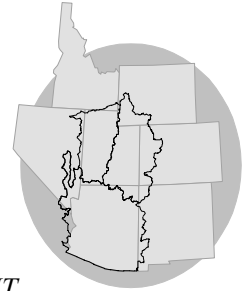


# WATER SUPPLY OUTLOOK

for the  
**UPPER COLORADO**

**COLORADO BASIN  
RIVER FORECAST CENTER**

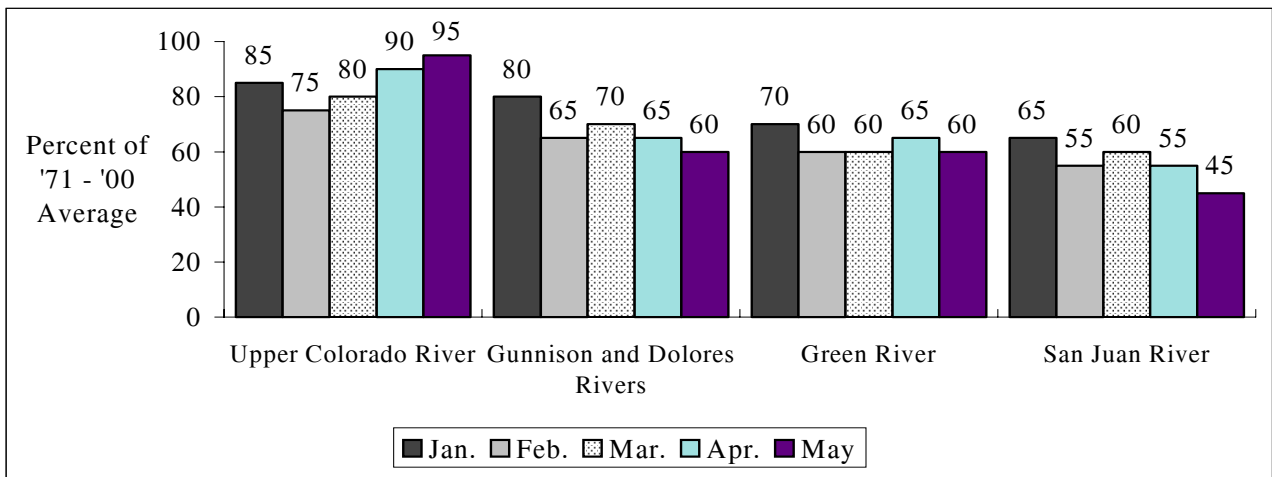
NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT



**MAY 1, 2003**

Seasonal precipitation, as a percent of average, for the 2003 water year fell a bit over most areas but rose slightly over the Yampa and Upper Colorado headwaters. Snowpack on May 1 varied dramatically across the basin as the melt began. The Upper Colorado headwater snow pack was above average while the San Juan Basin was much below average. Spring volume forecasts fell in most areas but rose slightly over the Yampa and the Upper Colorado basins.

## APRIL - JULY VOLUME FORECASTS

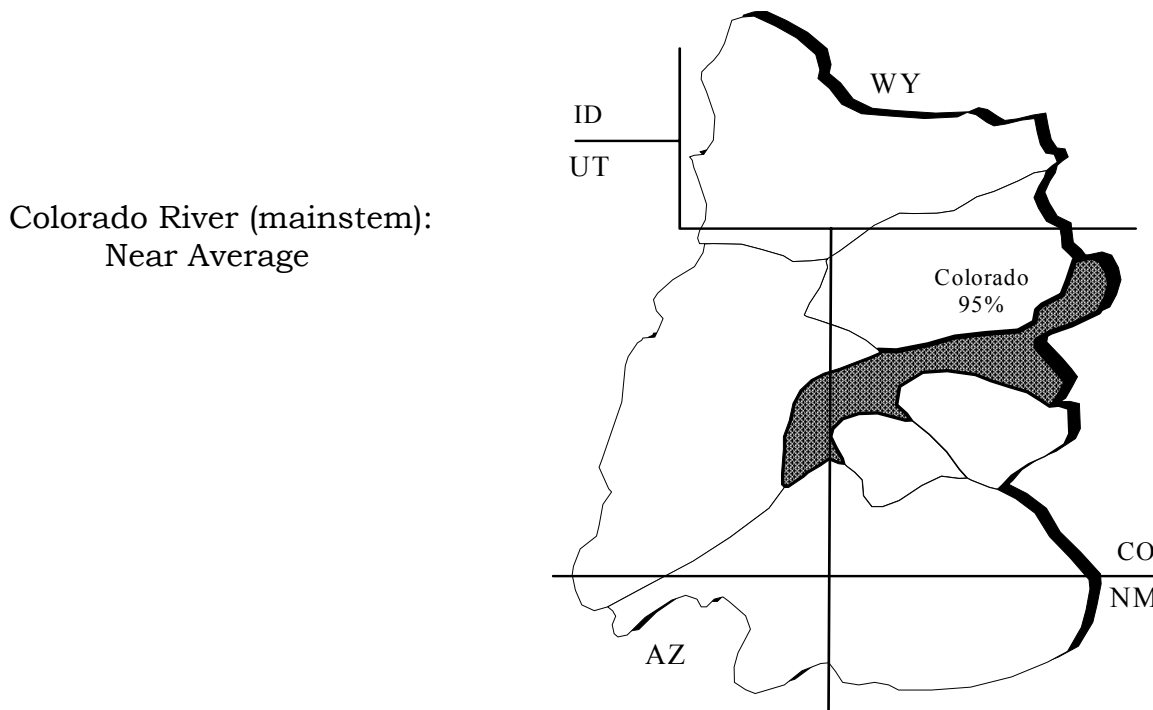


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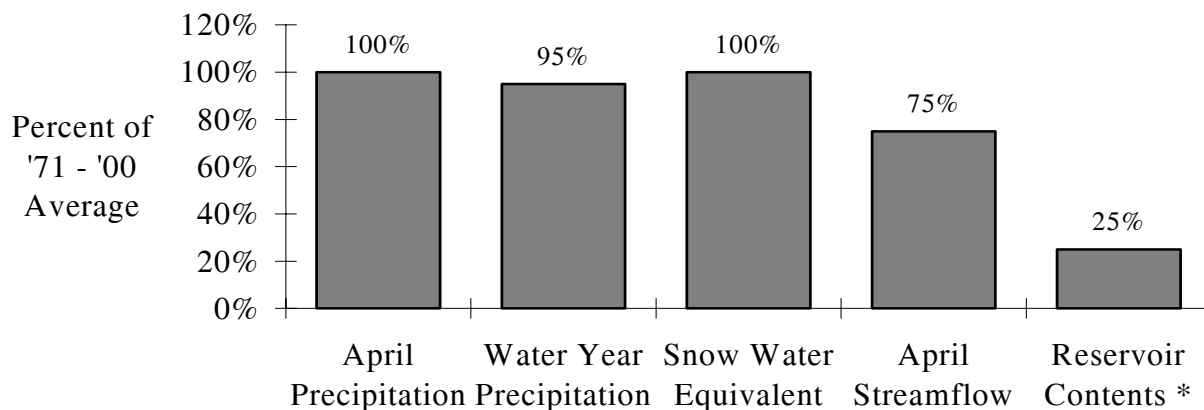
## UPPER COLORADO MAINSTEM

Precipitation was near average overall during the month of April, but much above average over the headwaters. Seasonal precipitation increased 5% overall but is still near average. Spring volume forecasts went up a bit over the headwaters but changed little further downstream and on the mainstem.

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



## BASIN CONDITIONS - MAY 1, 2003



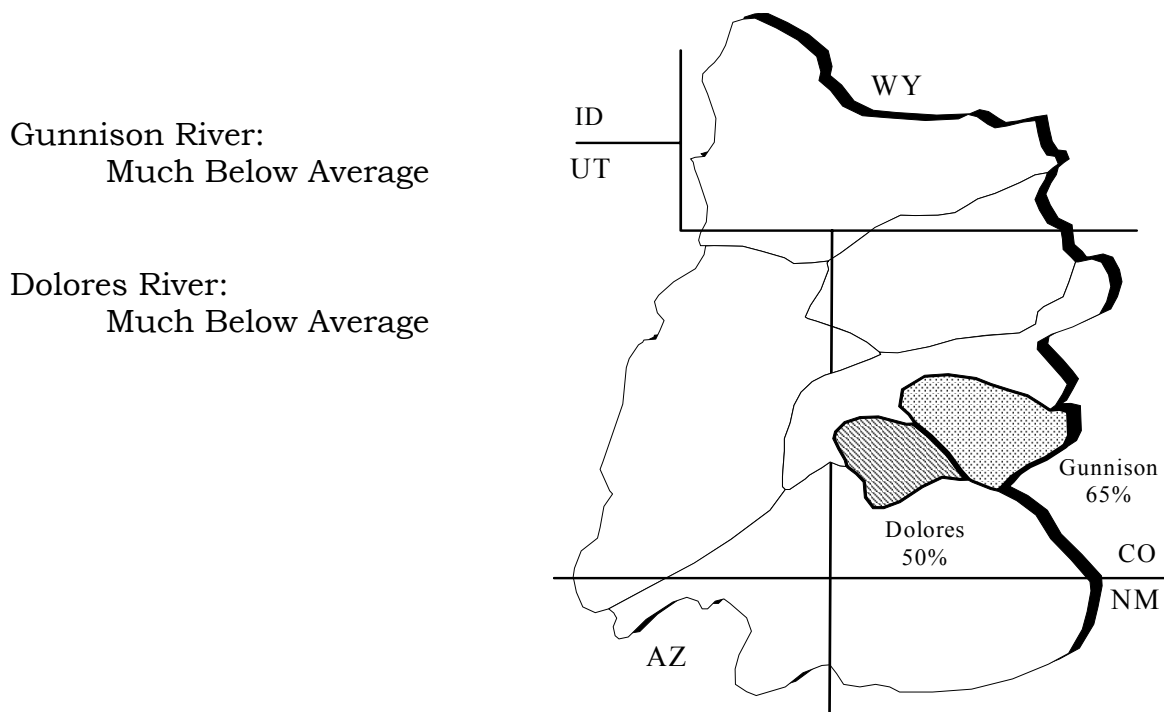
\* Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 6.

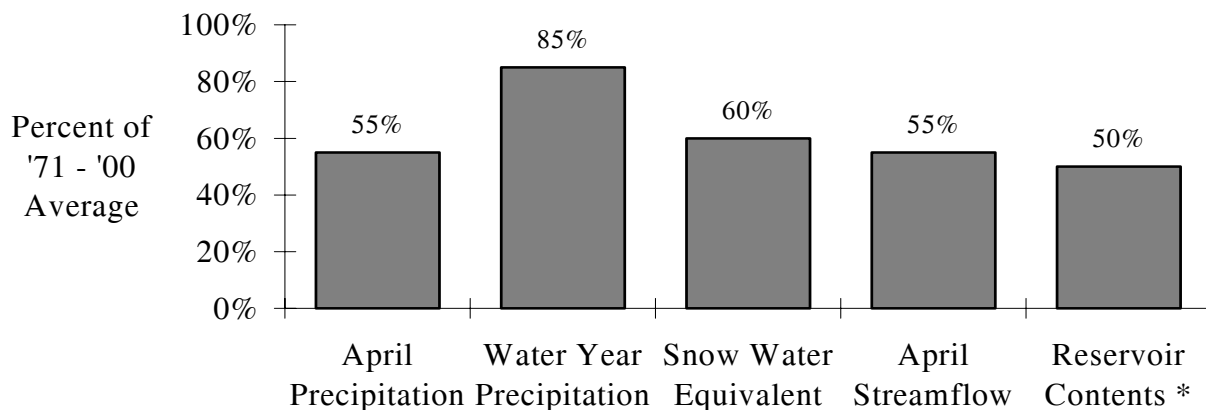
## GUNNISON AND DOLORES RIVERS

Snow water equivalent dropped from 85% of average on April 1 to 68% of average on May 1 in the Gunnison River Basin. In the Dolores River Basin snow dropped from 78% to 47% of average. Observed April flows in these basins were only 50% to 60% of average. The April-July streamflow forecasts have been reduced to reflect these conditions .

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



## BASIN CONDITIONS - MAY 1, 2003



\* Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 7.

# GREEN RIVER

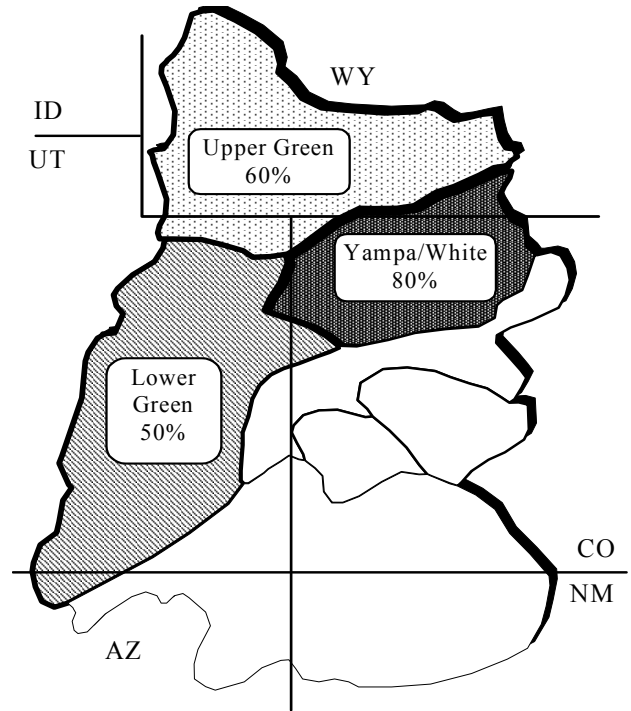
With the exception of the Upper Yampa Basin, below average precipitation occurred along with a diminishing snowpack throughout the Green River Basin in April. Stream response was less than anticipated and runoff volumes have been reduced in many areas. May 1st snowpack ranged from 90% to 100% of average in the Yampa Basin and 35% to 75% elsewhere.

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

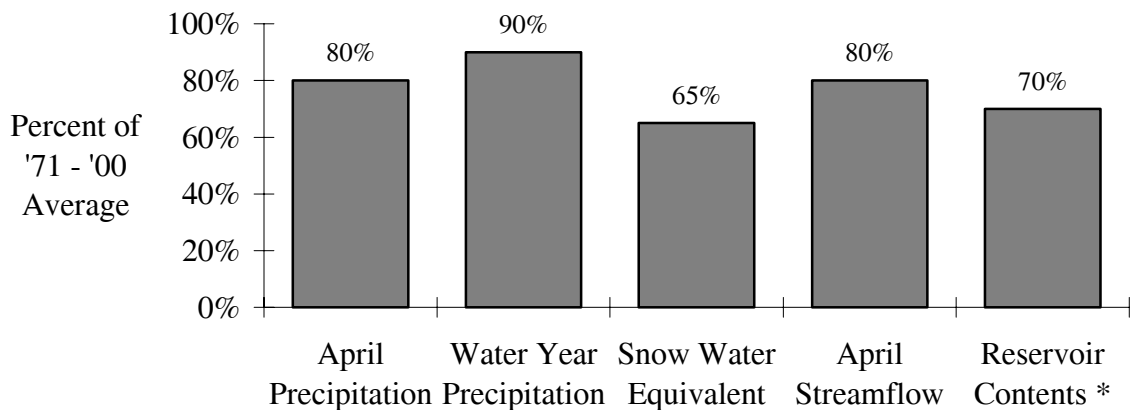
Upper Green River:  
Much Below Average

Yampa/White Rivers:  
Below Average

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



## BASIN CONDITIONS - MAY 1, 2003



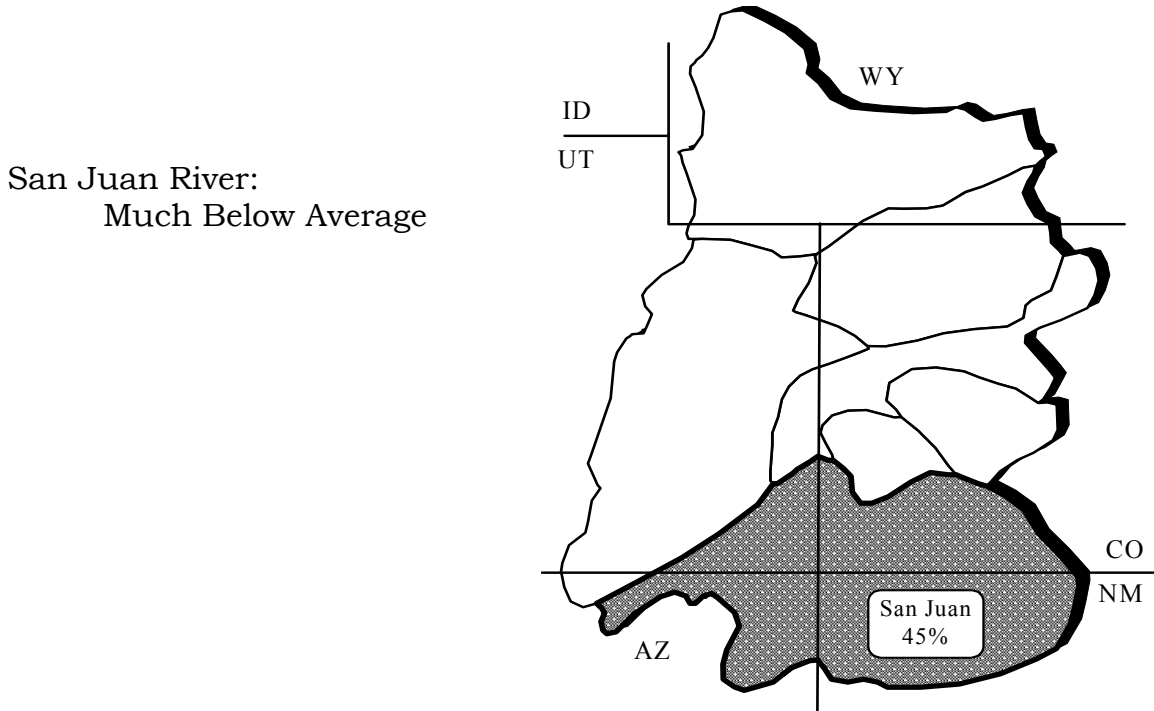
\* Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 8.

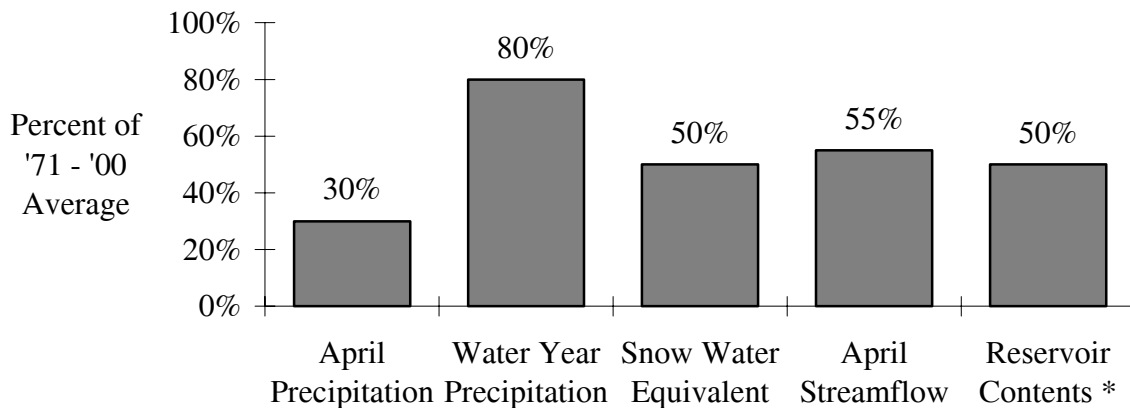
# SAN JUAN RIVER

Monthly precipitation in the San Juan Basin was much below average for the month of April. Streamflow edged up only slightly in response to the first melt cycle during the last 10 days of April. Snowpack is now hovering around 50% of average in the basin. April through July runoff is expected to range from 20% to 57% of average with the Animas Basin at approximately 55% of average.

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



## BASIN CONDITIONS - MAY 1, 2003



\* 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	250	111	290	215
	DOTSERO, NR	1550	108	1870	1230
	GLENWOOD SPRINGS, BLO	2100	97	2520	1680
	CAMEO, NR	2350	97	2890	1810
	CISCO, NR	3600	77	4580	2620
WILLOW CK	WILLOW CK RES, GRANBY, NR	60	118	79	44
FRASER	WINTER PARK	21	105	26	16.4
WILLIAMS FORK	WILLIAMS FORK RES, PARSHALL, N	100	105	120	82
MUDDY CK	WOLFORD MIN RES, BLO	55	92	67	45
BLUE	DILLON RES	185	111	215	157
	GREEN MIN RES	315	112	365	270
EAGLE	GYPSUM, BLO	325	97	400	265
FRYING PAN	RUEDI RES, BASALT, NR	115	82	157	84
ROARING FORK	GLENWOOD SPRINGS	550	77	690	425
PLATEAU CK	CAMEO, NR	65	57	133	8
MILL CK	MOAB, NR, SHELEY TUN, AT	2	40	3.9	0.5

## 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	73	71	97	49
	ALMONT	112	68	152	72
EAST	ALMONT	135	70	170	100
GUNNISON	GUNNISON, NR	260	67	340	181
TOMICHI CK	GUNNISON	52	64	79	31
LAKE FORK	GATEVIEW	80	63	100	60
GUNNISON	MORROW POINT RES	525	67	700	350
	CRYSTAL RES	585	64	785	385
MUDDY CK	● PAONIA RES, BARDINE, NR	59	59	75	45
NF GUNNISON	SOMERSET, NR	200	66	255	151
SURFACE CK	CEDAREEDGE	10.6	62	14.1	8
UNCOMPAHGRE	RIDGWAY RES	65	64	82	52
	COLONA	75	54	103	51
	DELTA	55	47	82	35
GUNNISON	GRAND JUNCTION, NR	920	59	1270	575
DOLORES	DOLORES	160	60	215	107
	MCPHEE RES	180	56	240	118
	CISCO, NR	190	34	375	75
SAN MIGUEL	PLACERVILLE, NR	77	58	109	45

● = 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	200	75	235	165
	GREEN RIVER, WY, NR	515	59	700	330
	GREEN RIVER, UT	1950	62	2800	1100
PINE CK	FREMONT LK, ABV	83	80	96	70
NEW FORK	BIG PINEY, NR	260	66	345	175
BIG SANDY	FARSON, NR	38	66	52	24
BLACKS FORK	ROBERTSON, NR	56	59	72	40
EF SMITHS FORK	ROBERTSON, NR	17.2	55	20	14.6
HAMS FORK	FRONTIER, NR, POLE CK, BLO	37	57	49	27
	VIVA NAUGHTON RES	46	52	65	27
YAMPA	STAGECOACH RSVR, ABV	26	90	38	14.5
	STEAMBOAT SPRINGS	255	91	290	220
	MAYBELL, NR	820	83	1010	625
ELK	MILNER, NR	250	77	330	182
ELKHEAD CK	ELKHEAD, NR	30	77	43	21
	MAYNARD GULCH, BLO	50	85	67	33
FORTIFICATION CK	● FORTIFICATION, NR	6.4	85	9.6	3.2
LITTLE SNAKE	SLATER, NR	126	79	173	87
	DIXON, NR	260	79	365	154
	LILY, NR	285	78	395	175

● = 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	57	19.1	5.4
ASHLEY CK	VERNAL, NR	29	56	42	15.9
WF DUCHESNE	HANNA, NR	9	38	15.6	4.2
ROCK CK	UPPER STILLWATER RES	45	55	63	27
	MOUNTAIN HOME, NR	49	55	66	32
DUCHESNE	TABIONA, NR	50	48	65	35
	DUCHESNE, NR, KNIGHT DIV, ABV	92	49	135	49
	MYTON	60	23	154	13
	RANDLETT, NR	75	23	305	13
STRAWBERRY	SOLDIER SPRINGS, NR	17.5	30	29	8.9
	DUCHESNE, NR	40	33	70	10
CURRENT CK	CURRENT CK RES	6.8	27	12.3	3.8
LAKE FORK	MOON LAKE RES, MTN HOME, NR	36	53	50	22
YELLOWSTONE	ALTONAH, NR	32	52	49	15
WHITEROCKS	WHITEROCKS, NR	26	46	43	9.3
WHITE	MEEKER, NR	175	60	233	131
	WATSON, NR	210	69	315	107
GOOSEBERRY CK	SCOFIELD, NR	7	59	9.8	4.2
PRICE	SCOFIELD RES, SCOFIELD, NR	30	65	37	23
WHITE	BLO TABBYUNE CK, SOLDIER SUMMI	8.4	48	13	4.8
HUNTINGTON CK	ELECTRIC LAKE	8.5	54	11.9	5.8
	HUNTINGTON, NR	32	64	40	24
SEELEY CK	JOES VLY RES, ORANGEVILLE, NR	29	50	46	12
FERRON CK	FERRON, NR	22	56	27	17.4
SEVEN MILE CK	FISH LAKE, NR	6	86	8.1	3.9
MUDDY CK	EMERY, NR	13	65	18.2	7.8

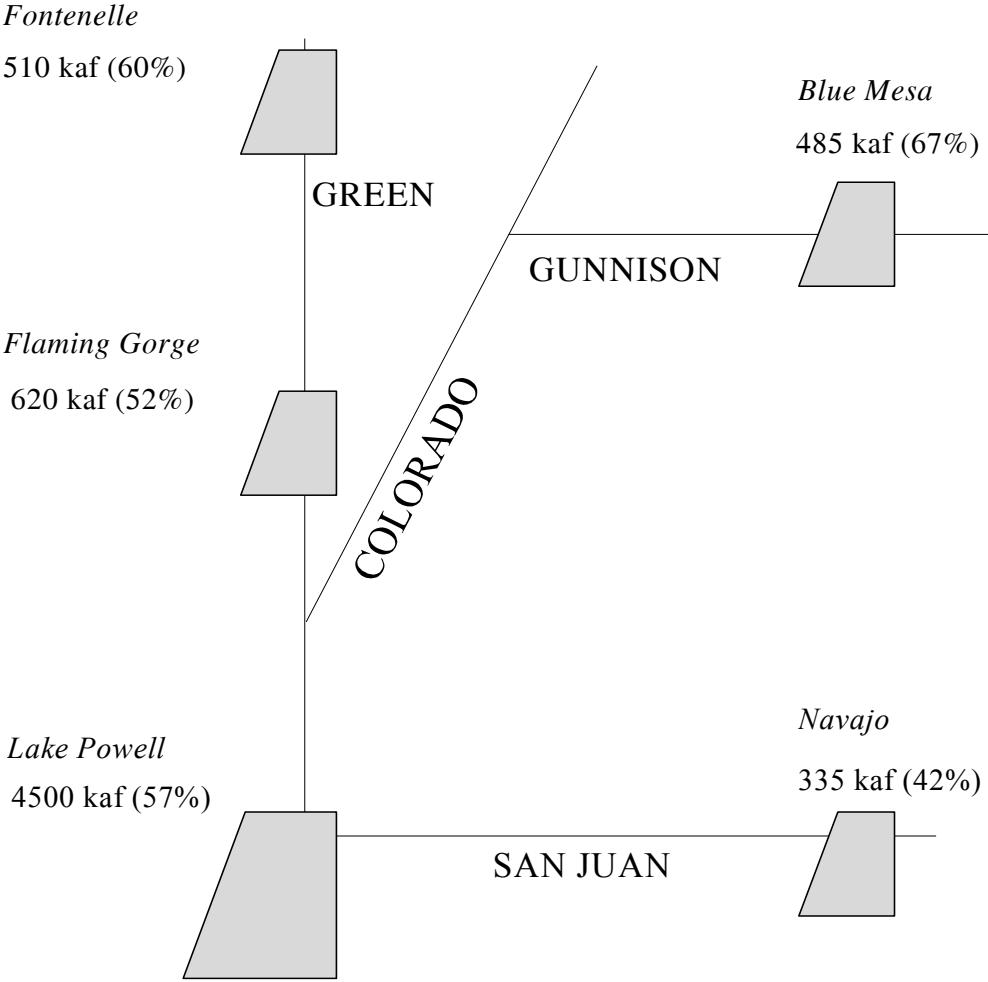
**San Juan River Basin:** April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most Probable	Percent Avg.	Reas. Max	Reas. Min
SAN JUAN	PAGOSA SPRINGS	125	56	169	81
	CARRACAS, NR	200	49	295	122
	FARMINGTON	510	42	730	280
	BLUFF, NR	475	39	715	235
RIO BLANCO	PAGOSA SPRINGS, NR, BLANCO DAM	30	57	43	17
NAVAJO	CHROMO, NR, OSO DIV DAM, BLO	38	55	55	21
PIEDRA	ARBOLES, NR	100	43	128	72
LOS PINOS	VALLECITO RES, BAYFIELD, NR	105	51	121	89
ANIMAS	DURANGO	240	55	335	146
FLORIDA	LEMON RES, DURANGO, NR	28	48	39	17
LA PLATA	HESPERUS	11.3	45	14.9	7.7
MANCOS	MANCOS, NR	18	45	32	7.2
SOUTH CK	◆ LLOYD'S RSVR NR MONTICELLO, AB	0.33	25	0.89	0.07
RECAPTURE CK	◆ BLANDING, NR, JOHNSON CK, BLO	1.25	20	4.2	0.24

◆ = March - July forecast period.

# FLOOD CONTROL FORECASTS

**MOST PROBABLE FORECASTS**  
**2003 APRIL - JULY INFLOW VOLUMES**  
 (% OF '71 - '00 AVERAGE)

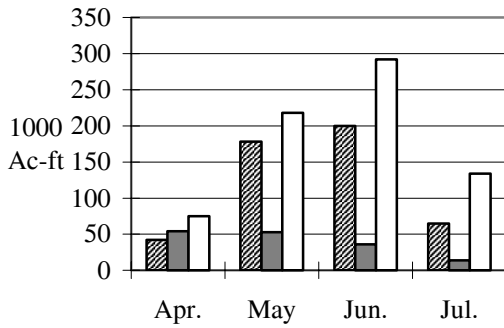


NOTE: Colorado River flood control forecasts account for a smaller set of upstream adjustments than water supply forecast points.

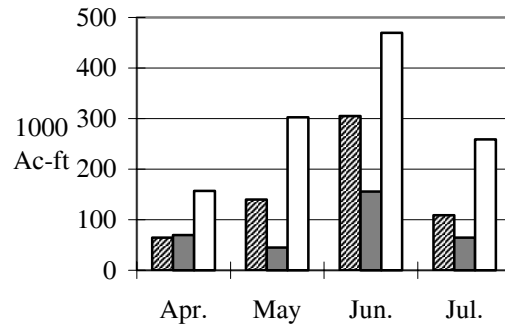
# RESERVOIR MONTHLY INFLOW FORECASTS



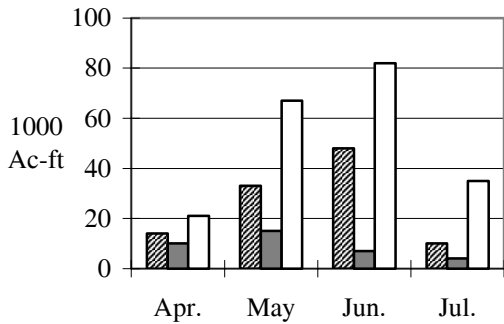
**Blue Mesa Reservoir Inflow**



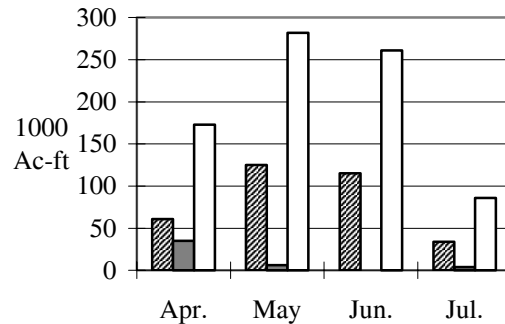
**Flaming Gorge Reservoir Inflow**



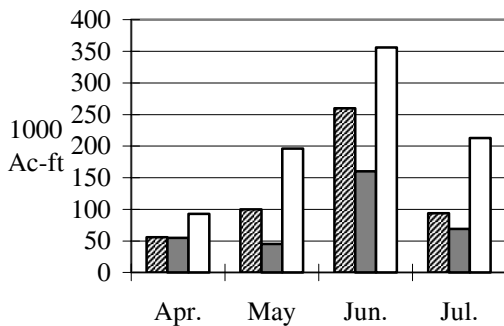
**Vallecito Reservoir Inflow**



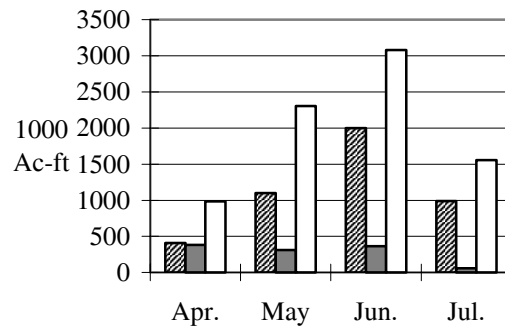
**Navajo Reservoir Inflow**



**Fontenelle Reservoir Inflow**

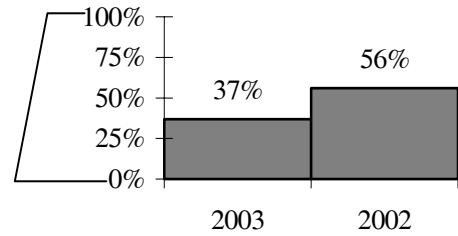
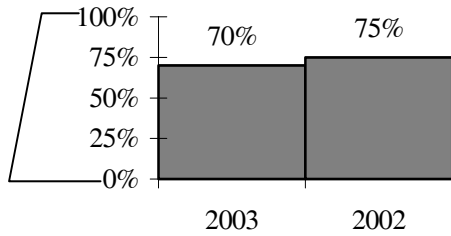


**Lake Powell Inflow**

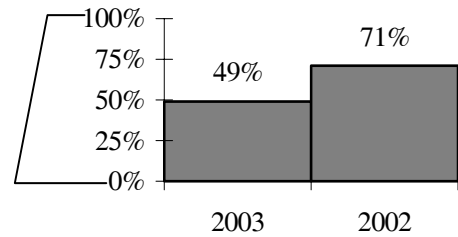
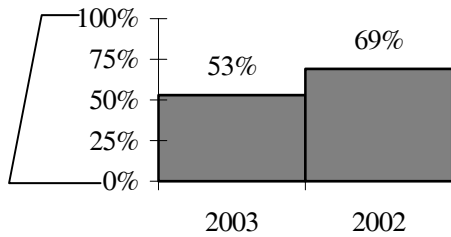


# END OF MONTH RESERVOIR CONTENTS

## Percent of Usable Capacity



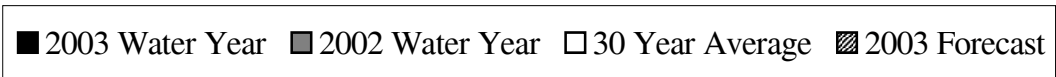
Green  
 Combined  
 Upper Colorado, Gunnison, and Dolores  
 San Juan



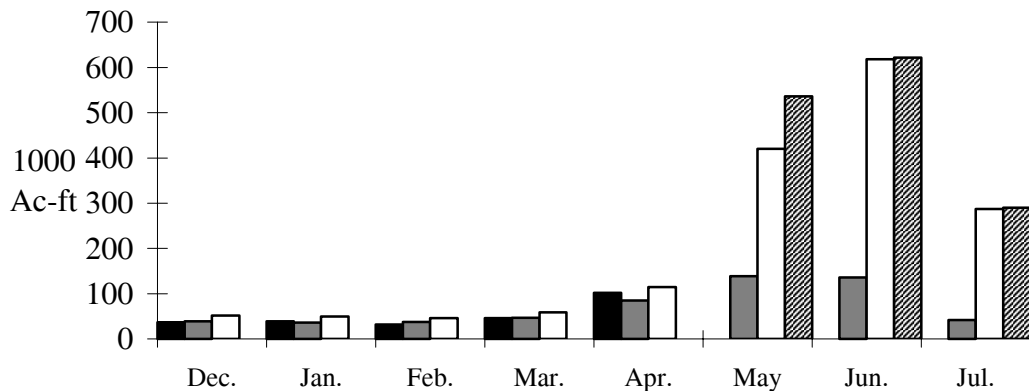
RESERVOIR (vol. in 1000 ac-ft)	Reservoir status	Usable Capacity	EOM Usable Contents	Percent Usable Capacity
Fontenelle	1,4	344.8	185.2	54
Flaming Gorge	1,4	3749	2609.3	70
Strawberry	1,4	1105.9	807.9	73
Starvation	1,4	165.3	138.8	84
Lake Granby	2,4	490.3	47.6	10
Dillon	2,4	254	124.6	49
Green Mountain	2,4	146.9	37.4	25
Taylor Park	2,4	106.2	39.6	37
Blue Mesa	2,4	829.5	292.3	35
Ridgway	2,4	83.2	62.5	75
McPhee	2,4	381.1	163	43
Vallecito	3,4	125.4	37.9	30
Navajo	3,4	1696	806.2	48
Lake Powell	4	24322	12833.2	53

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

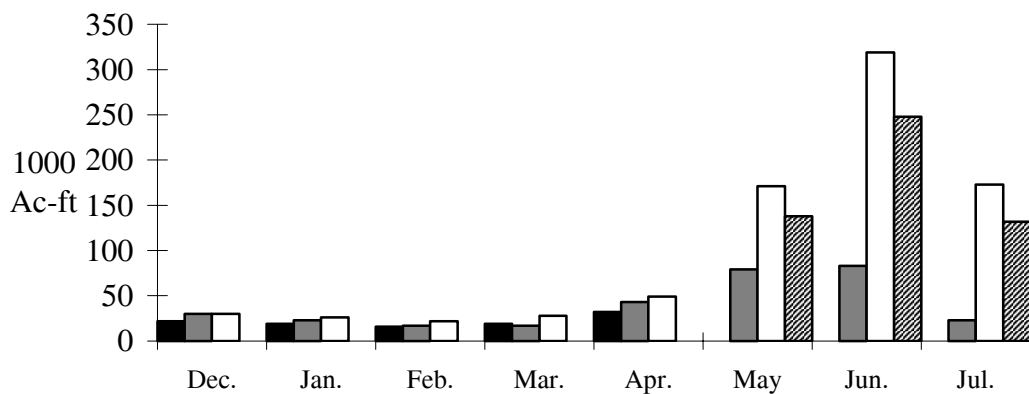
# MONTHLY STREAMFLOWS



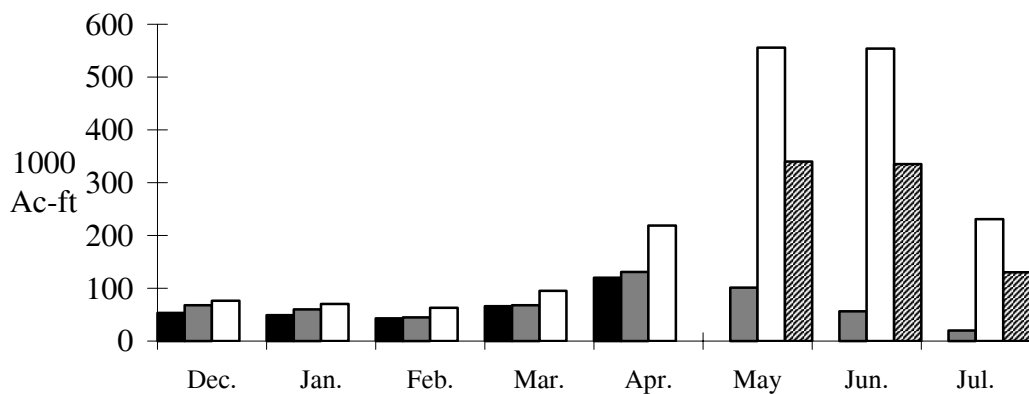
## Colorado - Dotsero, nr:



## Roaring Fork - Glenwood Springs:



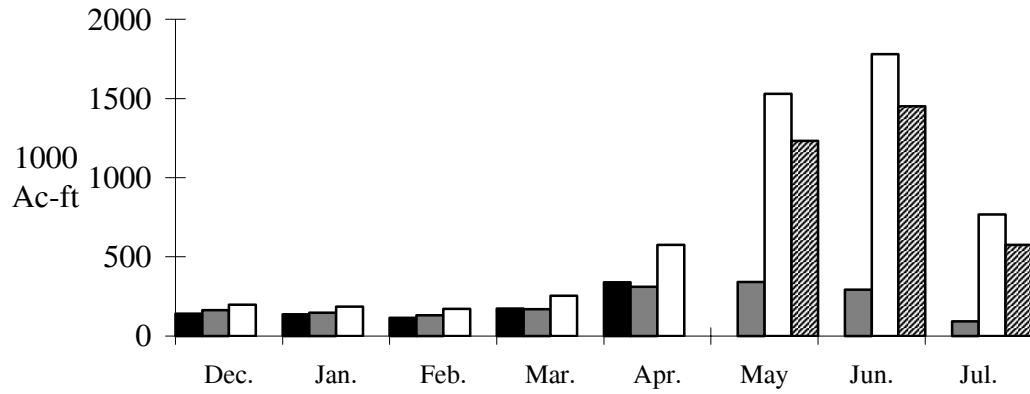
## Gunnison - Grand Junction, nr:



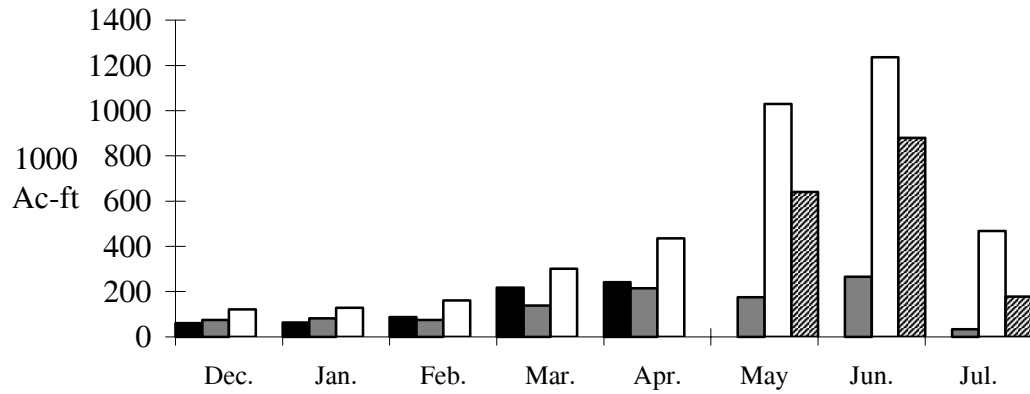
\* Data Not Available



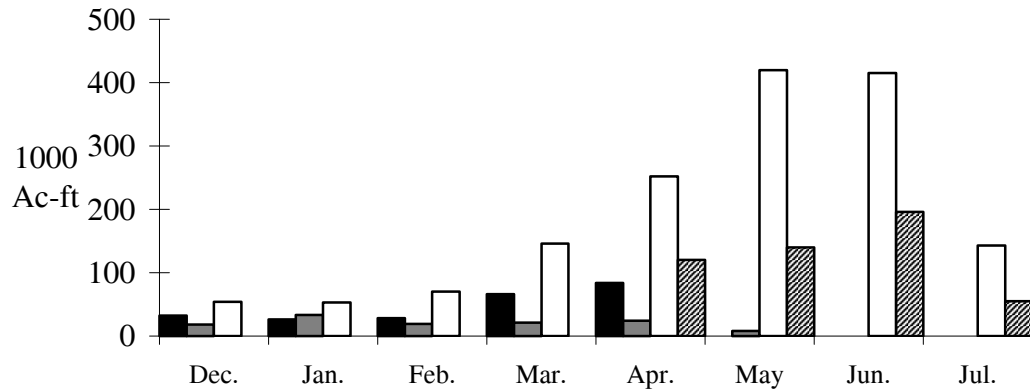
**Colorado - Cisco, nr:**



**Green - Green River, UT:**



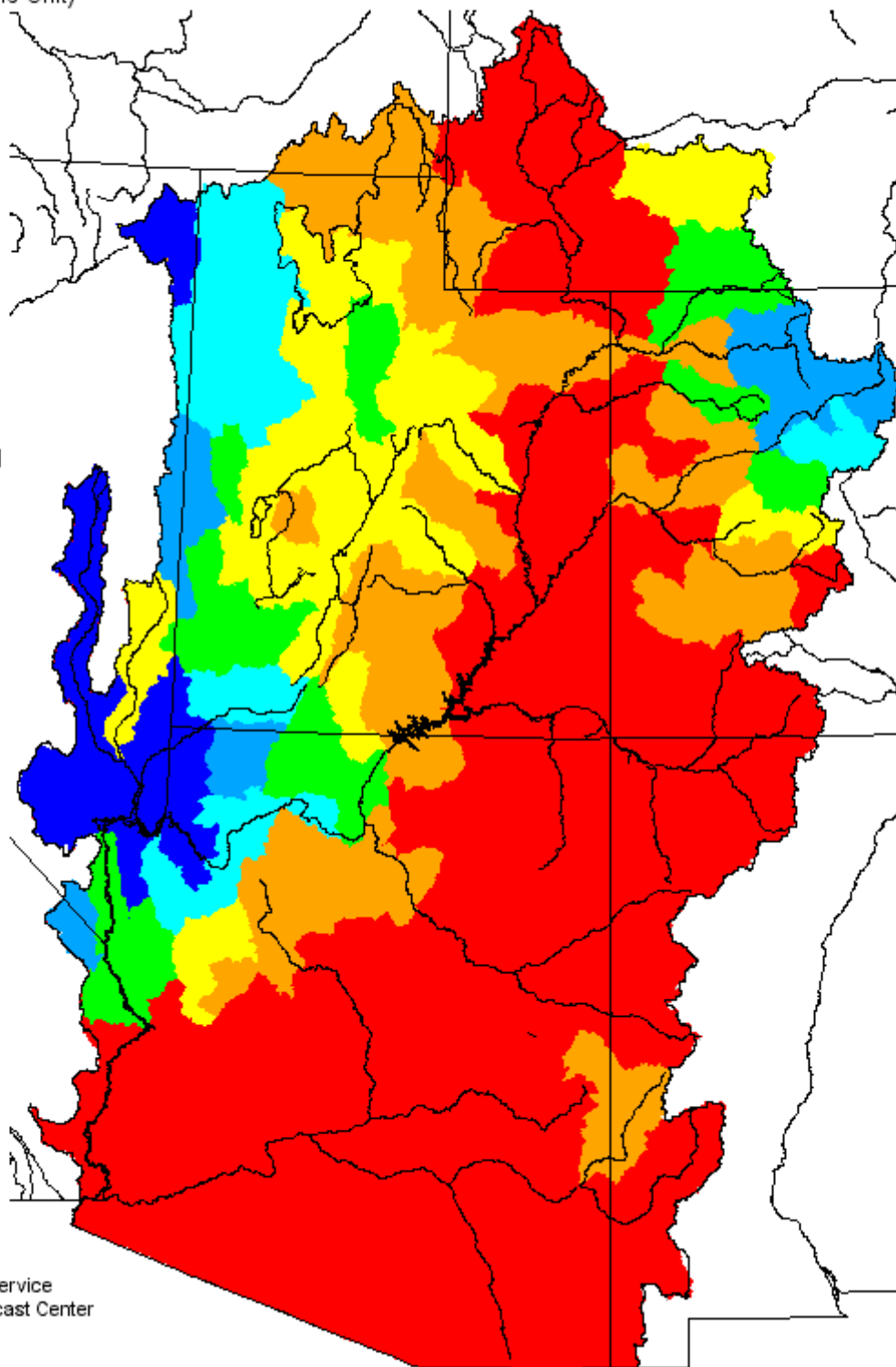
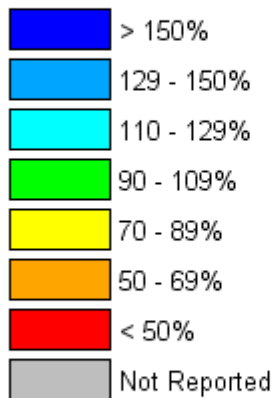
**San Juan - Bluff, nr:**



# Monthly Precipitation for April 2003

(Averaged by Hydrologic Unit)

## % Average



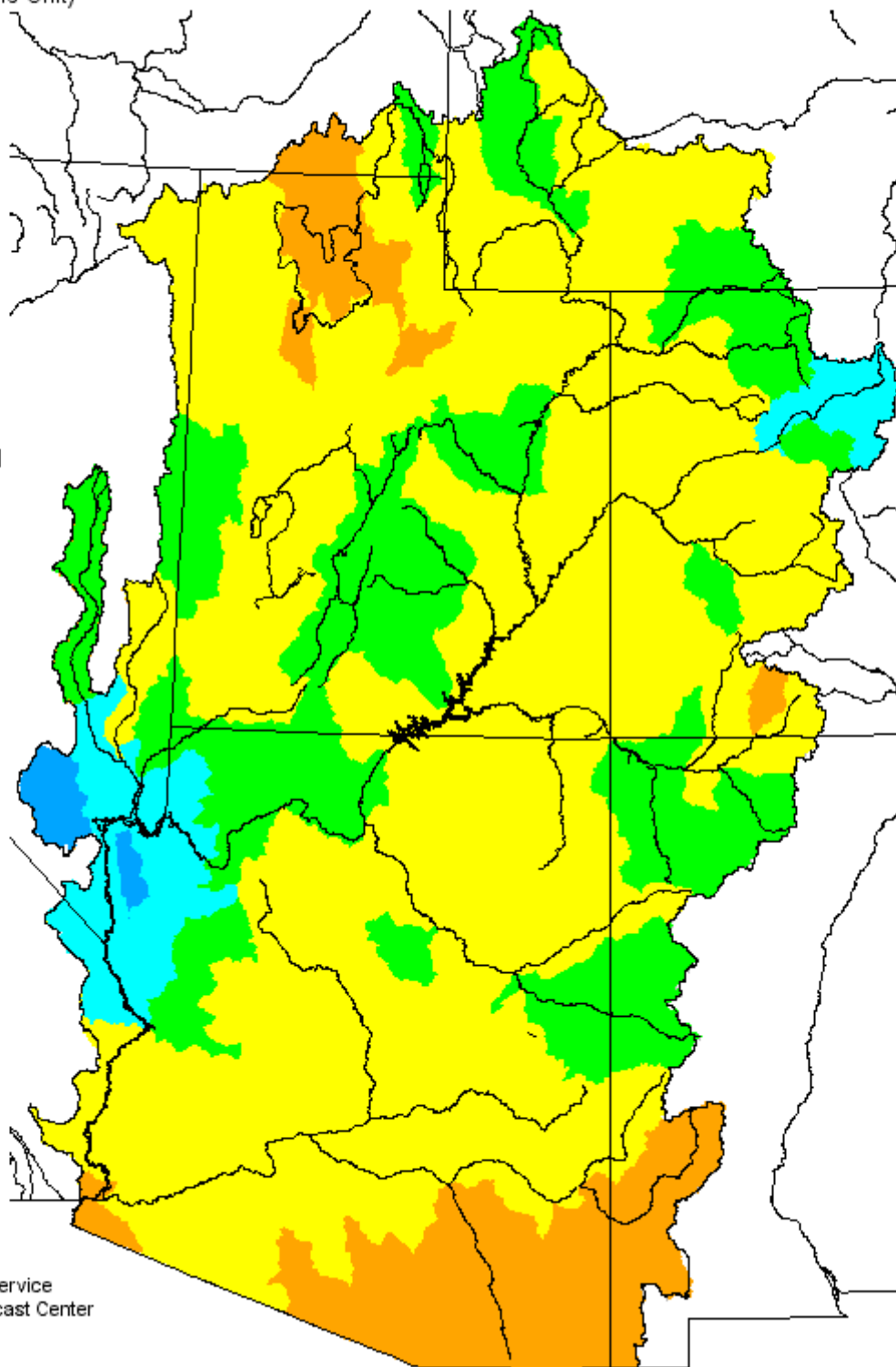
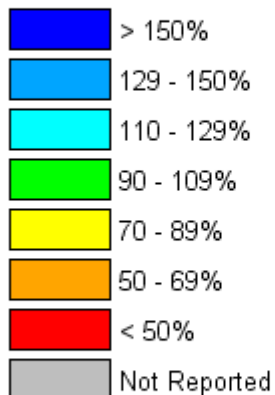
Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)



# Seasonal Precipitation, October 2002 - April 2003

(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