

Natural Resources Conservation Service

Wyoming Basin Outlook Report June 1, 2001



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

For more water supply and resource management information, contact:

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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.

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Wyoming Water Supply Outlook Report

General

Generally, snow water equivalent (SWE) across the state is much below normal for this time of the year. Most of the snow has melted out below 10,000 feet. Northwest portion of the State has only 3 percent of normal snowpack left. Northeast Wyoming is 2 percent of normal, and the southeast part of the State is 23 percent of average. Southwestern Wyoming is 11 percent of average for this time of the year.

Precipitation for May was much below normal across the State. Year-to-date precipitation is generally well below average for the State. Precipitation ranged from 15 to 42 percent below average, with all of the basins receiving below average. Reservoir levels vary from about 58 percent of average to 150 percent of average. Generally, the larger capacity reservoirs are above average storage. Forecast runoff varies from 9 to 73 percent of average. The mean of all the forecast points in the State is about 55 percent of average.

Snowpack

SWE is much below average for the entire State. Nearly all the SNOTEL sites have melted out.

Precipitation

May precipitation was much below average across the State. Nearly half of the State reported near 50 percent of average or less for the month. The southwest portion of the State received the least precipitation in percent of average, along with the Big Horn Basin in north central Wyoming. The following table displays the major river basins and their departure from normal for this month.

Basin	Departure from normal	Basin	Departure from normal
Snake River	-37%	Upper North Platte	-33%
		River	
Yellowstone & Madison	-26%	Lower North Platte	-15%
Wind River	-36%	Little Snake River	-62%
Big Horn	-61%	Upper Green River	-47%
Shoshone & Clarks Fork	-39%	Lower Green River	-67%
Powder & Tongue River	-49%	Upper Bear River	-68%
Belle Fourche & Cheyenne	-48%		

Streams

Stream flow yield is expected to be below average across most of the State, and well below average in the northern half of the State. Most probable yield for the State is forecast to be about 41 percent of average (varies from 9 to 73 percent of average). The northwest part of the State is expected to yield about 40 percent of normal -- yield estimates vary from 18 to 53 percent of normal through the northwest region of the State. Yield from the northeast portion of Wyoming will be below average (about 26 percent of average) -- yield estimates vary from 9 to 42 percent of average for the various forecast points. The southeast portion of the state will be about 50 percent of normal -- yield estimates range from 34 to 73 percent of normal. The southwest portion of Wyoming yield will be much below normal (about 42 percent of average), and estimates vary from 19 to 66 percent of average.

Reservoirs

The following reservoir data is based on the usable capacity of each reservoir. Although several reservoirs did not report, reservoir storage for those reporting is generally near or above average for about 2/3 of the listed reservoirs. See following table for further information about reservoir storage.

Major Reservoirs in Wyoming

BASIN WIDE RESERVOIR SUMMARY

FOR THE END OF MAY 2001

BASIN AREA RESERVIOR	% CAPACITY	% CAPACITY	% CAPACITY	% AVERAGE	% LAST YR
ALCOVA	98	98	98	100	100
ANGOSTURA	94		96	98	96
BELLE FOURCHE	103	107	85	121	97
BIG SANDY	51		74		
BIGHORN LAKE	62	70	63	98	89
BOYSEN	69	91	92	76	76
BUFFALO BILL	63	78	58	108	81
BULL LAKE	52	74	61	86	70
DEERFIELD	99	99	89	111	100
EDEN	24	45	66	36	53
ENNIS LAKE	89	78	87	102	114
FLAMING GORGE			NO REPORT		
FONTENELLE	46	54	57	81	85
GLENDO	88	100	99	89	88
GRASSY LAKE	97	94	89	108	103
GUERNSEY	78	79	76	103	99
HEBGEN LAKE	92	94	82	113	98
JACKSON LAKE	90	100	64	140	90
KEYHOLE	88	91	59	150	97
PACTOLA	99	99	88	112	99
PALISADES	60	95	75	80	64
PATHFINDER	78	98	63	125	
PILOT BUTTE	47	78	81	58	60
SEMINOE	74	90	54	136	82
SHADEHILL	96		84	113	
VIVA NAUGHTON RES	101	107	80	126	95
WHEATLAND #2	62	82	55	112	75
WOODRUFF NARROWS			NO REPORT		
GLENDO PROJECT USI	EDC 04	94	82	115	100
KENDRICK PROJECT				112	
			70 86		
NORTH PLATTE PROJ	84	100	86	99	85

Basin Summary of Snow Course Data

JUNE 2001

SNOW COURSE	ELEVATION	DATE		WATER CONTENT	LAST YEAR	AVERAGE 1961-90
WYOMING Snow Course and		ations				
ALBANY	9400					
ASTER CREEK	7750	6 (01 (01		1 0	12 5	10.5
BALD MOUNTAIN SNOTEI		6/01/01			13.7	
BASE CAMP SNOTEL		6/01/01		. 0	.0	.0
BATTLE MTN. SNOTEL		6/01/01		.0	.0	.0
BEARLODGE DIVIDE	4680	6 /01 /01		C	16.4	2.2 19.4
BEARTOOTH LK. SNOTEI		6/01/01		.6	16.4	
BEAR TRAP SNOTEL	8200	6/01/01		.0	.0	.0
BIG GOOSE SNOTEL	7760	6/01/01		0		1
BIG GOOSE SNOTEL BIG PARK	7760	6/01/01		.0	.0	.1
BIG SANDY SNOTEL	8620	6/01/01		.0		.0
BLACKWATER SNOTEL	9080 9780	6/01/01 6/01/01		1.2	.0 13.2	18.8
BLIND BULL SNOTEL	8900	6/01/01		.0	4.9	16.4
BLIND BOLL SNOTEL BLIND PARK PILLOW	6870	6/01/01		.0	.1	.0
BLUE RIDGE	9620	0/01/01		.0		
BONE SPGS. SNOTEL	9350	6/01/01		.0	4.4	8.1
BOXELDER	7280	0/01/01		.0		
BROOKLYN LK. SNOTEL		6/01/01		.2	.0	12.8
BRYAN FLAT	6420	0/01/01		• 2		
BUCK CREEK	7960					
BURGESS JCT. SNOTEL		6/01/01		.0	.0	2.3
BURROUGHS CRK SNOTEI		6/01/01		.0	.1	2.0
CANYON SNOTEL	8090	6/01/01		.0	.0	1.4
CARTER MOUNTAIN	7950	0,01,01				
CASPER MTN. SNOTEL		6/01/01		.0	.0	3.5
CASTLE CREEK	8400	.,,				
CCC CAMP	7000					
CHALK CK #1 SNOTEL		6/01/01	0	.0	.0	10.1
CHALK CK #2 SNOTEL		6/01/01		.0	.0	.9
CLOUD PEAK SNOTEL	9850	6/01/01		.0	4.8	8.3
COLD SPRINGS SNOTEL	9630	6/01/01		.0	.0	. 3
COTTONWOOD CR SNOTEI		6/01/01		.0	.0	.0
DARBY CANYON	8250					12.7
DEER PARK SNOTEL	9700	6/01/01		.0	. 4	
DITCH CREEK	6870					
DIVIDE PEAK SNOTEL	8860	6/01/01		.0	.0	2.9
DOME LAKE SNOTEL	8880	6/01/01		.0	.0	3.9
DU NOIR	8760					2.2
EAST RIM DIV SNOTEL	7930	6/01/01		.0	.0	7.0
ELBO RANCH	7100					
ELKHART PARK SNOTEL	9400	6/01/01		.0	.0	4.4
EVENING STAR SNOTEL	9200	6/01/01		.0	12.7	25.5

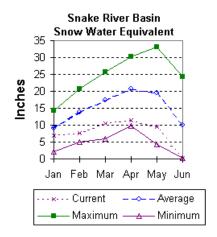
SNO	OW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
	UR MILE MEADOWS	7860					
	XPARK	9060					
	YSER CREEK	8500					2.2
	ADE CREEK	7040			_		
	ANITE CRK SNOTEL	6770	6/01/01		.0	.0	1.7
	ANNIER MEADOWS	8860			_		
	ASSY LAKE SNOTEL	7270	6/01/01		.0	.0	12.0
	AVE SPRINGS SNOTEL		6/01/01		.0	.0	2.0
	EYS BOUNDARY	5720					
	OS VENTRE SNOTEL	8750	6/01/01		.0	.0	.0
	OVER PARK DIVIDE	7000					
HA:	IRPIN TURN	9480					
	NSEN S.M. SNOTEL	8360	6/01/01		.0	.0	.8
HAI	MS FORK SNOTEL	7840	6/01/01		.0	.0	.0
	SKINS CREEK	8980					
HOI	BBS PARK SNOTEL	10100	6/01/01		.0	. 2	9.3
	CKLEBERRY DIVIDE	7300					
IN	DIAN CREEK SNOTEL	9430	6/01/01		.0	1.5	17.4
JA	CKPINE CREEK	7350					
KE	LLEY R.S. SNOTEL	8180	6/01/01		.0	.0	.0
KEI	NDALL R.S. SNOTEL	7740	6/01/01		.0	.0	.0
KI	RWIN SNOTEL	9550	6/01/01		.0	.0	5.1
LA	BONTE	8450					
LAI	KE CAMP	7780					
LA	PRELE SNOTEL	8380	6/01/01		.0	.0	1.0
LAI	RSEN CREEK	9020					
LE	WIS LAKE SNOTEL	7850	6/01/01		.0	.0	19.0
LE	WIS LAKE DIVIDE	7850				6.2	
LI	BBY LODGE	8750					
LI	TTLE BEAR RUN	6240					
LI	TTLE WARM SNOTEL	9370	6/01/01		.0	.0	.7
LO	OMIS PARK SNOTEL	8240	6/01/01		.0	.0	.0
LU	PINE CREEK	7380					
MA	LLO	6420					
MAI	RQUETTE SNOTEL	8760	6/01/01		.0	.0	4.1
ME	DICINE LODGE LAKES	9340					
MI	DDLE FORK	7420					
MII	DDLE POWDER SNOTEL	7760	6/01/01		.0	.0	2.5
MOI	RAN	6750					
MOS	SS LAKE	9800					
MOT	UNT TOM	5560					
NE	W FORK SNOTEL	8340	6/01/01		.0	.0	.0
NO	RRIS BASIN	7500					
NO	RTH BARRETT CREEK	9400					
NO	RTH FRENCH SNOTEL	10130	6/01/01		6.8	9.2	20.2
NO	RTH RAPID CK PILL.	6130	6/01/01		.0	.0	
NO	RTH TONGUE	8450					
OLI	D BATTLE SNOTEL	9920	6/01/01		12.7	12.8	24.0
OLI	D FAITHFUL	7400					
ON	ION GULCH	8780					
OWI	L CREEK SNOTEL	8980	6/01/01		.0	.0	.1
PAI	RKERS PEAK SNOTEL	9400	6/01/01		.0	7.5	18.6

		51111	WATER CONTENT	YEAR	AVERAGE 1961-90
PHILLIPS BENCH SNOT.	8200	6/01/01	 .0	.2	17.6
POCKET CREEK	9350				
POISON MEADOWS	8500				
POLE MOUNTAIN	8700				
POWDER RVR.PASS SNOT	9480	6/01/01	 .0	.0	1.3
PURGATORY GULCH	8970				
RANGER CREEK	8120				
RENO HILL SNOTEL	8500	6/01/01	 .0	.0	2.9
REUTER CANYON	6280				2.2
ROWDY CREEK	8300				
RYAN PARK	8400				
SALT RIVER SNOTEL	7600	6/01/01	 .0	.0	.0
SAND LAKE SNOTEL	10050	6/01/01	 12.7	11.3	24.6
SANDSTONE SNOTEL	8150	6/01/01	.0	.0	.0
SAWMILL DIVIDE	9260				
SHELL CREEK SNOTEL	9580	6/01/01	 .0	5.1	11.2
SHERIDAN R.S.	7750				2.2
SNAKE RIVER STATION					
SNAKE RV STA SNOTEL		6/01/01	 .0	.0	.0
SNIDER BASIN SNOTEL		6/01/01	.0	.0	.0
SNOW KING MTN	7660				
SOLDIER PARK	8780				
SOUR DOUGH	8460				
SOUTH BRUSH SNOTEL	8440	6/01/01	 .0	.0	1.0
SOUTH PASS SNOTEL	9040	6/01/01	.0	.0	10.0
SPRING CRK. SNOTEL	9000	6/01/01	.0	1.9	19.0
ST LAWRENCE ALT SNOT		6/01/01	.0	.0	.1
SUCKER CREEK SNOTEL		6/01/01	.0	.0	4.0
SYLVAN LAKE SNOTEL	8420	6/01/01	.0	1.8	14.1
SYLVAN ROAD SNOTEL	7120	6/01/01	.0	.0	1.0
T CROSS RANCH	7900	0,01,01			
TETON PASS W.S.	7740				
THUMB DIVIDE SNOTEL		6/01/01	 .0	.0	.0
THUMB DIVIDE	7980	0,01,01			
TIE CREEK SNOTEL		6/01/01	 .0	.1	
TIMBER CREEK SNOTEL		6/01/01	.0	.0	.2
TOGWOTEE PASS SNOTEL	9580	6/01/01	 .0	10.6	23.6
TOWNSEND CRK SNOTEL	8700	6/01/01	 .0	.0	1.8
TRIPLE PEAK SNOTEL	8500	6/01/01	 .0	.0	14.7
TURPIN MEADOWS	6900	0,01,01	. 0		
TWO OCEAN SNOTEL	9240	6/01/01	 2.7	13.4	22.5
TYRELL RANGER STA.	8300	0,01,01	2.,		
UPPER SPEARFISH	6500				
WARREN PEAK SNOTEL	6520	O/B /01		.0	.1
WEBBER SPRING SNOTEL	9250	6/01/01	 .0	.0	10.3
WHISKEY PARK SNOTEL	8950	6/01/01	 .0	.5	12.0
WILLOW CREEK SNOTEL	8450	6/01/01	 .0	.0	19.2
WILLOW CREEK SNOTEL WINDY PEAK SNOTEL	7900	6/01/01	 .0	.0	.0
WOLVERINE SNOTEL	7650	6/01/01	 .0	.0	.0
WOOD ROCK G.S.	8440	J/ UI/ UI	 . 0		
YOUNTS PEAK SNOTEL	8350	6/01/01	 .0	1.2	9.1
enotes discontinued a		J/ UI/ UI	 . 0	1.4	シ・エ

Snake River Basin (1)

Snow

Nearly all snow has melted from the SNOTEL sites in this basin. Only one site has any snow. See the Basin Summary of Snow Courses at the beginning of this report for a detailed listing of snow course information.



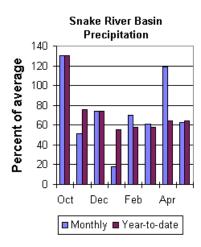
Precipitation.

Precipitation across the basin was much below average for last month. Monthly precipitation, for the basin, was 63 percent of average (52 percent of last year). May percentages range from 22 to 102 percent of average. Water-year-to-date precipitation is 64 percent of normal for the Snake River basin (87 percent of last year at this time). Year-to-date percentages range from 52 to 78 percent of average.

Reservoir.

Current usable storage compared to average for the

three reservoirs in the basin is as follows: Grassy Lake —108 percent of average (14,700 acre feet compared to 14,300 last year), Jackson lake — 140 percent of average (758,200 acre feet compared to 843,900 acre feet last year), and Palisades Reservoir — 80 percent of average (842,500 acre feet compared to 2,182,000 acre feet last year).



Streamflow.

Runoff will be much below average. Irrigators relying on direct diversions from streams may have water shortages. The most probable,

50 percent chance June through September runoff yield forecast is as follows. The Snake near Moran is expected to yield 250,000 acre-feet (43 percent of normal). Yield from the Snake River above Palisades Reservoir is estimated to be 950,000 acre-feet (52 percent of normal). Palisades reservoir inflow will be about 1,300,000 acre-feet (53 percent of average). The 50 percent chance yield near Heise is expected to be 1,400,000 acre-feet (53 percent of normal). Pacific Creek at Moran is expected to yield about 88,000 acre-feet (46 percent of average). Greys River above Palisades Reservoir is estimated to yield 125,000 acre-feet (52 percent of normal). Salt River near Etna is estimated to have a yield of 100,000 acre-feet (44 percent of normal).

SNAKE RIVER BASIN

Streamflow Forecasts - June 1, 2001

		<<=====	: Drier ====:	== Future Co	onditions ==	===== Wetter	====>>	1
		İ						
Forecast Point	Forecast	: 		- Change Of 1	Pracedina + -			l I
Forecast Point					-			
	Period	90%	70%	50% (Most	Probable)	30%	10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
		========				 		
SNAKE near Moran (1,2)	JUN-SEP	94	201	I 250	43	I 299	406	579
SNAKE Hear Morail (1,2)	OON-SEF	74	201	1 230		1 299	400	373
				I				
SNAKE above Palisades (2)	JUN-SEP	711	853	950	52	1047	1189	1823
				I				
PALISADES RESERVOIR INFLOW (1,2)	JUN-SEP	863	1164	1300	53	1436	1737	2459
111111111111111111111111111111111111111	0011 222	000		1 2500		1	2.5.	2133
				!				
SNAKE near Heise (2)	JUN-SEP	1023	1248	1400	53	1552	1777	2622
				I				
PACIFIC CREEK at Moran	JUN-SEP	24	38	l 48	46	l 58	72	104
				i				
						l		
GREYS above Palisades	JUN-SEP	87	110	125	52	140	163	241
SALT near Etna	JUN-SEP	54	81	100	44	119	146	228
				i		i İ		
				I		I		

SNAKE R	IVER BASIN				SNAKE I	RIVER BASIN		
Reservoir Storage (100	0 AF) - End	of May			Watershed Snowpack	Analysis -	June 1, 20	001
	Usable	*** Usa	able Stora	age ***		Number	This Year	as % of
Reservoir	Capacity	This	Last		Watershed	of		
	1	Year	Year	Avg	I	Data Sites	Last Yr	Average
GRASSY LAKE	15.2	14.7	14.3	13.6	SNAKE above Jackson Lake	e 5	20	5
JACKSON LAKE	847.0	758.2	843.9	540.5	PACIFIC CREEK	2	20	12
PALISADES	1400.0	842.5	1323.8	1055.0	GROS VENTRE RIVER	2	0	0
				l				
				l	HOBACK RIVER	5	0	0
				l				
				l	GREYS RIVER	4	0	0
				l				
				l	SALT RIVER	3	0	0
					SNAKE above Palisades	17	9	2

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

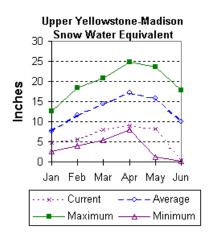
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural volume - actual volume may be affected by upstream water management.

Upper Yellowstone and Madison River Basins (2)

Snow

Snow in these basins this year has been well below average. All the SNOTEL sites in this basin have melted out. See the "Snow Course Basin Summary" at the beginning of this document for more details on specific sites.



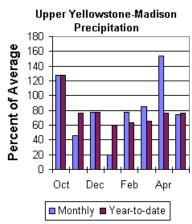
Precipitation

May precipitation in the Madison and Yellowstone drainage was about 74 percent of average (49 percent of previous year) for the 6 reporting stations -- percentage range was from 47 to 126 percent of average. Water-year-to-date precipitation is about 76 percent of average (79 percent of last year's amount). Year to date percentage ranges from 57 to 94 percent

Reservoir

Usable reservoir storage for Ennis Lake is 36,600 acre-feet (89 percent of capacity) – 102 percent of average. Hebgen

Lake usable storage is about 349,100 acre-feet of water (92 percent of capacity) – 113 percent of average. Ennis Lake is storing about 114 percent and Hebgen Lake is storing about 98 percent of last year's volume.



Streamflow

Runoff in this basin will be well below average. Irrigation water shortages can be expected from all direct diversions. All the following forecasts are the 50 percent chance runoff for the June through September runoff period. Yellowstone at Lake Outlet is expected to yield about 275,000 acre feet (40 percent of normal). Yellowstone at Corwin Springs will yield about 700,000 acre-feet (47 percent of normal). Yellowstone near Livingston will yield about 800,000 acre feet (47 percent of normal). Hebgen lake inflow is estimated to be 120,000 acre feet (39 percent of normal). See the following page for detailed runoff volumes.

UPPER YELLOWSTONE & MADISON RIVER BASINS Streamflow Forecasts - June 1, 2001

	I	<<=====	Drier ====	== Future C	onditions =:	===== Wetter	====>>	
	I						- 1	
Forecast Point	Forecast	=======		= Chance Of	${\tt Exceeding} \ {\tt *} :$		======	
	Period	90%	70%	50% (Most	Probable)	30%	10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
YELLOWSTONE at Lake Outlet	JUN-SEP	263	270	275	40	287	306	691
WELLOWGHOVE DIVERS Compile Green	TIME CER	625	670	 700	47	 765	860	1484
YELLOWSTONE RIVER at Corwin Spgs.	JUN-SEP	025	670	700 	47	/65 	860	1464
YELLOWSTONE RIVER near Livingston	JUN-SEP	601	719	800	47	881	999	1721
				l		l		
HEBGEN Reservoir Inflow	JUN-SEP	109	115	120	39	132	149	307

UPPER YELLOWSTONE & MADISON RIVER BASINS | UPPER YELLOWSTONE & MADISON RIVER BASINS

Reservoir Storage (1000 AF) - End of May | Watershed Snowpack Analysis - June 1, 2001

	Usable	*** Usa	ble Stora	ge ***		Number	This Yea	r as % of
Reservoir	Capacity	This	Last		Watershed	of		
	1	Year	Year	Avg		Data Sites	Last Yr	Average
ENNIS LAKE	41.0	36.6	32.1	35.8	MADISON RIVER in WY	6	0	0
HEBGEN LAKE	377.5	349.1	355.5	309.8	YELLOWSTONE RIVER in W	у 8	16	8

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

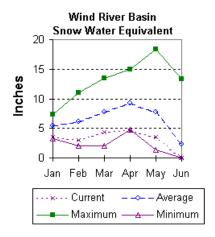
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(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 much much below average snow water equivalent (SWE) for this time of the year. All snow has melted form the SNOTEL sites in this basin. Some snow is found at the higher elevations (above elevation 10,000).



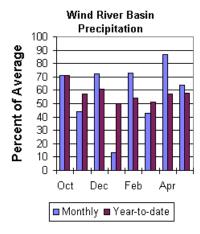
Precipitation

May precipitation in the basin varied from 2 to 96 percent of average. May precipitation for the basin was about 64 percent of average for the 9 reporting stations; that is about 60 percent of last year's amount. Water year-to-date precipitation is 58 percent of normal. The current water-year-to-date average is about 71 percent of last year at this time. Year to date figures range from 49 to 79 percent of average.

Reservoirs

Current usable storage varies from 58 to 86 percent of

average. Bull Lake is currently storing about 79,500 acre feet (52 percent of capacity) -- the reservoir is at 77 percent of average at this time of the year. Boysen Reservoir is storing about 69 percent of capacity (413,900 acre feet) -- the reservoir is at 86 percent of average for this time of the year. Pilot Butte is storing 47 percent of capacity (14,700 acre feet) -- the reservoir is at 58 percent of average for this time of the year.



Streamflow

Water supply is estimated to be much below normal this year. Irrigation water shortages can be expected in this drainage basin. The following values reflect the 50 percent chance yields for the June through September runoff period. The Wind River above Bull Lake Creek is expected to yield 170,000 acre feet (41 percent of average). Wind River at Riverton will yield about 100,000 acre feet (20 percent of average). Boysen Reservoir inflow will yield about 175,000 acre feet (29 percent of normal). Bull Lake Creek near Lenore is expected to yield about 55,000 acre feet (36 percent of average). Little Popo Agie River near Lander is expected to yield about 6,500 acre feet (18 percent of average). South Fork of Little Wind near Fort Washakie will yield about 20,000 acre feet (32 percent of average). Little Wind River near Riverton will yield about 45,000 acre feet (19 percent of average).

WIND RIVER BASIN

Streamflow Forecasts - June 1, 2001

		<<=====	Drier ====	== Future C	onditions =:	===== Wetter	====>>	
		1					I	
Forecast Point	Forecast	======		= Chance Of	Exceeding * :			
	Period	90%	70%	50% (Most	Probable)	30%	10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
WIND RIVER abv Bull Lake Cr (2)	JUN-SEP	155	164	170	41	185	206	420
				l		l		
WIND RIVER at Riverton (2)	JUN-SEP	76	90	100	20	149	220	505
				l		l		
BOYSEN RESERVOIR Inflow (2)	JUN-SEP	115	151	175	29	259	382	609
				l		l		
BULL LAKE CR near Lenore (2)	JUN-SEP	50	53	55	36	61	70	154
				l		l		
LT POPO AGIE RIVER nr Lander	JUN-SEP	5.7	6.2	6.5	18	8.4	11.2	37
				l		l		
SF LT WIND nr Fort Washakie	JUN-SEP	17.8	19.1	20	32	23	27	63
				l		l		
LT WIND RIVER nr Riverton	JUN-SEP	38	42	45	19	60	83	241
				l				
WIND R	VER BASIN			1		WIND RIVER BA	SIN	
Reservoir Storage (100	00 AF) - End	of May		Ī	Watershed Si	nowpack Analys	is - June 1	, 2001

Reservoir Storage (1	.000 AF) - End	or May		I	watersned showpad	k Analysis -	June 1, 20	JUI
Reservoir	Usable Capacity	*** Usa This	ble Stora Last	ge *** 	Watershed	Number of		r as % of
	i	Year	Year	Avg		Data Sites	Last Yr	Average
BULL LAKE	151.8	79.5	112.9	92.7	WIND RIVER above Dubio	s 3	0	0
				į				
BOYSEN	596.0	413.9	542.9	546.4	LITTLE WIND	2	0	0
						=	-	-
PILOT BUTTE	31.6	14.7	24.5	25.5	POPO AGIE	3	0	0
PILOI BUILE	31.0	14.7	24.5	23.3	POPO AGIE	3	U	U
				ļ				
				I	WIND above Boysen Resv	7	0	0
				1				

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

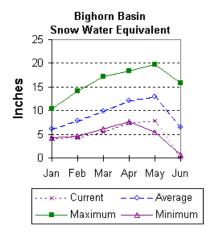
⁽¹⁾ - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

⁽²⁾ - The value is natural volume - actual volume may be affected by upstream water management.

Bighorn River Basin (4)

Snow

Snowpack in this basin is well below average for this time of year. The Nowood and Greybull River drainages are melted out as of June 1. Shell Creek SWE is 3 percent of average (4 percent of last year). The basin SWE, as a whole, is currently 2 percent of average (4 percent of last year). For more information see Basin Summary of Snow Courses at beginning of report.



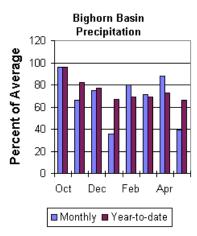
Precipitation

May precipitation was 39 percent of the monthly average (39 percent of last year). Sites ranged from 6 to 79 percent of average for the month. Year-to-date precipitation is 66 percent of normal; that is 70 percent of last year at this time. Year to date percentages, from the 12 reporting stations, range from 44 to 81.

Reservoir

Usable storage in Boysen Reservoir is currently 413,900acre feet (76 percent of

average). Bighorn Lake is now at 98 percent of average (839,700-acre feet). Boysen is currently storing 76 percent of last year at this time and Big Horn Lake is storing 89 percent of last year's volume.



Streamflow

The 50 percent chance June through September runoff is anticipated to be below normal. The Boysen Reservoir inflow is forecast to yield

175,000 acre feet (29 percent of average); the Greybull River nr Meeteese should yield 42,000 acre feet (25 percent of average); Shell Creek near Shell should yield 18,700 acre feet (34 percent of average) and the Bighorn River at Kane should yield 175,000 acre feet (22 percent of average).

SHOSHONE & CLARKS FORK RIVER BASINS

<<===== Drier ===== Future Conditions ====== Wetter ====>> Forecast Point Forecast ===================================
Forecast Point Forecast =========== Chance Of Exceeding * ========== Period 90% 70% 50% (Most Probable) 30% 10% 30-Yr Avg. (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF) ===================================
Period 90% 70% 50% (Most Probable) 30% 10% 30-Yr Avg. (1000AF) (1000AF) (1000AF) (& AVG.) (1000AF) (1000AF) (1000AF)
Period 90% 70% 50% (Most Probable) 30% 10% 30-Yr Avg. (1000AF) (1000AF) (1000AF) (& AVG.) (1000AF) (1000AF) (1000AF)
(1000AF) (1000AF) (1000AF) (1000AF) (1000AF) (1000AF)
NE GUOGUONE PILIER Wanibi TIN GER 165 100 100 50 210 220 265
NF SHOSHOME KIVEK AC WADICI JUN-SEP 105 100 190 52 210 238 365
SF SHOSHONE RIVER nr Valley JUN-SEP 56 73 85 40 114 157 215
SF SHOSHONE RIVER abv Buffalo Bill JUN-SEP 16.0 29 38 22 78 137 175
BUFFALO BILL DAM Inflow (2) JUN-SEP 214 235 250 41 286 338 606
CLARKS FORK RIVER nr Belfry JUN-SEP 123 133 140 31 162 195 453
SHOSHONE & CLARKS FORK RIVER BASINS SHOSHONE & CLARKS FORK RIVER BASINS
Reservoir Storage (1000 AF) - End of May Watershed Snowpack Analysis - June 1, 2001
Usable *** Usable Storage *** Number This Year as % of
Reservoir Capacity This Last Watershed of ===========
Year Year Avg Data Sites Last Yr Average
BUFFALO BILL 646.6 406.9 504.0 375.6 SHOSHONE RIVER 6 4 2

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

CLARKS FORK in WY

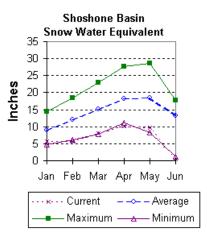
⁽¹⁾ - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural volume - actual volume may be affected by upstream water management.

Shoshone and Clarks Fork River Basin (5)

Snow

Nearly all snow has melted from the SNOTEL sites in this basin. Only one site has any snow. For more information see the Basin Summary of Snow Course Data at the beginning of this report.



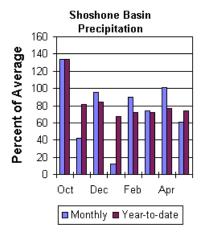
Precipitation

Precipitation for the month of May was 61 percent of normal (49 percent of last year). Monthly percentages range from 7 to 94 percent of average. The basin year-to-date precipitation is now 74 percent of average (76 percent of last year). Year-to-date percentages range from 32 to 90 percent of average.

Reservoir

Current usable storage in Buffalo Bill Reservoir is 108 percent of average (81 percent of last year's storage) – the

reservoir is about 63 percent of capacity. Currently, about 406,900 acrefeet of usable storage is in the reservoir compared to 504,000 acre feet last year – normally the reservoir stores about 375,600 acre feet at this time of the year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



Streamflow

Yield from the basin is expected to be much below average. Irrigators relying on direct diversion from a stream may experience shortages. The fifty percent yield (June through September period) for North Fork Shoshone River at Wapiti is expected to be 190,000 acre-feet (52 percent of average). South Fork of the Shoshone River near Valley is estimated to yield of 85,000 acre-feet (40 percent of average), and South Fork above Buffalo Bill Reservoir is expected to be 38,000 acre-feet (22 percent of average). At the Buffalo Bill Reservoir, the fifty-percent chance yield for the Shoshone River is expected to be about 250,000 acre-feet (41 percent of average). The fifty-percent chance yield for the Clarks Fork of the Yellowstone near Belfry, Montana is expected to be about 140,000 acre-feet (31 percent of average).

.....

SHOSHONE & CLARKS FORK RIVER BASINS											
		Streamflow	w Forecasts	- June 1,	2001						
		<<=====	Drier ===	=== Futur	Conditions =	===== Wetter	====>>				
		l									
Forecast Point	Forecast			== Chance (f Exceeding *						
	Period	90%	70%	50% (M	st Probable)	30%	10%	30-Yr Avg.			
		(1000AF)	(1000AF)	(1000)	AF) (% AVG.)	(1000AF)	(1000AF)	(1000AF)			
				-							
NF SHOSHONE RIVER at Wapiti	JUN-SEP	165	180	19	52	210	238	365			
				1		1					
SF SHOSHONE RIVER nr Valley	JUN-SEP	56	73	8:	40	114	157	215			
				1		1					
SF SHOSHONE RIVER abv Buffalo Bill	JUN-SEP	16.0	29	3	22	78	137	175			
				1							
BUFFALO BILL DAM Inflow (2)	JUN-SEP	214	235	25	41	286	338	606			
				1		1					
CLARKS FORK RIVER nr Belfry	JUN-SEP	123	133	140	31	162	195	453			
				1		1					
SHOSHONE & CLARKS	FORK RIVE	R BASINS		1	SHOSHONE	& CLARKS FORK	RIVER BAS	INS			
Reservoir Storage (1000	AF) - End	of May		1	Watershed S	nowpack Analys	sis - June :	1, 2001			
	Usable	*** Usab	le Storage	***		Numbe	er This	Year as % of			
Reservoir	Capacity	This	Last	Wa	itershed	of	====				
	1	Year	Year	Avg		Data Si	tes Last	Yr Average			
BUFFALO BILL	646.6	406.9	504.0 3	75.6 SI	OSHONE RIVER	6	4	2			
				1							
				l c	ARKS FORK in W	ry 7	8	6			

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

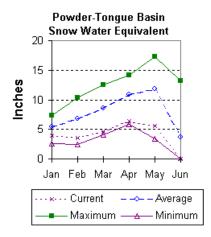
⁽¹⁾ - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural volume - actual volume may be affected by upstream water management.

Powder and Tongue River Basins (6)

Snow

All the SNOTEL sites in this basin have melted out For more information see Basin Summary of Snow Courses at beginning of report.



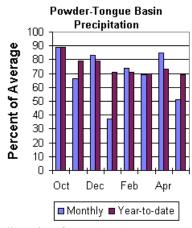
Precipitation

May precipitation was 51 percent of average for the 10 reporting stations (46 percent of last year). Monthly percentages range from 7 to 93 percent of average. Precipitation for the year ranges from 52 to 78 percent of average at the reporting stations. Year-to-date precipitation is about 69 percent of average in the basin; this is 69 percent of last year at this time.

Reservoir

Tongue River Reservoir is currently at 94 percent of

average usable storage for this time of year (45,200 acre feet) – the reservoir is about 57 percent of capacity (total capacity is 79,100 acre feet). Last year at this time the reservoir was storing about 79,400 acre feet – average storage is about 48,200 acre feet for this time of the year. Detailed reservoir data is shown on the following page and on the reservoir storage summary at the beginning of this report.



Streamflow

Yield from this basin will be much below normal. Irrigators relying on direct diversion from streams may experience some water shortages. The following runoff values are for the 50 percent probability during the June through September forecast period. The estimated yield for Tongue River near Dayton is 25,000-acre feet (33 percent of normal). Middle Fork of the Powder River near Barnum is estimated to yield 2,000 acre feet (25 percent of average). The North Fork of the Powder near Hazelton should yield about 1,200 acre-feet (20 percent of normal). The estimated yield for Clear Creek near Buffalo is 11,000 acre-feet (39 percent of average). Rock Creek near Buffalo will yield about 4,500 acre-feet (27 percent of normal), and Piney Creek at Kearny should yield about 3,000 acre-feet (9 percent of average).

POWDER & TONGUE RIVER BASINS Streamflow Forecasts - June 1, 2001

		<<=====	Drier ====	== Future C	onditions ==	===== Wetter	====>>				
		I									
Forecast Point	Forecast	======		= Chance Of	Exceeding * =						
	Period	90%	70%	50% (Most	Probable)	30%	10%	30-Yr Avg.			
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)			
TONGUE RIVER nr Dayton (2)	JUN-SEP	19.8	23	25	33	31	41	77			
				l		l					
MIDDLE FORK POWDER nr Barnum	JUN-SEP	1.18	1.67	2.00	25	3.32	5.26	7.90			
				l		l					
NORTH FORK POWDER nr Hazelton	JUN-SEP	0.90	1.08	1.20	20	1.80	2.69	6.00			
CLEAR CREEK nr Buffalo	JUN-SEP	6.8	9.3	11.0	39	15.4	22	28			
ROCK CREEK nr Buffalo	JUN-SEP	3.4	4.1	4.5	27	6.1	8.4	16.8			
PINEY CREEK at Kearny	JUN-SEP	2.2	2.7	3.0	9	6.5	11.7	32			

	& TONGUE RIVER BAS				POWDER & TONGUE RIVER BASINS Watershed Snowpack Analysis - June 1, 2001						
Reservoir Storag	e (1000 AF) - ENG				watershed showpac	. Analysis -					
Reservoir	Usable Capacity	This	ble Storage		Watershed	Number of					
	 	Year	Year	Avg	 	Data Sites	Last Yr	Average			
TONGUE RIVER	79.1	45.2	79.4	48.2		6	0	0			
					GOOSE CREEK	2	0	0			
					CLEAR CREEK	2	0	0			
					CRAZY WOMAN CREEK	1	0	0			
					UPPER POWDER RIVER	3	0	0			
					POWDER RIVER in WY	5	0	0			

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

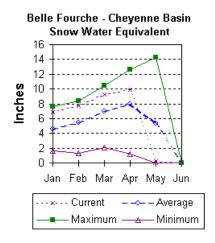
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(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 June 1. See Basin summary of Snow Course Data at the beginning of this report for a detailed listing.



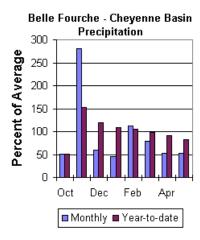
Precipitation.

Precipitation, for the month of May was 47 percent of average in the Black Hills. Monthly percentages range from 8 to 96 percent. Year-to-date precipitation is 83 percent of average and 93 percent of last year's amount.

Reservoir.

Usable reservoir storage is generally above average in the basin. Angostura is currently

storing 98 percent of average (114,800-acre feet). Belle Fourche reservoir is storing 121 percent of average (184,500-acre feet). Deerfield reservoir is storing 111 percent of average (15,100-acre feet). Keyhole reservoir is storing 150 percent of average (169,900-acre feet). Pactola reservoir is storing 112 percent of average (54,300-acre feet), and Shadehill reservoir is storing 113 percent of average (77,800-acre feet).



Streamflow

Streamflow forecasts are below average as of June 1. Deerfield Reservoir inflow is forecast at 750 acre feet (42 percent of average). Pactola is forecast at 1,500 acre feet (17 percent of average). This is for the June – July runoff period.

.....

BELLE FOURCHE & CHEYENNE RIVER BASINS

Streamflow Forecasts - June 1, 2001											
	streamilo	w Forecast	s - June 1, 20	101							
<<===== Prier ===== Future Conditions ====== Wetter =====>>											
	<<=====	== Drier ==:	=== Future (Conditions =:	===== Wetter	=====>>					
	1										
Forecast Point Forecast	i		== Chance Of	Exceeding *							
Period	i I 90%	70%	1 50% (Mogt	Probable)	l 30%	10%	30-Yr Av	~			
161104	(1000AF)) (% AVG.)	1	(1000AF)		_			
	1 , ,	,						-			
DEERFIELD RESERVOIR Inflow JUN-JUL	0.18	0.52	0.75	42	1.30	2.11	1.8	0			
					[
PACTOLA RESERVOIR Inflow JUN-JUL	0.03	0.90	1.50	17	5.01	10.17	9.0	0			
			i		į						
BELLE FOURCHE & CHEYENNE RIV	TED DACTNO		1	DELLE BOIL	RCHE & CHEYENN	ינם משענים שו	TNC				
			ļ								
Reservoir Storage (1000 AF) - End	or May		I	watersned Si	nowpack Analys	is - June .	1, 2001				
								===			
Usable	*** Usab	ole Storage	***		Numbe	r This	Year as %	of			
Reservoir Capacity	This	Last	Wate	ershed	of	====		==			
	Year	Year	Avg		Data Si	tes Last	Yr Avera	ge			
	=========	.=======	.==== !======			.=======		===			
ANGOSTURA 122.1	114.8	119.9	.17.2 BELI	LE FOURCHE	1	0	0				
ANGOSTORA 122.1	114.0	119.9	.17.2 BEIII	IE FOURCHE	-	U	U				
			!								
BELLE FOURCHE 178.4	184.5	190.5	.52.3								
DEERFIELD 15.2	15.1	15.1	13.6								
			1								
			I								

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

48.6

54.7

The average is computed for the 1961-1990 base period.

PACTOLA

SHADEHILL

54.3

55.0

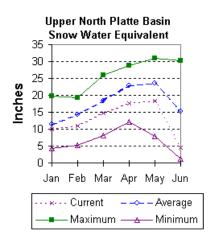
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(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 29 percent of average snow water equivalent (SWE) recorded for this time of the year (80 percent of last year). SWE in the drainage area above Northgate is about 28 percent of average and 64 percent of last year at this time. SWE in the Encampment River drainage is about 27 percent of normal and 95 percent of last year. Brush Creek SWE for the year is about 32 percent of normal and 74 percent of last year's SWE. Medicine Bow and Rock Creek drainage SWE is about 34 percent of average and 114 percent of last year at this time. For more information see Basin Summary of Snow Courses at the beginning of this report.



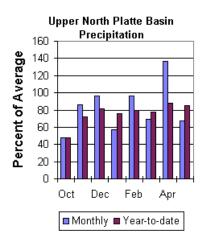
Precipitation

Eight reporting stations indicate May precipitation was 67 percent of average and about 74 percent of last year's amount. May precipitation varied from 15 to 224 percent of average. Total water-year-to-date precipitation is about 85 percent of average for the basin, which is about 93 percent of last year's amount. Year to date percentage ranges from 56 to 108 percent of average for the 9 reporting stations.

Reservoirs

Seminoe Reservoir usable

storage is currently about 136 percent of normal for this time of the year. The reservoir is storing 82 percent of last year's amount. Seminoe Reservoir is estimated to be storing 751,100 acre-feet (74 percent of capacity). Last year, at this time, the reservoir had 914,200 acre-feet in storage.



Streamflow

Yields in the North Platte River drainage will be well below normal. Irrigators diverting water directly from a stream may experience water

shortages. All the following yields are based on the fifty- percent chance June through September yield. Yield for the North Platte River near Northgate is expected to be about 89,000 acre-feet (56 percent of average). Encampment River near Encampment is estimated to yield 66,000 acre-feet (64 percent of normal). Rock Creek near Arlington is estimated to yield 20,000 acre-feet (48 percent of average). Seminoe Reservoir inflow should be about (280,000 acre-feet (57 percent of normal). See the following table for more detailed information on projected runoff.

UPPER NORTH PLATTE RIVER BASIN

Streamflow Forecasts - June 1, 2001											
		<<=====	= Drier ====	== Future	Conditions =	===== Wett	er ====>>	·			
		1						1			
Forecast Point	Forecast			= Chance Of	Exceeding *			• j			
	Period	90%	70%	50% (Mos	t Probable)	30%	10%	30-Yr Avg.			
		(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AI	') (1000AI	F) (1000AF)			
North Platte River nr Northgate	JUN-SEP	56	76	l 89	56	102	122	158			
Noten Trace River in Notengace	OON DEL	30	70	1 05	30	1 102		130			
Encampment River nr Encampment	JUN-SEP	50	60	l 66	64	l 79	97	103			
Encampment River nr Encampment	JUN-SEP	50	60	00	04	1 /9	97	103			
				!		!					
Rock Creek nr Arlington	JUN-SEP	17.2	18.8	20	48	21	23	42			
Seminoe Reservoir inflow	JUN-JUL	134	197	240	56	283	346	428			
	JUN-SEP	203	249	280	57	311	357	491			
				1		1					
				· ========		· 					
UPPER NORTH P	LATTE RIVER	BASIN		1	UPPER	NORTH PLATTI	RIVER BAS	SIN			
Reservoir Storage (10	00 AF) - End	of May		i	Watershed S	Snowpack Anal	vsis - Jur	ne 1. 2001			
						-		-			
	Usable	*** IIcah	le Storage *	**		Nur	ber Th	nis Year as % of			
Reservoir	Capacity	This	Last		ershed						
Reservoir	Capacity				ershed						
	I	Year	Year A	vg		Data	Sites La	ast Yr Average			
SEMINOE	1016.7	751.1	914.2 55	1.0 N P	LATTE above 1	Northgate	5	54 28			
				I							
				ENC	AMPMENT RIVE	2	3 9	95 27			

 	 	N PLATTE above	Seminoe	13	80	29
	 ===			.=======		======

BRUSH CREEK

MEDICINE BOW & ROCK CREEK 2

The average is computed for the 1961-1990 base period.

32

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

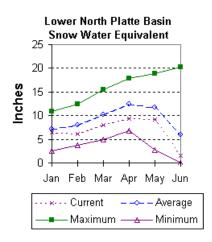
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(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 17 percent of normal (80 % of last year). The Sweetwater drainage, Deer and LaPrele Creek are melted out. SWE for the North Platte above the Laramie River drainage is 27 percent of average (80 % of last year). SWE for the Laramie River above Laramie is 15 percent of average (43 % of last year). SWE for the Little Laramie River is 2 percent of average. SWE for the Laramie River above the mouth is 11 percent of average (44 % of last year). For more information see Basin Summary of Snow Courses at beginning of report.



Precipitation

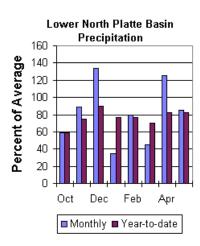
Last months precipitation ranged from 12 to 189 percent for the 10 reporting stations. May precipitation for the basin was 85 percent of average (74 percent of last year). The water year-to-date precipitation for the basin is currently 82 percent of average (87 percent of last year). Year to date percentages range from 42 to 127.

Reservoir

The Lower North Platte River basin usable storage is average to well above average.

Reservoir storage is as follows:

Alcova 180,000 acre feet (100 percent of average); Glendo 444,800 acre feet (89 percent of average); Guernsey 35,600 acre feet (103 percent of average); Pathfinder 797,900 acre feet (125 percent of average); Seminoe 751,100 acre feet (136 percent of average). Wheatland No.2 61,000 acre feet (112 percent of average). Water allocated to project use is near average with North Platte Project users at 99 percent of average, Kendrick Project users at 112 percent of average, and Glendo Project users at 115 percent of average.



Streamflow

The fifty-percent chance June through September runoff in the Lower North Platte River basin is forecast much below average. Irrigators without a storage facility may experience water shortage. Yields from 34 to 73 percent are expected in the basin during the forecast period. The following yields are based on the fifty percent chance probability runoff for the June through September forecast period. The Sweetwater near Alcova is forecast to yield about 13,400 acre-feet (37 percent of average). Deer Creek at Glenrock is expected to yield about 63 percent of average (4,600 acre-feet). LaPrele Creek above the reservoir is estimated to yield 34 percent of average (2,100 acre-feet). North Platte River below Guernsey Reservoir is expected to yield about 48 percent of normal (230,000 acre-feet), and below Glendo Reservoir is anticipated to yield about 47 percent of average (210,000 acre-feet). Laramie River near Woods should yield about 73 percent of average (65,000 acre-feet). The Little Laramie near Filmore should produce about 24,000 acre-feet (50 percent of average).

LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS

Streamflow Forecasts - June 1, 2001

		 <<=====	:======= : Drier ====:	=== Future C	onditions =	====== Wetter	=====>>	
		i					i	
Forecast Point	Forecast			= Chance Of	Exceeding *		Ì	
	Period	90%	70%	50% (Most	Probable)	30%	10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
Sweetwater River nr Alcova	JUN-JUL	8.3	9.8	10.8	35	14.9	21	31
	JUN-SEP	11.0	12.4	13.4	37	16.7	22	36
Deer Creek at Glenrock	JUN-SEP	1.80	3.31	4.60	63	6.10	8.70	7.25
La Prele Creek ab La Prele Reservoir	JUN-SEP	0.46	1.24	2.10	34	3.28	5.71	6.20
North Platte River blw Glendo Reserv	JUN-JUL	158	180	195	47	240	307	419
	JUN-SEP	171	194	210	47	258	328	451
North Platte River blw Guernsey Resv	JUN-JUL	163	191	210	49	264	344	433
	JUN-SEP	179	209	230	48	289	377	479
Laramie River nr Woods	JUN-SEP	36	53	65	73	77	94	89
Little Laramie River nr Filmore	JUN-SEP	15.3	21	24	50	28	33	48

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

| LOWER NORTH PLATTE, SWEETWATER & LARAMIE RIVER BASINS | Watershed Snowpack Analysis - June 1, 2001

					· 			
	Usable		ble Stora	ge ***		Number	This Yea	r as % of
Reservoir	Capacity	This Year	Last Year		Watershed	of Data Sites	Last Yr	Average
	 =========	rear	rear	Avg	 	Data Sites	Last II	Average
ALCOVA	184.3	180.0	180.7	180.4	SWEETWATER	1	0	0
GLENDO	506.4	444.8	507.1	501.0	DEER & Laprele Creeks	2	0	0
GUERNSEY	45.6	473.8	35.9	34.5	N PLATTE abv Laramie R.	16	80	27
PATHFINDER	1016.5	797.9	993.1	638.0	LARAMIE RIVER abv Laram	ie 3	43	15
SEMINOE	1016.7	751.1	914.2	551.0	LITTLE LARAMIE RIVER	1	0	2
WHEATLAND #2	98.9	61.0	81.0	54.6	LARAMIE RIVER above mou	th 4	44	11
NORTH PLATTE PROJ		NO REPO	RT		NORTH PLATTE	17	80	27
KENDRICK PROJECT		NO REPO	RT					
GLENDO PROJECT USERS		NO REPO	RT					

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

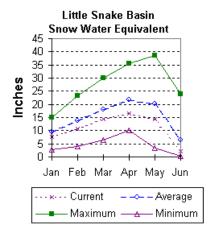
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural volume - actual volume may be affected by upstream water management.

Little Snake River Basin (10)

Snow

Nearly all the SNOTEL sites have melted out in this drainage. Only one site has any snow remaining. For more information see Basin Summary of Snow Courses at beginning of this report.



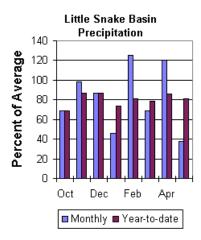
Precipitation

Precipitation across the basin was below average this past month. May precipitation was 38 percent of average (42 percent of last year) for the 5 reporting stations. May precipitation ranged from 25 to 54 percent of average. The Little Snake River basin water-year-to-date precipitation is currently 73 percent of average (84 percent of last year). Year-to-date percentages range from 73 to 90 percent of average.

Streamflow

Yield from the Little Snake River basin is expected to be

much below normal this year. Irrigators relying on direct diversions may experience water shortages 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 100,000 acre-feet (65 percent of normal). Little Snake River near Dixon is estimated to yield 210,000 acre-feet (64 percent of normal).



LITTLE SNAKE RIVER BASIN Streamflow Forecasts - June 1, 2001

64 APR-JUL 106 168 LITTLE SNAKE R nr Dixon 210 252 314 329 ______ LITTLE SNAKE RIVER BASIN LITTLE SNAKE RIVER BASIN Reservoir Storage (1000 AF) - End of May 1 Watershed Snowpack Analysis - June 1, 2001 Usable | *** Usable Storage *** | Number This Year as % of Capacity | This Last | Watershed Reservoir of _____ Year Year Avg Data Sites Last Yr Average ______| LITTLE SNAKE RIVER 6 95 32

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

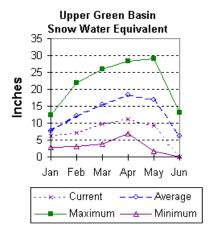
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural volume - actual volume may be affected by upstream water management.

Upper Green River Basin (11)

Snow

Snow has mostly melted from the SNOTEL sites in this basin. Only three of the eleven sites report any snow, and those sites are well below average for this time of the year. For more information see the Basin Summary of Snow Courses at the beginning of this report.



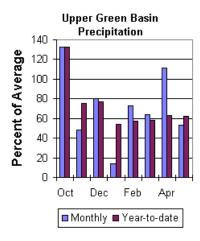
Precipitation

The 11 reporting precipitation sites in the basin were 111 percent of the May average (191 percent of last year at this time). May precipitation varied from 59 to 178 percent of average. Water year-to-date precipitation is about 88 percent of average (63 percent of last year). Year to date percentage of average ranges from 56 to 75 percent for the reporting stations.

Reservoir

Usable storage in Big Sandy Reservoir is 19,600 acre-feet

(69 percent of average and 51 percent of the total capacity). Eden Reservoir water level is 2,800 acre-feet (36 percent of average and 24 percent of the total capacity). Usable storage in Fontenelle Reservoir is 158,500 acre feet (81 percent of average and 46 percent of capacity. Flaming Gorge Reservoir is currently storing 3,041,200 acre feet -- 81 percent of capacity. No average has been established for Flaming Gorge. 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 chance April through July runoff in the Upper Green River basin is forecast much below average. Irrigators without a storage facility may experience water shortage. Green River at Warren Bridge is expected to yield about 155,000 acre-feet (58 percent of normal). Pine Creek above Fremont Lake is expected to yield 65,000 acre-feet (63 percent of normal). New Fork River near Big Piney is expected to yield about 225,000 acre-feet (58 percent of normal). Fontenelle Reservoir Inflow is estimated to be 335,000 acre-feet (40 percent of average), and Big Sandy near Farson is expected to be about 32,000 acre-feet (56 percent of normal).

UPPER GREEN RIVER BASIN

Streamflow Forecasts - June 1, 2001 ______ | <<===== Drier ===== Future Conditions ====== Wetter ====>> | Forecast Point Forecast | ========== Chance Of Exceeding * ======== | Period | 90% 70% | 50% (Most Probable) | 30% 30-Yr Avg. (1000AF) (1000AF) | (1000AF) (1000AF) | (1000AF) (% AVG.) Green River at Warren Bridge APR-JUL 120 141 | 155 58 | 169 60 63 52 70 Pine Creek aby Fremont Lake APR-JUL 65 78 104 41 | 45 53 | 52 61 JUN-JUL 36 85 199 | 58 New Fork River nr Big Piney APR-JUL 160 225 251 290 385 Fontenelle Reservoir Inflow APR-JUL 260 303 335 40 849 29 Big Sandy River nr Farson APR-JUL 24 32 56 35 40 57 UPPER GREEN RIVER BASIN UPPER GREEN RIVER BASIN Reservoir Storage (1000 AF) - End of May Watershed Snowpack Analysis - June 1, 2001 Usable | *** Usable Storage *** Number This Year as % of Capacity This Last | Year Year Avg | Watershed of Data Sites Last Yr Average ______| BIG SANDY 38.3 19.6 33.1 28.3 | GREEN above Warren Bridge 4 11.8 2.8 5.3 7.8 UPPER GREEN (West Side) 5 NO REPORT FLAMING GORGE NEWFORK RIVER 344.8 158.5 187.1 195.5 BIG SANDY/EDEN VALLEY FONTENELLE 1 0

GREEN above Fontenelle

11

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n

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

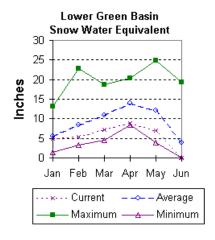
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural volume - actual volume may be affected by upstream water management.

Lower Green River Basin (12)

Snow

The Lower Green River Basin is practically melted out as of June 1. Blacks Fork SWE is currently 4 percent of average. The Hams Fork and the Henry's fork are melted out. The basin, as a whole, is 1 percent of average. For more information see Basin Summary of Snow Courses at beginning of this report.



Precipitation

Precipitation was below average for the 3 reporting stations during May. Precipitation ranged from 20 to 40 percent of average for the month. The entire basin received 33 percent of average for the month (32 percent of last year). The basin year-to-date precipitation is currently 60 percent of average (83 percent of last year). Year to date percentages range from 58 to 84.

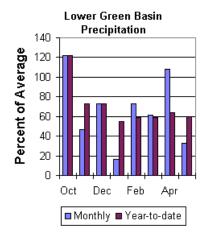
Reservoir

Usable storage in Fontenelle Reservoir this month is 117,200

acre feet (81 percent of average and 85 percent of last year). Viva Naughton is currently storing 42,900 acre feet (126 percent of average and 95 percent of last year). Flaming Gorge did not report this month.

Streamflow

Yield from the Lower Green River basin is forecast much below average. Irrigators without a storage facility may experience water shortage. Expected yields vary from 3 to 66 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 335,000-acre feet (37 percent of average). Blacks Fork near Robertson is forecast to yield 63,000-acre feet (66 percent of average). East Fork of Smiths Fork near Robertson is estimated to yield 19,000 acre-feet (63 percent of average). The estimated yield for Hams Fork near Frontier is 26,000-acre feet (39 percent of average). Viva Naughton Reservoir inflow will be about 30,000-acre feet (34 percent of average). Flaming Gorge Reservoir inflow will be about 500,000-acre feet (42 percent of average).

LOWER GREEN RIVER BASIN
Streamflow Forecasts - June 1, 2001

		<<=====	Drier ====	== Future C	onditions =:	===== Wetter	====>>				
The second Policy				en			!				
Forecast Point	Forecast	======	.=======	= Chance Or .	Exceeding *		======				
	Period	90%	70%	50% (Most	Probable)	30%	10%	30-Yr Avg.			
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)			
Green River nr Green River, WY	APR-JUL	192	279	335	37	391	497	899			
Blacks Fork nr Robertson	APR-JUL	52	58	 63	66	 68	75	95			
EF of Smiths Fork nr Robertson	APR-JUL	17.1	18.1	19.0 	63	20 	22	30			
Hams Fk blw Pole Ck nr Frontier	APR-JUL	17.6	22	26	39	30	36	66			
Hams Fk Inflow to Viva Naughton Res	APR-JUL	10.8	22	 30	34	 38	49	89			
Flaming Gorge Reservoir Inflow	APR-JUL	310	423	 500	42	 577	690	1196			
				l		I					

LOWER GREEN	RIVER BASI	IN		LOWER GREEN RIVER BASIN						
Reservoir Storage (1000	AF) - End	of May			Watershed Snowpack Analysis - June 1, 2001					
	Usable	*** Usal	ole Stora	ge ***		Number	This Year	as % of		
Reservoir	Capacity	This	Last		Watershed	of	=======			
	- 1	Year	Year	Avg	D	ata Sites	Last Yr	Average		
				======						
FONTENELLE	344.8	158.5	187.1	195.5	HAMS FORK RIVER	3	0	0		
				I						
FLAMING GORGE		NO REPOR	RT		BLACKS FORK	2	0	4		
				I						
VIVA NAUGHTON RES	42.4	42.9	45.2	34.0	HENRYS FORK	2	0	0		
				I						
				I	GREEN above Flaming Gorg	e 18	6	1		

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

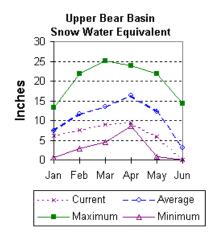
^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural volume - actual volume may be affected by upstream water management.

Upper Bear River Basin (13)

Snow

Nearly all the SNOTEL sites in the Bear River basin have melted out. Only one site has any snow. See the Basin Summary of Snow Course Data at the beginning of this report for more detailed information.



Precipitation

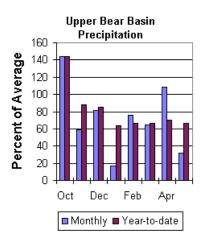
Precipitation for the month of May was 32 percent of average for the 2 reporting stations; this is 29 percent of the previous May. The year-to-date precipitation, for the basin, is 66 percent of average; this is 82 percent of last year's amount.

Reservoir

No data was available for Woodruff Narrows reservoir.

Streamflow

The upper Bear River drainage is expected to have much below average runoff this spring. The following 50 percent chance stream flow yields are expected. Smiths Fork near Border is estimated to yield 43,000 acrefeet (39 percent of normal) for the May-September period. Thomas Fork drainage near the Idaho-Wyoming state line is estimated to yield 5,800 acrefeet or 19 percent of normal for the May-September period. Bear



River near the Utah-Wyoming State Line is expected to yield about 28,000 acre feet (33 percent of average) for the June-September period. The Bear River near Woodruff is expected to yield about 24,000 acre-feet (about 31 percent of normal) for the June-September period.

UPPER BEAR RIVER BASIN Streamflow Forecasts - June 1, 2001

		<<=====	Drier ====	== Future C	onditions =	===== Wetter	====>>	
Forecast Point	Forecast Period	====== 90% (1000AF)	70% (1000AF)		Probable)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SMITHS FK nr Border, WY	MAY-SEP	34	39	43	39	47	54	109
THOMAS FK nr WY-ID State Line (Disc.	MAY-SEP	3.7	4.8	5.8	19	7.0	9.1	30
Bear R nr UT-WY State Line	APR-SEP JUN-SEP	51 21	54 25	57 28	45 33	60 31	64 37	126 84
BEAR R nr Woodruff, UT	APR-SEP JUN-SEP	45 13.5	57 19.0	66 24	43 31	77 30	96 43	154 77

UPPER BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of May					UPPER BEAR RIVER BASIN Watershed Snowpack Analysis - June 1, 2001			
Reservoir	Usable Capacity	*** Usabl This Year	Last	***	Watershed	Number of Data Sites	This Yea: Last Yr	r as % of ====== Average
WOODRUFF NARROWS		NO REPORT	,		UPPER BEAR RIVER in Uta	ih 5	0	0
					SMITHS & THOMAS FORKS	3	0	0
					BEAR RIVER abv ID line	6	0	0
					NORTHWEST	47	6	3
					NORTHEST	10	4	2
					SOUTHEAST	20	71	23
					SOUTHWEST	25	64	11

^{* 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.

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