NRCS
Natural
Resources
Conservation
Service

# Wyoming
## Water Supply Outlook Report

May 1, 2002

# Water Supply 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. 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, snow water equivalent (SWE) across the state is below normal for this time of the year. SWE averages for the State are about 63 percent of normal for this time of the year. Precipitation for the month was mixed, with some better than average and some well below average. All basins report year-to-date precipitation below average. Reservoir levels vary from below average to average – average to above average in the northeast. Many of the larger reservoirs are below average. Generally, forecast runoff is well below average in the south half of the State and below average in the north half of the State. Forecast runoff varies from 9 to 89 percent of average. It is likely that some irrigated areas will be significantly short of water. In some cases, reservoirs may not fill with the spring runoff, especially in the southern portion of the State.

## Snowpack

Less than average snowfall has occurred this past month. Although conditions did improve slightly in the north half of the State, SWE is generally below average for the State. SWE in the northwestern portion of the State is now at 78 percent of average (154 percent of last year). Northeast Wyoming SWE is currently about 70 percent of average (115 percent of last year). The southeast portion is currently about 45 percent of average SWE (59 percent of last year). And the southwest is about 58 percent of average (102 percent of last year).

## Precipitation

May precipitation was generally below average, except in the northwest portion of Wyoming. The northwest portion of the State received above average precipitation for the month. The southwest received average to just below average precipitation for May. The central and southeast parts of Wyoming received below to much below average. Precipitation year-to-date is still well below average across the State. Departures from normal for the year range from –34 percent, in the Lower North Platte, to –3 percent in the Yellowstone and Madison.

**Current month departures from normal**

| Basin | Departure from normal | Basin | Departure from normal |
|---|---|---|---|
| Snake River | +12% | Upper North Platte River | -35% |
| Yellowstone & Madison | +48% | Lower North Platte | -53% |
| Wind River | -21% | Little Snake River | -26% |
| Big Horn | -16% | Upper Green River | -02% |
| Shoshone & Clarks Fork | +14% | Lower Green River | -12% |
| Powder & Tongue River | -18% | Upper Bear River | -08% |
| Belle Fourche & Cheyenne | -45% | | |

## Streams

Stream flow yield is expected to be below average to much below average across the State. Most probable yield for the State is forecast to be about 58 percent of average. The northwest part of the State is expected to yield about 72 percent of normal -- yield estimates vary from 41 to 89 percent of normal. Yield from the northeast portion of Wyoming will be below average (about 71 percent of average) -- yield estimates vary from 49 to 89 percent of average for the various forecast points. The southeast portion of the state is expected to be about 27 percent of normal -- yield estimates range from 9 to 48 percent of normal. Forecast for the southwest portion of

Wyoming varies from 43 to 79 percent of average -- mean estimated yield for the forecast points in southwest Wyoming is about 54 percent of average.

## Reservoirs

Reservoir storage varies from above average to well below average for this time of the year. See following table for further information about reservoir storage.
Major Reservoirs in Wyoming

B A S I N  W I D E
R E S E R V O I R  S U M M A R Y

FOR THE END OF APRIL 2002

| BASIN AREA RESERVIOR | CURRENT AS % CAPACITY | LAST YR AS % CAPACITY | AVERAGE AS % CAPACITY | CURRENT AS % AVERAGE | CURRENT AS % LAST YR |
|---|---|---|---|---|---|
| ALCOVA | 96 | 97 | 97 | 99 | 100 |
| ANGOSTURA | 90 | 95 | 93 | 96 | 94 |
| BELLE FOURCHE | 95 | 102 | 82 | 116 | 94 |
| BIG SANDY | 20 | 29 | 65 | 31 | 69 |
| BIGHORN LAKE | 48 | 62 | 58 | 83 | 78 |
| BOYSEN | 38 | 62 | 69 | 54 | 60 |
| BUFFALO BILL | 40 | 54 | 54 | 73 | 73 |
| BULL LAKE | 19 | 41 | 55 | 34 | 46 |
| DEERFIELD | 101 | 99 | 89 | 112 | 102 |
| EDEN | 4 | 0 | 47 | 9 | 0 |
| ENNIS LAKE | 68 | 76 | 82 | 82 | 90 |
| FLAMING GORGE | 75 | 81 | 79 | 96 | 93 |
| FONTENELLE | 47 | 34 | 42 | 113 | 139 |
| GLENDO | 71 | 92 | 90 | 78 | 77 |
| GRASSY LAKE | 68 | 88 | 84 | 81 | 77 |
| GUERNSEY | 47 | 58 | 73 | 65 | 81 |
| HEBGEN LAKE | 77 | 77 | 67 | 114 | 100 |
| JACKSON LAKE | 26 | 78 | 56 | 46 | 33 |
| KEYHOLE | 81 | 88 | 60 | 136 | 92 |
| PACTOLA | 99 | 98 | 87 | 114 | 101 |
| PALISADES | 54 | 61 | 62 | 87 | 87 |
| PATHFINDER | 51 | 76 | 73 | 69 | 67 |
| PILOT BUTTE | 79 | 78 | 81 | 98 | 102 |
| SEMINOE | 39 | 65 | 50 | 78 | 60 |
| SHADEHILL | 62 | 98 | 80 | 77 | 63 |
| TONGUE RIVER | 43 | 56 | 40 | 109 | 77 |
| VIVA NAUGHTON RES | 76 | 0 | 67 | 113 | 0 |
| WHEATLAND #2 | 28 | 54 | 60 | 47 | 53 |
| WOODRUFF NARROWS | 32 | 38 | 67 | 48 | 86 |
| GLENDO PROJECT USERS | 73 | 94 | 70 | 104 | 78 |
| KENDRICK PROJECT | 68 | 80 | 67 | 102 | 85 |
| NORTH PLATTE PROJ | 44 | 74 | 74 | 59 | 60 |

## Basin Summary of Snow Course Data

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

MAY 2002

| SNOW COURSE | ELEVATION | DATE | SNOW DEPTH | WATER CONTENT | LAST YEAR | AVERAGE 71-00 |
|---|---|---|---|---|---|---|
| WYOMING Snow Course and SNOTEL Stations | | | | | | |
| ALBANY | 9400 | 4/29/02 | 4 | 2.0 | 9.6 | 12.3 |
| ASTER CREEK | 7750 | | | | --- | --- |
| BALD MOUNTAIN SNOTEL | 9380 | 5/01/02 | --- | 18.5 | 16.7 | 23.6 |
| BASE CAMP SNOTEL | 7030 | 5/01/02 | --- | 7.1 | .0 | 12.3 |
| BATTLE MTN. SNOTEL | 7440 | 5/01/02 | --- | .0 | .0 | 4.6 |
| BEARLODGE DIVIDE | 4680 | 4/30/02 | 0 | .0 | .0 | .4 |
| BEARTOOTH LK. SNOTEL | 9280 | 5/01/02 | --- | 22.1 | 13.5 | 25.9 |
| BEAR TRAP SNOTEL | 8200 | 5/01/02 | --- | .1 | .0 | 2.5 |
| BIG GOOSE | 7760 | 4/28/02 | 17 | 4.5 | 4.8 | 7.7 |
| BIG GOOSE SNOTEL | 7760 | 5/01/02 | --- | 8.3 | 4.4 | 11.6 |
| BIG PARK | 8620 | 4/26/02 | 39 | 14.6 | 12.8 | 19.6 |
| BIG SANDY SNOTEL | 9080 | 5/01/02 | 33 | 12.1 | 8.8 | 13.5 |
| BLACKWATER SNOTEL | 9780 | 5/01/02 | --- | 25.5 | 17.9 | 28.8 |
| BLIND BULL SNOTEL | 8900 | 5/01/02 | 59 | 23.4 | 15.4 | 27.9 |
| BLIND PARK SNOTEL | 6870 | 5/01/02 | --- | .1 | .0 | 4.0 |
| BLUE RIDGE | 9620 | 4/30/02 | 17 | 6.9 | 4.0 | 12.5 |
| BONE SPGS. SNOTEL | 9350 | 5/01/02 | --- | 16.1 | 12.3 | 18.3 |
| BROOKLYN LK. SNOTEL | 10220 | 5/01/02 | --- | 13.0 | 21.2 | 28.2 |
| BRYAN FLAT | 6420 | 4/25/02 | 0 | .0 | .0 | 2.2 |
| BUCK CREEK | 7960 | 4/29/02 | 4 | 1.5 | 9.8 | 9.6 |
| BURGESS JCT. SNOTEL | 7880 | 5/01/02 | --- | 10.2 | 8.2 | 13.3 |
| BURROUGHS CRK SNOTEL | 8750 | 5/01/02 | --- | 15.6 | 8.1 | 13.6 |
| CANYON SNOTEL | 8090 | 5/01/02 | --- | 12.1 | 9.1 | 11.3 |
| CARTER MOUNTAIN | 7950 | 4/26/02 | 4 | .8 | .0 | 5.3 |
| CASPER MTN. SNOTEL | 7850 | 5/01/02 | --- | 3.5 | 8.8 | 17.1 |
| CASTLE CREEK | 8400 | 4/29/02 | 3 | 1.0E | .0 | 2.4 |
| CCC CAMP | 7000 | 4/29/02 | 14 | 4.9 | .3 | 8.0 |
| CHALK CK #1 SNOTEL | 9100 | 5/01/02 | 43 | 17.0 | 14.5 | 25.3 |
| CHALK CK #2 SNOTEL | 8200 | 5/01/02 | 32 | 7.0 | 4.7 | 12.0 |
| CLOUD PEAK SNOTEL | 9850 | 5/01/02 | --- | 15.5 | 10.0 | 16.2 |
| COLD SPRINGS SNOTEL | 9630 | 5/01/02 | --- | .0 | .0 | 4.8 |
| COTTONWOOD CR SNOTEL | 7700 | 5/01/02 | --- | 15.0 | 11.7 | 19.8 |
| DARBY CANYON | 8250 | 4/29/02 | 51 | 19.8 | 13.3 | 24.6 |
| DEER PARK SNOTEL | 9700 | 5/01/02 | --- | 13.6 | 11.3 | 18.6 |
| DITCH CREEK | 6870 | 4/30/02 | 0 | .0 | 2.8 | 1.5 |
| DIVIDE PEAK SNOTEL | 8860 | 5/01/02 | --- | 9.0 | 12.0 | 19.3 |
| DOME LAKE SNOTEL | 8880 | 5/01/02 | --- | 9.5 | 8.0 | 13.5 |
| DU NOIR | 8760 | 4/29/02 | 15 | 5.6 | 4.7 | 6.3 |
| EAST RIM DIV SNOTEL | 7930 | 5/01/02 | --- | 10.4 | 6.4 | 13.1 |
| ELBO RANCH | 7100 | 5/01/02 | 22 | 7.5 | --- | 9.5 |
| ELKHART PARK SNOTEL | 9400 | 5/01/02 | --- | 11.4 | 11.1 | 12.8 |
| EVENING STAR SNOTEL | 9200 | 5/01/02 | --- | 27.3 | 15.9 | 33.3 |
| FOUR MILE MEADOWS | 7860 | | | | --- | --- |

| SNOW COURSE | ELEVATION | DATE | SNOW DEPTH | WATER CONTENT | LAST YEAR | AVERAGE 71-00 |
|---|---|---|---|---|---|---|
| FOXPARK | 9060 | 4/29/02 | 0 | .0 | 7.2 | 5.3 |
| GEYSER CREEK | 8500 | 4/29/02 | 13 | 4.6 | 3.9 | 5.4 |
| GLADE CREEK | 7040 | 4/29/02 | 31 | 14.3 | 7.5 | 20.1 |
| GRANITE CRK SNOTEL | 6770 | 5/01/02 | --- | 6.2 | 6.9 | 12.8 |
| GRANNIER MEADOWS | 8860 | 4/30/02 | 22 | 9.4 | 6.1 | 14.6 |
| GRASSY LAKE SNOTEL | 7270 | 5/01/02 | --- | 26.1 | 18.0 | 33.4 |
| GRAVE SPRINGS SNOTEL | 8550 | 5/01/02 | --- | 6.3 | 4.9 | 11.1 |
| GREYS BOUNDARY | 5720 | 4/28/02 | 0 | .0 | .0 | 2.6 |
| GROS VENTRE SNOTEL | 8750 | 5/01/02 | --- | 13.2 | 8.9 | 13.3 |
| GROVER PARK DIVIDE | 7000 | 4/29/02 | 0 | .0 | .0 | 6.4 |
| HAIRPIN TURN | 9480 | 4/29/02 | 12 | 4.5 | 14.0 | 15.6 |
| HANSEN S.M. SNOTEL | 8360 | 5/01/02 | --- | 1.5 | .2 | 4.9 |
| HAMS FORK SNOTEL | 7840 | 5/01/02 | --- | .8 | .0 | 6.0 |
| HASKINS CREEK | 8980 | 4/30/02 | 54 | 25.0 | 29.2 | 31.6 |
| HOBBS PARK SNOTEL | 10100 | 5/01/02 | --- | 11.5 | 6.3 | 18.0 |
| HUCKLEBERRY DIVIDE | 7300 | | | | --- | --- |
| INDIAN CREEK SNOTEL | 9430 | 5/01/02 | --- | 22.1 | 16.1 | 28.3 |
| JACKPINE CREEK | 7350 | 4/29/02 | 36 | 15.3 | 8.7 | 19.2 |
| KELLEY R.S. SNOTEL | 8180 | 5/01/02 | --- | 10.8 | 6.0 | 14.1 |
| KENDALL R.S. SNOTEL | 7740 | 5/01/02 | --- | 3.6 | 1.5 | 10.0 |
| KIRWIN SNOTEL | 9550 | 5/01/02 | --- | 11.4 | 5.5 | 13.0 |
| LAKE CAMP | 7780 | 4/29/02 | 22 | 7.8 | 5.4 | 7.5 |
| LA PRELE SNOTEL | 8380 | 5/01/02 | --- | .0 | 4.7 | 7.1 |
| LARSEN CREEK | 9020 | 4/29/02 | 16 | 6.4 | 8.0 | 10.9 |
| LEWIS LAKE SNOTEL | 7850 | 5/01/02 | --- | 30.7 | 15.9 | 34.6 |
| LEWIS LAKE DIVIDE | 7850 | 4/29/02 | 81 | 38.6 | 22.5 | 42.3 |
| LIBBY LODGE | 8750 | 4/29/02 | 0 | .0 | 8.5 | 8.3 |
| LITTLE BEAR RUN | 6240 | 4/30/02 | 0 | .0 | .0 | --- |
| LITTLE WARM SNOTEL | 9370 | 5/01/02 | --- | 9.0 | 5.0 | 11.1 |
| LOOMIS PARK SNOTEL | 8240 | 5/01/02 | --- | 12.4 | 6.9 | 14.3 |
| LUPINE CREEK | 7380 | 4/30/02 | 6 | 1.0 | .0 | 5.8 |
| MALLO | 6420 | 4/30/02 | 0 | .0 | .0 | --- |
| MARQUETTE SNOTEL | 8760 | 5/01/02 | --- | 6.4 | 2.2 | 11.3 |
| MEDICINE LODGE LAKES | 9340 | 4/28/02 | 34 | 9.2 | 10.6 | 11.9 |
| MIDDLE FORK | 7420 | 4/30/02 | 0 | .0 | 3.0 | 4.7 |
| MIDDLE POWDER SNOTEL | 7760 | 5/01/02 | --- | 6.4 | 6.5 | 14.3 |
| MORAN | 6750 | | | | --- | --- |
| MOSS LAKE | 9800 | 4/30/02 | 26 | 10.1 | 21.0 | 25.8 |
| MOUNT TOM | 5560 | 4/30/02 | 0 | .0 | --- | --- |
| NEW FORK SNOTEL | 8340 | 5/01/02 | --- | 6.9 | 3.8 | 8.4 |
| NORRIS BASIN | 7500 | 4/26/02 | 13 | 6.1 | 6.2 | 6.8 |
| NORTH BARRETT CREEK | 9400 | 4/30/02 | 39 | 16.6 | 21.9 | 22.7 |
| NORTH FRENCH SNOTEL | 10130 | 5/01/02 | --- | 16.3 | 29.7 | 34.5 |
| NORTH RAPID CK SNTL | 6130 | 5/01/02 | --- | .1 | .0 | 3.8 |
| NORTH TONGUE | 8450 | 4/28/02 | 31 | 9.2 | 8.6 | 13.3 |
| OLD BATTLE SNOTEL | 9920 | 5/01/02 | --- | 22.9 | 29.6 | 36.9 |
| OLD FAITHFUL | 7400 | 4/29/02 | 21 | 9.1 | .0 | 9.3 |
| ONION GULCH | 8780 | 4/26/02 | 18 | 4.2 | 6.8 | 8.4 |
| OWL CREEK SNOTEL | 8980 | 5/01/02 | --- | .0 | .0 | 4.0 |
| PARKERS PEAK SNOTEL | 9400 | 5/01/02 | --- | 23.5 | 15.6 | 24.5 |
| PHILLIPS BENCH SNTL | 8200 | 5/01/02 | --- | 24.2 | 17.0 | 29.4 |
| POCKET CREEK | 9350 | | | | 9.8 | 13.8 |

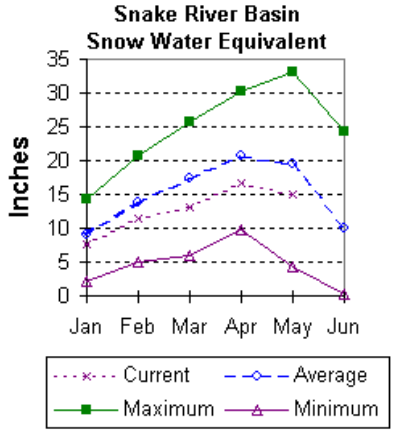
| SNOW COURSE | ELEVATION | DATE | SNOW DEPTH | WATER CONTENT | LAST YEAR | AVERAGE 71-00 |
|---|---|---|---|---|---|---|
| POISON MEADOWS | 8500 | | | | --- | --- |
| POLE MOUNTAIN | 8700 | 4/29/02 | 0 | .0 | 6.4 | 5.0 |
| POWDER RVR.PASS SNTL | 9480 | 5/01/02 | --- | 9.2 | 5.4 | 10.7 |
| PURGATORY GULCH | 8970 | 4/30/02 | 19 | 5.1 | 13.4 | 11.2 |
| RANGER CREEK | 8120 | 4/28/02 | 18 | 5.5 | 6.1 | 7.6 |
| RENO HILL SNOTEL | 8500 | 5/01/02 | --- | 5.6 | 12.7 | 14.7 |
| REUTER CANYON | 6280 | 4/30/02 | 0 | .0 | .8 | 3.6 |
| ROWDY CREEK | 8300 | 4/29/02 | 43 | 15.6 | 11.4 | 21.1 |
| RYAN PARK | 8400 | 4/30/02 | 0 | .0 | 6.7 | 7.2 |
| SALT RIVER SNOTEL | 7600 | 5/01/02 | --- | 6.8 | 2.0 | 10.6 |
| SAND LAKE SNOTEL | 10050 | 5/01/02 | --- | 20.4 | 30.5 | 37.0 |
| SANDSTONE SNOTEL | 8150 | 5/01/02 | --- | .0 | 4.2 | 9.5 |
| SAWMILL DIVIDE | 9260 | 4/28/02 | 42 | 11.3 | 10.6 | 15.1 |
| SHELL CREEK SNOTEL | 9580 | 5/01/02 | --- | 16.1 | 12.4 | 16.8 |
| SHERIDAN R.S. | 7750 | 4/29/02 | 8 | 3.3 | 1.5 | 3.3 |
| SNAKE RIVER STATION | 6920 | | | | --- | --- |
| SNAKE RV STA SNOTEL | 6920 | 5/01/02 | --- | 7.2 | 1.8 | 12.2 |
| SNIDER BASIN SNOTEL | 8060 | 5/01/02 | --- | 6.3 | 5.9 | 12.6 |
| SNOW KING MTN | 7660 | | | | --- | 10.7 |
| SOLDIER PARK | 8780 | 4/27/02 | 20 | 3.6 | 5.7 | 6.3 |
| SOUR DOUGH | 8460 | 4/27/02 | 18 | 3.6 | 7.5 | 7.4 |
| SOUTH BRUSH SNOTEL | 8440 | 5/01/02 | --- | 2.4 | 4.5 | 11.1 |
| SOUTH PASS SNOTEL | 9040 | 5/01/02 | --- | 11.4 | 8.4 | 18.0 |
| SPRING CRK. SNOTEL | 9000 | 5/01/02 | --- | 25.1 | 18.8 | 28.6 |
| ST LAWRENCE ALT SNTL | 8620 | 5/01/02 | --- | .0 | .0 | 6.1 |
| SUCKER CREEK SNOTEL | 8880 | 5/01/02 | --- | 11.0 | 6.7 | 13.1 |
| SYLVAN LAKE SNOTEL | 8420 | 5/01/02 | --- | 20.7 | 14.8 | 23.8 |
| SYLVAN ROAD SNOTEL | 7120 | 5/01/02 | --- | 8.1 | 5.3 | 8.1 |
| T CROSS RANCH | 7900 | 4/29/02 | 2 | .6 | 1.2 | 3.3 |
| TETON PASS W.S. | 7740 | 5/01/02 | 46 | 19.2 | 14.7 | 27.5 |
| THUMB DIVIDE SNOTEL | 7980 | 5/01/02 | --- | 12.7 | 3.6 | 14.9 |
| THUMB DIVIDE | 7980 | | | | --- | --- |
| TIE CREEK SNOTEL | 6870 | 5/01/02 | --- | 2.2 | 2.3 | 3.9 |
| TIMBER CREEK SNOTEL | 7950 | 5/01/02 | --- | .4 | .0 | 4.8 |
| TOGWOTEE PASS SNOTEL | 9580 | 5/01/02 | 72 | 24.3 | 17.5 | 27.9 |
| TOWNSEND CRK SNOTEL | 8700 | 5/01/02 | --- | 2.9 | 1.1 | 9.1 |
| TRIPLE PEAK SNOTEL | 8500 | 5/01/02 | --- | 18.3 | 12.0 | 23.7 |
| TURPIN MEADOWS | 6900 | | | | --- | --- |
| TWO OCEAN SNOTEL | 9240 | 5/01/02 | --- | 32.5 | 22.0 | 31.8 |
| TYRELL RANGER STA. | 8300 | 4/26/02 | 12 | 3.3 | 6.0 | 6.1 |
| UPPER SPEARFISH | 6500 | 4/30/02 | 0 | .0 | --- | --- |
| WARREN PEAK SNOTEL | 6520 | | | | --- | --- |
| WEBBER SPRING SNOTEL | 9250 | 5/01/02 | --- | 10.3 | 16.2 | 25.1 |
| WHISKEY PARK SNOTEL | 8950 | 5/01/02 | --- | 17.7 | 23.1 | 30.5 |
| WILLOW CREEK SNOTEL | 8450 | 5/01/02 | --- | 20.3 | 14.3 | 30.6 |
| WINDY PEAK SNOTEL | 7900 | 5/01/02 | --- | .0 | 3.7 | 4.9 |
| WOLVERINE SNOTEL | 7650 | 5/01/02 | --- | .9 | .0 | 7.2 |
| WOOD ROCK G.S. | 8440 | 4/28/02 | 29 | 7.4 | 6.5 | 11.5 |
| YOUNTS PEAK SNOTEL | 8350 | 5/01/02 | --- | 15.8 | 9.5 | 18.1 |

(d) Denotes discontinued site.

# Snake River Basin (1)

## Snow

The Snake River basin snow water equivalent (SWE) is below normal. Snake above Jackson Lake is 84 percent of average (180% of last year at this time). Pacific Creek is 90 percent of average (180% of last year at this time). Gros Ventre River is 89 percent of average (145% of last year at this time). Hoback River is 78 percent of average (147% of last year at this time), Greys River is 77 percent of average (144% of last year at this time). Salt River is 62 percent of average (166% of last year at this time). Snake River Basin above Palisades is 77 percent of average (160% of last year at this time). See the Basin Summary of Snow Courses at the beginning of this report for a detailed listing of snow course information.

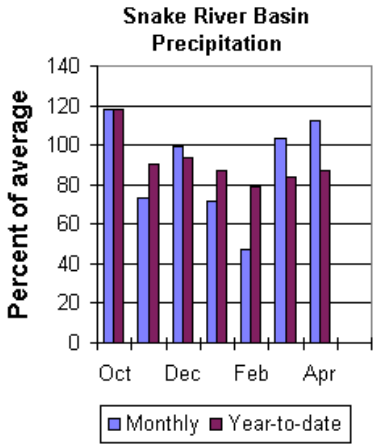



## Precipitation.

Precipitation across the basin was above average last month. Monthly precipitation, for the basin, was 112 percent of average. Last months percentages range from 0 to 96 percent of average. Water-year-to-date precipitation is 87 percent of normal for the Snake River basin (131 percent of last year at this time) Year-to-date percentages range from 71 to 103 percent of average.

## Reservoir.

Usable reservoir storage varies from 46 to 87 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Grassy Lake storage is currently about 68 percent of capacity (about 10,300 acre feet compared to 13,400 acre feet last year) -- storage is about 81 percent of average. Jackson Lake storage is about 26 percent of capacity (216,600 acre feet compared to 663,400 acre feet last year) -- storage is about 46 percent of average. Palisades Reservoir storage is about 54 percent of capacity (749,100 acre feet compared to 858,800 acre feet last year) -- storage is about 87 percent of average.




## Streamflow.

The most probable runoff, based on the 50 percent chance yield, for May through September runoff is forecast below average for the basin. The Snake near Moran is expected to yield 675,000 acre-feet (80 percent of normal). Yield from the Snake River above Palisades Reservoir is estimated to be 2,197,000 acre-feet (87 percent of normal). Palisades Reservoir inflow is estimated to be 2,860,000 acre feet (81 percent of average). The 50 percent chance yield near Heise is expected to be 3,030,000 acre-feet (81 percent of normal). Pacific Creek at Moran is expected to yield about 146,000 acre-feet (87 percent of average). Greys River above Palisades Reservoir is estimated to yield 274,000 acre-feet (77 percent of normal). Salt River near Etna is estimated to have a yield of 260,000 acre-feet (73 percent of normal).

## SNAKE RIVER BASIN
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> | | | | | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|
| | | Chance Of Exceeding * | | | | | |
| | | 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | (% AVG.) | 30% (1000AF) | 10% (1000AF) | |
| SNAKE near Moran (1,2) | MAY-SEP | 548 | 635 | 675 | 80 | 715 | 802 | 842 |
| SNAKE above Palisades (2) | MAY-SEP | 1961 | 2102 | 2197 | 87 | 2292 | 2433 | 2530 |
| PALISADES RESERVOIR INFLOW (1,2) | MAY-SEP | 2397 | 2715 | 2860 | 81 | 3005 | 3323 | 3524 |
| SNAKE near Heise (2) | MAY-SEP | 2641 | 2872 | 3030 | 81 | 3188 | 3419 | 3764 |
| PACIFIC CREEK at Moran | MAY-SEP | 118 | 135 | 146 | 87 | 157 | 174 | 167 |
| GREYS above Palisades | MAY-SEP | 234 | 258 | 274 | 77 | 290 | 314 | 354 |
| SALT near Etna | MAY-SEP | 197 | 235 | 260 | 73 | 285 | 323 | 358 |

## SNAKE RIVER BASIN
### Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| GRASSY LAKE | 15.2 | 10.3 | 13.4 | 12.7 |
| JACKSON LAKE | 847.0 | 216.6 | 663.4 | 471.1 |
| PALISADES | 1400.0 | 749.1 | 858.8 | 862.6 |

## SNAKE RIVER BASIN
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| SNAKE above Jackson Lake | 6 | 180 | 84 |
| PACIFIC CREEK | 2 | 180 | 90 |
| GROS VENTRE RIVER | 3 | 142 | 89 |
| HOBACK RIVER | 6 | 147 | 78 |
| GREYS RIVER | 5 | 144 | 77 |
| SALT RIVER | 5 | 166 | 62 |
| SNAKE above Palisades | 24 | 160 | 77 |

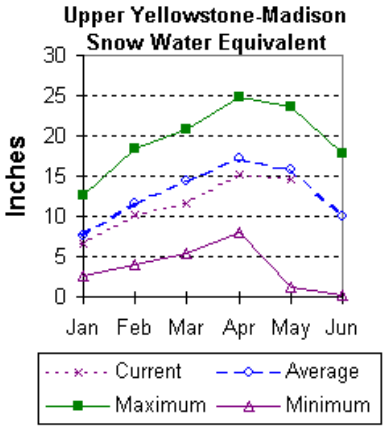
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Upper Yellowstone and Madison River Basins (2)

## Snow

Snowfall has been below average for this time of the year, but better than last year. Snow water equivalent (SWE) is about 94 percent of average (181 percent of last year) in the Madison drainage. SWE in the Yellowstone drainage is about 90 percent of average (170 percent of last year at this time). See the "Snow Course Basin Summary" at the beginning of this document for more details on specific sites.

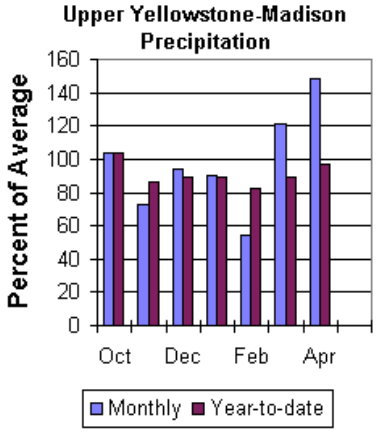



## Precipitation

Last month's precipitation in the Madison and Yellowstone drainage was about 148 percent of average for the 7 reporting stations -- percentage range was from 121 to 211 percent of average. Water-year-to-date precipitation is about 97 percent of average (130 percent of last year's amount). Year to date percentage ranges from 84 to 108 percent

## Reservoir

Current usable storage for Ennis Lake is about 27,800 acre-feet (68 percent of capacity) – 82 percent of average. Hebgen Lake is storing about 290,900 acre-feet of water (77 percent of capacity) – 114 percent of average. Hebgen Lake is storing about 100 percent and Ennis Lake was storing about 90 percent of last year's volume.




## Streamflow

All the following forecasts are based on the 50 percent chance runoff for the May through September runoff period. Yellowstone at Lake Outlet is expected to yield about 640,000 acre feet (83 percent of normal). Yellowstone at Corwin Springs will yield about 1,640,000 acre-feet (88 percent of normal). Yellowstone near Livingston will yield about 1,890,000 acre feet (88 percent of normal). Hebgen lake inflow is estimated to be 390,000 acre feet (89 percent of normal). See the following page for detailed runoff volumes.

## UPPER YELLOWSTONE & MADISON RIVER BASINS
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (Most Probable) (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| YELLOWSTONE at Lake Outlet | MAY-SEP | 548 | 603 | 640 | 83 | 677 | 732 | 770 |
| YELLOWSTONE RIVER at Corwin Springs | MAY-SEP | 1402 | 1544 | 1640 | 88 | 1736 | 1878 | 1870 |
| YELLOWSTONE RIVER near Livingston | MAY-SEP | 1661 | 1797 | 1890 | 88 | 1983 | 2107 | 2150 |
| HEBGEN Reservoir Inflow | MAY-SEP | 323 | 363 | 390 | 89 | 417 | 457 | 440 |

### UPPER YELLOWSTONE & MADISON RIVER BASINS
### Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| ENNIS LAKE | 41.0 | 27.8 | 31.0 | 33.8 |
| HEBGEN LAKE | 377.5 | 290.9 | 290.0 | 254.6 |

### UPPER YELLOWSTONE & MADISON RIVER BASINS
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| MADISON RIVER in WY | 9 | 181 | 94 |
| YELLOWSTONE RIVER in WY | 11 | 170 | 90 |

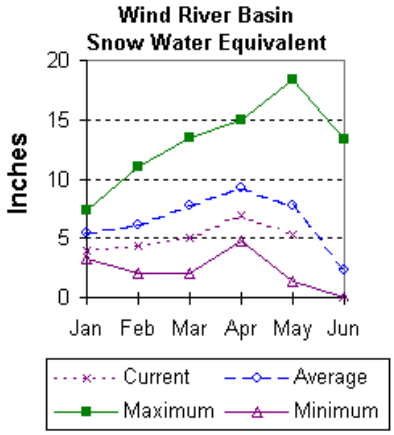
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Wind River Basin (3)

## 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 87 percent of average (151 percent of last year). The Little Wind SWE is 48 percent of average water content (183 percent of last year), and the Popo Agie drainage SWE is about 58 percent of average (139 percent of last year). The Wind River basin, above Boysen Reservoir, SWE is about 68 percent of average (about 149 percent of last year). See the Basin Summary of Snow Course Data at the front of this report for details.

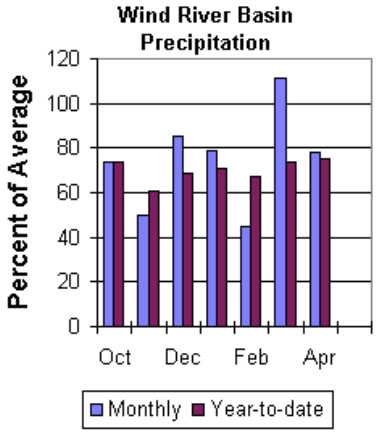



## Precipitation

Last month's precipitation in the basin varied from 6 to 99 percent of average. Precipitation for the basin was about 78 percent of average for the 12 reporting stations. Water year-to-date precipitation is 75 percent of normal. The current water-year-to-date average is about 129 percent of last year at this time. Year to date figures range from 40 to 94 percent of average.

## Reservoirs

Current usable storage varies from 19 to 79 percent of average.




Boysen Reservoir has a total capacity of 741,594 acre feet at the top of the joint use pool, including179,097 acre feet inactive and 40,084 acre feet dead storage. Reservoir storage above the dead pool is currently 263,900 acre feet (54 percent of average). Boysen Reservoir is currently storing 60 percent of last year's volume and 38 percent of capacity.

Bull Lake has a capacity of 152,459 acre feet, including 722 acre feet dead storage. Reservoir storage above the dead storage is currently 28,200 acre feet (19 percent of average). The reservoir is currently storing 46 percent of last year's volume and 19 percent of capacity.

Pilot Butte Reservoir has a capacity of 33,721 acre feet, including 3,138 acre feet dead storage. Reservoir storage above the dead storage is currently 25,100 acre feet (98 percent of average). Reservoir is currently storing 102 percent of last year's volume and 79 percent of capacity.

## Streamflow

Water supply is estimated to be much below normal this year. The following values reflect the 50 percent chance yields for the May through September runoff period. The Wind River above Bull Lake Creek is expected to yield 400,000 acre feet (78 percent of average). Wind River at Riverton will yield about 330,000 acre feet (54 percent of average). Boysen Reservoir inflow will yield about 400,000 acre feet (49 percent of normal). Bull Lake Creek near Lenore is expected to yield about 100,000 acre feet (56 percent of average). Little Popo Agie River near Lander is expected to yield about 27,500 acre feet (56 percent of average). South Fork of Little Wind near Fort Washakie will yield about 56,500 acre feet (70 percent of average). Little Wind River near Riverton will yield about 205,000 acre feet (71 percent of average).

## WIND RIVER BASIN
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| WIND RIVER abv Bull Lake Cr (2) | MAY-SEP | 301 | 360 | 400 | 78 | 440 | 499 | 510 |
| WIND RIVER at Riverton (2) | MAY-SEP | 152 | 258 | 330 | 54 | 402 | 508 | 610 |
| BOYSEN RESERVOIR Inflow (2) | MAY-SEP | 141 | 295 | 400 | 53 | 505 | 659 | 758 |
| BULL LAKE CR near Lenore (2) | MAY-SEP | 68 | 87 | 100 | 56 | 113 | 132 | 178 |
| LT POPO AGIE RIVER nr Lander | MAY-SEP | 13.8 | 22 | 28 | 56 | 33 | 41 | 49 |
| SF LT WIND nr Fort Washakie | MAY-SEP | 37 | 49 | 57 | 70 | 64 | 76 | 81 |
| LT WIND RIVER nr Riverton | MAY-SEP | 87 | 157 | 205 | 71 | 253 | 323 | 290 |

## WIND RIVER BASIN
### Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| BULL LAKE | 151.8 | 28.2 | 61.7 | 83.9 |
| BOYSEN | 701.6 | 263.9 | 437.3 | 485.6 |
| PILOT BUTTE | 31.6 | 25.1 | 24.7 | 25.7 |

## WIND RIVER BASIN
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| WIND RIVER above Dubios | 7 | 150 | 87 |
| LITTLE WIND | 2 | 183 | 48 |
| POPO AGIE | 7 | 139 | 58 |
| WIND above Boysen Resv | 14 | 148 | 68 |

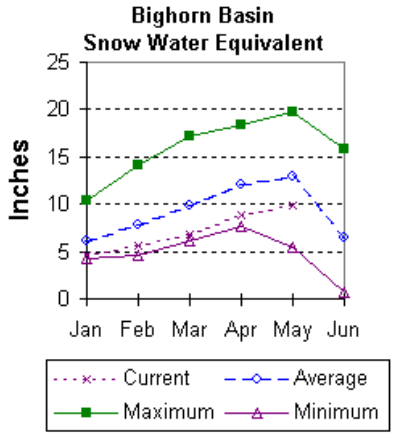
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Bighorn River Basin (4)

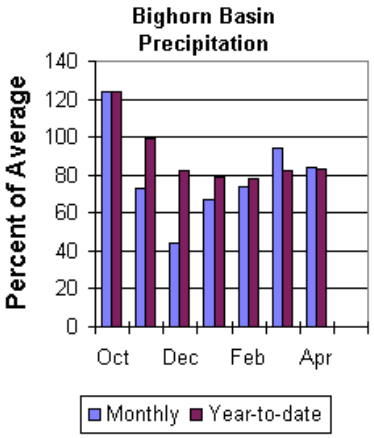
## Snow

Snowpack in this basin is well below average for this time of year. The Nowood drainage SWE is 63 percent of average (92 percent of last year). Greybull River SWE is 66 percent of average (215 percent of last year). Shell Creek SWE is 85 percent of average (118 percent of last year). The basin SWE, as a whole, is currently 74 percent of average (114 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.




## Precipitation

April precipitation was 84 percent of the monthly average (108 percent of last year). Sites ranged from 31 to 225 percent of average for the month. Year-to-date precipitation is 83 percent of normal; that is 119 percent of last year at this time. Year to date percentages, from the 16 reporting stations, range from 64 to 117.




## Reservoir

Boysen Reservoir has a capacity of 741,594-acre feet at the top of the joint use pool, including 179,097-acre feet inactive and 40,084-acre feet dead storage. Reservoir storage above the dead storage is currently 263,900-acre feet (54 percent of average). Boysen Reservoir is currently storing 60 percent of last year's volume. Bighorn Lake has a total capacity of 1,356,000-acre feet, including 16,008-acre feet of dead and 477,576-acre feet of inactive storage. Big Horn Lake is currently storing 656,800-acre feet (83 percent of average) above the dead storage pool. Big Horn Lake is currently storing 78 percent of last year's volume.

## Streamflow

The 50 percent chance May through September runoff is anticipated to be below normal. The Boysen Reservoir inflow is forecast to yield 400,000 acre feet (53 percent of average); the Greybull River nr Meeteese should yield 80,000 acre feet (41 percent of average); Shell Creek near Shell should yield 54,000 acre feet (78 percent of average) and the Bighorn River at Kane should yield 555,000 acre feet (54 percent of average).

## BIGHORN RIVER BASIN
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| BOYSEN RESERVOIR Inflow (2) | MAY-SEP | 141 | 295 | 400 | 53 | 505 | 659 | 758 |
| GREYBULL RIVER nr Meeteetse | MAY-SEP | 40 | 64 | 80 | 41 | 96 | 120 | 194 |
| SHELL CREEK nr Shell | MAY-SEP | 44 | 50 | 54 | 78 | 58 | 65 | 69 |
| BIGHORN RIVER at Kane (2) | MAY-SEP | 178 | 402 | 555 | 54 | 708 | 932 | 1020 |

## BIGHORN RIVER BASIN
### Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| BOYSEN | 701.6 | 263.9 | 437.3 | 485.6 |
| BIGHORN LAKE | 1356.0 | 656.8 | 841.2 | 791.9 |

## BIGHORN RIVER BASIN
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| NOWOOD RIVER | 5 | 92 | 63 |
| GREYBULL RIVER | 2 | 215 | 66 |
| SHELL CREEK | 4 | 118 | 85 |
| BIGHORN (Boysen-Bighorn) | 11 | 114 | 74 |

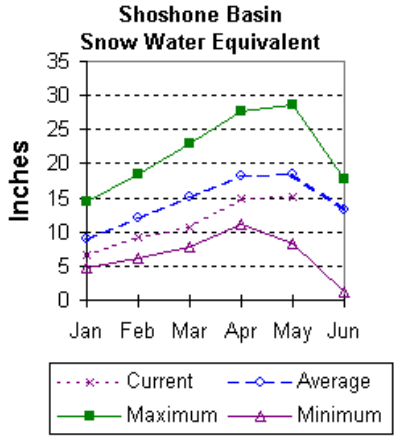
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Shoshone and Clarks Fork River Basin (5)

## Snow

Snow Water Equivalent (SWE) is 81 percent of average (159 percent of last year) in the Shoshone River basin. The Clarks Fork River basin SWE is about 83 percent of average (164 percent of last year). For more information see the Basin Summary of Snow Course Data at the beginning of this report.

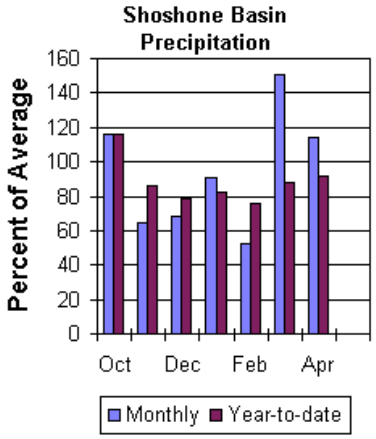



## Precipitation

Precipitation for last month was 114 percent of normal (121% of last years amount). Monthly percentages range from 2 to 123 percent of average. The basin year-to-date precipitation is now 92 percent of average (130 percent of last year). Year-to-date percentages range from 55 to 108 percent of average.

## Reservoir

Usable reservoir storage in Buffalo Bill Reservoir is about 73 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Buffalo Bill Reservoir storage is about 40 percent of capacity (about 258,000 acre-feet compared to 352,100 acre feet 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 fifty percent yield (May through September period) for North Fork Shoshone River at Wapiti is expected to be 400,000 acre-feet (83 percent of average). South Fork of the Shoshone River near Valley is estimated to yield of 170,000 acre-feet (67 percent of average), and South Fork above Buffalo Bill Reservoir is expected to be 130,000 acre-feet (61 percent of average). At the Buffalo Bill Reservoir, the fifty percent chance yield for the Shoshone River is expected to be about 550,000 acre-feet (73 percent of average). The fifty-percent chance yield for the Clarks Fork of the Yellowstone near Belfry, Montana is expected to be about 425,000 acre-feet (75 percent of average).

## SHOSHONE & CLARKS FORK RIVER BASINS
## Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| NF SHOSHONE RIVER at Wapiti | MAY-SEP | 352 | 381 | 400 | 83 | 419 | 448 | 485 |
| SF SHOSHONE RIVER nr Valley | MAY-SEP | 134 | 156 | 170 | 67 | 184 | 206 | 255 |
| SF SHOSHONE RIVER abv Buffalo Bill | MAY-SEP | 73 | 107 | 130 | 61 | 153 | 187 | 215 |
| BUFFALO BILL DAM Inflow (2) | MAY-SEP | 417 | 496 | 550 | 73 | 604 | 683 | 755 |
| CLARKS FORK RIVER nr Belfry | MAY-SEP | 341 | 391 | 425 | 75 | 459 | 509 | 570 |

## SHOSHONE & CLARKS FORK RIVER BASINS
## Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| BUFFALO BILL | 646.6 | 258.0 | 352.1 | 352.2 |

## SHOSHONE & CLARKS FORK RIVER BASINS
## Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| SHOSHONE RIVER | 7 | 159 | 81 |
| CLARKS FORK in WY | 7 | 164 | 83 |

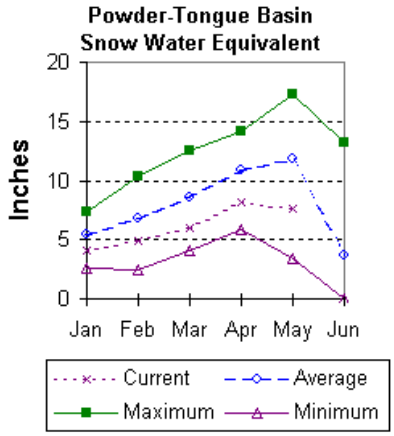
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Powder and Tongue River Basins (6)

## Snow

Snow water equivalent (SWE) in the Upper Tongue River drainage is 78 percent of normal (127 percent of last year). The Goose Creek drainage is 72 percent of average (127 percent of last year). Clear Creek drainage is 70 percent of normal SWE (103 percent of last year). Crazy Woman Creek is 64 percent of average (86 percent of last year). The Upper Powder River drainage is 55 percent of average (106 percent of last year). The Powder River basin snow water equivalent (SWE), in Wyoming, is about 62 percent of average (105 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.

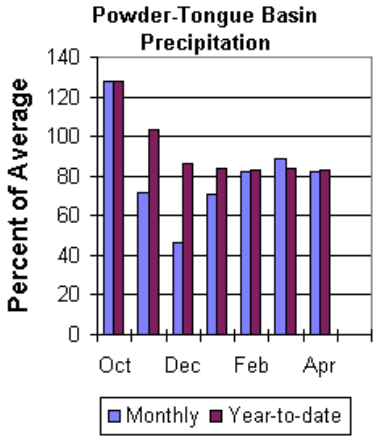



## Precipitation

Monthly precipitation was 82 percent of average for the 13 reporting stations. Monthly percentages range from 26 to 116 percent of average. Precipitation for the year ranges from 61 to 93 percent of average at the reporting stations. Year-to-date precipitation is about 83 percent of average in the basin; this is 119 percent of last year at this time.

## Reservoir

Usable Tongue River reservoir storage is about 109 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Tongue River Reservoir is currently storing 43 percent of capacity (34,400-acre feet compared to 44,500-acre feet 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 runoff values are for the 50 percent probability during the May through September forecast period. The estimated yield for Tongue River near Dayton is 77,000-acre feet (75 percent of normal). Middle Fork of the Powder River near Barnum is estimated to yield 8,100-acre feet (49 percent of average). The North Fork of the Powder near Hazelton should yield about 7,350 acre-feet (75 percent of normal). The estimated yield for Clear Creek near Buffalo is 26,500 acre-feet (72 percent of average). Rock Creek near Buffalo will yield about 16,900 acre-feet (74 percent of normal), and Piney Creek at Kearny should yield about 31,000 acre-feet (65 percent of average).

**POWDER & TONGUE RIVER BASINS**
**Streamflow Forecasts - May 1, 2002**

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| TONGUE RIVER nr Dayton (2) | MAY-SEP | 53 | 67 | 77 | 75 | 87 | 101 | 103 |
| MIDDLE FORK POWDER nr Barnum | MAY-SEP | 2.5 | 5.9 | 8.1 | 49 | 10.3 | 13.7 | 16.6 |
| NORTH FORK POWDER nr Hazelton | MAY-SEP | 4.85 | 6.34 | 7.35 | 75 | 8.36 | 9.85 | 9.80 |
| CLEAR CREEK nr Buffalo | MAY-SEP | 19.4 | 24 | 27 | 72 | 29 | 34 | 37 |
| ROCK CREEK nr Buffalo | MAY-SEP | 11.5 | 14.7 | 16.9 | 74 | 19.1 | 22 | 23 |
| PINEY CREEK at Kearny | MAY-SEP | 6.7 | 21 | 31 | 65 | 41 | 55 | 48 |

**POWDER & TONGUE RIVER BASINS**
**Reservoir Storage (1000 AF) - End of April**

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| TONGUE RIVER | 79.1 | 34.4 | 44.5 | 31.7 |

**POWDER & TONGUE RIVER BASINS**
**Watershed Snowpack Analysis - May 1, 2002**

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| UPPER TONGUE RIVER | 10 | 127 | 78 |
| GOOSE CREEK | 3 | 127 | 72 |
| CLEAR CREEK | 4 | 103 | 70 |
| CRAZY WOMAN CREEK | 3 | 86 | 64 |
| UPPER POWDER RIVER | 4 | 106 | 55 |
| POWDER RIVER in WY | 8 | 105 | 62 |

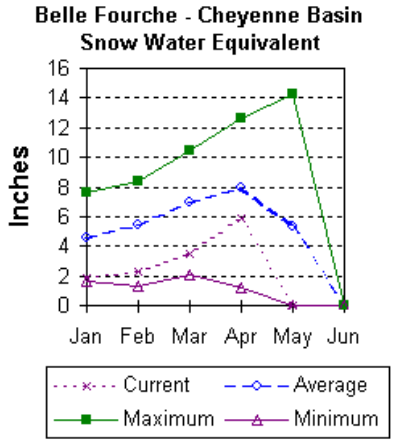
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Belle Fourche and Cheyenne River Basins (7)

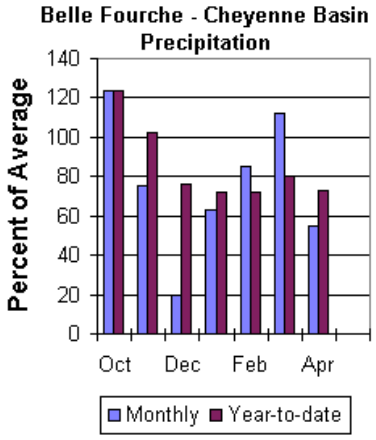
## Snow.

The Belle Fourche River Basin is melted out as of May 1st. See Basin summary of Snow Course Data at the beginning of this report for a detailed listing.




## Precipitation.

Precipitation, for the month of April was 55 percent of average in the Black Hills. Monthly percentages range from 17 to 98 percent. Year-to-date precipitation is 73 percent of average and 75 percent of last year's amount.




## Reservoir.

Usable reservoir storage varies from 77 to 136 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Angostura is currently storing 90 percent of capacity (109,400-acre feet compared to 116,300-acre feet last year) – storage is 96 percent of average. Belle Fourche reservoir storage is about 95 percent of capacity (169,500-acre feet compared to 181,200-acre feet last year) – storage is about 116 percent of average. Deerfield reservoir storage is about 101 percent of capacity (15,300-acre feet compared to 15,000-acre feet last year) – storage is about 113 percent of average. Keyhole reservoir storage is about 81 percent of capacity (157,400-acre feet compared to 171,000-acre feet last year) – storage is about 136 percent of average. Pactola reservoir storage is about 99 percent of capacity (54,700-acre feet compared to 54,000-acre feet last year) – storage is about 114 percent of average. Shadehill reservoir storage is about 62 percent of capacity (50,200 acre feet compared to 80,000 acre feet last year – storage is about 77 percent of average

## Streamflow

Water supply is estimated to be below normal this year. The following values reflect the 50 percent chance yields for the May through July runoff period. Deerfield Reservoir inflow is forecast at 3,550 acre feet (89 percent of average). Pactola is forecast at 11,000 acre feet (73 percent of average).

**BELLE FOURCHE & CHEYENNE RIVER BASINS**
**Streamflow Forecasts - May 1, 2002**

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (Most Probable) (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| DEERFIELD RESERVOIR Inflow | MAY-JUL | 1.52 | 2.36 | 3.55 | 89 | 4.74 | 6.50 | 3.99 |
| PACTOLA RESERVOIR Inflow | MAY-JUL | 3.0 | 6.5 | 11.0 | 73 | 17.1 | 26 | 15.1 |

**BELLE FOURCHE & CHEYENNE RIVER BASINS**
**Reservoir Storage (1000 AF) - End of April**

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| ANGOSTURA | 122.1 | 109.4 | 116.3 | 113.7 |
| BELLE FOURCHE | 178.4 | 169.5 | 181.2 | 145.7 |
| DEERFIELD | 15.2 | 15.3 | 15.0 | 13.6 |
| KEYHOLE | 193.8 | 157.4 | 171.0 | 115.8 |
| PACTOLA | 55.0 | 54.7 | 54.0 | 47.9 |
| SHADEHILL | 81.4 | 50.2 | 80.0 | 65.2 |

**BELLE FOURCHE & CHEYENNE RIVER BASINS**
**Watershed Snowpack Analysis - May 1, 2002**

| Watershed | Number of Data Sites | This Year as % of Last Yr | This Year as % of Average |
|---|---|---|---|
| BELLE FOURCHE | 4 | 3 | 1 |

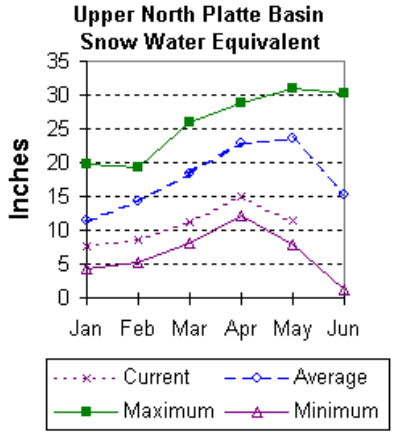
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Upper North Platte River Basin (8)

## Snow

The snow courses above Seminoe Reservoir have about 48 percent of average snow water equivalent (SWE) recorded for this time of the year (61 percent of last year). SWE in the drainage area above Northgate is about 44 percent of average and 59 percent of last year at this time. SWE in the Encampment River drainage is about 54 percent of normal and 68 percent of last year. Brush Creek SWE for the year is about 45 percent of normal and 45 percent of last year's SWE. Medicine Bow and Rock Creek drainage SWE is about 48 percent of average and 60 percent of last year at this time. For more information see Basin Summary of Snow Courses at the beginning of this report.

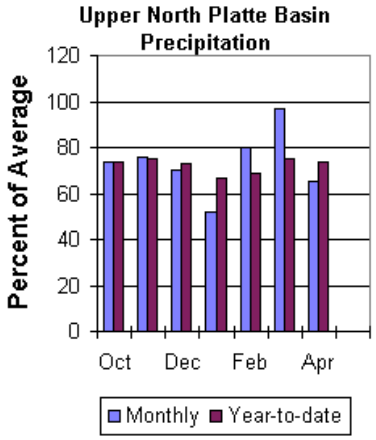



## Precipitation

Eleven reporting stations indicate last month's precipitation was 65 percent of average and about 48 percent of last year's amount. Precipitation varied from 15 to 90 percent of average. Total water-year-to-date precipitation is about 74 percent of average for the basin, which is about 85 percent of last year's amount. Year to date percentage ranges from 61 to 114 percent of average for the 9 reporting stations.

## Reservoirs

Seminoe Reservoir has a total capacity of 1,016,700 acre feet. Usable reservoir storage is about 78 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Seminoe Reservoir is currently storing 39 percent of capacity (397,300 acre feet compared to 663,500 acre feet last year)




## Streamflow

All the following yields are based on the fifty percent chance May through September yield. Yield for the North Platte River near Northgate is expected to be about 68,000 acre-feet (28 percent of average). Encampment River near Encampment is estimated to yield 75,000 acre-feet (48 percent of normal). Rock Creek near Arlington is estimated to yield 23,000 acre-feet (42 percent of average). Seminoe Reservoir inflow should be about (250,000 acre-feet (33 percent of normal). See the following table for more detailed information on projected runoff.

## UPPER NORTH PLATTE RIVER BASIN
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (Most Probable) (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| North Platte River nr Northgate | MAY-SEP | 45 | 57 | 65 | 28 | 96 | 130 | 230 |
| Encampment River nr Encampment | MAY-SEP | 47 | 62 | 75 | 48 | 109 | 129 | 156 |
| Rock Creek nr Arlington | MAY-SEP | 18.1 | 21 | 23 | 42 | 27 | 31 | 55 |
| Seminoe Reservoir inflow | MAY-JUL | 154 | 198 | 228 | 33 | 326 | 437 | 690 |
| | MAY-SEP | 157 | 213 | 250 | 33 | 377 | 497 | 750 |

## UPPER NORTH PLATTE RIVER BASIN
### Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| SEMINOE | 1016.7 | 397.3 | 663.5 | 510.4 |

## UPPER NORTH PLATTE RIVER BASIN
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | This Year as % of Average |
|---|---|---|---|
| N PLATTE above Northgate | 7 | 59 | 44 |
| ENCAMPMENT RIVER | 4 | 68 | 54 |
| BRUSH CREEK | 5 | 54 | 45 |
| MEDICINE BOW & ROCK CREEK | 3 | 60 | 48 |
| N PLATTE above Seminoe | 19 | 61 | 48 |

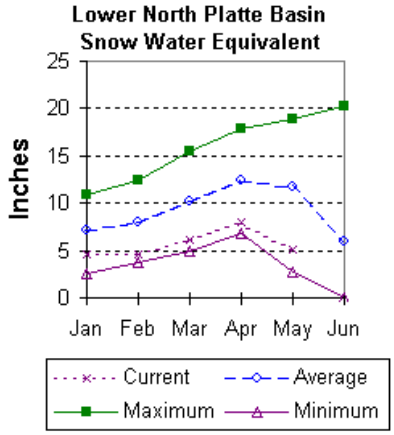
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Lower North Platte River Basin (9)

## Snow

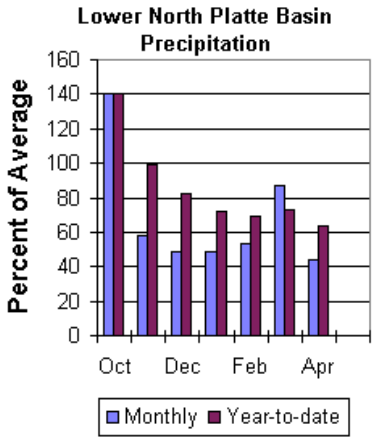
SWE for the North Platte River basin in Wyoming averages 44 percent of normal (57 % of last year). The Sweetwater drainage SWE is currently 66 percent of average (121 percent of last year). Deer and LaPrele Creek SWE is 23 percent of average (26 percent of last year. SWE for the North Platte above the Laramie River drainage is 48 percent of average (64 % of last year). SWE for the Laramie River above the mouth is 37 percent of average (45 % of last year). SWE for the Laramie River above Laramie is 38 percent of average (48 % of last year). SWE for the Little Laramie River is 30 percent of average (37 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.




## Precipitation

Of the 14 reporting stations, percentages for the month range from 10 to 83. April precipitation for the basin was 47 percent of average (45 percent of last year). The water year-to-date precipitation for the basin is currently 66 percent of average (86 percent of last year). Year to date percentages range from 45 to 85.

## Reservoir




Usable reservoir storage varies from 47 to 104 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Alcova Reservoir is currently storing 96 percent of capacity (177,800 compared to 178,300-acre feet last year) – storage is 99 percent of average. Glendo Reservoir is currently storing 71 percent of capacity (357,300 compared to 466,600-acre feet last year) – storage is 78 percent of average. Guernsey Reservoir is currently storing 47 percent of capacity (21,600 compared to 26,600-acre feet last year) – storage is 65 percent of average. Pathfinder Reservoir is currently storing 51 percent of capacity (517,100 compared to 774,400-acre feet last year) – storage is 69 percent of average. Seminoe Reservoir is currently storing 39 percent of capacity (397,300 compared to 663,500-acre feet last year) – storage is 78 percent of average. Wheatland No. 2 Reservoir is currently storing 28 percent of capacity (28,000 compared to 53,000-acre feet last year) – storage is 47 percent of average. Water allocated to project use is near average with North Platte Project users at 59 percent of average, Kendrick Project users at 102 percent of average, and Glendo Project users at 104 percent of average.

## Streamflow

Yields from 9 to 44 percent are expected in the basin during the forecast period. The following yields are based on the fifty percent chance probability runoff for the May through September forecast period. The Sweetwater near Alcova is forecast to yield about 29,000 acre-feet (44 percent of average). Deer Creek at Glenrock is expected to yield about 12 percent of average (3,600 acre-feet). LaPrele Creek above the reservoir is estimated to yield 15 percent of average (2,800 acre-feet). The Alcova to Orin gain is expected to yield about 9 percent of average (11,000 acre-feet). North Platte River below Guernsey Reservoir is expected to yield about 23 percent of normal (199,000 acre-feet), and below Glendo Reservoir is anticipated to yield about 23 percent of average (188,000 acre-feet). Laramie River near Woods should yield about 27 percent of average (34,000 acre-feet). The Little Laramie near Filmore should produce about 12,200 acre-feet (20 percent of average).

## LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (Most Probable) (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| Sweetwater River nr Alcova | MAY-JUL | 3.1 | 16.7 | 26 | 43 | 35 | 49 | 61 |
| | MAY-SEP | 6.2 | 21 | 29 | 44 | 41 | 56 | 66 |
| Deer Creek at Glenrock | MAY-SEP | 1.2 | 2.5 | 3.6 | 12 | 4.9 | 7.3 | 30 |
| La Prele Creek ab La Prele Reservoir | MAY-SEP | 0.4 | 1.3 | 2.8 | 15 | 5.1 | 10.4 | 18.9 |
| Alcova to Orin Gain | MAY-JUL | 5.0 | 8.0 | 10.0 | 9 | 32 | 65 | 113 |
| | MAY-SEP | 6.0 | 9.0 | 11.0 | 9 | 35 | 69 | 122 |
| North Platte River blw Glendo Reserv | MAY-JUL | 111 | 153 | 182 | 23 | 318 | 462 | 800 |
| | MAY-SEP | 118 | 160 | 188 | 23 | 321 | 470 | 830 |
| North Platte River blw Guernsey Resv | MAY-JUL | 105 | 155 | 189 | 23 | 350 | 522 | 815 |
| | MAY-SEP | 108 | 162 | 199 | 23 | 375 | 555 | 860 |
| Laramie River nr Woods | MAY-SEP | 22 | 29 | 34 | 27 | 52 | 79 | 127 |
| Little Laramie River nr Filmore | MAY-SEP | 9.3 | 11.0 | 12.2 | 20 | 15.6 | 21 | 61 |

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

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

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| ALCOVA | 184.3 | 177.8 | 178.3 | 178.8 |
| GLENDO | 506.4 | 357.3 | 466.6 | 458.2 |
| GUERNSEY | 45.6 | 21.6 | 26.6 | 33.3 |
| PATHFINDER | 1016.5 | 517.1 | 774.4 | 747.1 |
| SEMINOE | 1016.7 | 397.3 | 663.5 | 510.4 |
| WHEATLAND #2 | | NO REPORT | | |
| NORTH PLATTE PROJ | 1062.1 | 467.9 | 783.5 | 786.7 |
| KENDRICK PROJECT | 1201.7 | 821.5 | 962.6 | 807.0 |
| GLENDO PROJECT USERS | 183.2 | 134.4 | 172.2 | 128.9 |

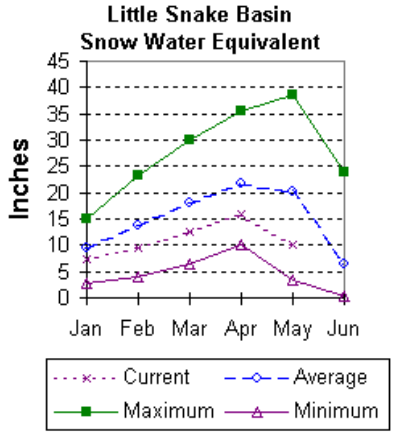
## LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| SWEETWATER | 4 | 121 | 66 |
| DEER & LaPRELE CREEKS | 3 | 26 | 23 |
| N PLATTE abv Laramie R. | 26 | 64 | 48 |
| LARAMIE RIVER abv Laramie | 9 | 48 | 38 |
| LITTLE LARAMIE RIVER | 4 | 37 | 30 |
| LARAMIE RIVER above mouth | 12 | 45 | 37 |
| NORTH PLATTE | 33 | 57 | 44 |

# Little Snake River Basin (10)

## Snow

Snowfall has been below average across the basin this year. Currently, snow water equivalent (SWE) in the Little Snake River drainage is 50 percent of average (70 percent of last year at this time). For more information see Basin Summary of Snow Courses at beginning of this report.

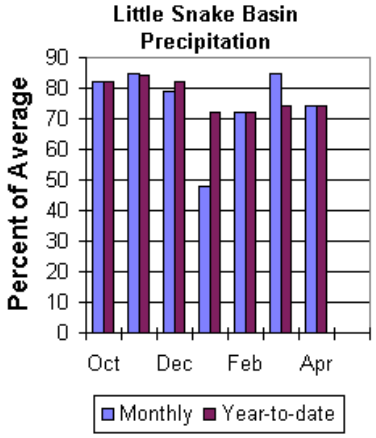



## Precipitation

Precipitation across the basin was below average this past month. April precipitation was 74 percent of average (51 percent of last year) for the 5 reporting stations. Monthly precipitation ranged from 44 to 104 percent of average. The Little Snake River basin water-year-to-date precipitation is currently 74 percent of average (87 percent of last year). Year-to-date percentages range from 69 to 85 percent of average.

## Streamflow

Runoff yield in the Little Snake River drainage is expected to be below normal this year. Stream yield is based on the 50 percent probability for the April through July forecast period. The Little Snake River near Slater should yield about 74,000 acre-feet (47 percent of normal). Little Snake River near Dixon is estimated to yield 142,000 acre-feet (43 percent of normal).



## LITTLE SNAKE RIVER BASIN
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (Most Probable) (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| Little Snake River nr Slater | APR-JUL | 45 | 61 | 74 | 47 | 88 | 111 | 159 |
| LITTLE SNAKE R nr Dixon | APR-JUL | 36 | 99 | 142 | 43 | 185 | 248 | 330 |

### LITTLE SNAKE RIVER BASIN
### Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|

### LITTLE SNAKE RIVER BASIN
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| LITTLE SNAKE RIVER | 8 | 70 | 50 |

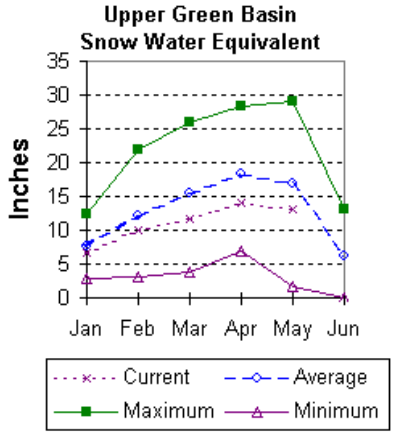
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Upper Green River Basin (11)

## Snow

The Upper Green River Basin snow water equivalent (SWE), above Fontenelle Reservoir, is 67 percent of average (117 percent of last year). The Green River basin SWE above Warren Bridge is 78 percent of normal (163 percent of last year). SWE on the west side of the Upper Green River basin is about 78 percent of normal, 136 percent of this time last year. Newfork River SWE is now about 86 percent of normal (123 percent of last year). Big Sandy-Eden Valley SWE is about 76 percent of average (110 percent of last year). For more information see the Basin Summary of Snow Courses at the beginning of this report.

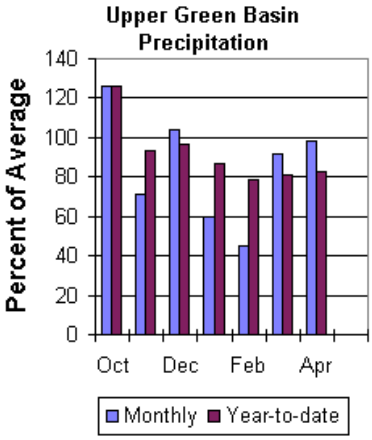



## Precipitation

The 11 reporting precipitation sites in the basin were 98 percent of average (106 percent of last year's amount) . Precipitation varied from 2 to 98 percent of average. Water year-to-date precipitation is about 89 percent of average (122 percent of last year). Year to date percentage of average ranges from 74 to 95 percent for the reporting stations.

## Reservoir

Usable reservoir storage varies from 0 to 75 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Current usable storage in Big Sandy Reservoir is about 7,700 acre feet (31 percent of average) -- 69 percent of last year and 20 percent of capacity. Current usable storage in Eden Reservoir is about 0 acre feet (0 percent of average) and 0 percent of capacity). Fontenelle Reservoir is storing 162,400 acre-feet (113 percent of average and 47 percent of the total capacity). Flaming Gorge Reservoir is currently storing 2,820,000 acre feet (96 percent of average) -- 93 percent of last year and 75 percent 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 forecast is based on the fifty-percent chance May through July runoff in the Upper Green River basin. Runoff is forecast to be below average. Green River at Warren Bridge is expected to yield about 210,000 acre-feet (79 percent of normal). Pine Creek above Fremont Lake is expected to yield 80,000 acre-feet (77 percent of normal). New Fork River near Big Piney is expected to yield about 240,000 acre-feet (61 percent of normal). Fontenelle Reservoir Inflow is estimated to be 500,000 acre-feet (58 percent of average), and Big Sandy near Farson is expected to be about 34,000 acre-feet (59 percent of normal).

## UPPER GREEN RIVER BASIN
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (Most Probable) (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| Green River at Warren Bridge | APR-JUL | 173 | 195 | 210 | 79 | 225 | 247 | 265 |
| Pine Creek abv Fremont Lake | APR-JUL | 67 | 75 | 80 | 77 | 85 | 93 | 104 |
| | MAY-JUL | 65 | 73 | 78 | 78 | 83 | 91 | 100 |
| New Fork River nr Big Piney | APR-JUL | 155 | 206 | 240 | 61 | 274 | 325 | 395 |
| Fontenelle Reservoir Inflow | APR-JUL | 390 | 454 | 500 | 58 | 548 | 623 | 860 |
| Big Sandy River nr Farson | APR-JUL | 20 | 28 | 34 | 59 | 40 | 48 | 58 |

## UPPER GREEN RIVER BASIN
### Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| BIG SANDY | 38.3 | 7.7 | 11.1 | 24.8 |
| EDEN | 11.8 | 0.0 | --- | 5.5 |
| FLAMING GORGE | 3749.0 | 2820.0 | 3041.2 | 2952.0 |
| FONTENELLE | 344.8 | 162.4 | 117.2 | 143.5 |

## UPPER GREEN RIVER BASIN
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| GREEN above Warren Bridge | 4 | 167 | 78 |
| UPPER GREEN (West Side) | 7 | 136 | 78 |
| NEW FORK RIVER | 2 | 123 | 86 |
| BIG SANDY/EDEN VALLEY | 2 | 110 | 76 |
| GREEN above Fontenelle | 13 | 140 | 78 |

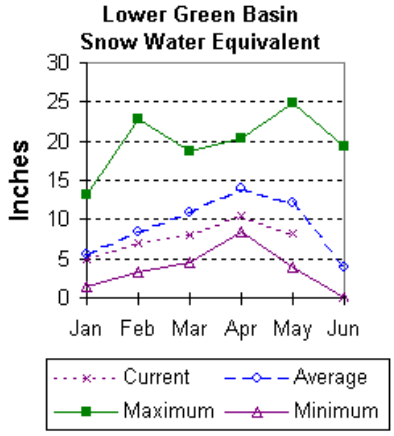
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Lower Green River Basin (12)

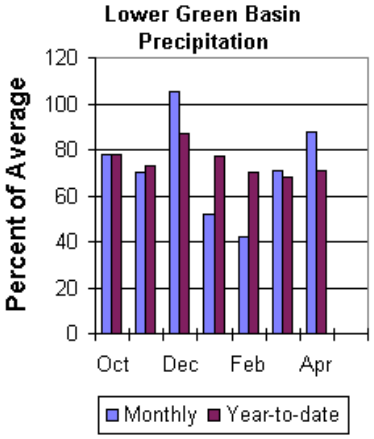
## Snow

SWE in the Hams Fork is currently 71 percent of average (138% of last year). Blacks Fork SWE is currently 43 percent of average (70 percent of last year). The Henry's Fork is now at 21 percent of average (26 percent of last year). The basin, as a whole, is 67 percent of average (117 percent of last year). For more information see Basin Summary of Snow Courses at beginning of this report.




## Precipitation

Precipitation was below average for the month (88 percent) for the 4 reporting stations. Precipitation ranged from 67 to 96 percent of average for the month. The basin year-to-date precipitation is currently 71 percent of average (111 percent of last year). Year to date percentages range from 45 to 75.




## Reservoir

Usable reservoir storage varies from 96 to 113 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Fontenelle is currently storing 47 percent of capacity (162,400-acre feet compared to 117,200-acre feet last year) – storage is 113 percent of average. Flaming Gorge is currently storing 75 percent of capacity (2,820,000-acre feet compared to 3,041,200-acre feet last year) – storage is 96 percent of average. Viva Naughton is currently storing 76 percent of capacity (32,400-acre feet compared to 32,200-acre feet last year) – storage is 113 percent of average.

## Streamflow

Expected yields vary from 47 to 57 percent of average across the basin. The following forecast values are based on a 50 percent chance probability for the April through July forecast period. Green River near Green River is forecast to yield about 500,000-acre feet (57 percent of average). Blacks Fork near Robertson is forecast to yield 45,000-acre feet (47 percent of average). East Fork of Smiths Fork near Robertson is estimated to yield 14,800 acre-feet (48 percent of average). The estimated yield for Hams Fork near Frontier is 34,000-acre feet (52 percent of average). Viva Naughton Reservoir inflow will be about 42,000-acre feet (47 percent of average). Flaming Gorge Reservoir inflow will be about 610,000-acre feet (51 percent of average).

## LOWER GREEN RIVER BASIN
### Streamflow Forecasts - May 1, 2002

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| Green River nr Green River, WY | APR-JUL | 317 | 426 | 500 | 57 | 574 | 683 | 875 |
| Blacks Fork nr Robertson | APR-JUL | 29 | 39 | 45 | 47 | 51 | 61 | 95 |
| EF of Smiths Fork nr Robertson | APR-JUL | 12.5 | 13.8 | 14.8 | 48 | 15.8 | 17.5 | 31 |
| Hams Fk blw Pole Ck nr Frontier | APR-JUL | 24 | 30 | 34 | 52 | 38 | 45 | 65 |
| Hams Fk Inflow to Viva Naughton Res | APR-JUL | 23 | 34 | 42 | 47 | 50 | 61 | 89 |
| Flaming Gorge Reservoir Inflow | APR-JUL | 355 | 507 | 610 | 51 | 713 | 865 | 1190 |

## LOWER GREEN RIVER BASIN
### Reservoir Storage (1000 AF) - End of April

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| FONTENELLE | 344.8 | 162.4 | 117.2 | 143.5 |
| FLAMING GORGE | 3749.0 | 2820.0 | 3041.2 | 2952.0 |
| VIVA NAUGHTON RES | | NO REPORT | | |

## LOWER GREEN RIVER BASIN
### Watershed Snowpack Analysis - May 1, 2002

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| HAMS FORK RIVER | 4 | 138 | 71 |
| BLACKS FORK | 5 | 70 | 43 |
| HENRYS FORK | 3 | 26 | 21 |
| GREEN above Flaming Gorge | 25 | 117 | 67 |

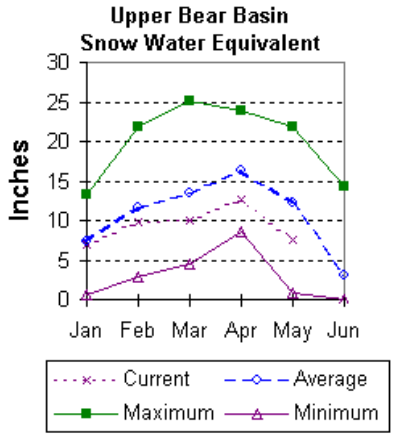
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

(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.

# Upper Bear River Basin (13)

## Snow

Snow water equivalent (SWE), at snow courses in the Bear River above the Idaho State line, is 62 percent of average (127 percent of last year). SWE for the Bear River in Utah is estimated to be 43 percent of average; that is about 89 percent of last year at this time. SWE in the Wyoming portion of the Bear River drainage (Smiths and Thomas Forks) is estimated at 75 percent of average (147 percent of last year at this time.). See the Basin Summary of Snow Course Data at the beginning of this report for more detailed information.

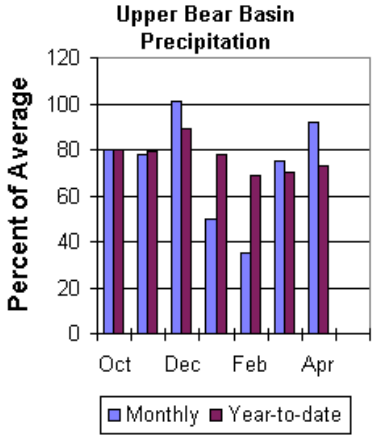



## Precipitation

Precipitation for last month was 92 percent of average for the 2 reporting stations, 118 percent of last year's amount. The year-to-date precipitation, for the basin, is 73 percent of average; this is 116 percent of last year's amount.

## Reservoir

Usable reservoir storage is about 48 percent of average -- usable reservoir storage is total reservoir storage minus dead storage. Woodruff Narrows reservoir is currently storing 18,500 acre feet (32 percent of capacity). Normally, the reservoir is storing 67 percent of capacity at this time of the year.




## Streamflow

The following is based on the 50 percent chance stream flow yields are for the May through September period. Smiths Fork near Border is estimated to yield 50,000 acre-feet (46 percent of normal. Bear River above the Utah-Wyoming State Line is expected to yield about 53,000 acre feet (45 percent of average), The Bear River near Woodruff is expected to yield about 57,000 acre-feet (about 44 percent of normal).

UPPER BEAR RIVER **BASIN**

**Streamflow Forecasts - May 1, 2002**

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (Most Probable) (1000AF) | 50% (Most Probable) (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| SMITHS FK nr Border, WY | MAY-SEP | 39 | 45 | 50 | 46 | 55 | 63 | 109 |
| Bear R nr UT-WY State Line | APR-SEP | 54 | 59 | 62 | 50 | 65 | 71 | 125 |
| | MAY-SEP | 46 | 50 | 53 | 45 | 56 | 61 | 119 |
| BEAR R nr Woodruff, UT | APR-SEP | 49 | 63 | 75 | 49 | 89 | 115 | 154 |
| | MAY-SEP | 36 | 47 | 57 | 44 | 69 | 91 | 131 |

**UPPER BEAR RIVER BASIN**

**Reservoir Storage (1000 AF) - End of April**

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| WOODRUFF NARROWS | 57.3 | 18.5 | 21.5 | 38.5 |

**UPPER BEAR RIVER BASIN**

**Watershed Snowpack Analysis - May 1, 2002**

| Watershed | Number of Data Sites | This Year as % of Last Yr | This Year as % of Average |
|---|---|---|---|
| UPPER BEAR RIVER in Utah | 7 | 89 | 43 |
| SMITHS & THOMAS FORKS | 4 | 147 | 75 |
| BEAR RIVER abv ID line | 9 | 127 | 62 |
| NORTHWEST | 71 | 154 | 78 |
| NORTHEST | 20 | 115 | 70 |
| SOUTHEAST | 35 | 59 | 45 |
| SOUTHWEST | 34 | 100 | 58 |

*** 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.**

**(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.**