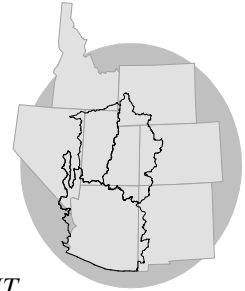


# WATER SUPPLY OUTLOOK

## for the UPPER COLORADO

### *COLORADO BASIN RIVER FORECAST CENTER*

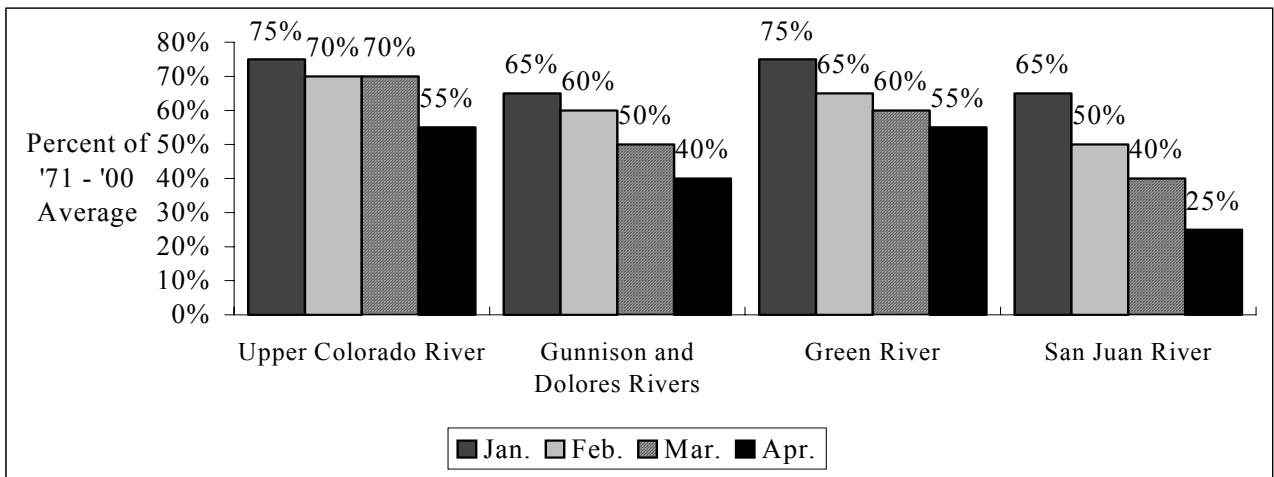
NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT



APRIL 1, 2002

Most Portions of the Upper Colorado River Basin again received below average precipitation in March. The exception was portions of the Upper Green River Basin, where above average precipitation was observed. Snow water equivalents followed suit with decreases noted over most the basin, but increases over portions of the Upper Green. Therefore, forecasts dropped 5% to 15% generally, with just minor adjustments to forecasts in the Upper Green.

## APRIL - JULY VOLUME FORECASTS

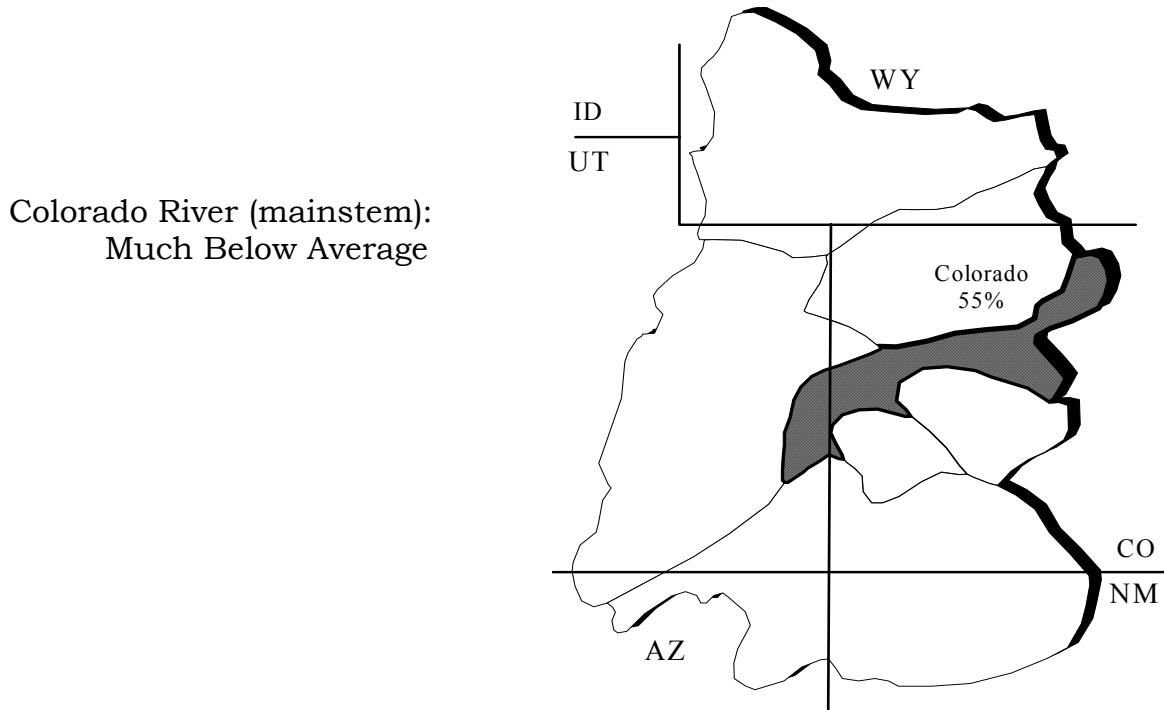


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Flood Control Forecasts	11
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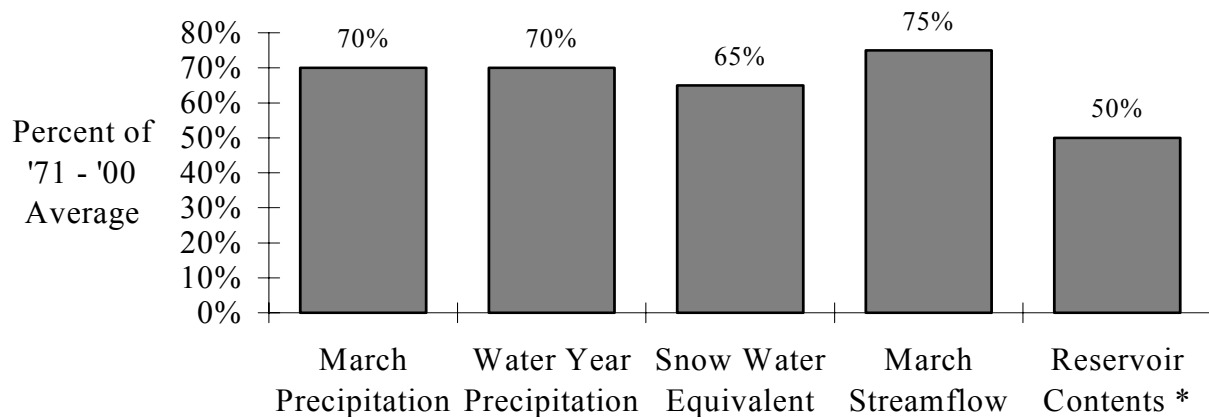
## UPPER COLORADO MAINSTEM

Seasonal precipitation up to April 1 in the upper mainstem of the Colorado River continues below average. Point snow measurements on April 1 varied from 36% to 87% of average, with overall snowpack at 65% of average. Forecasts for the Spring 2002 runoff vary from 26% to 66% of average.

April-July streamflow forecasts for the Upper Colorado Mainstem are as follows:



## BASIN CONDITIONS - APRIL 1, 2002



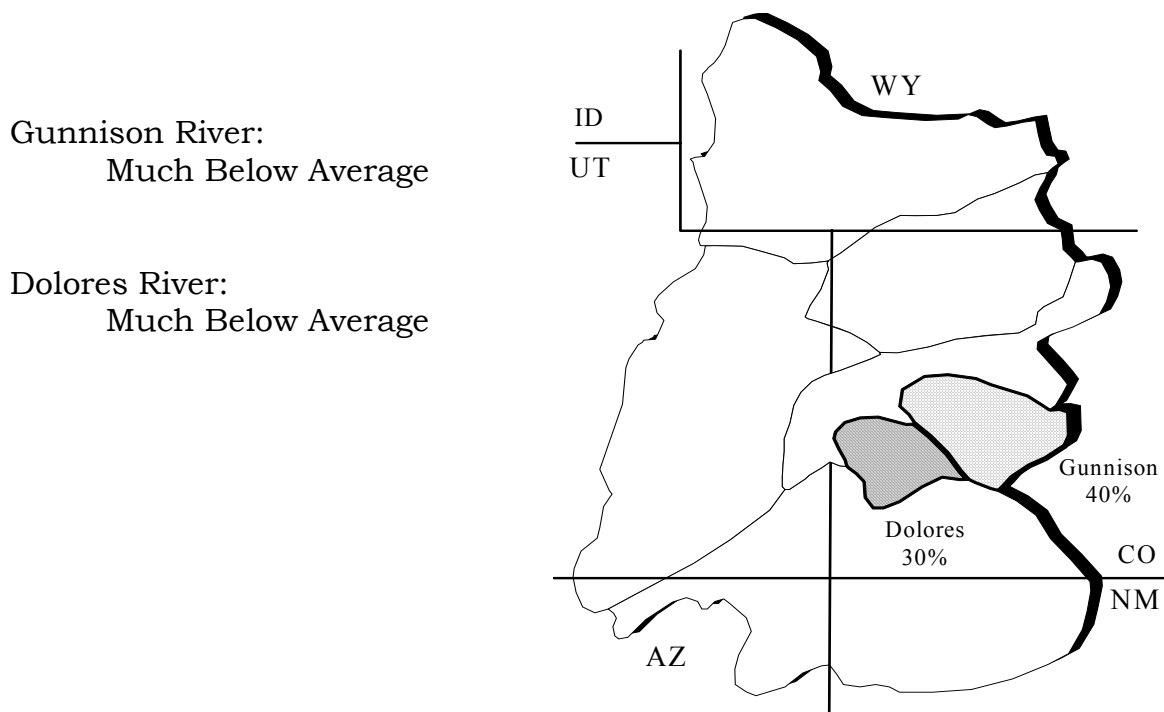
\* Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 6.

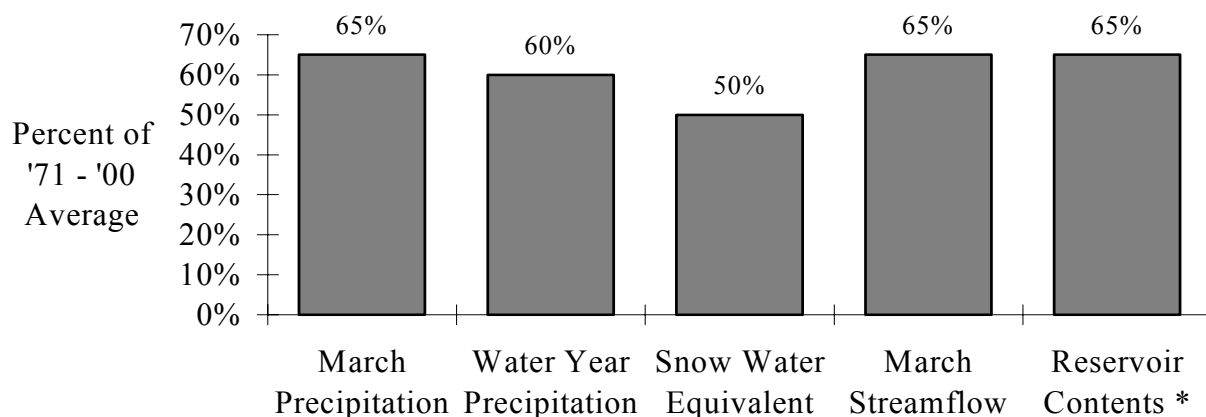
## GUNNISON AND DOLORES RIVERS

After yet another month of much below normal precipitation over the Dolores River Basin, snow water equivalents fell from 55% of average on March 1 to 40% of average on April 1. March precipitation over the Gunnison basin was 70% of average, but April 1 snow water equivalent was just 55% of average. Streamflow forecasts now range from about 20% to 55% of average.

April-July streamflow forecasts for the Gunnison and Dolores Rivers are as follows:



## BASIN CONDITIONS - APRIL 1, 2002



\* Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 7.

# GREEN RIVER

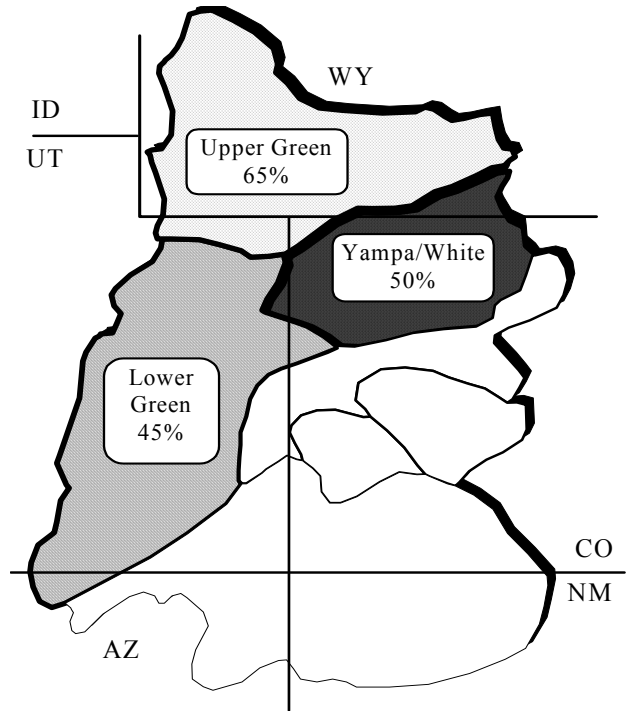
As of April 1st snowpack throughout the Green River Basin ranged from near 45% to 85% of average. April-July runoff forecasts were decreased significantly for parts of the Yampa and Duchesne River Basins with only slight adjustments to the Upper Green Basin. Runoff volumes are expected to range from near 55% to 80% of average in the Upper Green and 30% to 60% of average elsewhere.

April-July streamflow forecasts for the Green River are as follows:

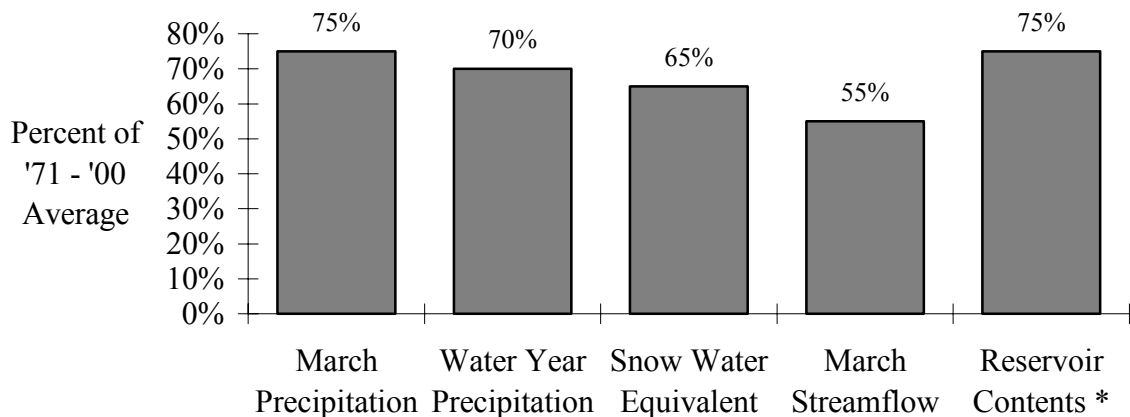
Upper Green River:  
Much Below Average

Yampa/White Rivers:  
Much Below Average

Lower Green River  
(below Flaming Gorge):  
Much Below Average



## BASIN CONDITIONS - APRIL 1, 2002



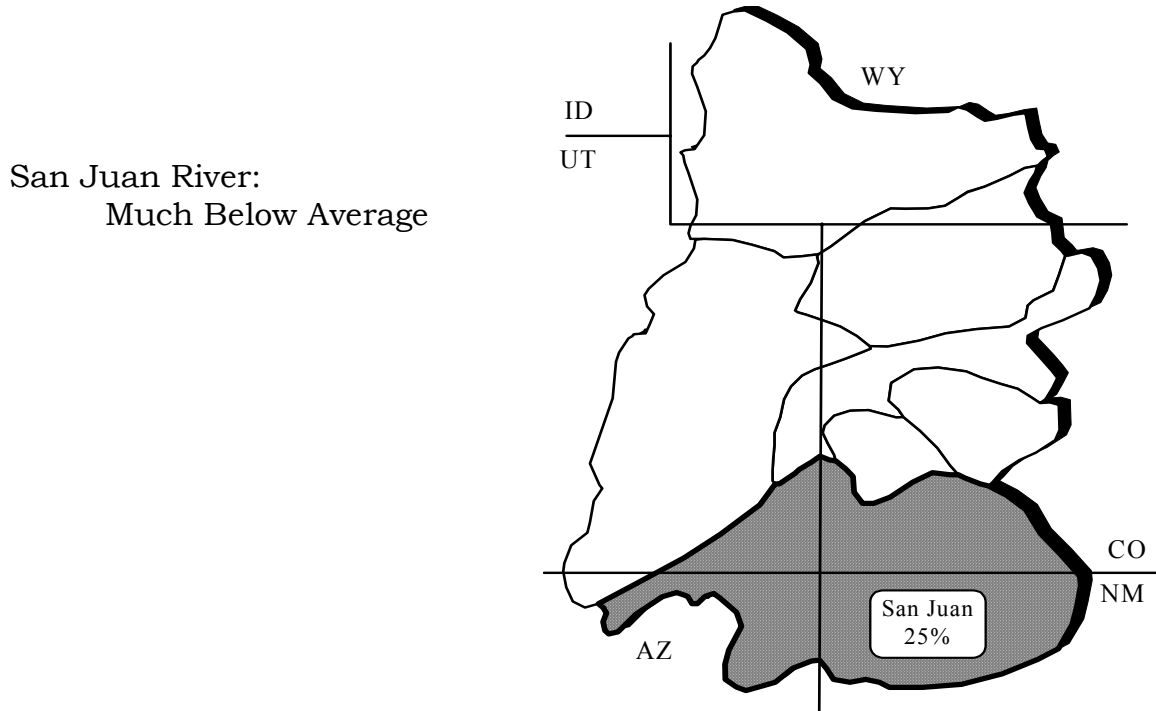
\* Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 8.

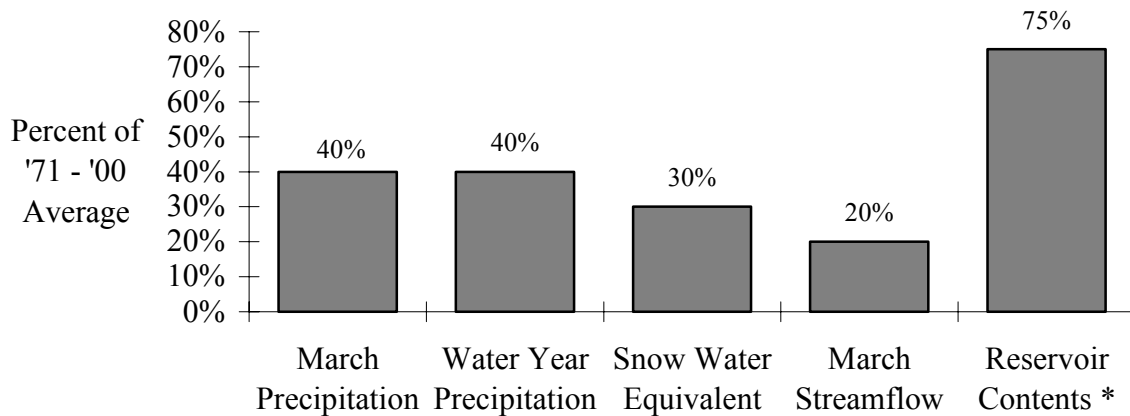
# SAN JUAN RIVER

Seasonal precipitation and snowpack remain much below average for the entire San Juan Basin. Seasonal precipitation was 39% of average on April 1. Snowpack conditions continued to decline compared to average during March. The April 1st snowpack was 30% of average. All April-July runoff forecasts have again been reduced to reflect this increasingly dry trend. Forecast flows range from 22% to 35% of average.

April-July streamflow forecasts for the San Juan Basin are as follows:



## BASIN CONDITIONS - APRIL 1, 2002



\* Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 10.

## SPECIFIC SITE FORECASTS

**Upper Colorado Mainstem:** April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most Probable	Percent Avg.	Reas. Max	Reas. Min
COLORADO	LAKE GRANBY, GRANBY, NR	145	64	190	111
	DOTSERO, NR	825	57	1300	355
	GLENWOOD SPRINGS, BLO	1250	58	1840	665
	CAMEO, NR	1340	55	2070	605
	CISCO, NR	1850	42	3140	560
WILLOW CK	WILLOW CK RES, GRANBY, NR	28	55	43	16.3
FRASER	WINTER PARK	13	65	18.4	7.6
WILLIAMS FORK	WILLIAMS FORK RES, PARSHALL, N	59	62	78	43
MUDDY CK	WOLFORD MTN RES, BLO	28	47	43	18.3
BLUE	DILLON RES	105	63	154	56
	GREEN MTN RES	185	66	225	150
EAGLE	GYPSUM, BLO	200	60	275	145
FRYING PAN	RUEDI RES, BASALT, NR	80	57	109	59
ROARING FORK	GLENWOOD SPRINGS	400	56	540	280
PLATEAU CK	CAMEO, NR	30	26	110	8
MILL CK	MOAB, NR, SHELEY TUN, AT	2	40	4.5	0.99

## SPECIFIC SITE FORECASTS

**Gunnison and Dolores Basins:** April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most Probable	Percent Avg.	Reas. Max	Reas. Min
TAYLOR	TAYLOR PARK RES	50	49	75	25
	ALMONT	72	44	115	40
EAST	ALMONT	105	55	145	70
GUNNISON	GUNNISON, NR	173	44	260	85
TOMICHI CK	GUNNISON	26	32	48	10.6
LAKE FORK	GATEVIEW	63	50	95	32
GUNNISON	MORROW POINT RES	335	43	570	180
	CRYSTAL RES	365	40	650	180
MUDDY CK	● PAONIA RES, BARDINE, NR	25	24	42	12
NF GUNNISON	SOMERSET, NR	130	43	200	60
SURFACE CK	CEDAREEDGE	7.8	46	11	4
UNCOMPAHGRE	RIDGWAY RES	53	52	80	40
	COLONA	60	43	110	30
	DELTA	45	38	110	30
GUNNISON	GRAND JUNCTION, NR	600	38	1000	300
DOLORES	DOLORES	100	38	185	40
	MCPHEE RES	110	34	200	50
	CISCO, NR	100	18	345	45
SAN MIGUEL	PLACERVILLE, NR	63	48	100	35

● = March - June forecast period.

**Green River Basin:** April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most Probable	Percent Avg.	Reas. Max	Reas. Min
GREEN	DANIEL, NR, WARREN BRIDGE, AT	220	83	265	177
	GREEN RIVER, WY, NR	550	63	765	335
	GREEN RIVER, UT	1550	49	2585	515
PINE CK	FREMONT LK, ABV	85	82	100	70
NEW FORK	BIG PINEY, NR	265	67	370	159
BIG SANDY	FARSON, NR	41	71	58	23
BLACKS FORK	ROBERTSON, NR	56	59	79	41
EF SMITHS FORK	ROBERTSON, NR	17.2	55	22	13.6
HAMS FORK	FRONTIER, NR, POLE CK, BLO	40	62	57	26
	VIVA NAUGHTON RES	50	56	76	24
YAMPA	STAGECOACH RSVR, ABV	18.1	62	28	11
	STEAMBOAT SPRINGS	165	59	230	98
	MAYBELL, NR	465	47	768	162
ELK	MILNER, NR	160	49	250	89
ELKHEAD CK	ELKHEAD, NR	20	51	38	10.5
	MAYNARD GULCH, BLO	34	58	54	13.7
FORTIFICATION CK	● FORTIFICATION, NR	4.1	55	8.3	1.8
LITTLE SNAKE	SLATER, NR	78	49	117	47
	DIXON, NR	150	45	260	40
	LILY, NR	165	45	280	51

● = March - June forecast period.



**Green River Basin continued:** April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most Probable	Percent Avg.	Reas. Max	Reas. Min
BIG BRUSH CK	VERNAL, NR, RED FLEET RES, ABV	12.5	60	19.2	5.8
ASHLEY CK	VERNAL, NR	29	56	46	12.4
WF DUCHESNE	HANNA, NR	12	50	19.6	6.2
ROCK CK	UPPER STILLWATER RES	42	51	63	29
	MOUNTAIN HOME, NR	50	56	69	31
DUCHESNE	TABIONA, NR	60	57	82	38
	DUCHESNE, NR, KNIGHT DIV, ABV	90	48	142	38
	MYTON	90	35	191	58
	RANDLETT, NR	90	28	325	47
STRAWBERRY	SOLDIER SPRINGS, NR	25	42	42	12.6
	DUCHESNE, NR	49	40	87	37
CURRENT CK	CURRENT CK RES	8.8	35	14.7	2.9
LAKE FORK	MOON LAKE RES, MTN HOME, NR	37	54	53	21
YELLOWSTONE	ALTONAH, NR	35	56	55	23
WHITEROCKS	WHITEROCKS, NR	30	54	49	11.3
WHITE	MEEKER, NR	160	55	225	113
	WATSON, NR	165	54	245	85
GOOSEBERRY CK	SCOFIELD, NR	5.9	50	8.7	3.1
PRICE	SCOFIELD RES, SCOFIELD, NR	21	46	29	13.2
WHITE	BLO TABBYUNE CK, SOLDIER SUMMI	7	40	12.1	3.3
HUNTINGTON CK	ELECTRIC LAKE	7	45	10.3	4.5
	HUNTINGTON, NR	24	48	33	15.3
SEELEY CK	JOES VLY RES, ORANGEVILLE, NR	28	48	45	10.7
FERRON CK	FERRON, NR	21	54	28	14.7
SEVEN MILE CK	FISH LAKE, NR	4	57	7.7	1.9
MUDDY CK	EMERY, NR	11	55	17.5	4.5

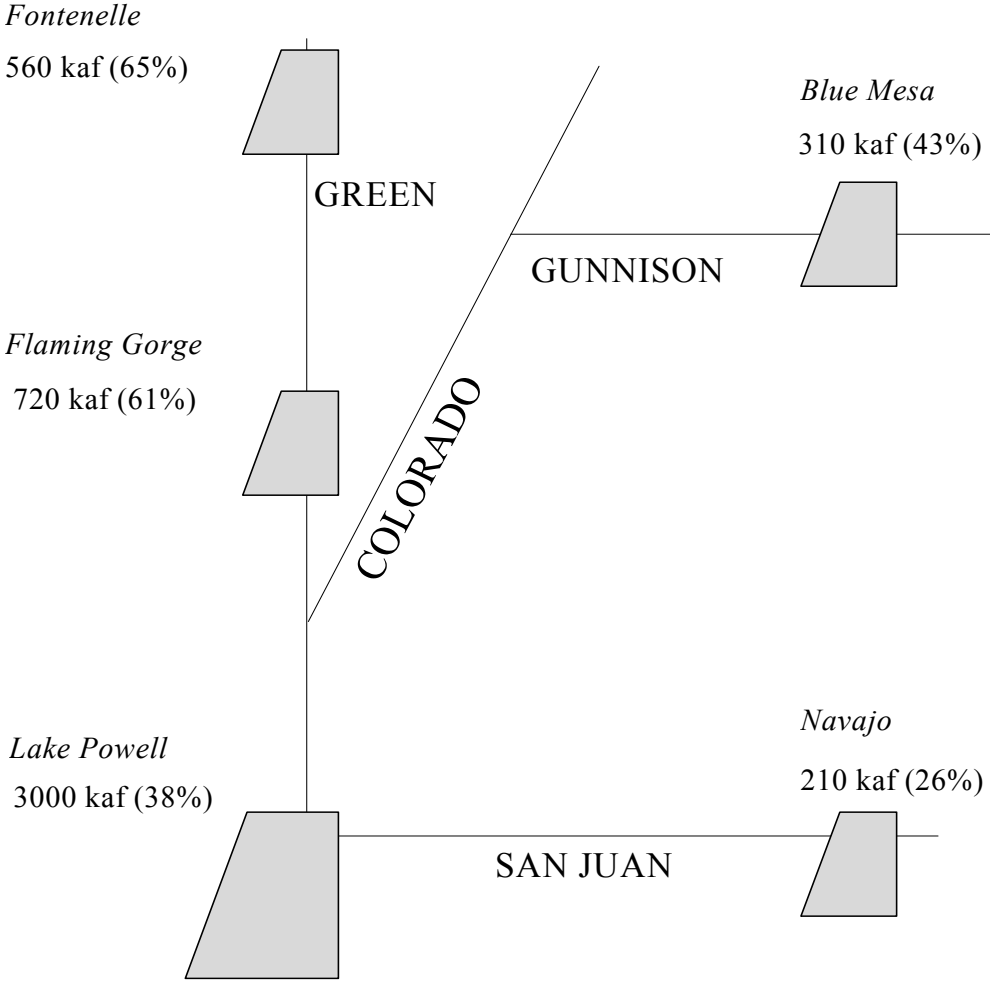
**San Juan River Basin:** April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most Probable	Percent Avg.	Reas. Max	Reas. Min
SAN JUAN	PAGOSA SPRINGS	75	33	162	38
	CARRACAS, NR	118	29	215	49
	FARMINGTON	380	31	785	115
	BLUFF, NR	280	23	645	159
RIO BLANCO	PAGOSA SPRINGS, NR, BLANCO DAM	17.5	33	38	6.3
NAVAJO	CHROMO, NR, OSO DIV DAM, BLO	23	33	45	13
PIEDRA	ARBOLES, NR	65	28	126	50
LOS PINOS	VALLECITO RES, BAYFIELD, NR	55	27	115	32
ANIMAS	DURANGO	156	35	265	105
FLORIDA	LEMON RES, DURANGO, NR	17	29	37	8.4
LA PLATA	HESPERUS	6	24	12.7	4.4
MANCOS	MANCOS, NR	8.7	22	26	4.8
SOUTH CK	◆ LLOYD'S RSVR NR MONTICELLO, AB	0.31	24	0.93	0.02
RECAPTURE CK	◆ BLANDING, NR, JOHNSON CK, BLO	1.4	23	5.1	0.56

◆ = March - July forecast period.

# FLOOD CONTROL FORECASTS

**MOST PROBABLE FORECASTS**  
**2002 APRIL - JULY INFLOW VOLUMES**  
 (% OF '71 - '00 AVERAGE)

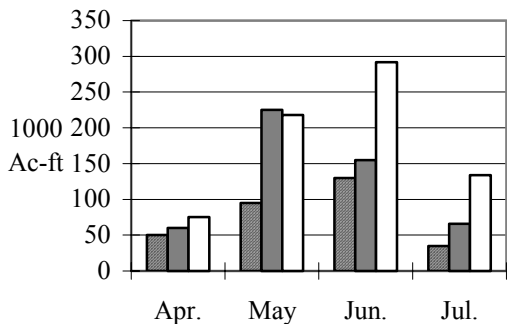


NOTE: Colorado River flood control forecasts account for a smaller set of upstream adjustments than water supply forecast points.

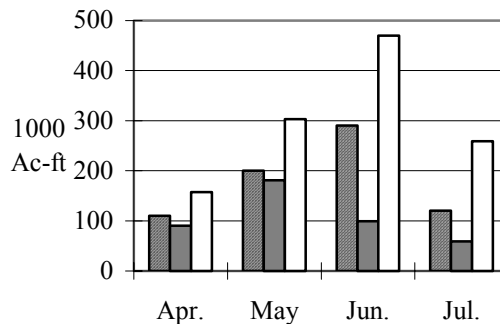
# RESERVOIR MONTHLY INFLOW FORECASTS



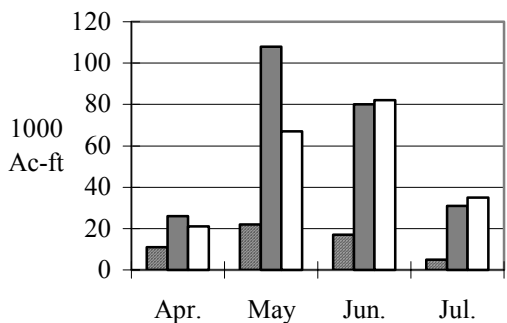
**Blue Mesa Reservoir Inflow**



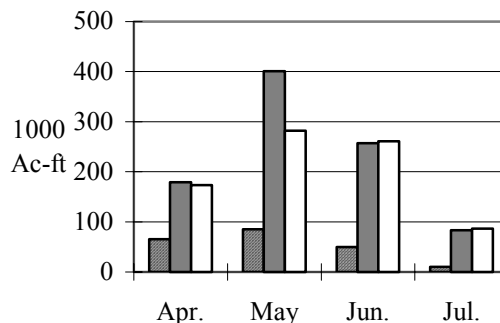
**Flaming Gorge Reservoir Inflow**



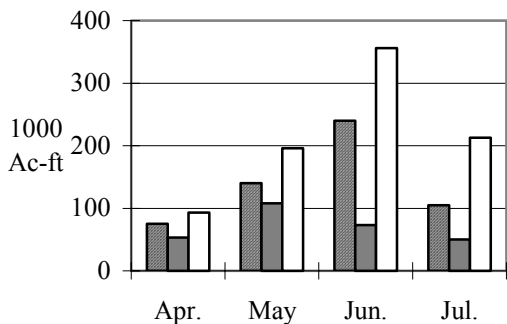
**Vallecito Reservoir Inflow**



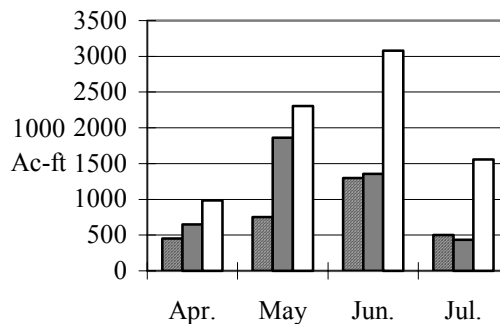
**Navajo Reservoir Inflow**



**Fontenelle Reservoir Inflow**

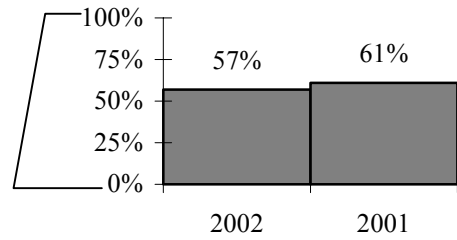
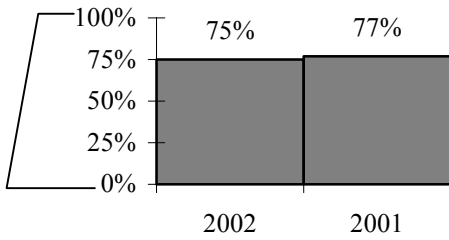


**Lake Powell Inflow**

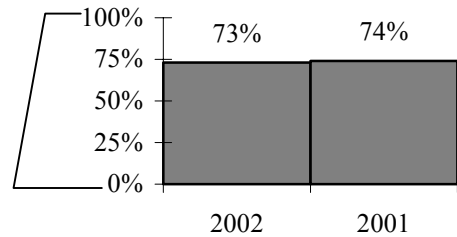
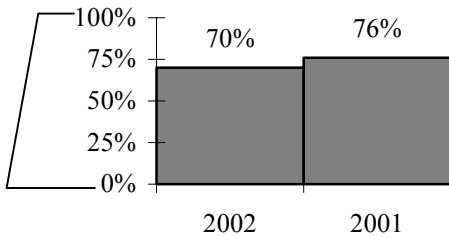


# END OF MONTH RESERVOIR CONTENTS

## Percent of Usable Capacity



Green  
 Combined  
 Upper Colorado, Gunnison, and Dolores  
 San Juan



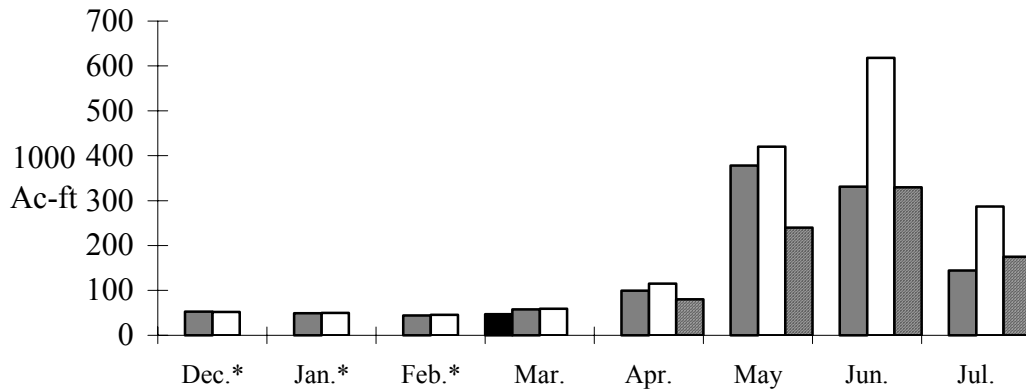
RESERVOIR (vol. in 1000 ac-ft)	Reservoir status	Usable Capacity	EOM Usable Contents	Percent Usable Capacity
Fontenelle	1,4	344.8	136	39
Flaming Gorge	1,4	3749	2828.5	75
Strawberry	1,4	1105.9	898.4	81
Starvation	1,4	165.3	166.7	101
Lake Granby	2,4	490.3	187.8	38
Dillon	2,4	254	193.8	76
Green Mountain	2,4	146.9	71.5	49
Taylor Park	2,4	106.2	62.9	59
Blue Mesa	2,4	829.5	513.2	62
Ridgway	2,4	83.2	69.1	83
McPhee	2,4	381.1	207.5	54
Vallecito	3,4	125.4	57.4	46
Navajo	3,4	1696	1269.7	75
Lake Powell	4	24322	16927	70

- 1 = Green River reservoir status
- 2 = Upper Colorado River reservoir status
- 3 = San Juan River reservoir status
- 4 = Combined reservoir status

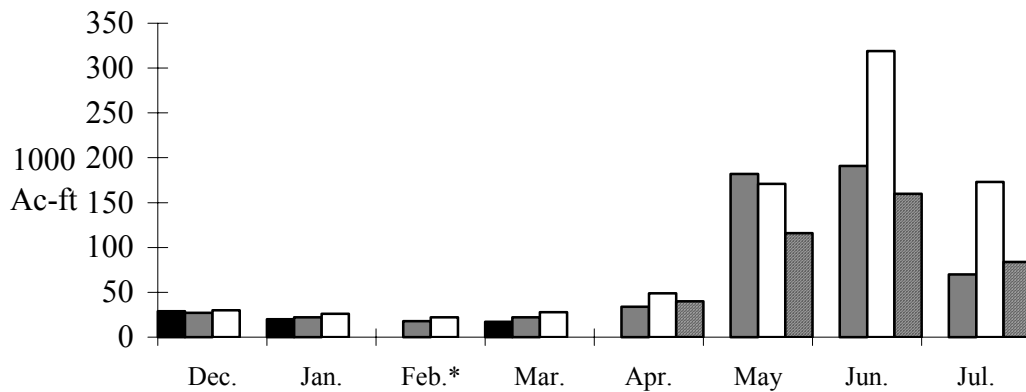
# MONTHLY STREAMFLOWS



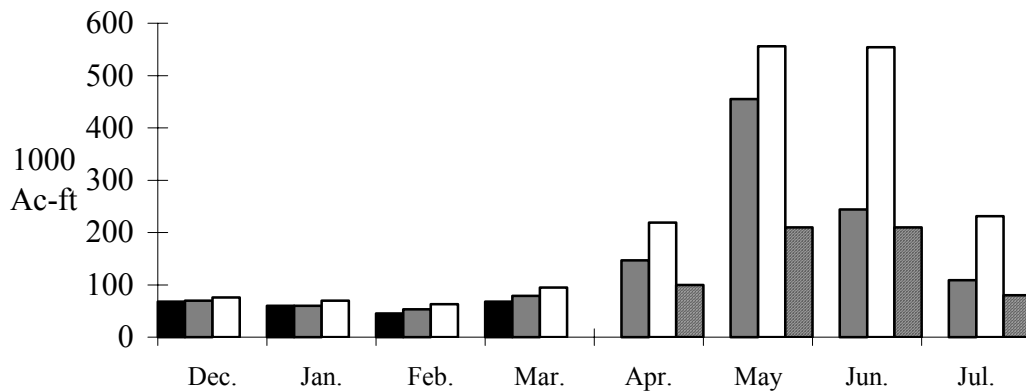
## Colorado - Dotsero, nr:



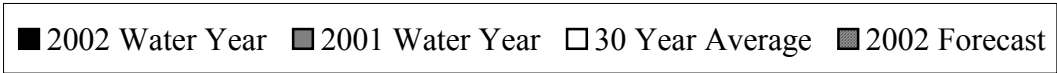
## Roaring Fork - Glenwood Springs:



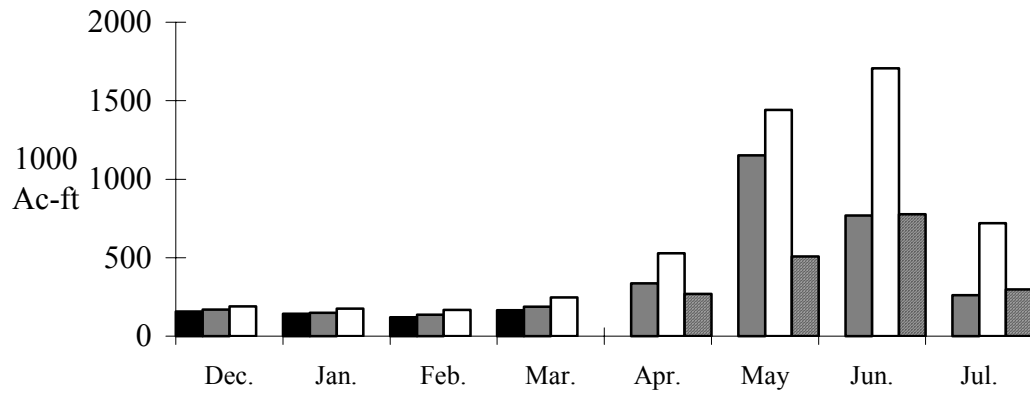
## Gunnison - Grand Junction, nr:



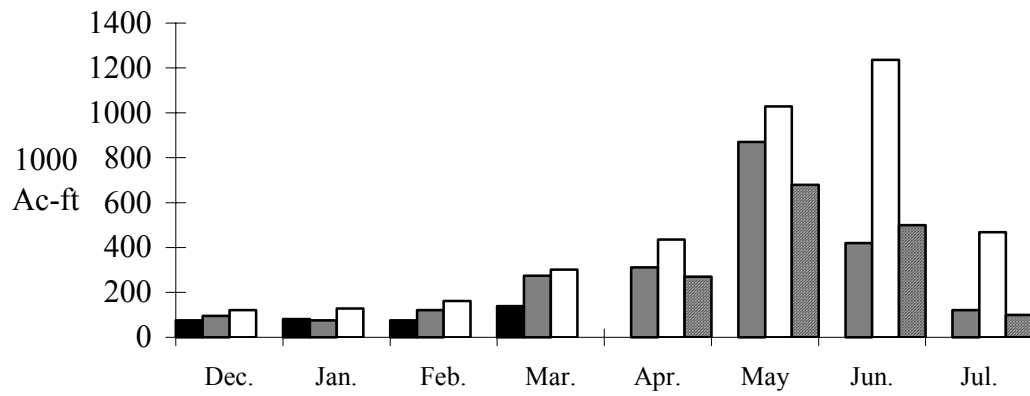
\* Data Not Available



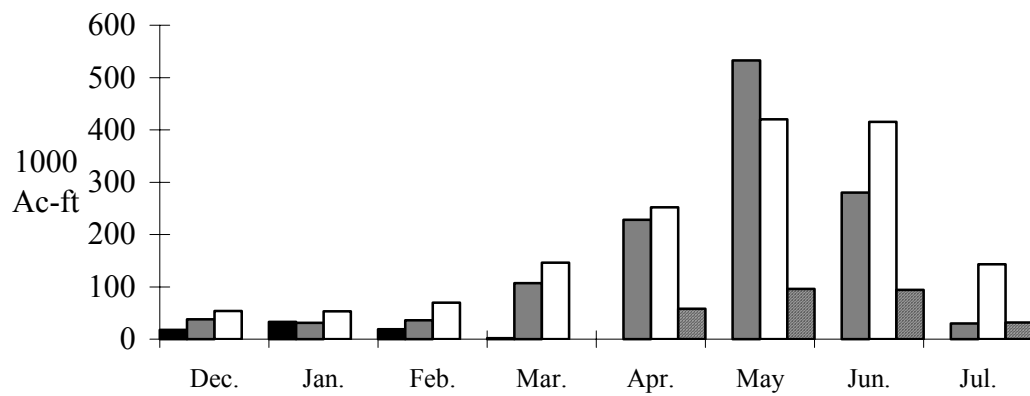
**Colorado - Cisco, nr:**



**Green - Green River, UT:**



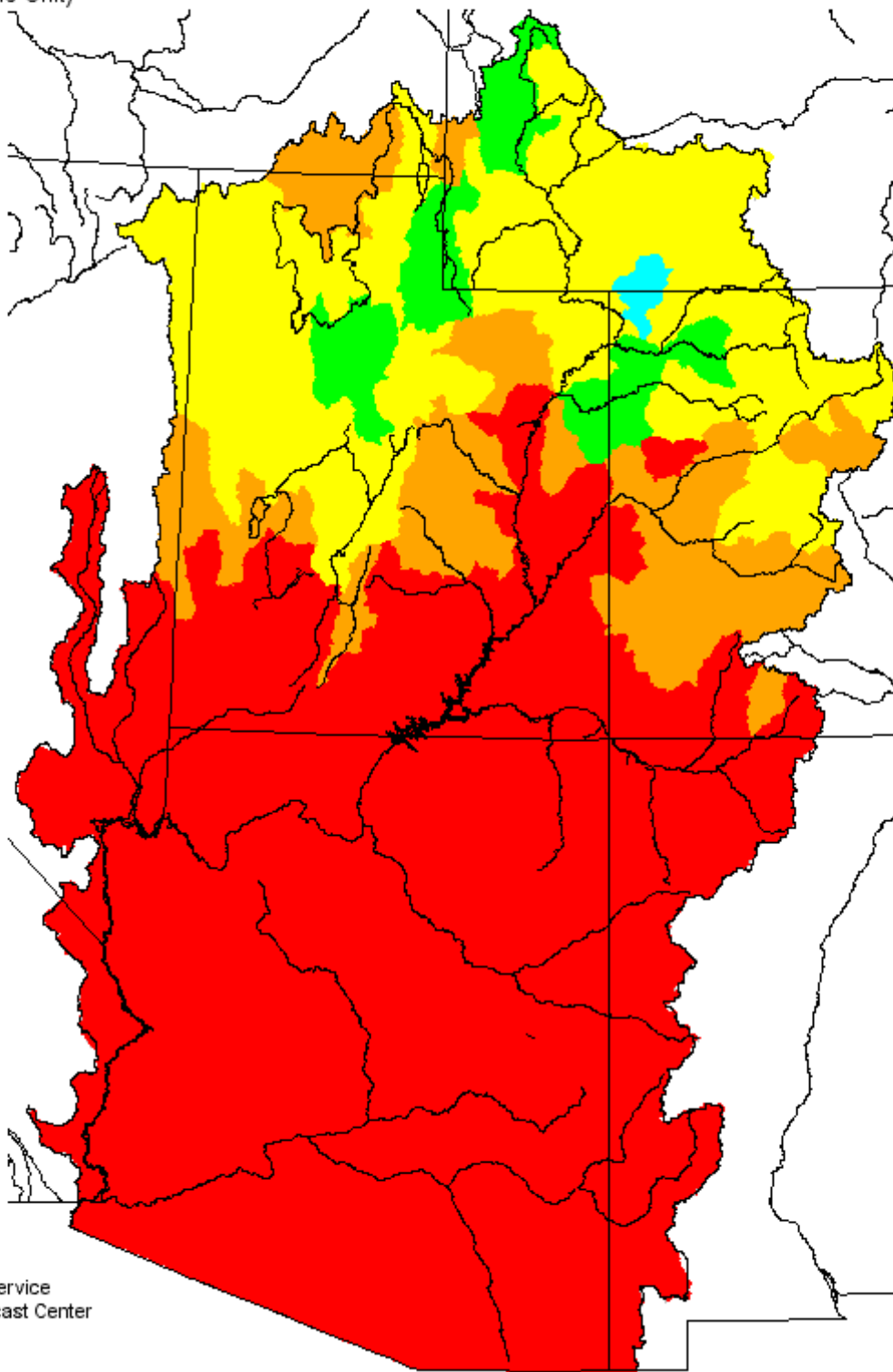
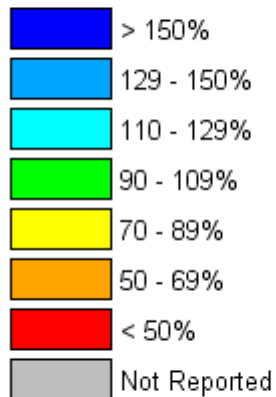
**San Juan - Bluff, nr:**



# Monthly Precipitation for March 2002

(Averaged by Hydrologic Unit)

## % Average



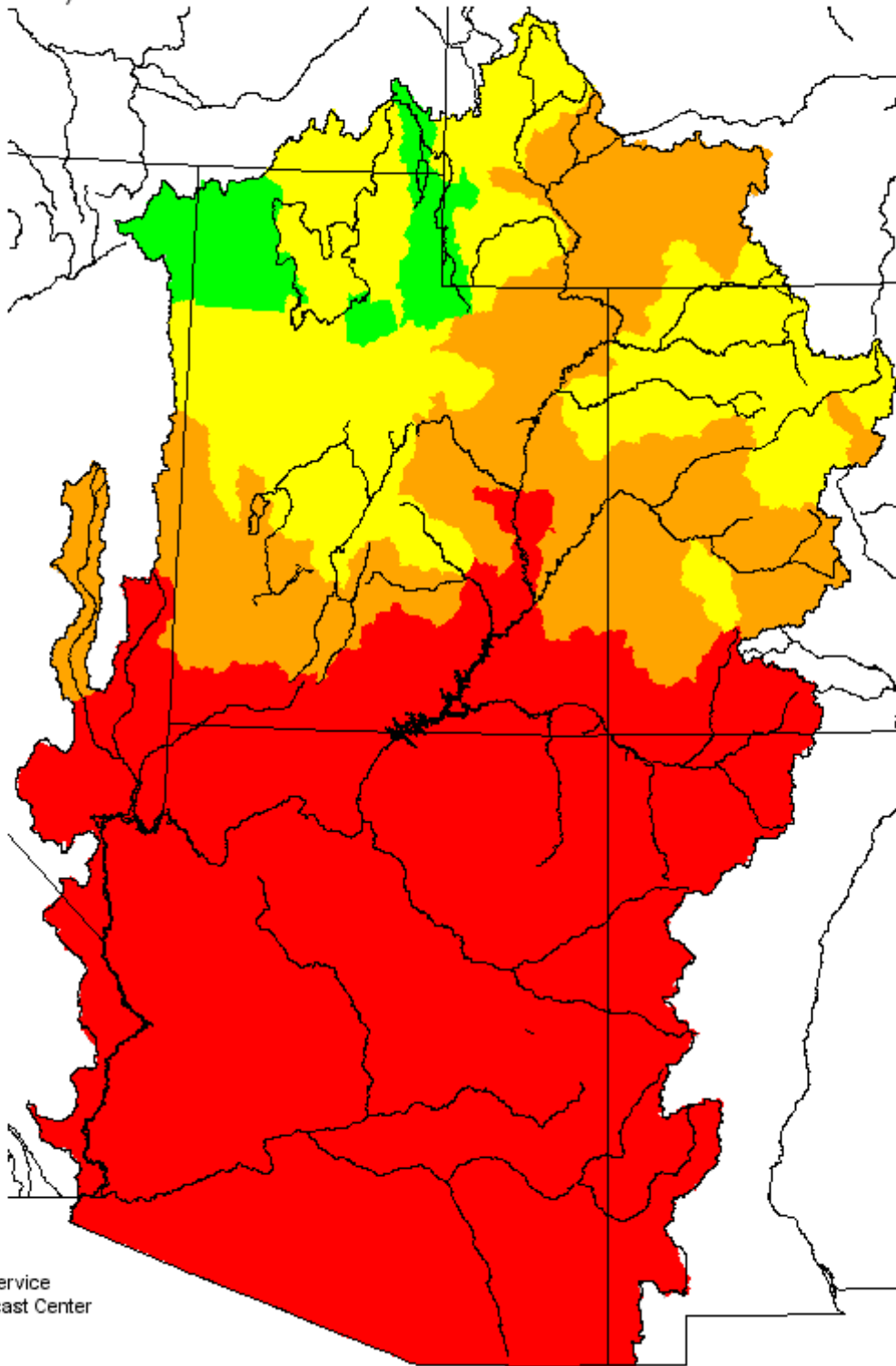
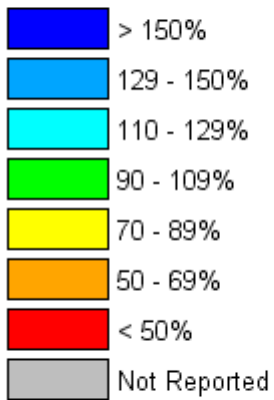
Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)



# Seasonal Precipitation, October 2001 - March 2002

(Averaged by Hydrologic Unit)

## % Average



Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

## ADDITIONAL INFORMATION

Water supply forecasts take into consideration present hydrometeorological conditions and use average basin temperatures and precipitation for the forecast period. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty becomes known and monthly forecasts become more accurate.

Volume forecasts represent adjusted flows; that is, observed flows with upstream water use taken into account. Adjusted flows will closely approximate natural or unimpaired flows. However, not all upstream diversions or impoundments are measured or quantifiable. For specific adjustments used with each forecast point, consult the Guide to Water Supply Forecasting.

The Water Supply Outlook is issued monthly January through May by the Colorado Basin River Forecast Center, National Weather Service. It represents a coordinated effort between the National Weather Service, Natural Resources Conservation Service, Bureau of Reclamation, U.S. Geological Survey and local water district managers.

### **DEFINITIONS:**

Acre-Foot:

The volume equal to one acre covered one foot deep (43,560 cubic feet).

Average:

The arithmetic mean. The sum of the values divided by the number of values.

Categories:

Much above Average Greater than 130%	Above Average 111-130%	Near Average 90-110%	Below Average 70-89%	Much Below Average- Less than 70%
---	---------------------------	-------------------------	-------------------------	--------------------------------------

Forecast Period:

The period from April 1 through July 31.

Median:

The middle value. One half of the observed values are higher and half of the values are lower than this.

Most Probable Forecast:

Given the current hydrometeorological conditions to date, this is the best estimate of what the runoff volume will be this season.

Reasonable Maximum Forecast:

Given the current hydrometeorological conditions, the seasonal runoff that has a ten percent (10%) chance of being exceeded.

Reasonable Minimum Forecast:

Given the current hydrometeorological conditions, the seasonal runoff that has a ninety percent (90%) chance of being exceeded.

Water Year:

The period from October 1 through September 30.

NOTE: Data used in this report are provisional and are subject to revision.

For more information, or to be included on the mailing list, please contact:

Colorado Basin River Forecast Center, National Weather Service  
2442 West North Temple, Salt Lake City, UT 84116