United States
Department of
Agriculture

**Natural
Resources
Conservation
Service**

Wyoming
Basin Outlook Report
May 1, 2005

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

For more water supply and resource management information, contact:

Lee Hackleman
Water Supply Specialist
100 East "B" Street
Casper, WY 82601
(307) 233-6744

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.

Wyoming Water Supply Outlook Report

General

Generally, the snow water equivalent (SWE) across Wyoming is well below average for this time of the year. Early storms covered Wyoming with snow, but low snowfall since late November has lowered it. Snow in March raised the overall SWE slightly, but lack of adequate snow in April lowered it. SWE for the State of Wyoming as a whole is about 75% of average for this time of the year.

Precipitation for last month varied from 43% below average to 14% above average for the State. Year-to-date precipitation is also well below average for the year and varies from 68-98% of average per basin. Basin reservoir levels for Wyoming vary from 60-152% of average for an overall average of 88%. Forecast runoff varies from 34-116% of average across Wyoming.

Snowpack

Snow water equivalent (SWE), across Wyoming is below average for this time of year at 75%. SWE in the NW portion of Wyoming is now about 67% of average (113% of last year). NE Wyoming SWE is currently about 73% of average (116% of last year). The SE portion of Wyoming SWE is currently about 75% of average (136% of last year). The SW portion of Wyoming SWE is about 84% of average (170% of last year).

Precipitation

Last month's precipitation was below average across most of Wyoming. The Lower Green River Basin had the only above average precipitation for the month at 114% of average. In the northwest portion of the State the Yellowstone and Madison was just 57 percent of average and the Snake came in at only 61 percent. The northeast faired about the same with the Belle Fourche and Cheyenne getting only 61 percent 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	-39%	Upper North Platte River	-13%
Yellowstone & Madison	-43%	Lower North Platte	-27%
Wind River	-08%	Little Snake River	-06%
Big Horn	-08%	Upper Green River	-17%
Shoshone & Clarks Fork	-27%	Lower Green River	+14%
Powder & Tongue River	-16%	Upper Bear River	-09%
Belle Fourche & Cheyenne	-39%		

Streams

Stream flow yield is expected to be well below average across Wyoming. Most probable yield for the entire State of Wyoming is forecast to be well below average at 76% (varying from 34-116% of average). The Powder & Tongue River Basins of Wyoming are expected to yield about 61% of average -- yield estimates vary from 50-81% of average. Yield for the Belle Fourche will be about

70% of average. Yield from the Yellowstone, Snake, and Shoshone Rivers of Wyoming is expected to yield about 66% of average -- yield estimates vary from 45-83% of average for the various forecast points in the basins. Yield from the Wind and Bighorn Rivers is expected to be about 86% of average -- yield estimates vary from 65 to 100% of average in the basins. Yield for the North Platte River of Wyoming will be about 75% of average -- yield estimates range from 35-103% of average. Yield for the Little Bear, Little Snake and Green Rivers of Wyoming varies from 84-116% of average -- mean estimated yield is about 90% of average.

Reservoirs

All reservoirs are now reporting. Reservoirs on the North Platte River are well below average at 60% of average. Most of the reservoirs in the northeast are below average in storage at 70%, except the Tongue River, which is at 152% of average. Reservoirs in the Wind River Basin are above average at 109%. Reservoirs on the Big Horn are slightly below average at 94%. The Buffalo Bill Reservoir on the Shoshone is at 137%. Reservoirs on the Green River are above average at over 100%. Reservoir storage varies widely across the state for this time of the year; however, reservoir storage is improved from last year. See following table for further information about reservoir storage.

Major Reservoirs in Wyoming

WYOMING AND SURROUNDING STATES

BASIN AREA RESERVOIR	CURRENT AS % CAPACITY	LAST YR AS % CAPACITY	AVERAGE AS % CAPACITY	CURRENT AS % AVERAGE	CURRENT AS % LAST YR
ALCOVA	98	97	97	101	101
ANGOSTURA	50	72	93	53	69
BELLE FOURCHE	52	70	82	64	74
BIG SANDY	75	30	65	116	254
BIGHORN LAKE	49	47	58	84	104
BOYSEN	96	65	88	109	148
BUFFALO BILL	75	67	54	137	112
BULL LAKE	69	40	55	125	172
DEERFIELD	86	99	89	96	87
EDEN	15	0	47	33	0
ENNIS LAKE	80	69	82	97	116
FLAMING GORGE	78	70	79	99	110
FONTENELLE	50	54	42	121	93
GLENDO	73	66	90	81	111
GRASSY LAKE	62	69	84	74	90
GUERNSEY	50	48	73	69	105
HEBGEN LAKE	78	70	67	116	111
JACKSON LAKE	24	31	56	43	77
KEYHOLE	50	59	60	83	84
PACTOLA	76	90	87	87	84
PALISADES	61	51	62	98	120
PATHFINDER	22	30	73	31	75
PILOT BUTTE	58	86	81	71	67
SEMINOE	34	29	50	67	119
SHADEHILL	56	83	80	70	68
TONGUE RIVER	61	62	40	152	97
VIVA NAUGHTON RES	95	91	67	140	104
WHEATLAND #2	41	28	60	69	151
WOODRUFF NARROWS	54	49	67	81	111
TOTAL OF 29 RESERVOIRS	60	56	69	88	108

Raw KAF Totals Current=8003 Last Year=7384 Average=9129 Capacity=13300

Basin Summary of Snow Course Data

APRIL 2005

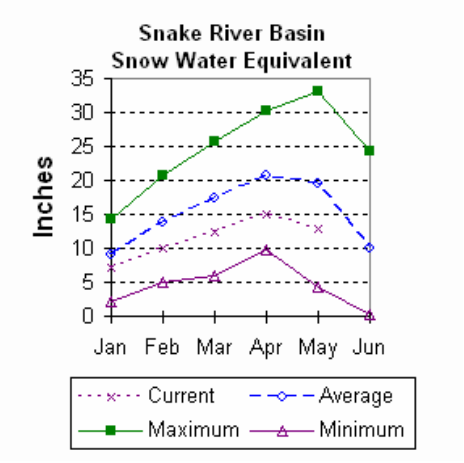
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
WYOMING Snow Course and SNOTEL Stations						
ALBANY	9400	4/26/05	16	4.9	4.9	12.3
BALD MOUNTAIN SNOTEL	9380	5/01/05	53	16.9	18.5	23.6
BASE CAMP SNOTEL	7030	5/01/05	---	4.8	1.2	12.3
BATTLE MTN. SNOTEL	7440	5/01/05	0	.0	.0	4.6
BEARLODGE DIVIDE	4680	4/27/05	1	.1	.0	.4
BEARTOOTH LK. SNOTEL	9280	5/01/05	56	17.0	20.5	25.9
BEAR TRAP SNOTEL	8200	5/01/05	6	1.0	.2	2.5
BIG GOOSE SNOTEL	7760	5/01/05	27	8.5	5.1	11.6
BIG PARK	8620	4/25/05	53	17.9	12.7	19.6
BIG SANDY SNOTEL	9080	5/01/05	37	14.4	10.6	13.5
BLACKWATER SNOTEL	9780	5/01/05	---	16.9	19.5	28.8
BLIND BULL SNOTEL	8900	5/01/05	---	19.8	19.9	27.9
BLIND PARK SNOTEL	6870	5/01/05	1	.1	.0	4.0
BLUE RIDGE	9620	4/26/05	44	14.1	12.3	12.5
BONE SPGS. SNOTEL	9350	5/01/05	47	14.6	16.7	18.3
BROOKLYN LK. SNOTEL	10220	5/01/05	168	18.5	16.8	28.2
BUCK CREEK	7960	4/29/05	25	5.9	1.0	9.6
BURGESS JCT. SNOTEL	7880	5/01/05	34	10.8	9.4	13.3
BURROUGHS CRK SNOTEL	8750	5/01/05	41	11.4	12.1	13.6
CANYON SNOTEL	8090	5/01/05	19	7.0	5.6	11.3
CARTER MOUNTAIN	7950	4/28/05	13	1.6	1.0	5.3
CASPER MTN. SNOTEL	7850	5/01/05	31	9.7	6.7	17.1
CASTLE CREEK	8400	4/26/05	0	.0	1.6	2.4
CCC CAMP	7000	4/28/05	20	6.0	.4	8.0
CHALK CK #1 SNOTEL	9100	5/01/05	66	26.3	13.2	25.3
CHALK CK #2 SNOTEL	8200	5/01/05	35	13.2	4.3	12.0
CINNABAR PARK SNOTEL	9690	5/01/05	44	14.2	13.6	11.5
CLOUD PEAK SNOTEL	9850	5/01/05	50	15.2	14.0	16.2
COLE CANYON SNOTEL	5910	5/01/05	---	.1	.0	5.3
COLD SPRINGS SNOTEL	9630	5/01/05	13	3.6	1.0	4.8
COTTONWOOD CR SNOTEL	7700	5/01/05	---	14.4	10.1	19.8
CROW CREEK SNOTEL	8830	5/01/05	5	1.2	.0	5.4
DARBY CANYON	8250	4/28/05	44	16.1	21.1	24.6
DEER PARK SNOTEL	9700	5/01/05	70	24.5	17.8	18.6
DIVIDE PEAK SNOTEL	8860	5/01/05	52	18.2	12.1	19.3
DOME LAKE SNOTEL	8880	5/01/05	33	9.3	7.4	13.5
EAST RIM DIV SNOTEL	7930	5/01/05	---	4.1	6.4	13.1
ELBO RANCH	7100	5/02/05	16	4.8	3.2	9.5
ELKHART PARK SNOTEL	9400	5/01/05	---	12.7	6.6	12.8
EVENING STAR SNOTEL	9200	5/01/05	52	18.0	19.1	33.3
FOXPARK	9060	4/26/05	0	.0	.0	5.3
GLADE CREEK	7040	4/27/05	23	8.8	9.5	20.1
GRANITE CRK SNOTEL	6770	5/01/05	---	6.9	5.3	12.8
GRANNIER MEADOWS	8860	4/29/05	49	13.4	9.0	14.6
GRASSY LAKE SNOTEL	7270	5/01/05	45	19.1	22.2	33.4
GRAVE SPRINGS SNOTEL	8550	5/01/05	20	5.8	8.0	11.1
GREYS BOUNDARY	5720	4/27/05	0	.0	.0	2.6
GROS VENTRE SNOTEL	8750	5/01/05	33	10.6	7.4	13.3
GROVER PARK DIVIDE	7000	4/28/05	4	.9	.0	6.4
HAIRPIN TURN	9480	4/26/05	22	7.5	6.4	15.6
HANSEN S.M. SNOTEL	8360	5/01/05	10	1.9	.0	4.9
HAMS FORK SNOTEL	7840	5/01/05	---	6.0	.0	6.0
HASKINS CREEK	8980	5/02/05	76	29.4	26.4	31.6
HOBACK GS	6640	4/27/05	0	.0	--	--
HOBBS PARK SNOTEL	10100	5/01/05	53	17.8	16.5	18.0
INDIAN CREEK SNOTEL	9430	5/01/05	---	32.2	20.7	28.3
JACKPINE CREEK	7350	4/28/05	28	10.0	12.0	19.2

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KELLEY R.S. SNOTEL	8180	5/01/05	---	14.8	6.1	14.1
KENDALL R.S. SNOTEL	7740	5/01/05	---	3.7	.4	10.0
KIRWIN SNOTEL	9550	5/01/05	31	9.1	7.6	13.0
LAKE CAMP	7780	5/01/05	17	5.6	.0	7.5
LA PRELE SNOTEL	8380	5/01/05	4	.9	.0	7.1
LEWIS LAKE SNOTEL	7850	5/01/05	49	20.1	22.5	34.6
LEWIS LAKE DIVIDE	7850	4/27/05	64	26.7	31.4	42.3
LIBBY LODGE	8750	4/26/05	2	.5	.0	8.3
LITTLE WARM SNOTEL	9370	5/01/05	25	7.5	5.6	11.1
LOOMIS PARK SNOTEL	8240	5/01/05	---	9.9	4.8	14.3
LUPINE CREEK	7380	4/28/05	0	.0	.0	5.8
MARQUETTE SNOTEL	8760	5/01/05	19	5.9	8.3	11.3
MIDDLE FORK	7420	4/29/05	8	1.7	1.8	4.7
MIDDLE POWDER SNOTEL	7760	5/01/05	34	9.3	7.7	14.3
MOSS LAKE	9800	5/02/05	46	14.8	10.8	25.8
NEW FORK SNOTEL	8340	5/01/05	---	8.7	1.1	8.4
NORRIS BASIN	7500	4/30/05	8	1.9	.0	6.8
NORTH BARRETT CREEK	9400	5/02/05	54	17.1	14.1	22.7
NORTH FRENCH SNOTEL	10130	5/01/05	80	27.0	20.6	34.5
NORTH RAPID CK SNTL	6130	5/01/05	2	.4	.0	3.8
OLD BATTLE SNOTEL	9920	5/01/05	105	38.4	32.6	36.9
OLD FAITHFUL	7400	4/30/05	20	7.1	2.3	9.3
OWL CREEK SNOTEL	8980	5/01/05	14	2.3	.9	4.0
PARKERS PEAK SNOTEL	9400	5/01/05	46	17.0	15.6	24.5
PHILLIPS BENCH SNTL	8200	5/01/05	53	21.1	18.8	29.4
POCKET CREEK	9350	4/26/05	41	10.2	10.5	13.8
POLE MOUNTAIN	8700	4/26/05	12	2.9	.0	5.0
POWDER RVR.PASS SNTL	9480	5/01/05	29	8.2	5.4	10.7
PURGATORY GULCH	8970	5/02/05	31	9.5	7.4	11.2
RENO HILL SNOTEL	8500	5/01/05	---	9.1	7.6	14.7
REUTER CANYON	6280	4/27/05	2	.3	.0	3.6
ROWDY CREEK	8300	4/27/05	40	14.1	--	21.1
RYAN PARK	8400	5/02/05	8	2.5	.0	7.2
SAGE CK BASIN SNTL	7850	5/01/05	19	2.9	.0	11.2
SALT RIVER SNOTEL	7600	5/01/05	---	10.2	3.7	10.6
SAND LAKE SNOTEL	10050	5/01/05	78	25.3	24.3	37.0
SANDSTONE RS SNOTEL	8150	5/01/05	20	7.0	.0	9.5
SHELL CREEK SNOTEL	9580	5/01/05	56	15.5	14.9	16.8
SHERIDAN R.S.	7750	4/26/05	4	1.0	.7	3.3
SNAKE RV STA SNOTEL	6920	5/01/05	5	1.2	.7	12.2
SNIDER BASIN SNOTEL	8060	5/01/05	34	11.6	5.6	12.6
SOUTH BRUSH SNOTEL	8440	5/01/05	23	7.4	.0	11.1
SOUTH PASS SNOTEL	9040	5/01/05	60	19.6	16.0	18.0
SPRING CRK. SNOTEL	9000	5/01/05	71	25.8	21.2	28.6
ST LAWRENCE ALT SNTL	8620	5/01/05	19	5.9	1.2	6.1
SUCKER CREEK SNOTEL	8880	5/01/05	39	11.8	8.5	13.1
SYLVAN LAKE SNOTEL	8420	5/01/05	31	11.8	7.5	23.8
SYLVAN ROAD SNOTEL	7120	5/01/05	11	3.9	.0	8.1
T CROSS RANCH	7900	4/26/05	0	.0	.0	3.3
TETON PASS W.S.	7740	5/02/05	48	21.2	16.8	27.5
THUMB DIVIDE SNOTEL	7980	5/01/05	25	9.3	5.7	14.9
TIE CREEK SNOTEL	6870	5/01/05	3	.5	.0	3.9
TIMBER CREEK SNOTEL	7950	5/01/05	12	2.3	3.4	4.8
TOGWOTEE PASS SNOTEL	9580	5/01/05	56	18.2	19.5	27.9
TOWNSEND CRK SNOTEL	8700	5/01/05	34	10.4	10.2	9.1
TRIPLE PEAK SNOTEL	8500	5/01/05	---	15.2	9.7	23.7
TWO OCEAN SNOTEL	9240	5/01/05	---	26.6	24.3	31.8
WEBBER SPRING SNOTEL	9250	5/01/05	57	21.2	16.0	25.1
WHISKEY PARK SNOTEL	8950	5/01/05	65	25.7	19.4	30.5
WILLOW CREEK SNOTEL	8450	5/01/05	---	22.2	16.3	30.6
WINDY PEAK SNOTEL	7900	5/01/05	---	3.4	.0	4.9
WOLVERINE SNOTEL	7650	5/01/05	1	.4	.0	7.2
YOUNTS PEAK SNOTEL	8350	5/01/05	39	11.9	6.4	18.1

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 58% of average (100% of last year at this time). Pacific Creek Basin SWE is 71% of average (123% of last year). Gros Ventre River Basin SWE is 66% of average (112% of last year). SWE in the Hoback River drainage is 63% of average (117% of last year). SWE in the Greys River drainage is 73% of average (124% of last year). In the Salt River area SWE is 71% of average (176% of last year). SWE in the Snake River Basin above Palisades is 65% of average (119% of last year). See the Basin Summary of Snow Courses at the beginning of this report for a detailed listing of snow course information.

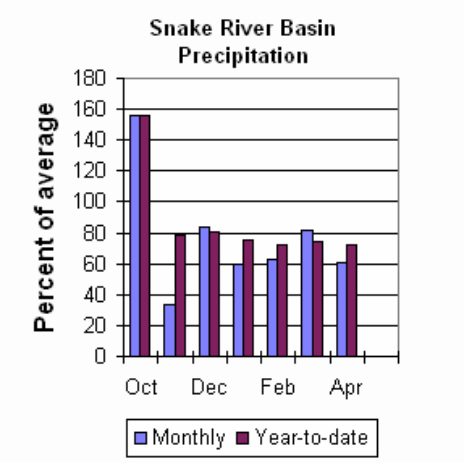


Precipitation

Precipitation across the basin was below average last month. Monthly precipitation for the basin was 61% of average (102% of last year). Last month's percentages range from 31-93% of average. Water-year-to-date precipitation is 72% of average for the Snake River Basin (92% of last year). Year-to-date percentages range from 58-90% of average.

Reservoir

Currently, usable reservoir storage, compared to normal for the three storage reservoirs in the basin, is below average at 61%. Grassy Lake storage is about 73% of average (9,000 ac-ft compared to 10,000 last year). Jackson Lake storage is 32% of average (154,800 ac-ft compared to 185,300 ac-ft last year). Palisades Reservoir storage is about 75% of average (710,200 ac-ft compared to 608,000 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 most probable, a 50% chance, May through September runoff yield forecast is below average for the basin. The Snake near Moran is expected to yield 510,000 ac-ft (61% of average). Snake above reservoir near Alpine is estimated to yield about 1,480,000 ac-ft (59% of average). The Snake near Irwin is expected to yield about 2,110,000 ac-ft (60% of average). The Snake near Heise is expected to yield 2,240,000 ac-ft (60% of average). Pacific Creek at Moran is expected to yield about 92,000 ac-ft (55% of average). Greys River above Palisades Reservoir is estimated to yield 245,000 ac-ft (69% of average). Salt River near Etna is estimated to yield 235,000 ac-ft (65% of average). See the following page for detailed runoff volumes.

SNAKE RIVER BASIN
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions * Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SNAKE nr Moran (1,2)							
MAY-JUL	340	420	455	61	490	570	750
MAY-SEP	385	470	510	61	550	635	840
SNAKE ab resv nr Alpine (1,2)							
MAY-JUL	1000	1180	1260	58	1340	1520	2160
MAY-SEP	1170	1380	1480	59	1580	1790	2530
SNAKE nr Irwin (1,2)							
MAY-JUL	1390	1660	1790	60	1920	2190	2980
MAY-SEP	1650	1970	2110	60	2250	2570	3520
SNAKE near Heise (2)							
MAY-JUL	1550	1750	1890	60	2030	2230	3170
MAY-SEP	1850	2080	2240	60	2400	2630	3760
PACIFIC CREEK at Moran							
MAY-JUL	58	74	85	53	96	112	160
MAY-SEP	64	81	92	55	103	120	167
GREYS above Palisades							
MAY-JUL	170	190	205	68	220	240	300
MAY-SEP	205	230	245	69	260	285	355
SALT near Etna							
MAY-JUL	126	160	183	65	208	238	280
MAY-SEP	170	210	235	65	260	300	360

* 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 April

Reservoir	Usable Capacity	********* Usable Storage ********* This Year	Last Year	Average
GRASSY LAKE	15.2	9.4	10.5	12.7
JACKSON LAKE	847.0	201.0	259.6	471.1
PALISADES	1400.0	849.1	710.4	862.6

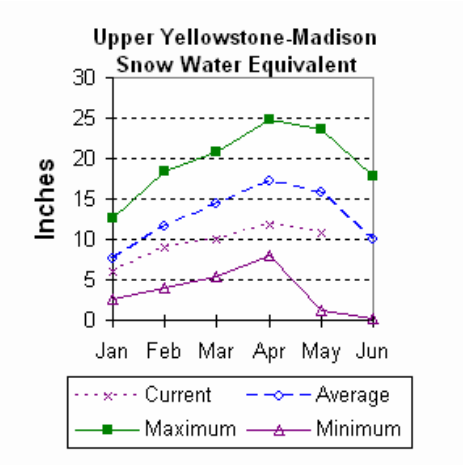
SNAKE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SNAKE above Jackson Lake	6	100	58
PACIFIC CREEK	2	123	71
GROS VENTRE RIVER	3	116	66
HOBACK RIVER	5	117	63
GREYS RIVER	5	122	75
SALT RIVER	5	176	71
SNAKE above Palisades	23	120	65

Yellowstone and Madison River Basins

Snow

Snowfall in these basins has been mixed this year; however SWE in both basins is below average this month. Snow water equivalent (SWE) is about 71% of average (116% of last year) in the Madison drainage. SWE in the Yellowstone drainage is about 64% of average (128% of last year at this time). See the "Snow Course Basin Summary" at the beginning of this document for more details on specific sites.

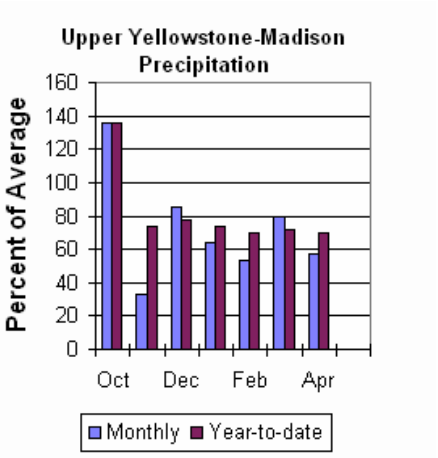


Precipitation

Last month precipitation in the Madison and Yellowstone drainage was about 57% of average (86% of last year) for the 5 reporting stations -- percentage range was from 44-118% of average. Water-year-to-date precipitation is about 70% of average (87% of last year's amount). Year to date percentage ranges from 65-77%.

Reservoir

Ennis Lake is storing about 31,000 ac-ft of water (76% of capacity, 99% of average or 110% of last year's volume). Hebgen Lake is storing about 290,200 ac-ft of water (77% of capacity, 112% of average or 112% 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 forecasts are the 50% chance runoff for the May through September runoff period. Yellowstone at Lake Outlet is expected to yield about 460,000 ac-ft (60% of average). Yellowstone at Corwin Springs will yield about 1,330,000 ac-ft (71% of average). Yellowstone near Livingston will yield about 1,520,000 ac-ft (71% of average). Hebgen reservoir inflow is estimated to be 365,000 ac-ft (83% of average). See the following page for detailed runoff volumes.

UPPER YELLOWSTONE & MADISON RIVER BASINS
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
YELLOWSTONE at Lake Outlet							
MAY-JUL	250	305	340	61	375	430	555
MAY-SEP	370	425	460	60	495	550	770
YELLOWSTONE RIVER at Corwin Springs							
MAY-JUL	885	1010	1090	70	1170	1300	1550
MAY-SEP	1090	1230	1330	71	1430	1570	1870
YELLOWSTONE RIVER near Livingston							
MAY-JUL	1040	1150	1230	70	1310	1420	1770
MAY-SEP	1290	1430	1520	71	1610	1750	2150
HEBGEN Reservoir Inflow							
MAY-JUL	215	245	270	82	295	325	330
MAY-SEP	300	340	365	83	390	430	440

* 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 April

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
ENNIS LAKE	41.0	32.8	28.2	33.8
HEBGEN LAKE	377.5	294.5	264.5	254.6

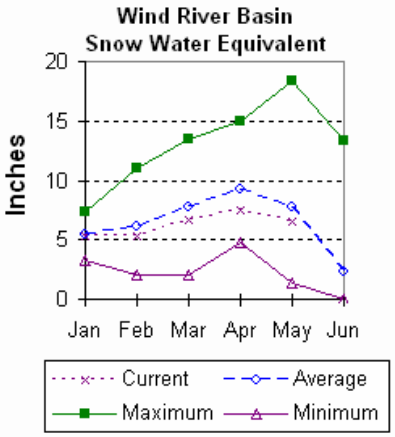
UPPER YELLOWSTONE & MADISON RIVER BASINS
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MADISON RIVER in WY	8	113	72
YELLOWSTONE RIVER in WY	11	128	64

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 64% of average (96% of last year at this time). The Little Wind SWE is 98% of average water content (134% of last year), and the Popo Agie drainage SWE is about 106% of average (121% of last year). The Wind River Basin, above Boysen Reservoir SWE is about 84% of average (111% of last year). See the Basin Summary of Snow Course Data at the front of this report for details.

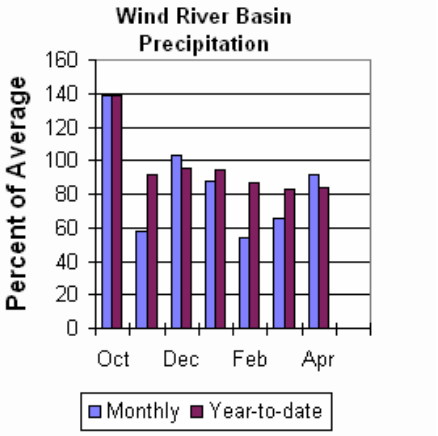


Precipitation

Last months precipitation in the basin varied from 66-120% of average. Precipitation, for the basin, was about 92% of average from the 8 reporting stations; that is about 72% of last year's amount. Water year-to-date precipitation is 84% of average and about 98% of last year at this time. Year-to-date percentages range from 66-109% of average.

Reservoirs

Current storage varies from 100-123% of average. Usable storage in Bull Lake is currently about 104,800 ac-ft (69% of capacity) - last year the reservoir was at 38% of capacity at this time. Boysen Reservoir is storing about 110% of capacity ((653,500 ac-ft) – last year the reservoir was at 64% of capacity at this time. Pilot Butte is at 85% of capacity (26,900 ac-ft) – last year the reservoir was at 75% 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% chance yields for the May through September runoff period. Dinwoody Creek near Burris is estimated to yield 79,000 ac-ft (85% of average). The Wind River above Bull Lake Creek is expected to yield 340,000 ac-ft (67% of average). Bull Lake Creek near Lenore is expected to yield about 158,000 ac-ft (89% of average). Wind River at Riverton will yield about 450,000 ac-ft (74% of average). Little Popo Agie River near Lander is expected to yield about 49,000 ac-ft (100% of average). South Fork of Little Wind near Fort Washakie will yield about 71,000 ac-ft (88% of average). Little Wind River near Riverton will yield about 275,000 ac-ft (95% of average). Boysen Reservoir inflow will yield about 645,000 ac-ft (85% of average). See the following page for detailed runoff volumes.

WIND RIVER BASIN
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
DINWOODY CREEK nr Burris							
MAY-JUL	45	50	54	83	58	63	65
MAY-SEP	66	74	79	85	84	92	93
WIND RIVER abv Bull Lake Cr (2)							
MAY-JUL	185	240	275	67	310	365	410
MAY-SEP	240	300	340	67	380	440	510
BULL LAKE CR near Lenore (2)							
MAY-JUL	101	117	128	89	139	155	144
MAY-SEP	126	145	158	89	171	190	178
WIND RIVER at Riverton (2)							
MAY-JUL	205	305	375	74	445	545	510
MAY-SEP	270	380	450	74	520	630	610
LT POPO AGIE RIVER nr Lander							
MAY-JUL	30	38	43	100	48	56	43
MAY-SEP	35	43	49	100	55	63	49
SF LT WIND nr Fort Washakie							
MAY-JUL	43	54	62	89	70	81	70
MAY-SEP	51	63	71	88	79	91	81
LT WIND RIVER nr Riverton							
MAY-JUL	128	195	240	94	285	350	255
MAY-SEP	157	225	275	95	325	395	290
BOYSEN RESERVOIR Inflow (2)							
MAY-JUL	330	470	565	85	660	800	665
MAY-SEP	385	540	645	85	750	905	758

* 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 April

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
BULL LAKE	151.8	104.6	60.9	83.9
BOYSEN	596.0	571.4	387.1	526.1
PILOT BUTTE	31.6	18.3	27.2	25.7

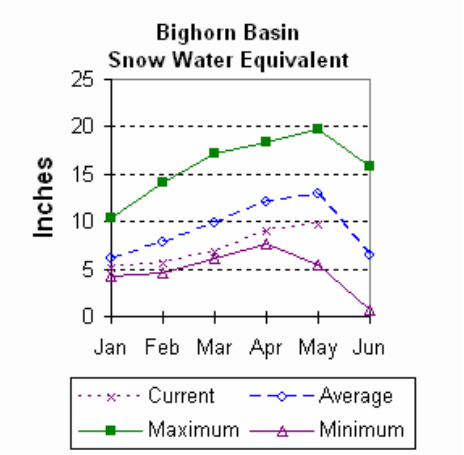
WIND RIVER BASIN
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
WIND RIVER above Dubios	5	102	64
LITTLE WIND	2	134	98
POPO AGIE	7	121	106
WIND above Boysen Resv	12	113	84

Bighorn River Basin

Snow

Snowpack in this basin is well below average for this time of year. Nowood drainage SWE is 70% of average (134% of last year). Greybull River SWE is 64% of average (104% of last year). Shell Creek SWE is 80% of average (94% of last year). The Bighorn River Basin SWE, as a whole, is currently 75% of average (102% of last year). For more information see Basin Summary of Snow Courses at beginning of report.

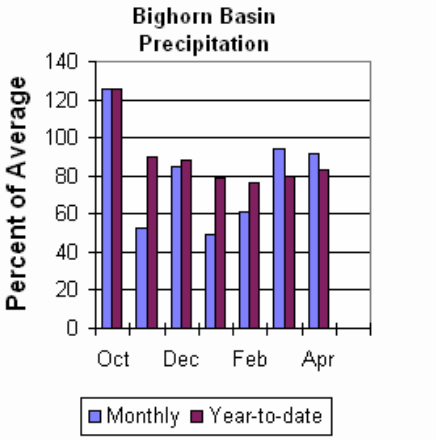


Precipitation

Last month's precipitation was 92% of average (108% of last year). Sites ranged from 68-177% of average for the month. Year-to-date precipitation is 83% of average; that is 101% of last year at this time. Year-to-date percentages, from the 10 reporting stations, range from 61-98%.

Reservoir

Boysen Reservoir is currently storing 653,500 ac-ft (100% of average). Bighorn Lake is now at 80% of average (647,100 ac-ft). Boysen is currently storing 171% of last year volume at this time and Big Horn Lake is storing 97% 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% chance May through September runoff is anticipated to be well below average. The Boysen Reservoir inflow is forecast to yield 645,000 ac-ft (85% of average); the Greybull River near Meeteetse should yield 126,000 ac-ft (65% of average); Shell Creek near Shell should yield 56,000 ac-ft (81% of average) and the Bighorn River at Kane should yield 890,000 ac-ft (87`% of average). See the following page for detailed runoff volumes.

BIGHORN RIVER BASIN
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
BOYSEN RESERVOIR Inflow (2)							
MAY-JUL	330	470	565	85	660	800	665
MAY-SEP	385	540	645	85	750	905	758
GREYBULL RIVER nr Meeteetse							
MAY-JUL	55	74	87	62	100	119	141
MAY-SEP	86	110	126	65	142	166	194
SHELL CREEK nr Shell							
MAY-JUL	36	42	46	81	50	56	57
MAY-SEP	46	52	56	81	60	66	69
BIGHORN RIVER at Kane (2)							
MAY-JUL	555	700	795	87	890	1035	915
MAY-SEP	625	780	890	87	1000	1160	1020

* 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 April

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
BOYSEN	596.0	571.4	387.1	526.1
BIGHORN LAKE	1356.0	666.4	640.1	791.9

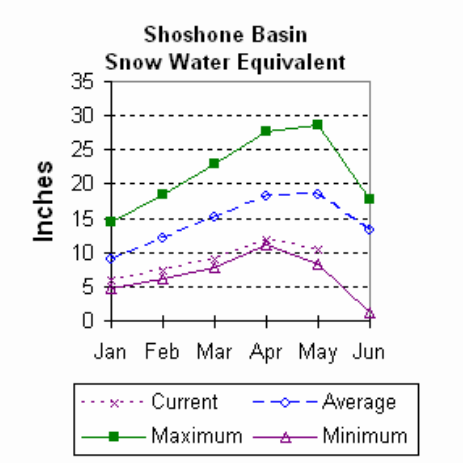
BIGHORN RIVER BASIN
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
NOWOOD RIVER	3	111	73
GREYBULL RIVER	2	104	64
SHELL CREEK	4	103	78
BIGHORN (Boysen-Bighorn)	9	106	74

Shoshone and Clarks Fork River Basin

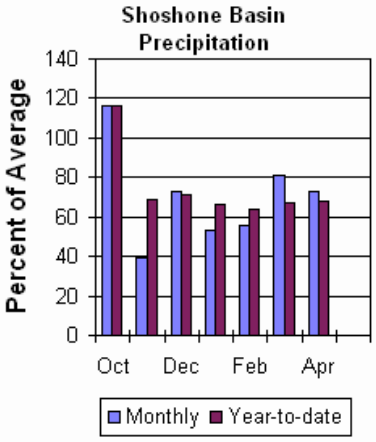
Snow

Snow Water Equivalent (SWE) is 54% of average (113% of last year) in the Shoshone River Basin. The Clarks Fork River Basin SWE is 60% of average (95% of last year). For more information see the Basin Summary of Snow Course Data at the beginning of this report.



Precipitation

Precipitation for last month was 73% of average (103% of last year). Monthly percentages range from 26-209% of average. The basin year-to-date precipitation is now 68% of average (87% of last year). Year-to-date percentages range from 57-76% of average.



Reservoir

Current storage in Buffalo Bill Reservoir is about 100% of average (108% of last year's storage) – the reservoir is at about 73% of capacity. Currently, about 475,100 ac-ft are stored in the reservoir compared to 441,800 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 50% yield for the May through September period for the North Fork Shoshone River at Wapiti is expected to be 330,000 ac-ft (68% of average). South Fork of the Shoshone River near Valley is estimated to yield about 160,000 ac-ft (63% of average), and South Fork above Buffalo Bill Reservoir is expected to be 97,000 ac-ft (45% of average). The Buffalo Bill Reservoir inflow is expected to be about 465,000 ac-ft (62% of average). The 50% chance yield for the Clarks Fork of the Yellowstone near Belfry, Montana is expected to be about 385,000 ac-ft (68% of average). See the following page for detailed runoff volumes.

SHOSHONE & CLARKS FORK RIVER BASINS
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
NF SHOSHONE RIVER at Wapiti							
MAY-JUL	245	275	295	69	315	345	425
MAY-SEP	280	310	330	68	350	380	485
SF SHOSHONE RIVER nr Valley							
MAY-JUL	109	128	140	65	152	171	215
MAY-SEP	124	146	160	63	174	198	255
SF SHOSHONE RIVER abv Buffalo Bill							
MAY-JUL	43	74	95	48	116	147	200
MAY-SEP	40	74	97	45	120	154	215
BUFFALO BILL DAM Inflow (2)							
MAY-JUL	280	360	410	61	460	540	675
MAY-SEP	330	410	465	62	520	600	755
CLARKS FORK RIVER nr Belfry							
MAY-JUL	275	325	355	69	385	435	515
MAY-SEP	300	350	385	68	420	470	570

* 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 April

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
BUFFALO BILL	646.6	483.2	432.1	352.2

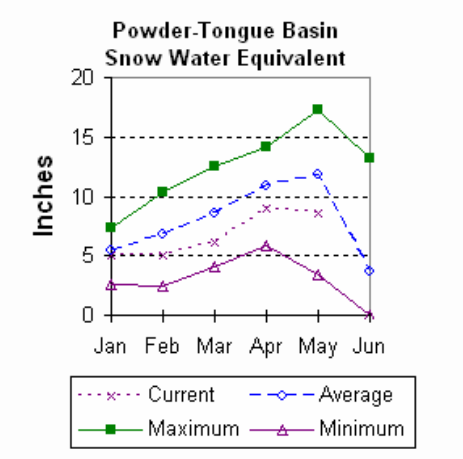
SHOSHONE & CLARKS FORK RIVER BASINS
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SHOSHONE RIVER	7	113	54
CLARKS FORK in WY	7	95	60

Powder and Tongue River Basins

Snow

Snow water equivalent (SWE) in the Upper Tongue River drainage is 78% of average (115% of last year). The Goose Creek drainage SWE is 71% of average 142% of last year). SWE in the Clear Creek drainage is 81% of average (122% of last year). Crazy Woman Creek drainage SWE is 77% of average (152% of last year). Upper Powder River drainage SWE is 67% of average (139% of last year). Powder River basin SWE, in Wyoming, is about 73% of average (130% of last year). For more information see Basin Summary of Snow Courses at beginning of report.

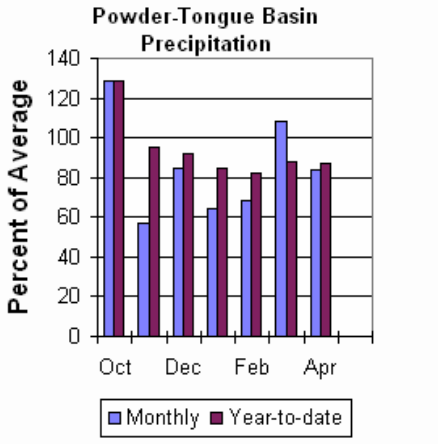


Precipitation

Last month's precipitation was 84% of average for the 9 reporting stations (108% of last year). Monthly percentages range from 68-180% of average. Year-to-date precipitation is 87% of average in the basin; this is 106% of last year at this time. Precipitation for the year ranges from 61-100% of average at the reporting stations.

Reservoir

Tongue River Reservoir is currently at 147% of average (89% of last year and 56% of capacity). Current storage is 44,200 ac-ft. Last year at this time the reservoir was storing about 49,400 ac-ft (average storage is about 30,100 ac-ft 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

The following runoff values are for the 50% probability during the May through September forecast period. The estimated yield for Tongue River near Dayton is 80,000 ac-ft (78% of average). Little Goose Creek near Bighorn is expected to yield about 34,000 ac-ft (85% of average). The Tongue River Inflow is expected to be 155,000 ac-ft (69% of average). Middle Fork of the Powder River near Barnum is estimated to yield 8,500 ac-ft (51% of average). The North Fork of the Powder near Hazelton should yield about 7,600 ac-ft (78% of average). The estimated yield for Clear Creek near Buffalo is 30,000 ac-ft (81% of average). Rock Creek near Buffalo will yield about 17,000 ac-ft (74% of average), and Piney Creek at Kearny should yield about 32,000 ac-ft (67% of average). The Powder River at Moorehead is expected to yield 122,000 ac-ft (61% of average). The Powder River near Locate is expected to yield 122,000 ac-ft (56% of average). See the following page for detailed runoff volumes.

POWDER & TONGUE RIVER BASINS
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
TONGUE RIVER nr Dayton (2)							
MAY-JUL	44	59	69	77	79	94	90
MAY-SEP	53	69	80	78	91	107	103
LITTLE GOOSE CREEK nr Big Horn							
MAY-JUL	15.6	21	25	78	29	34	32
MAY-SEP	24	30	34	85	38	44	40
TONGUE RIVER RESERVOIR Inflow (2)							
MAY-JUL	53	102	135	68	166	216	199
MAY-SEP	67	119	155	69	190	245	225
MIDDLE FORK POWDER nr Barnum							
MAY-JUL	2.4	5.6	7.8	50	10.0	13.2	15.6
MAY-SEP	2.9	6.3	8.5	51	10.7	14.1	16.6
NORTH FORK POWDER nr Hazelton							
MAY-JUL	4.7	6.1	7.0	78	7.9	9.3	9.0
MAY-SEP	5.1	6.6	7.6	78	8.6	10.1	9.8
CLEAR CREEK nr Buffalo							
MAY-JUL	20	24	26	81	28	32	32
MAY-SEP	23	27	30	81	33	37	37
ROCK CREEK nr Buffalo							
MAY-JUL	8.8	11.9	14.0	74	16.1	19.2	18.9
MAY-SEP	11.6	14.8	17.0	74	18.9	22	23
PINEY CREEK at Kearny							
MAY-JUL	5.3	19.0	29	66	39	53	44
MAY-SEP	7.7	22	32	67	42	56	48
POWDER RIVER at Moorehead							
MAY-JUL	9.0	62	104	58	146	207	178
MAY-SEP	16.0	79	122	61	164	229	200
POWDER RIVER near Locate							
MAY-JUL	52	82	103	53	124	154	195
MAY-SEP	64	99	122	56	145	179	220

* 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 April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
TONGUE RIVER	79.1	48.1	49.4	31.7

POWDER & TONGUE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2005

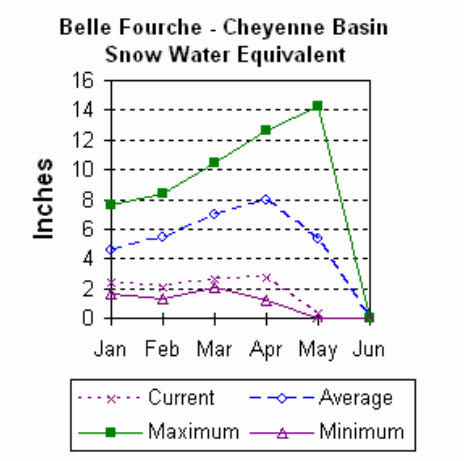
Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER TONGUE RIVER	10	120	79
GOOSE CREEK	3	139	78
CLEAR CREEK	2	122	81
CRAZY WOMAN CREEK	1	152	77

UPPER POWDER RIVER	3	139	67
POWDER RIVER in WY	5	130	73

Belle Fourche and Cheyenne River Basins

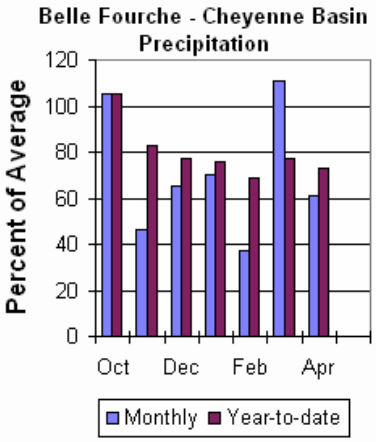
Snow

The Belle Fourche River Basin is currently at 6% of average. The basin is, for all practical purposes, melted out. See the Basin summary of Snow Course Data at the beginning of this report for a detailed listing.



Precipitation

Precipitation for last month was 61% of average in the Black Hills. There were 2 reporting stations. Monthly percentages range from 54-89%. Year-to-date precipitation is 73% of average and 92% of last year's amount.



Reservoir

Current reservoir storage is around 71% of average in the basin. Angostura is currently storing 53% of average (58,400 ac-ft), about 48% of capacity. Belle Fourche reservoir is storing 65% of average (85,500 ac-ft), about 48% of capacity. Deerfield reservoir is storing 96% of average (13,000 ac-ft), about 86% of capacity. Keyhole reservoir is storing 84% of average (95,200 ac-ft), 49% of capacity. Pactola reservoir is storing 88% of average (41,200 ac-ft), 75% of capacity. Shadehill reservoir is storing 75% of average (47,200 ac-ft), 58% 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 for the 50% probability during the May through July forecast period. The estimated yield for Deerfield Reservoir Inflow is 2,500 ac-ft (63% of average). Pactola Reservoir Inflow is expected to yield about 10,800 ac-ft (72% of average). See the following page for detailed runoff volumes.

BELLE FOURCHE & CHEYENNE RIVER BASINS
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
DEERFIELD RESERVOIR Inflow							
MAY-JUL	0.3	1.6	2.5	63	3.4	4.7	4.0
PACTOLA RESERVOIR Inflow							
MAY-JUL	1.7	4.8	10.8	72	13.1	19.3	15.1

* 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 April

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
ANGOSTURA	122.1	60.8	88.3	113.7
BELLE FOURCHE	178.4	93.0	125.1	145.7
DEERFIELD	15.2	13.1	15.0	13.6
KEYHOLE	193.8	96.1	113.8	115.8
PACTOLA	55.0	41.6	49.5	47.9
SHADEHILL	81.4	45.7	67.2	65.2

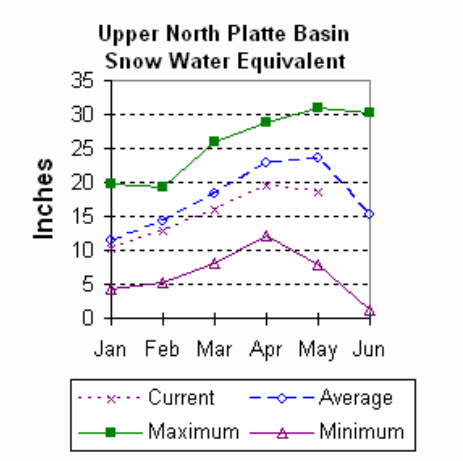
BELLE FOURCHE & CHEYENNE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
BELLE FOURCHE	4	0	8

Upper North Platte River Basin

Snow

The snow courses above Seminoe Reservoir have about 79% of average snow water equivalent (SWE) recorded for this time of the year (127% of last year). SWE in the drainage area above Northgate is about 81% of average and 122% of last year at this time. SWE in the Encampment River drainage is about 91% of average and 126% of last year. Brush Creek SWE for the year is about 68% of average and 151% of last year's SWE. Medicine Bow and Rock Creek drainage SWE is about 64% of average and 113% of last year at this time. For more information see Basin Summary of Snow Courses at the beginning of this report.

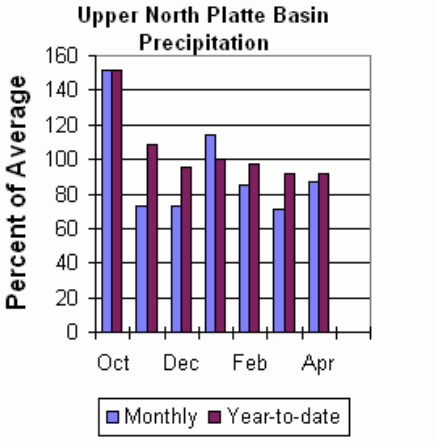


Precipitation

Eight reporting stations indicate last month's precipitation was 73% of average and 93% of last year's amount. Precipitation varied from 47-181% of average last month. Total water-year-to-date precipitation is about 80% of average for the basin, which is about 109% of last year's amount. Year to date percentage ranges from 69-112% of average.

Reservoirs

Seminoe Reservoir is estimated to be storing 274,500 ac-ft or 27% of capacity. Seminoe Reservoir is also storing about 55% of average for this time of the year and 105% 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

All the following yields are based on the 50% chance May through September yield. Yield for the North Platte River near Northgate is expected to be about 160,000 ac-ft (70% of average). Encampment River near Encampment is estimated to yield 145,000 ac-ft (93% of average). Rock Creek near Arlington is estimated to yield 40,000 ac-ft (73% of average). Sweetwater River near Alcova is estimated to yield 68,000 ac-ft (103% of average). Seminoe Reservoir inflow should be about 550,000 ac-ft (73% of average). See the following table for more detailed information on projected runoff.

UPPER NORTH PLATTE RIVER BASIN
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
NORTH PLATTE RIVER nr Northgate							
MAY-JUL	97	122	140	68	160	191	205
MAY-SEP	99	135	160	70	185	219	230
ENCAMPMENT RIVER nr Encampment							
MAY-JUL	102	122	135	92	148	168	147
MAY-SEP	110	131	145	93	159	182	156
ROCK CREEK nr Arlington							
MAY-JUL	30	35	38	73	42	47	52
MAY-SEP	32	37	40	73	44	49	55
SWEETWATER RIVER nr Alcova							
MAY-JUL	40	54	63	103	72	86	61
MAY-SEP	43	58	68	103	78	93	66
SEMINOE RESERVOIR Inflow							
MAY-JUL	320	430	505	73	580	690	690
MAY-SEP	430	500	550	73	600	670	750

* 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 April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
SEMINOE	1016.7	344.3	290.1	510.4

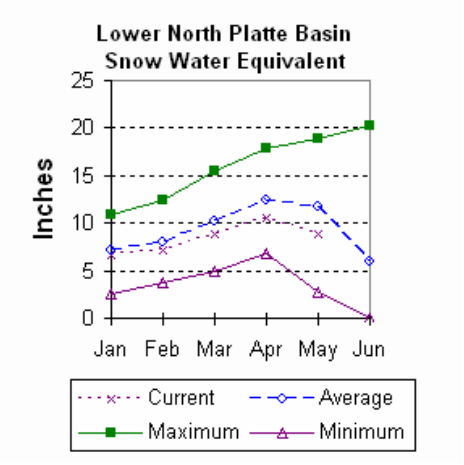
UPPER NORTH PLATTE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
N PLATTE above Northgate	7	122	81
ENCAMPMENT RIVER	4	126	91
BRUSH CREEK	5	151	68
MEDICINE BOW & ROCK CREEKS	3	113	64
N PLATTE above Seminoe	19	127	79

Lower North Platte River Basin

Snow

SWE for the North Platte River Basin is at 75% of average (129% of last year). The Sweetwater drainage SWE is currently at 112% of average (134% of last year). Deer and LaPrele Creek SWE is 51% of average (185% of last year). SWE for the North Platte above the Laramie River drainage is 81% of average (129% of last year). SWE for the Laramie River above Laramie is 74% of average (124% of last year). SWE for the Little Laramie River is 60% of average (109% of last year). The Laramie River above mouth, SWE is 68% of average (122% of last year). For more information see Basin Summary of Snow Courses at beginning of report.

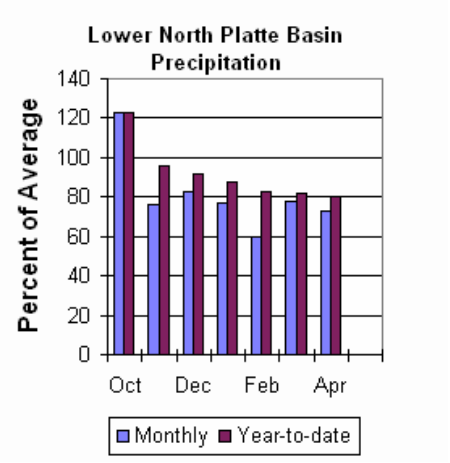


Precipitation

Last month's precipitation was 73% of average and 93% of last year's amount. Of the 7 reporting stations, percentages for the month range from 47-181%. The water year-to-date precipitation for the basin is currently 80% of average (109% of last year). Year-to-date percentages range from 69-112%.

Reservoir

The Lower North Platte River basin reservoir storage is well below average, except for Alcova and Guernsey reservoirs. Reservoir storage is as follows: Alcova 156,100 ac-ft (98% of average); Glendo 339,900 ac-ft (79% of average); Guernsey 21,100 ac-ft (102% of average); Pathfinder 247,100 ac-ft (33% of average); Seminoe 274,500 ac-ft (55% of average); and Wheatland #2 34,000 ac-ft (63% of average).



Streamflow

The following yields are based on the 50% chance probability runoff for the May through September forecast period. The Sweetwater near Alcova is forecast to yield about 68,000 ac-ft (103% of average). Deer Creek at Glenrock is expected to yield about 17,200 ac-ft (42% of average). LaPrele Creek above the reservoir is estimated to yield 6,600 ac-ft (35% of average). North Platte River below Guernsey Reservoir is expected to yield about 630,000 ac-ft (73% of average), and below Glendo Reservoir is anticipated to yield about 595,000 ac-ft (72% of average). Laramie River near Woods Landing should yield about 96,000 ac-ft (76% of average). The Little Laramie near Filmore should produce about 35,000 ac-ft (57% of average). See the following table for more detailed information on projected runoff.

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS

Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SWEETWATER RIVER nr Alcova							
MAY-JUL	40	54	63	103	72	86	61
MAY-SEP	43	58	68	103	78	93	66
LaPRELE CREEK abv Reservoir							
MAY-JUL	1.3	3.2	6.3	34	9.4	13.9	18.6
MAY-SEP	1.3	3.5	6.6	35	9.7	14.2	18.9
NORTH PLATTE - Alcova to Orin Gain							
MAY-JUL	6.0	18.0	40	35	62	95	113
MAY-SEP	6.0	20	44	36	67	102	122
NORTH PLATTE RIVER blw Glendo Res							
MAY-JUL	330	475	575	72	675	820	800
MAY-SEP	345	495	595	72	695	845	830
NORTH PLATTE RIVER blw Guernsey Res							
MAY-JUL	300	475	595	73	715	890	815
MAY-SEP	325	505	630	73	755	940	860
LARAMIE RIVER nr Woods							
MAY-JUL	47	71	87	76	103	127	115
MAY-SEP	51	78	96	76	114	141	127
LITTLE LARAMIE RIVER nr Filmore							
MAY-JUL	24	29	32	57	35	40	56
MAY-SEP	26	31	35	57	39	45	61

* 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 NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********* Usable Storage ********* This Year	Last Year	Average
ALCOVA	184.3	180.3	178.4	178.8
GLENDO	506.4	369.0	332.1	458.2
GUERNSEY	45.6	22.9	21.8	33.3
PATHFINDER	1016.5	228.1	302.3	747.1
SEMINOE	1016.7	344.3	290.1	510.4
WHEATLAND #2	98.9	41.0	27.2	59.7

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS

Watershed Snowpack Analysis - May 1, 2005

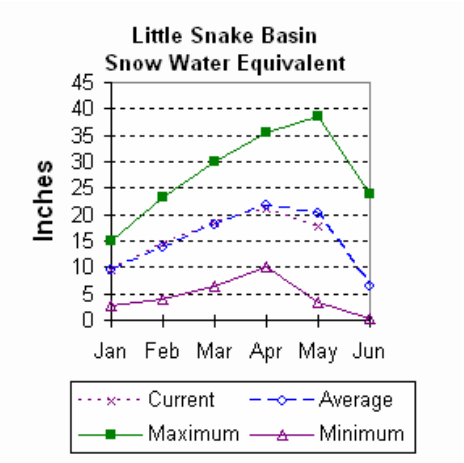
Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SWEETWATER	3	134	112
DEER & LaPRELE CREEKS	3	185	51
N PLATTE abv Laramie R.	25	129	81
LARAMIE RIVER abv Laramie	11	124	74
LITTLE LARAMIE RIVER	5	109	60
LARAMIE RIVER above mouth	14	122	68
NORTH PLATTE	32	129	75

==========

Little Snake River Basin

Snow

Currently, snow water equivalent (SWE) in the Little Snake River drainage is 89% of average (150% of last year at this time). For more information see Basin Summary of Snow Courses at beginning of this report.

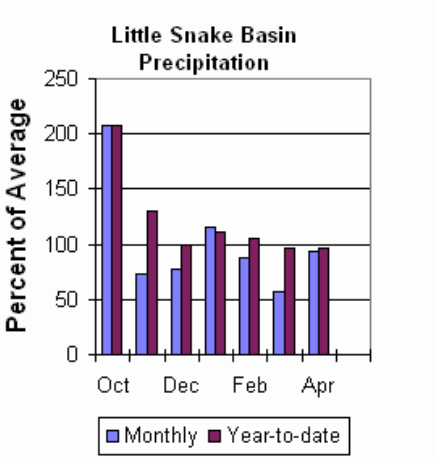


Precipitation

Precipitation across the basin was below average this past month. Last Month's precipitation was 94% of average (110% of last year) for the 5 reporting stations. Last month's precipitation ranged from 78-171% of average. The Little Snake River basin water-year-to-date precipitation is currently 96% of average (110% of last year). Year-to-date percentages range from 85-108% of average.

Streamflow

Runoff yield in the Little Snake River drainage is expected to be just below average this year. Stream yield is based on the 50% probability for the April through July forecast period. The Little Snake River near Slater should yield about 137,000 ac-ft (86% of average). Little Snake River near Dixon is estimated to yield 285,000 ac-ft (86% of average). See the following table for more detailed information on projected runoff.



LITTLE SNAKE RIVER BASIN
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions * Chance of Exceeding 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
Little Snake River nr Slater							
APR-JUL	103	122	137	86	153	175	159
LITTLE SNAKE R nr Dixon							
APR-JUL	198	250	285	86	325	390	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.

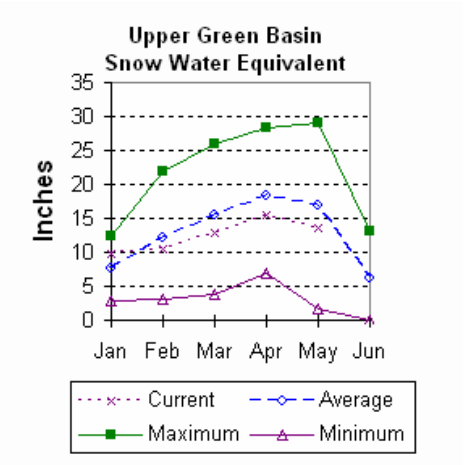
LITTLE SNAKE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
LITTLE SNAKE RIVER	8	150	89

Upper Green River Basin

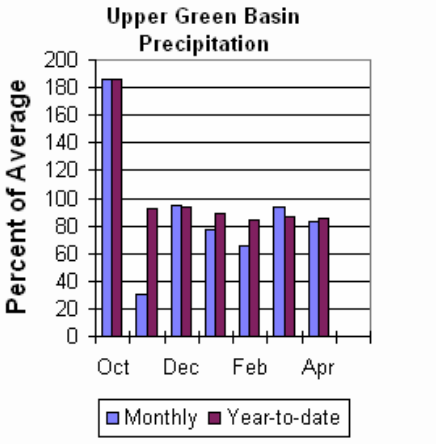
Snow

Snow water equivalent (SWE) is below average in the upper Green River drainage this year. The Green River Basin SWE above Warren Bridge is 56% of average (149% of last year). SWE on the west side of the Upper Green River Basin is about 87% of average (136% of last year). Newfork River Basin SWE is now about 90% of average (174% of last year). Big Sandy-Eden Valley Basin SWE is about 107% of average (136% of last year). SWE in the Green River Basin above Fontenelle Reservoir is about 81% of average (144% 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 83% of average last month (122% of last year). Last month's precipitation varied from 56-219% of average. Water year-to-date precipitation is about 85% of average (109% of last year). Year to date percentage of average ranges from 71-105% for the reporting stations.



Reservoir

Storage in Big Sandy Reservoir is 28,000 ac-ft or 73% of capacity. This is 135% of average. Eden Reservoir is currently storing 2,700 ac-ft or 23% of capacity. This is 64% of average. Fontenelle Reservoir is 137,700 ac-ft or 40% of capacity. This is 96% of average. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.

Streamflow

The 50% chance April through July runoff in the Upper Green River basin is forecast slightly below average. Green River at Warren Bridge is expected to yield about 230,000 ac-ft (87% of average). Pine Creek above Fremont Lake is expected to yield 105,000 ac-ft (101% of average). New Fork River near Big Piney is expected to yield about 380,000 ac-ft (96% of average). Fontenelle Reservoir Inflow is estimated to be 780,000 ac-ft (91% of average), and Big Sandy near Farson is expected to be about 64,000 ac-ft (110% of average). See the following table for more detailed information on projected runoff.

UPPER GREEN RIVER BASIN
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
Green River at Warren Bridge							
APR-JUL	188	210	230	87	250	275	265
Pine Creek abv Fremont Lake							
APR-JUL	90	99	105	101	111	121	104
MAY-JUL	88	96	101	101	106	114	100
New Fork River nr Big Piney							
APR-JUL	310	350	380	96	410	460	395
Fontenelle Reservoir Inflow							
APR-JUL	600	705	780	91	860	980	860
Big Sandy River nr Farson							
APR-JUL	51	59	64	110	70	79	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 April

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
BIG SANDY	38.3	28.7	11.3	24.8
EDEN	11.8	1.8	----	5.5
FONTENELLE	344.8	173.4	187.1	143.5

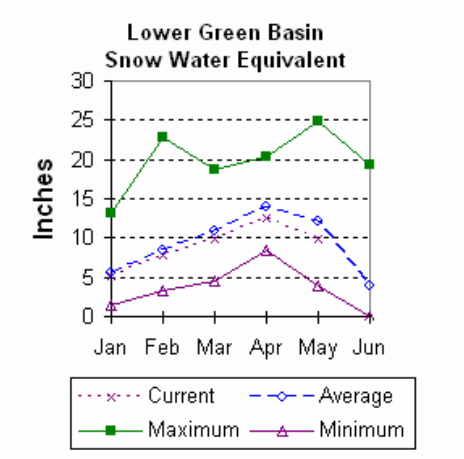
UPPER GREEN RIVER BASIN
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
GREEN above Warren Bridge	4	144	56
UPPER GREEN (West Side)	7	136	84
NEWFORK RIVER	3	174	90
BIG SANDY/EDEN VALLEY	1	136	107
GREEN above Fontenelle	14	144	79

Lower Green River Basin

Snow

SWE in the Hams Fork Basin is 104% of average (179% of last year). Blacks Fork Basin SWE is currently 79% of average (181% of last year). The Henrys Fork drainage SWE is currently 61% of average (252% of last year). SWE in the Green River Basin above Flaming Gorge is 81% of average (159% of last year). For more information see Basin Summary of Snow Courses at beginning of this report.

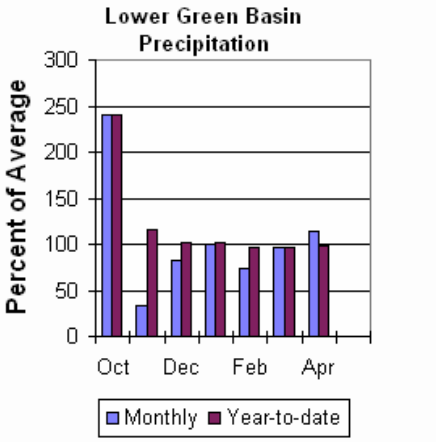


Precipitation

Precipitation was above average for the 3 reporting stations during last month (114% of average). Precipitation ranged from 99-138% of average for the month. The basin year-to-date precipitation is currently 96% of average (137% of last year). Year-to-date percentages range from 95-111%.

Reservoir

Fontenelle Reservoir is currently storing 137,700 ac-ft; this is 96% of average (83% of last year). Flaming Gorge is currently storing 2,853,000 ac-ft; this is 98% of average (108% of last year). Viva Naughton is storing 32,300 ac-ft or 76% of capacity: this is 116% of average (104% of last year).



Streamflow

Expected yields vary from 86-111% of average across the basin. The following forecast values are based on a 50% chance probability for the April through July forecast period. The Green River near Green River is forecast to yield about 800,000 ac-ft (91% of average). The Blacks Fork near Robertson is forecast to yield 99,000 ac-ft (104% of average). East Fork of Smiths Fork near Robertson is estimated to yield 29,000 ac-ft (94% of average). The estimated yield for Hams Fork near Frontier is 71,000 ac-ft (109% of average). The Hams Fork Inflow to Viva Naughton Reservoir is estimated to yield 96,000 ac-ft (108% of average). The Flaming Gorge Reservoir inflow will be about 1,070,000 ac-ft (90% of average). See the following table for more detailed information on projected runoff.

LOWER GREEN RIVER BASIN
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
Green River nr Green River, WY							
APR-JUL	610	720	800	91	885	1020	875
Blacks Fork nr Robertson							
APR-JUL	78	90	99	104	108	123	95
EF of Smiths Fork nr Robertson							
APR-JUL	20	25	29	94	33	39	31
Hams Fk blw Pole Ck nr Frontier							
APR-JUL	57	65	71	109	77	86	65
Hams Fk Inflow to Viva Naughton Res							
APR-JUL	72	85	96	108	107	124	89
Flaming Gorge Reservoir Inflow							
APR-JUL	750	930	1070	90	1230	1460	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 April

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
FONTENELLE	344.8	173.4	187.1	143.5
FLAMING GORGE	3749.0	2913.0	2638.0	2952.0
VIVA NAUGHTON RES	42.4	40.1	38.5	28.6

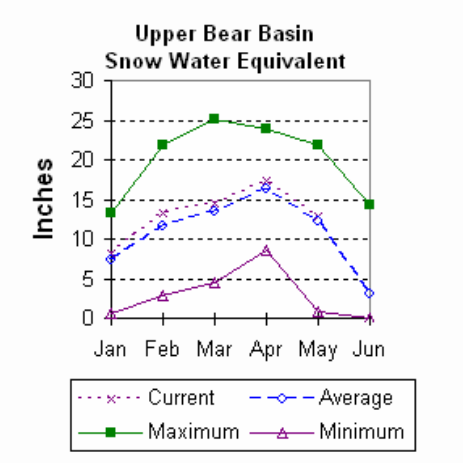
LOWER GREEN RIVER BASIN
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
HAMS FORK RIVER	4	179	104
BLACKS FORK	5	181	78
HENRYS FORK	3	252	61
GREEN above Flaming Gorge	25	159	80

Upper Bear River Basin

Snow

Snow water equivalent (SWE) in the upper Bear River Basin in Utah is estimated to be 100% of average; that is about 296% of last year at this time. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is estimated at 103% of average (174% of last year). Bear River Basin SWE, above the Idaho State line, is 105% of average (210% of last year). See the Basin Summary of Snow Course Data at the beginning of this report for more detailed information.

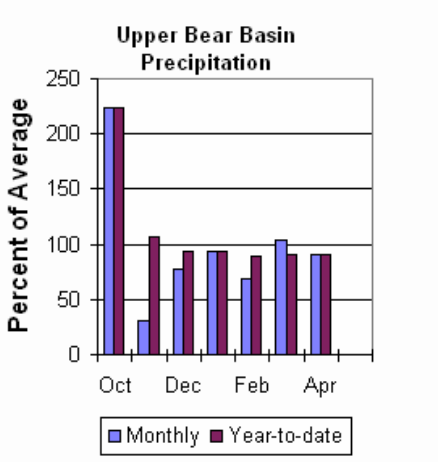


Precipitation

Precipitation for last month was 91% of average for the 2 reporting stations; this is 165% of the precipitation received last year. The year-to-date precipitation, for the basin, is 91% of average; this is 129% of last year's amount.

Reservoir

Storage, in Woodruff Narrows reservoir, is about 31,000 ac-ft (81% of average). Current reservoir storage is about 54% of capacity. Reservoir storage last year at this time was 28,000 ac-ft at this time.



Streamflow

The following 50% chance stream flow yields are for the May through September period. The Bear River above the Utah-Wyoming State Line is expected to yield about 128,000 ac-ft (108% of average). The Bear River above Reservoir near Woodruff is estimated to yield 142,000 ac-ft (116% of average). The Smiths Fork River near Border is estimated to yield 88,000 ac-ft (79% of average). See the following table for more detailed information on projected runoff.

UPPER BEAR RIVER BASIN
Streamflow Forecasts - May 1, 2005

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions 50% (1000AF)	50% (% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
Bear River nr UT-WY State Line							
APR-JUL	109	117	123	109	129	137	113
APR-SEP	120	129	136	109	143	152	125
MAY-JUL	100	108	114	107	120	128	107
MAY-SEP	112	121	128	108	135	144	119
Bear River ab Reservoir nr Woodruff							
APR-JUL	116	134	147	108	160	178	136
APR-SEP	124	142	155	109	168	186	142
MAY-JUL	103	120	132	114	144	161	116
MAY-SEP	113	130	142	116	154	171	122
Smiths Fork nr Border							
APR-JUL	83	88	91	88	94	99	103
APR-SEP	92	98	102	84	106	112	121
MAY-JUL	65	70	73	77	76	81	95
MAY-SEP	78	84	88	79	92	98	112

Chance of Exceeding *

* 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 April

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
WOODRUFF NARROWS	57.3	31.0	28.0	38.5

UPPER BEAR RIVER BASIN
Watershed Snowpack Analysis - May 1, 2005

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER BEAR RIVER in Utah	7	296	100
SMITHS & THOMAS FORKS	4	174	103
BEAR RIVER abv ID line	9	210	105
NORTHWEST	66	113	67
NORTHEST	16	120	75
SOUTHEAST	35	136	75
SOUTHWEST	34	169	83

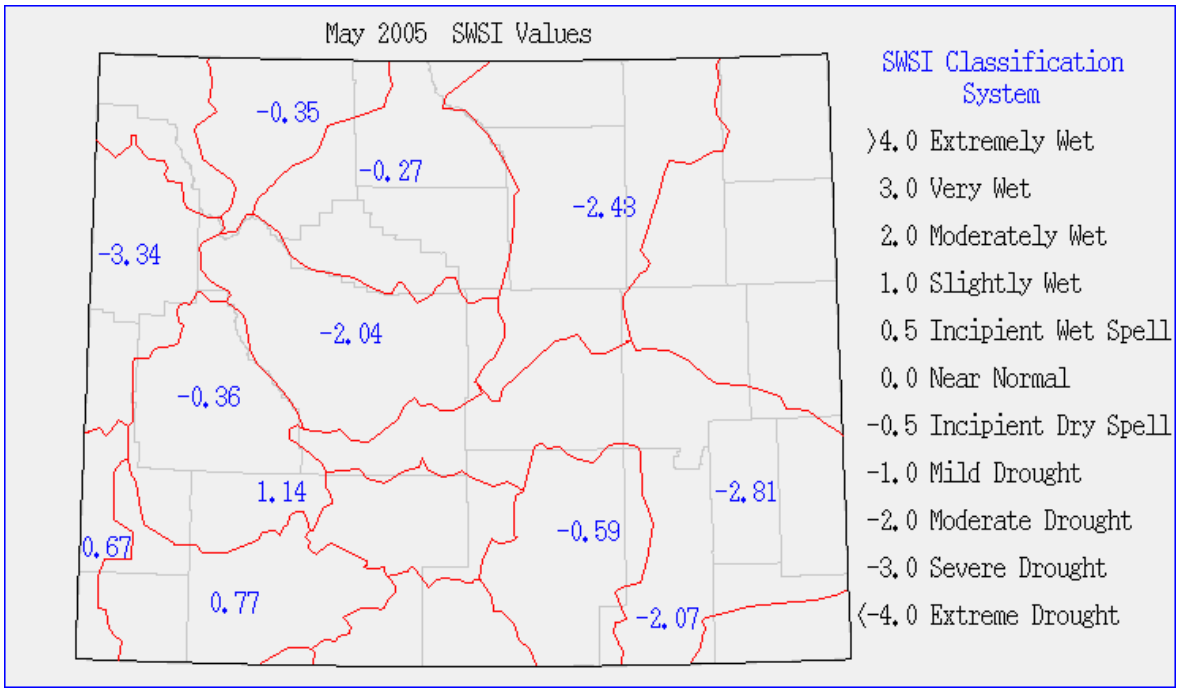
Issued by

Bruce Knight
Chief
Natural Resources Conservation Service
Conservation Service
U.S. Department of Agriculture

Released by

Lincoln "Ed" Burton
State Conservationist
Natural Resources

Casper, Wyoming



Wyoming
Basin Outlook Report

Natural Resources Conservation Service
Casper, WY

100 East B Street, Room 3124
Casper, WY 82601

«NAME»
«TITLE»
«ADDRESS1»
«ADDRESS2»
«CITY», «STATE» «PostalCode»

«MAILINGLISTID»