83	64

\* 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 1971-2000 base period.  
(1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level.

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS  
Reservoir Storage (1000AF) End of December

Reservoir	Usable	***** Usable Storage *****		
	Capacity	This Year	Last Year	Average
ALCOVA	184.3	156.2	156.6	154.4
GLENDO	506.4	234.7	227.8	282.9
GUERNSEY	45.6	10.9	11.7	7.2
PATHFINDER	1016.5	234.1	276.9	635.7
SEMINOE	1016.7	275.6	411.9	631.1
WHEATLAND #2	98.9	21.0	----	42.2

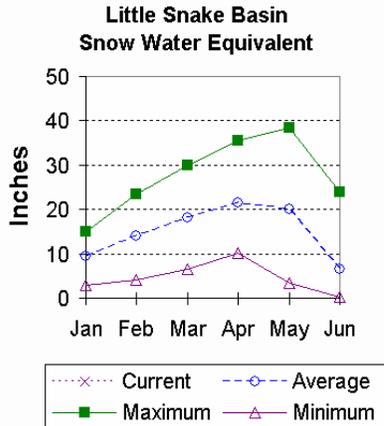
LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS  
Watershed Snowpack Analysis - January 1, 2007

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
SWEETWATER	2	58	66
DEER & LaPRELE CREEKS	2	98	85
N PLATTE abv Laramie R.	17	69	86
LARAMIE RIVER abv Laramie	5	94	125
LITTLE LARAMIE RIVER	2	76	107
LARAMIE RIVER above mouth	6	90	115
NORTH PLATTE	17	71	88

## Little Snake River Basin

### Snow

Currently, snow water equivalent (SWE) in the Little Snake River drainage is 84% of average (62% of last year). For more information see Basin Summary of Snow Courses at beginning of this report.



### Precipitation

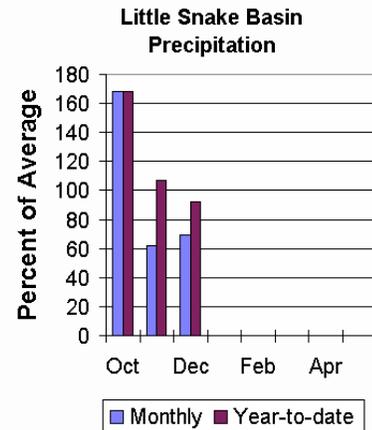
Precipitation across the basin was below average this past month. Last Month's precipitation was 69% of average (42% of last year) for the 5 reporting stations. Last month's precipitation ranged from 58-88% of average. The Little Snake River basin water-year-to-date precipitation is currently 92% of average (65% of last year). Year-to-date percentages range from 83-108% of average.

### Reservoir

High Savery Dam - Pending

### Streamflow

The 50% exceedance forecast for the Little Snake River drainage is expected to be below average this year. Stream yields are based on the 50% exceedance forecast for the April through July period. The Little Snake River near Slater should yield around 135,000 ac-ft (85% of average). The Little Snake River near Dixon is estimated to yield around 260,000 ac-ft (79% of average). See the following table for more detailed information on projected runoff.



```

=====
                        LITTLE SNAKE RIVER BASIN
                        Streamflow Forecasts - January 1, 2007
=====
Forecast Pt | <=== Drier === Future Conditions === Wetter ===> |
Forecast    | ===== Chance of Exceeding * ===== |
Period      | (1000AF) (1000AF) | (1000AF) (% AVG.) | (1000AF) (1000AF) | 30 Yr Avg
              | (1000AF) (1000AF) | (1000AF) (% AVG.) | (1000AF) (1000AF) | (1000AF)
=====
Little Snake River nr Slater
APR-JUL      82    112    135    85    160    202    159

Little Snake River nr Dixon
APR-JUL      154   214    260    79    311    393    330
=====

```

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

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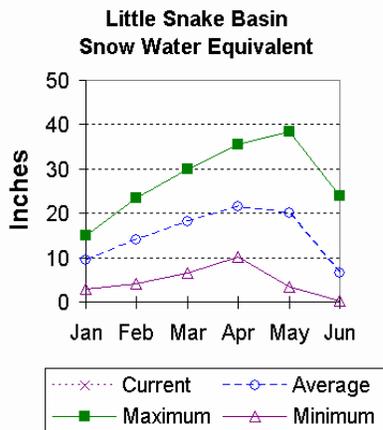
=====
                        LITTLE SNAKE RIVER BASIN
                        Watershed Snowpack Analysis - January 1, 2007
=====
Watershed    | Number of | This Year as Percent of |
              | Data Sites | Last Year | Average
=====
LITTLE SNAKE RIVER | 6 | 62 | 84
=====

```

# Upper Green River Basin

## Snow

Snow water equivalent (SWE) is below average in the Upper Green River drainage this year. The Green River Basin SWE above Warren Bridge is at 73% (68% of last year). SWE on the west side of the Upper Green River Basin is about 75% of average (65% of last year). Newfork River Basin SWE is now about 74% of average (70% of last year). Big Sandy-Eden Valley Basin is at 83% or 77% of last year. SWE in the Green River Basin above Fontenelle Reservoir is about 74% of average (66% of last year). For more information see the Basin Summary of Snow Courses at the beginning of this report.



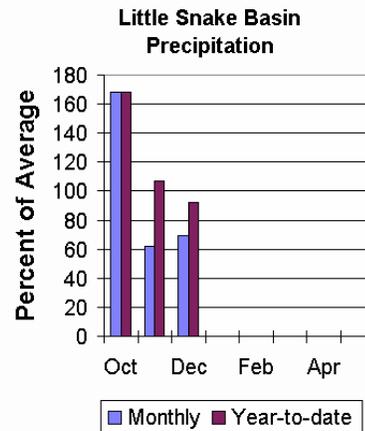
## Precipitation

The 11 reporting precipitation sites in the basin were 72% of average last month (48% of last year). Last month's precipitation varied from 49-106% of average. Water year-to-date precipitation is about 93% of average (79% of last year). Year to date percentage of average ranges from 77-110% for the reporting stations.

## Reservoir

Storage in Big Sandy Reservoir is 13,500 ac-ft or 35%

of capacity. This is 74% of average. Eden Reservoir - No Report. Fontenelle Reservoir is 181,300 ac-ft or 53% of capacity This is 85% of average for the basin. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



## Streamflow

The 50% exceedance forecasts for the April through July runoff period in the Upper Green River Basin are forecast below average. The yield on the Green River at Warren Bridge is around 225,000 ac-ft (85% of average). Pine Creek above Fremont Lake is 90,000 ac-ft (87% of average). New Fork River near Big Piney is 315,000 ac-ft (80% of average). Fontenelle Reservoir Inflow is estimated to be 700,000 ac-ft (81% of average), and Big Sandy near Farson is expected to be around 44,000 ac-ft (76% of average). See the following table for more detailed information on projected runoff.

=====
   
UPPER GREEN RIVER BASIN
   
Streamflow Forecasts - January 1, 2007
   
=====

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	* (1000AF)	
Green River at Warren Bridge							
APR-JUL	153	194	225	85	258	310	265
Pine Creek abv Fremont Lake							
APR-JUL	69	81	90	87	99	114	104
New Fork River nr Big Piney							
APR-JUL	192	262	315	80	373	468	395
Fontenelle Reservoir Inflow							
APR-JUL	382	560	700	81	856	1113	860
Big Sandy River nr Farson							
APR-JUL	28	37	44	76	52	65	58

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

=====
   
UPPER GREEN RIVER BASIN
   
Reservoir Storage (1000AF) End of December
   
=====

Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
BIG SANDY	38.3	13.5	24.6	18.3
EDEN		NO REPORT		
FONTENELLE	344.8	181.3	189.1	209.7

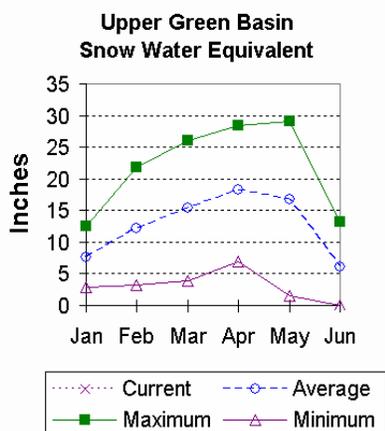
=====
   
UPPER GREEN RIVER BASIN
   
Watershed Snowpack Analysis - January 1, 2007
   
=====

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
GREEN above Warren Bridge	4	67	73
UPPER GREEN (West Side)	5	65	75
NEWFORK RIVER	2	70	74
BIG SANDY/EDEN VALLEY	1	77	83
GREEN above Fontenelle	11	66	74

# Lower Green River Basin

## Snow

SWE in the Hams Fork Basin is 77% of average (64% of last year). Blacks Fork Basin SWE is currently 94% of average (80% of last year). The Henrys Fork drainage is at 127% of average (139% of last year). SWE in the Green River Basin above Flaming Gorge is 79% of average (70% of last year). For more information see Basin Summary of Snow Courses at beginning of this report.

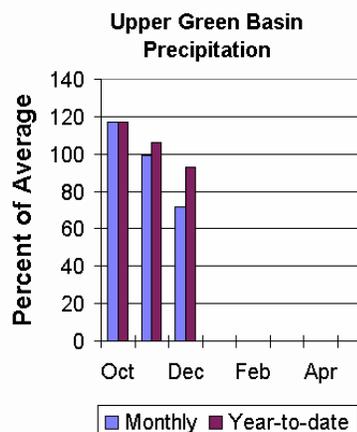


## Precipitation

Precipitation was above average for the 3 reporting stations during last month at 60% of average or 39% of last year. Precipitation ranged from 56-106% of average for the month. The basin year-to-date precipitation is currently 82% of average (74% of last year). Year-to-date percentages range from 76-123%.

## Reservoirs

Fontenelle Reservoir is currently storing 181,300 ac-ft; this is 86% of average (96% of last year). Flaming Gorge is currently storing 3,124,000 ac-ft; this is 103% of average (101% of last year). Viva Naughton is storing 33,900 ac-ft or 80% of capacity; this is 107% of average.



## Streamflow

The 50% exceedance forecasts for the April through July runoff period in the Lower Green River Basin are forecast below average. The Green River near Green River is forecast to yield about 710,000 ac-ft (81% of average). The Blacks Fork near Robertson is forecast to yield 83,000 ac-ft (87% of average). East Fork of Smiths Fork near Robertson is forecast to yield 24,000 ac-ft (83% of average). Hams Fork below Pole Creek near Frontier is 54,000 ac-ft (83% of average). The Hams Fork Inflow to Viva Naughton Reservoir is 72,000 ac-ft (81% of average). The Flaming Gorge Reservoir inflow will be about 900,000 ac-ft (76% of average). See the following table for more detailed information on projected runoff.

=====
   
LOWER GREEN RIVER BASIN
   
Streamflow Forecasts - January 1, 2007
   
=====

Forecast Pt	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg	
	90%	70%	50%	30%	10%		
Forecast Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)	(1000AF)	
Green River nr Green River, WY (2)							
APR-JUL	401	574	710	81	860	1107	875
Blacks Fork nr Robertson							
APR-JUL	53	70	83	87	97	119	95
EF of Smiths Fork nr Robertson							
APR-JUL	14.8	20	24	83	28	35	29
Hams Fk blw Pole Ck nr Frontier							
APR-JUL	28	42	54	83	67	89	65
Hams Fork Inf to Viva Naughton Res							
APR-JUL	37	56	72	81	90	120	89
Flaming Gorge Reservoir Inflow (2)							
APR-JUL	486	717	900	76	1103	1440	1190

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

=====
   
LOWER GREEN RIVER BASIN
   
Reservoir Storage (1000AF) End of December
   
=====

Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
FONTENELLE	344.8	181.3	189.1	209.7
FLAMING GORGE	3749.0	3124.0	3082.0	3027.0
VIVA NAUGHTON RES	42.4	33.9	34.1	31.6

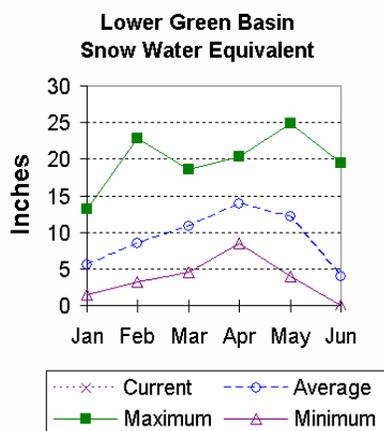
=====
   
LOWER GREEN RIVER BASIN
   
Watershed Snowpack Analysis - January 1, 2007
   
=====

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
HAMS FORK RIVER	3	64	77
BLACKS FORK	2	80	94
HENRYS FORK	2	139	127
GREEN above Flaming Gorge	18	70	79

## Upper Bear River Basin

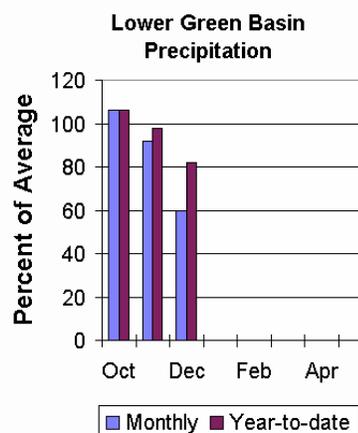
### Snow

Snow water equivalent (SWE) in the Upper Bear River Basin in Utah is estimated to be 84% of average; that is about 63% of last year at this time. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is estimated at 82% of average (66% of last year). Bear River Basin SWE, above the Idaho State line, is 77% of average and 60% of last year. See the Basin Summary of Snow Course Data at the beginning of this report for more detailed information.



### Precipitation

Precipitation for last month was 58% of average for the 2 reporting stations; this is 42% of the precipitation received last year. The year-to-date precipitation, for the basin, is 83% of average; this is 77% of last year's amount.



### Reservoir

Storage, in Woodruff Narrows reservoir, is about 45,500 ac-ft (193% of average). Current reservoir storage is about 79% of capacity. Reservoir storage last year at this time was 30,000 ac-ft at this time.

### Streamflow

The following 50% exceedance forecasts are for the April through September period. The Bear River near the Utah-Wyoming State Line is 110,000 ac-ft (88% of average). The Bear River above Reservoir near Woodruff is 115,000 ac-ft (81% of average). The Smiths Fork River near Border is 100,000 ac-ft (83% of average). See the following table for more detailed information on projected runoff.

=====
   
UPPER BEAR RIVER BASIN
   
Streamflow Forecasts - January 1, 2007
   
=====

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	90% (1000AF)	70% (1000AF)	Chance of Exceeding * 50% (% AVG.)		30% (1000AF)	10% (1000AF)	
Bear River nr UT-WY State Line							
APR-JUL	84	107	100	89	139	162	113
APR-SEP	93	119	110	88	154	180	125
Bear River ab Reservoir nr Woodruff							
APR-JUL	89	126	110	81	176	213	136
APR-SEP	98	135	115	81	186	224	142
Smiths Fork nr Border							
APR-JUL	51	71	85	83	103	131	103
APR-SEP	62	84	100	83	120	151	121

\* 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 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are 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. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level. Forecast issued in cooperation with Alberta Environment.

=====
   
UPPER BEAR RIVER BASIN
   
Reservoir Storage (1000AF) End of December
   
=====

Reservoir	Usable	***** Usable Storage *****		
	Capacity	This Year	Last Year	Average
WOODRUFF NARROWS	57.3	45.5	30.0	23.6

=====
   
UPPER BEAR RIVER BASIN
   
Watershed Snowpack Analysis - January 1, 2007
   
=====

Watershed	Number of	This Year as Percent of	
	Data Sites	Last Year	Average
UPPER BEAR RIVER in Utah	5	63	84
SMITHS & THOMAS FORKS	3	66	82
BEAR RIVER abv ID line	6	60	77
NORTHWEST	56	73	79
NORTHEAST	13	77	76
SOUTHEAST	20	69	87
SOUTHWEST	25	65	79

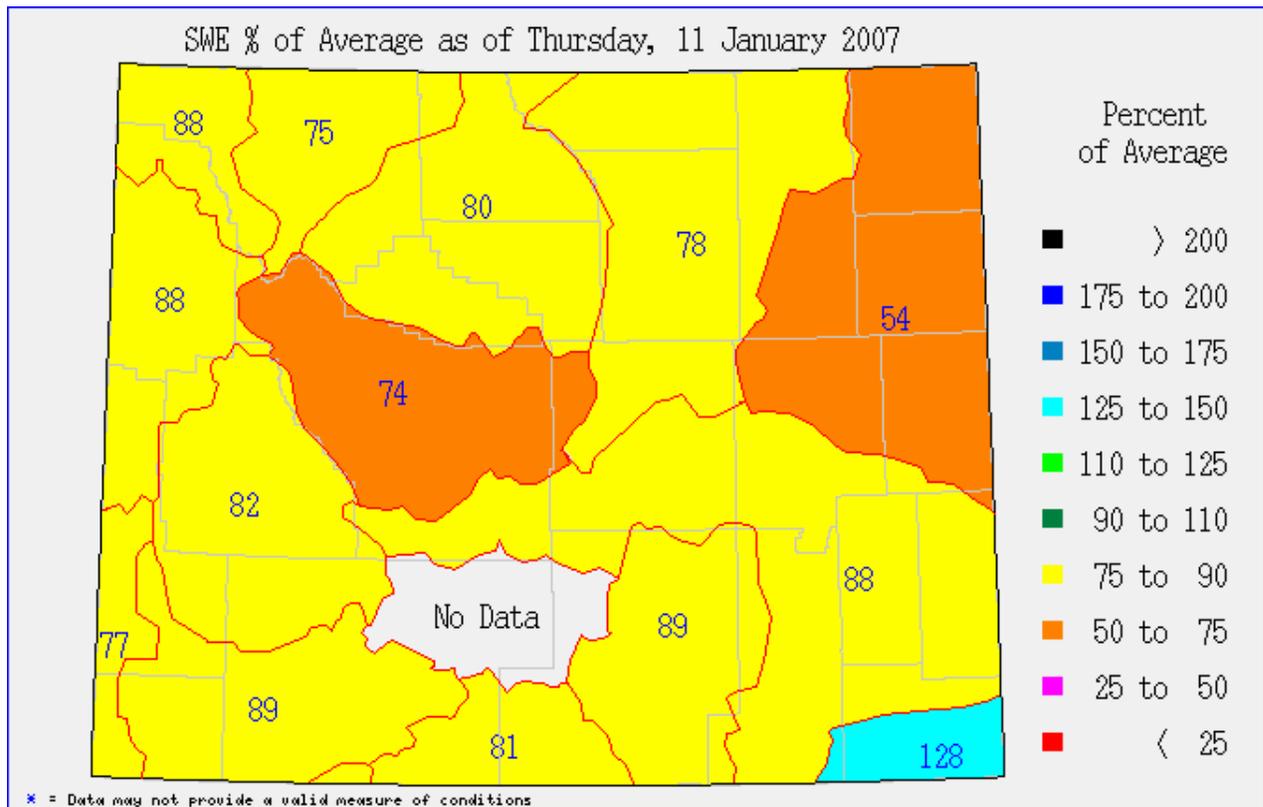


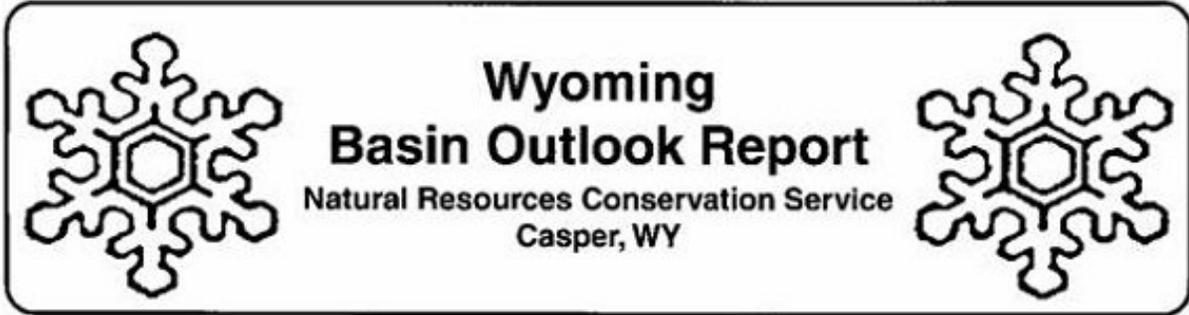
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