

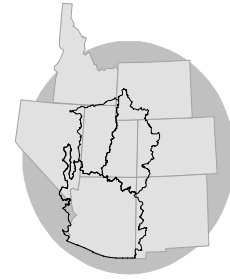
# WATER SUPPLY OUTLOOK

for the

## LOWER COLORADO

**COLORADO BASIN  
RIVER FORECAST CENTER**

NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT

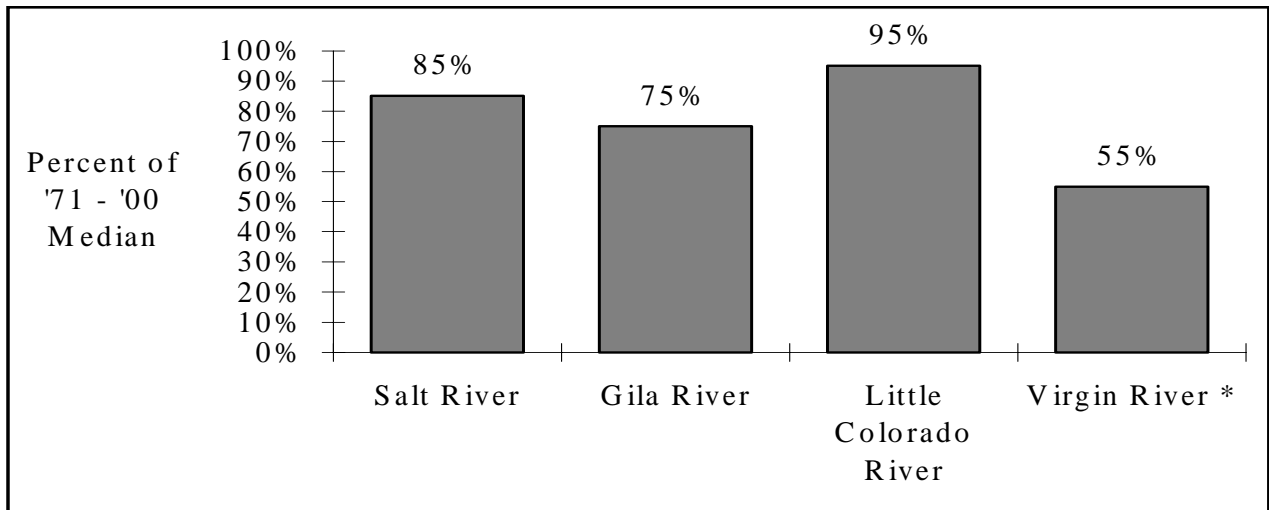


### MARCH 1, 2003

#### SUMMARY

The forecast runoff volumes for March through May vary throughout the Lower Colorado Basin from much below average in the Northwest (Virgin) to near median in the Northeast (Little Colorado) to below median in the South (Salt and Gila). During February much needed precipitation was received throughout the Lower Colorado Basin. This has resulted in improved snow water conditions and runoff forecasts approaching those made in January.

#### March - May VOLUME FORECASTS



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\* Virgin River Basin forecasts are for the April through July period and expressed in percent of average.

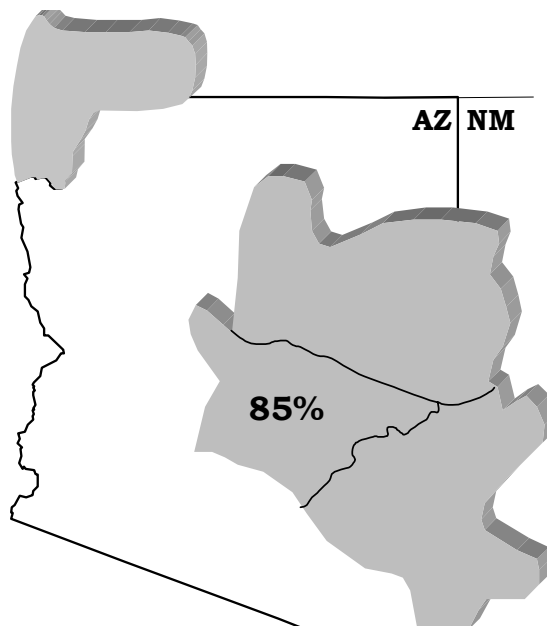
**SALT RIVER** The 2003 Water Year is now forecasted to be wetter than the 2002 Water Year but still below median. The overall snow coverage has increased from much below median in February to below median in March. Little precipitation is expected during the next two weeks. However, conditions may once again improve after mid-March.

March-May stream flow forecasts for the Salt River are as follows:

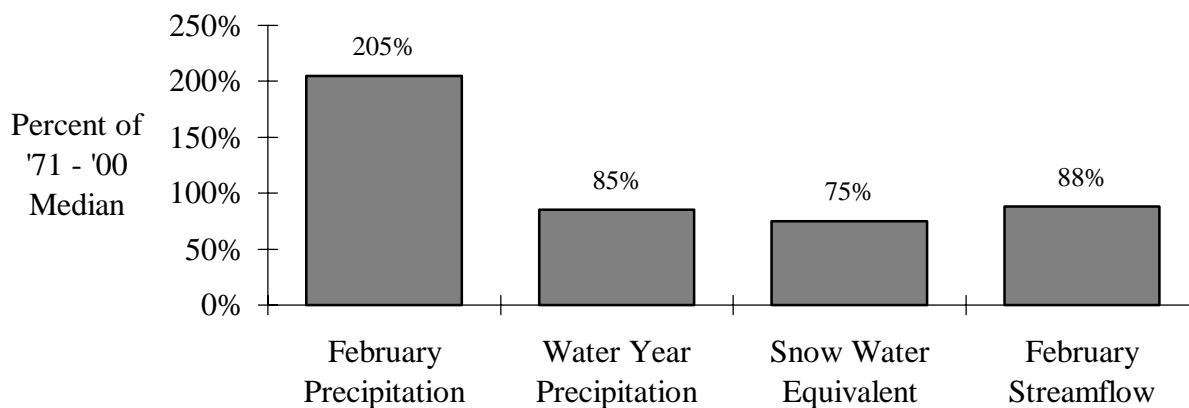
Verde River:  
Near Median

Tonto Creek:  
Below Median

Salt River:  
Below Median



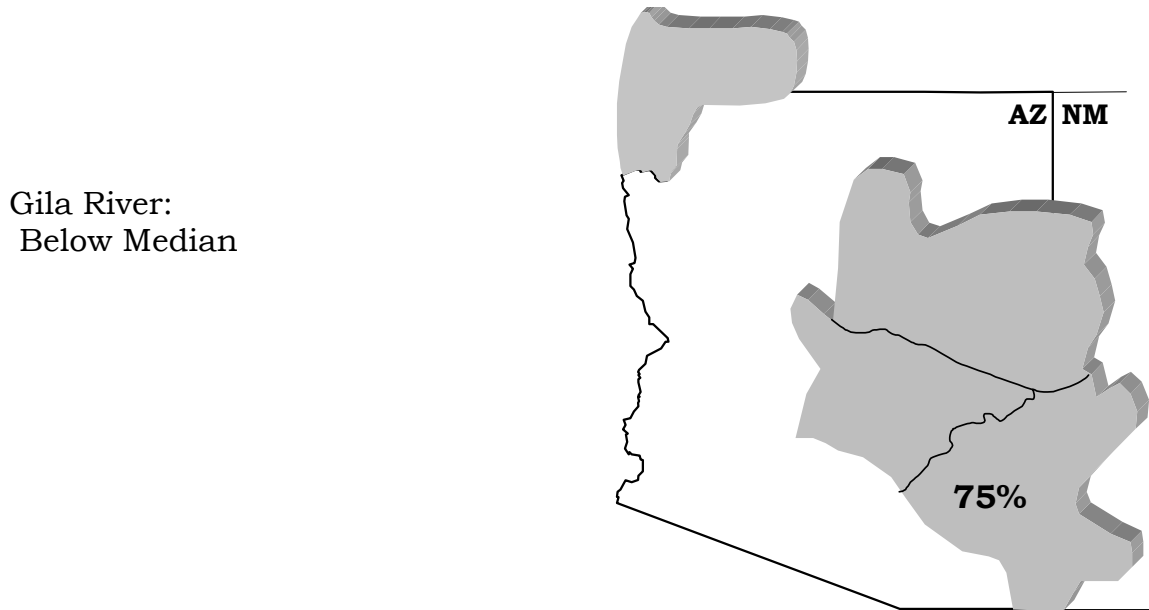
### **BASIN CONDITIONS - MARCH 1, 2003**



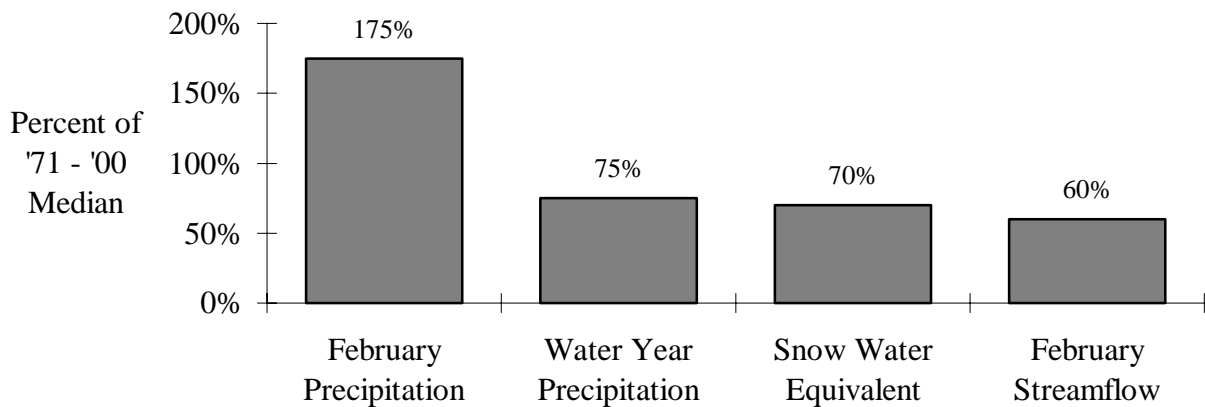
Specific site forecasts are listed on page 6.

**GILA RIVER** Watershed conditions improved in February. The forecasted stream flows are now above median in San Pedro basin, near median in the San Francisco basin, and below median near the headwaters of the Gila basin. However, San Carlos Reservoir inflow continues to be forecasted much below median due to the prolonged dryness of the region.

March-May stream flow forecasts for the Gila River are as follows:



**BASIN CONDITIONS - MARCH 1, 2003**

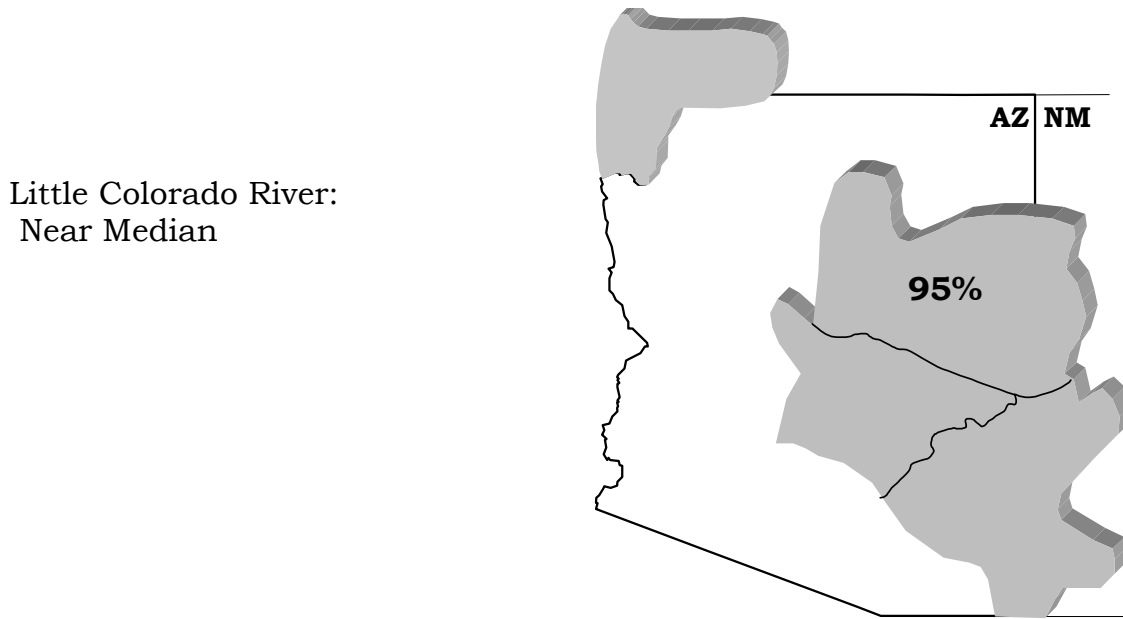


Specific site forecasts are listed on page 6.

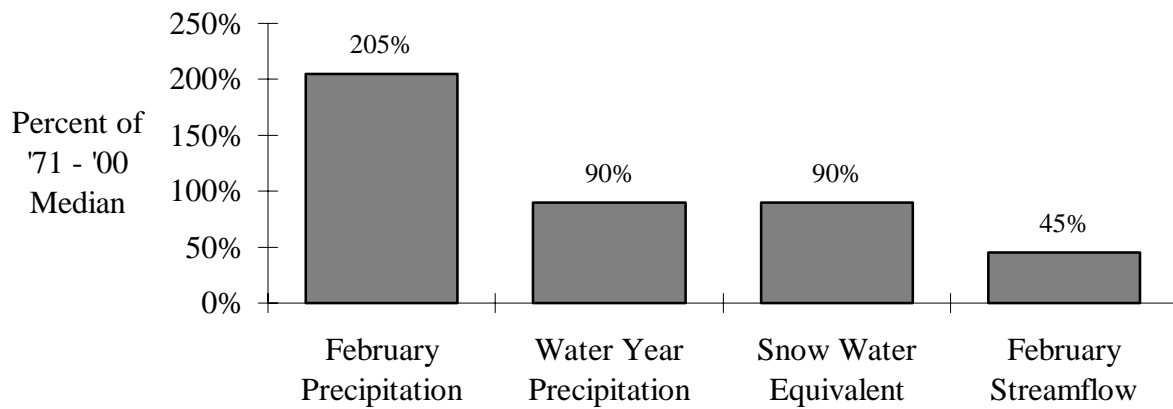
# LITTLE COLORADO RIVER

The snowpack within the Little Colorado watershed is now near median. Forecasted runoff now ranges from 78% to 138% of median.

March-May stream flow forecasts for the Little Colorado River are as follows:



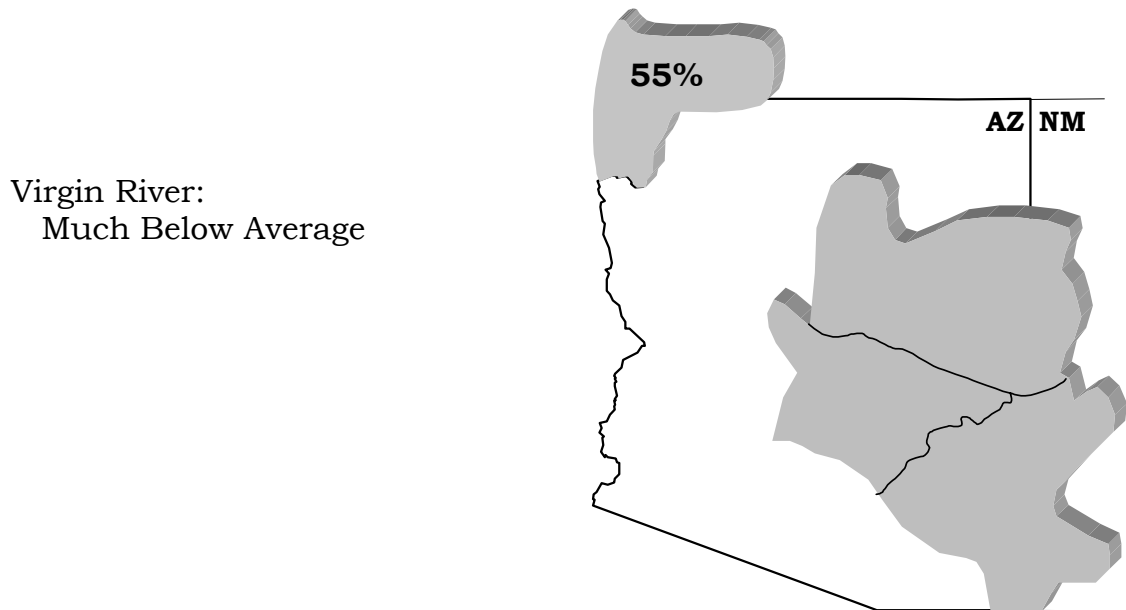
## BASIN CONDITIONS - MARCH 1, 2003



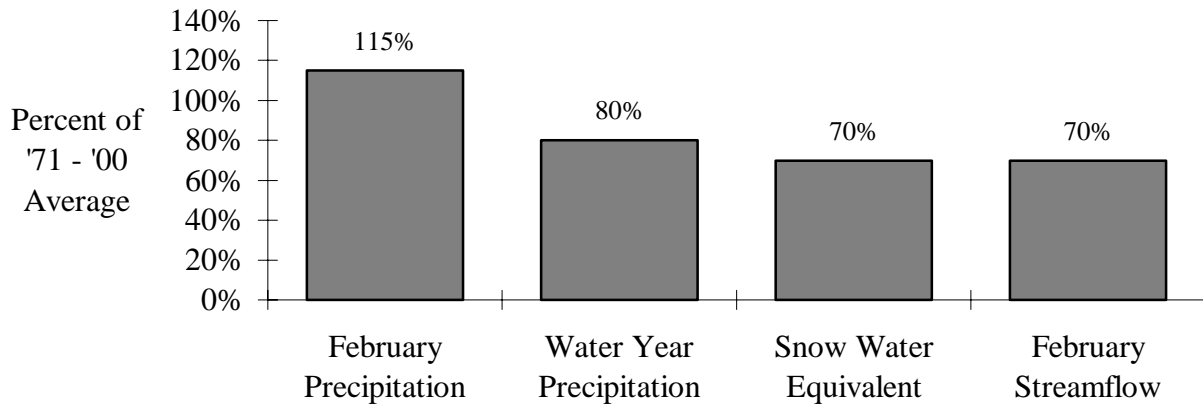
Specific site forecasts are listed on page 6.

**VIRGIN RIVER** The forecast continues to be for much below average runoff; however, this remains a vast improvement over the almost nonexistent flows of last year. Snow coverage has improved from much below average at the beginning of February to below average at the beginning of March. Due to anticipated high temperatures it is expected that some runoff will occur prior to the forecasted runoff period.

April-July stream flow forecasts for the Virgin River are as follows:



**BASIN CONDITIONS - MARCH 1, 2003**



Specific site forecasts are listed on page 6.

# SPECIFIC SITE FORECASTS—WATER YEAR 2003

March through May volume (kaf) forecasts (except where noted).

Stream	Station	Most Probable	Percent Med.	Reas. Max	Reas. Min
LITTLE COLORADO	◆ LYMAN LK, ABV, ST. JOHNS, NR	7	111	14.9	2.5
	WOODRUFF	2.2	100	4.4	0.88
RIO NUTRIA	RAMAH, NR	2.5	93	8.3	0.33
ZUNI	BLACK ROCK RES, ABV	0.94	106	1.88	0.38
CEBOLLA CK	RAMAH RES	1.38	93	5.3	0.04
EAST CLEAR CK	BLUE RIDGE RES, PINE, NR	10	78	17.5	4.6
CLEAR CK	WINSLOW, NR	34	110	67	1
CHEVELON CK	WINSLOW, NR, WILDCAT CYN, BLO	5.5	138	14.2	0.12
WALNUT CK	LAKE MARY	3.2	78	7.1	1.09
SANTA CLARA	✧ PINE VALLEY, NR	3.2	58	6.7	0.97
VIRGIN	✧ VIRGIN	38	59	74	13.9
	✧ HURRICANE, NR	37	54	66	8.3
	✧ LITTLEFIELD	35	47	63	7.2
GILA	GILA, NR	25	74	44	12.3
	VIRDEN, NR, BLUE CK, BLO	27	57	60	6.1
	SOLOMON, NR, HEAD OF SAFFORD V	66	63	158	16
	CALVA	40	63	95	9.5
SAN FRANCISCO	SAN CARLOS RES, COOLIDGE DAM,	46	61	107	9.6
	GLENWOOD, NR	17	104	35	6.6
	CLIFTON	38	90	67	9.5
SAN PEDRO	CHARLESTON	2.3	115	3.8	0.93
SALT	ROOSEVELT, NR	240	89	427	118
TONTO CK	ROOSEVELT, NR, GUN CK, ABV	20	77	60	3.4
VERDE	HORSESHOE DAM, ABV, TANGLE CK,	135	94	270	54
COLORADO	✧ LAKE POWELL, GLEN CYN DAM, AT	4800	61		

◆ = March-June forecast period.

✧ = April-July forecast period.

Special Notes:

Lake Powell, Virgin and Santa Clara River forecasts use a 30 year percent of average (1971-2000).

## February 2003 END OF MONTH RESERVOIR CONTENTS

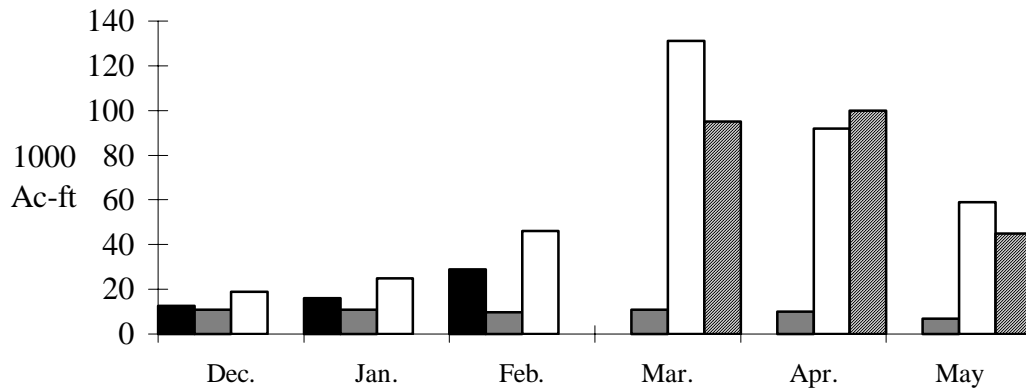
RESERVOIR (vol. in 1000 ac-ft)	Usable Capacity	EOM Usable Contents	Percent Usable Capacity (%)
Roosevelt	1653.0	261.0	16%
Horse Mesa	245.0	219.0	89%
Mormon Flat	58.0	55.0	95%
Stewart Mountain	70.0	67.0	96%
Horseshoe	109.2	21.0	19%
Bartlett	178.0	81.0	46%
Total SRP Reservoirs	2313.2	704.0	30%
San Carlos	867.0	40.0	5%
Waddell	1145.0	632.0	55%
Painted Rock	2476.0	0.0	0%
Alamo	1045.0	70.0	7%
Lyman	31.0	2.0	6%
Lake Powell	24322.0	12825.0	53%
Mead	27380.0	16978.0	62%
Mohave	1810.0	1738.0	96%
Havasu	619.0	559.0	90%

NA = Not Available.

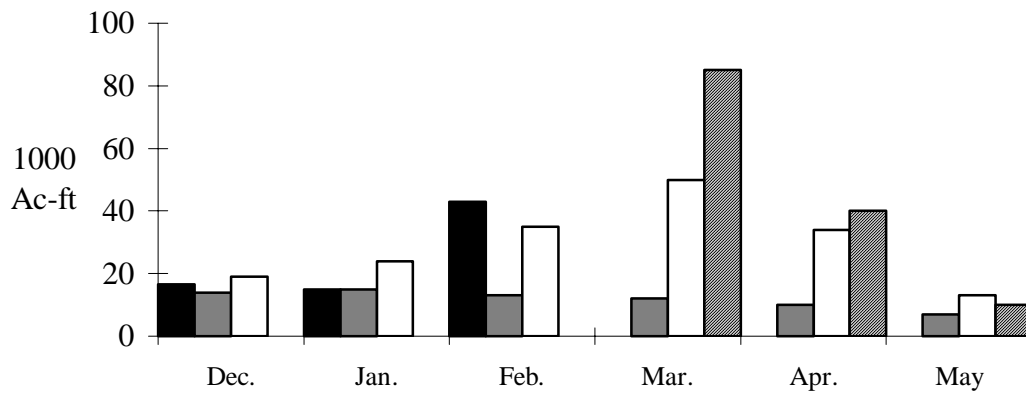
# MONTHLY STREAMFLOWS



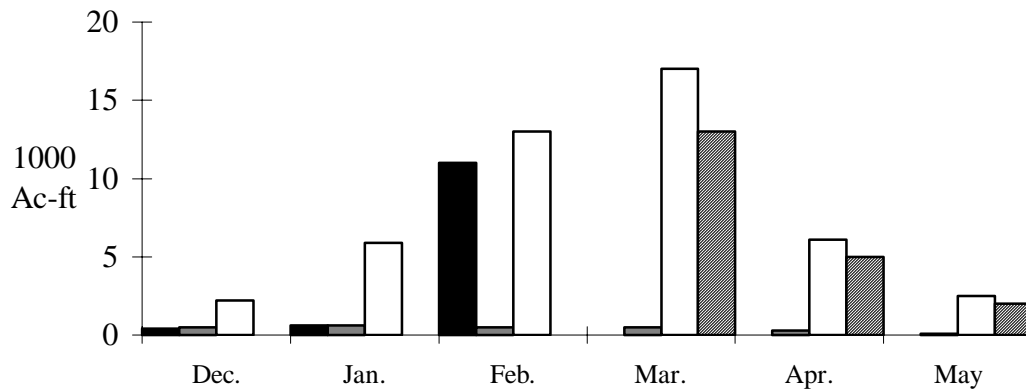
## Salt - Roosevelt:



## Verde - Horseshoe Dam, abv, Tangle Ck, blo:



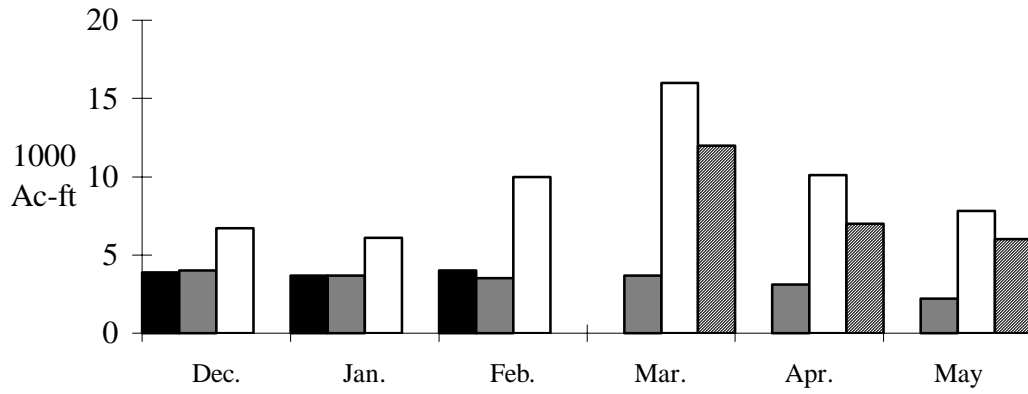
## Tonto Ck - Roosevelt, nr, Gun Ck, abv:



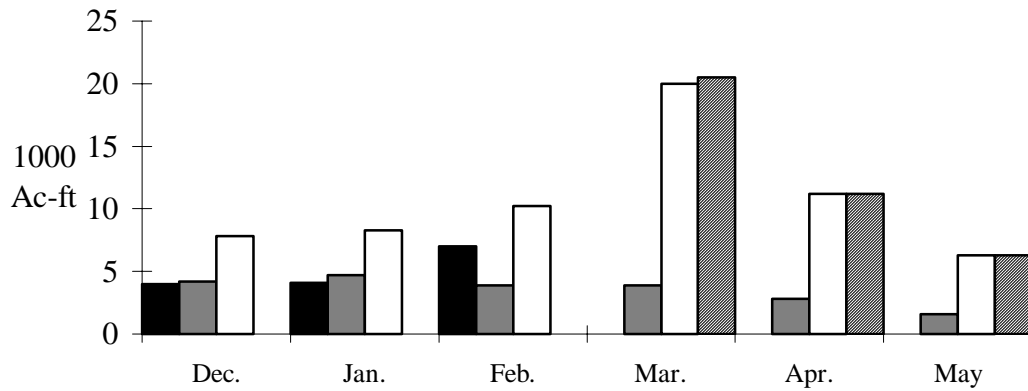




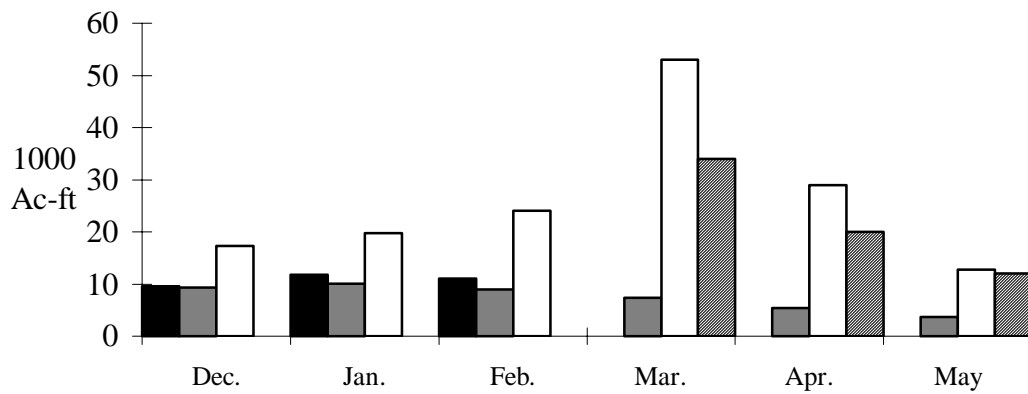
**Gila - Gila, nr:**



**San Francisco - Clifton:**



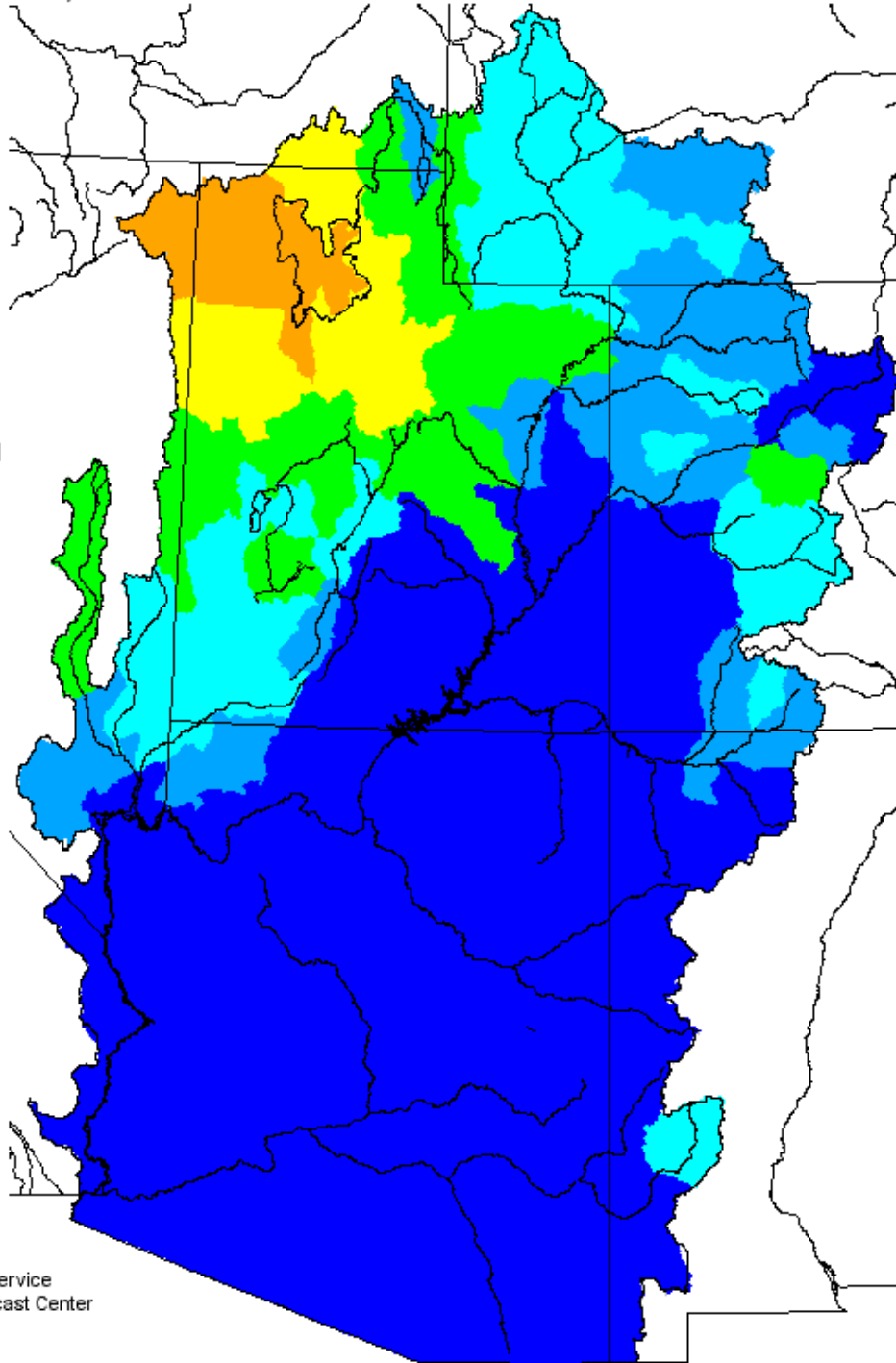
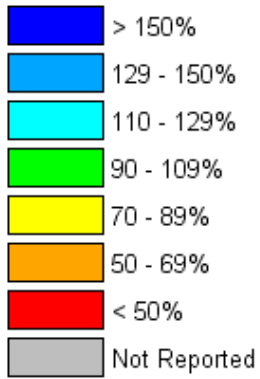
**Gila - Solomon:**



# Monthly Precipitation for February 2003

(Averaged by Hydrologic Unit)

## % Average

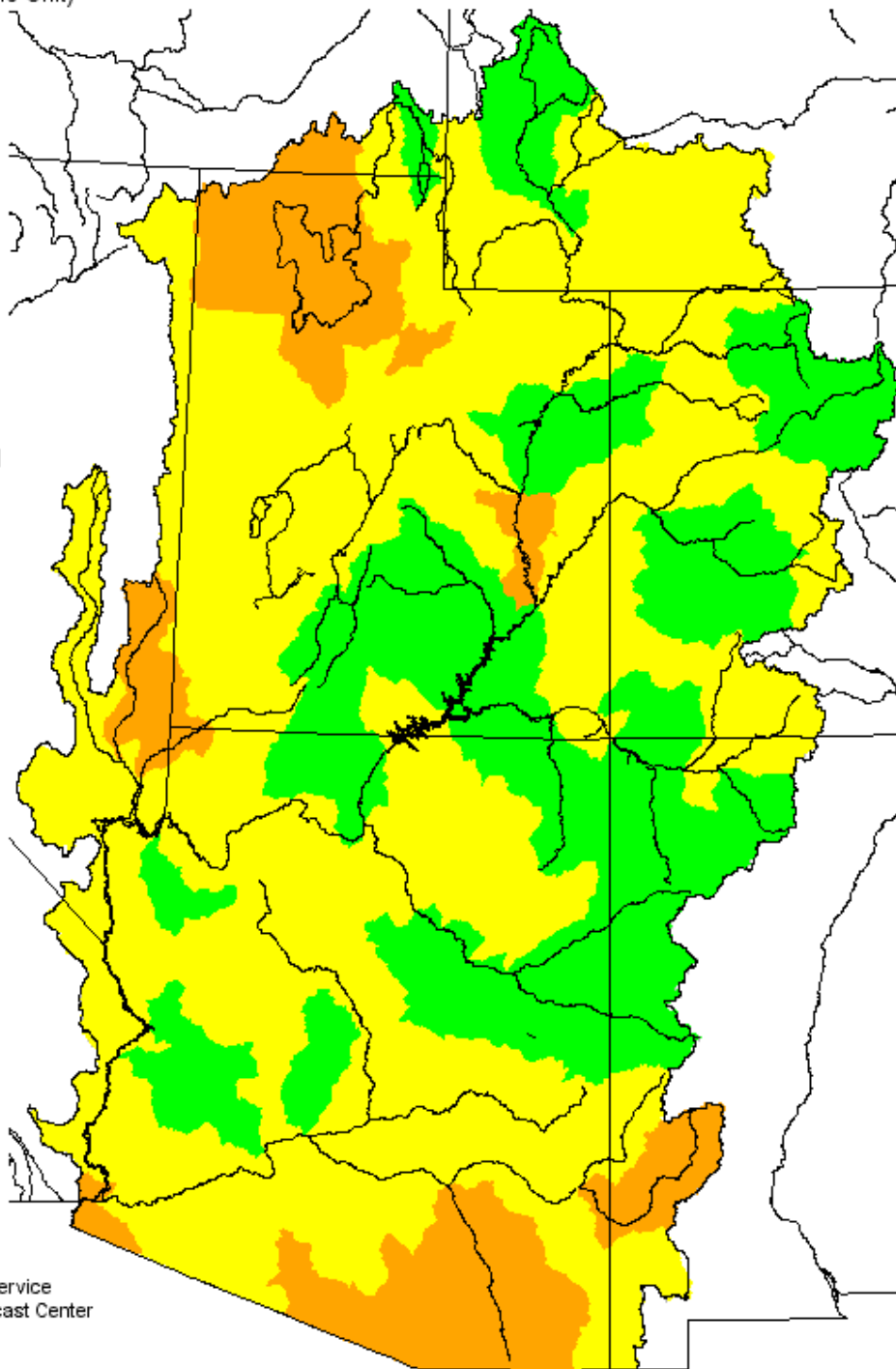
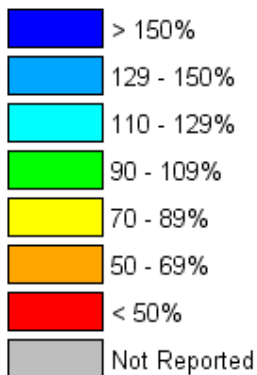


Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

# Seasonal Precipitation, October 2002 - February 2003

(Averaged by Hydrologic Unit)

## % Average



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## 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 April 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, Salt River Project, 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 Median	Above Median	Near Median	Below Median	Much below Median
Greater than 130%	111-130%	90-110%	70-89%	Less than 70%

**Forecast Period:**

Variable. Current month through May 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

2242 W. North Temple · Salt Lake City, UT 84116 · (801) 524-5130 · <http://www.cbrfc.gov>