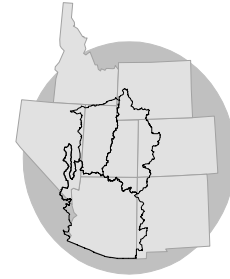


# WATER SUPPLY OUTLOOK

## for the LOWER COLORADO COLORADO BASIN RIVER FORECAST CENTER

NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT

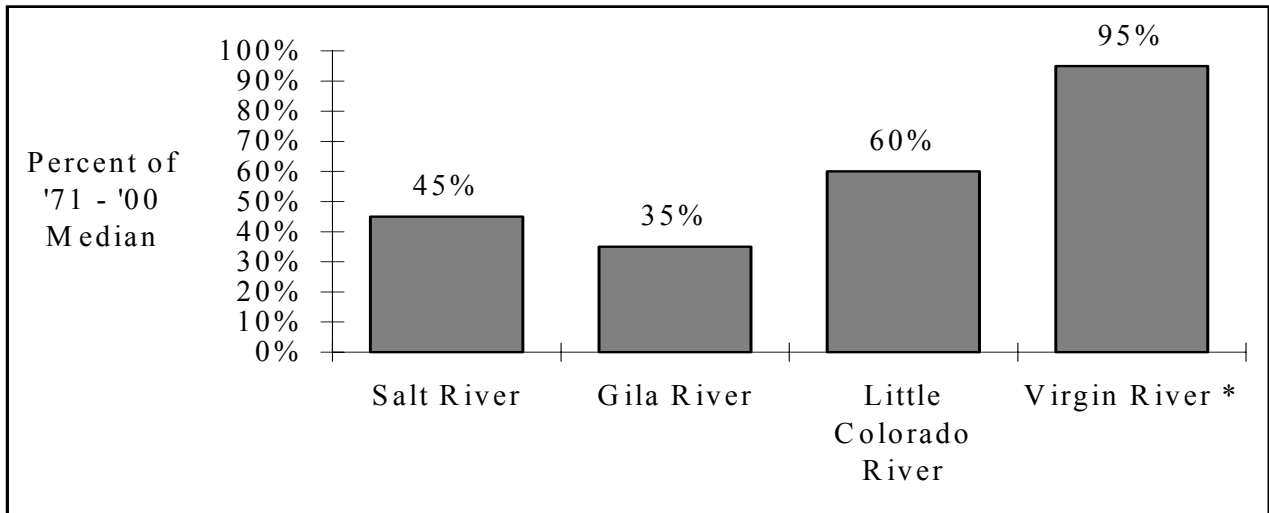


### JANUARY 1, 2004

## SUMMARY

In the North, forecasted stream flows are near average for the Virgin mainstem and below average for its tributary, the Santa Clara River. In Arizona where dry conditions continue, forecasted stream flows are for much below median.

## JANUARY - MAY VOLUME FORECASTS



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

## SALT RIVER

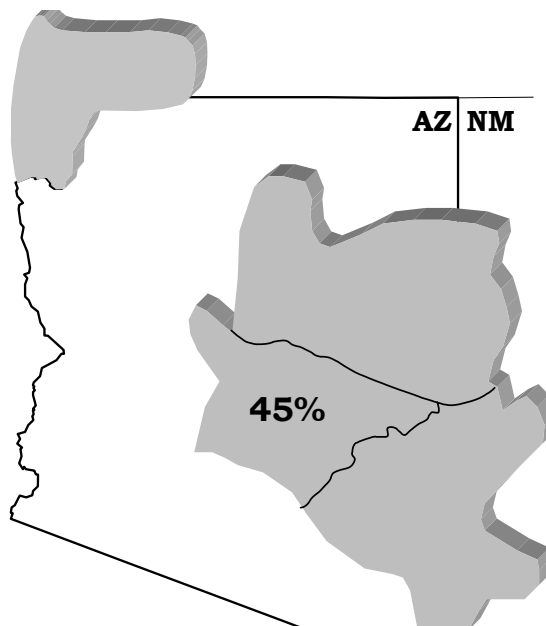
The 2004 Water Year is another dry year in Arizona. Above average temperatures and below average precipitation is expected during January, February, and March. Therefore, forecasted stream flow is for much below median.

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

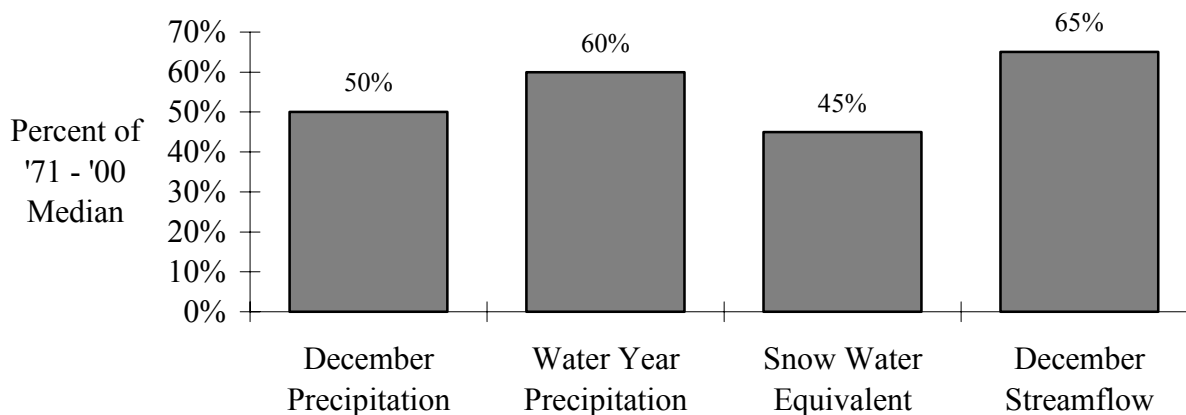
Verde River:  
Much Below Median

Tonto Creek:  
Much Below Median

Salt River:  
Much Below Median



## BASIN CONDITIONS - JANUARY 1, 2004



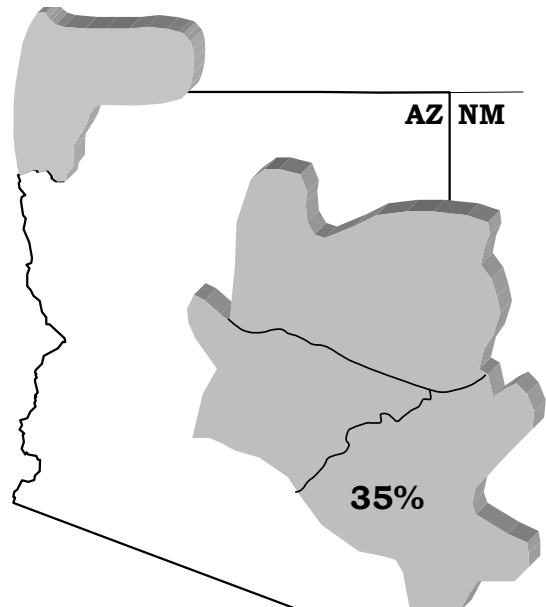
Specific site forecasts are listed on page 6.

## GILA RIVER

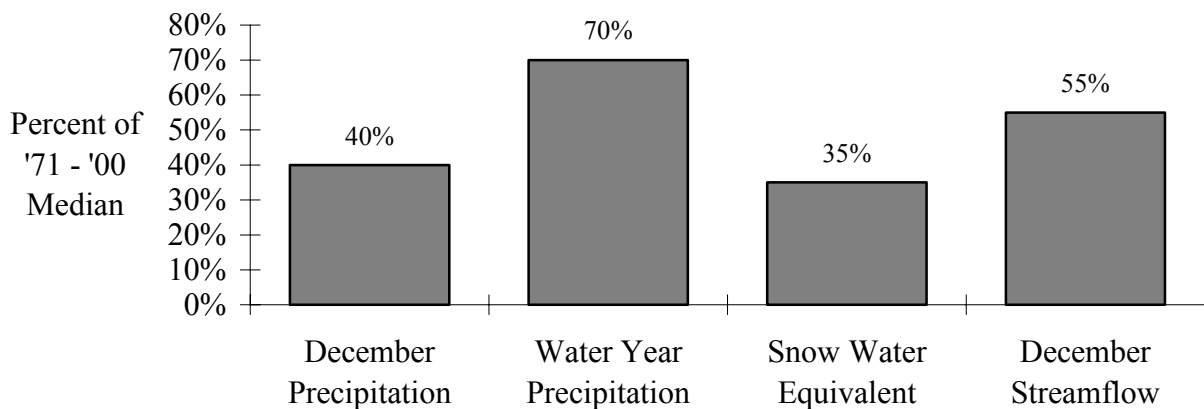
The 2004 Water Year is another dry year in Arizona. Above average temperatures and below average precipitation is expected during January, February, and March. Therefore, forecasted stream flow is for much below median.

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

Gila River:  
Much Below Median



## BASIN CONDITIONS - JANUARY 1, 2004



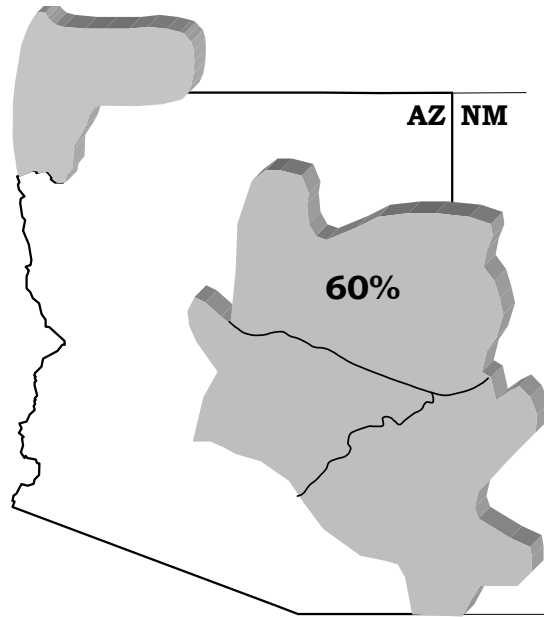
Specific site forecasts are listed on page 6.

## LITTLE COLORADO RIVER

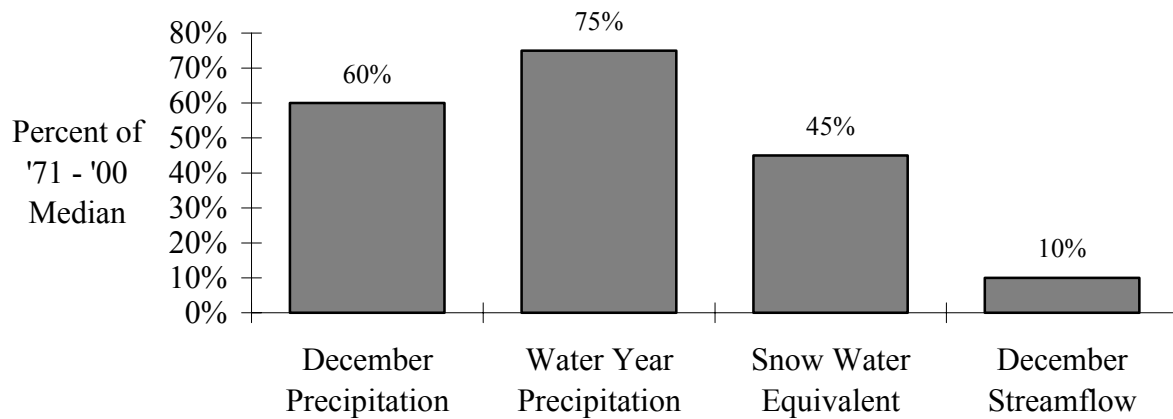
The 2004 Water Year is another dry year in Arizona. Above average temperatures and below average precipitation is expected during January, February, and March. Therefore, forecasted stream flow is for much below median.

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

Little Colorado River:  
Much Below Median



## BASIN CONDITIONS - JANUARY 1, 2004

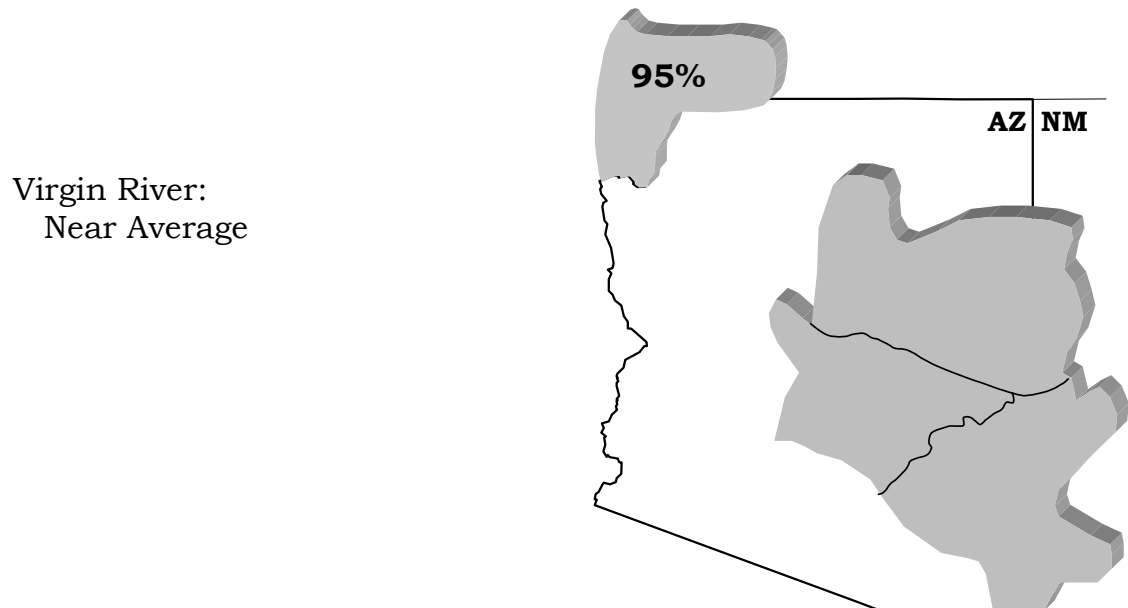


Specific site forecasts are listed on page 6.

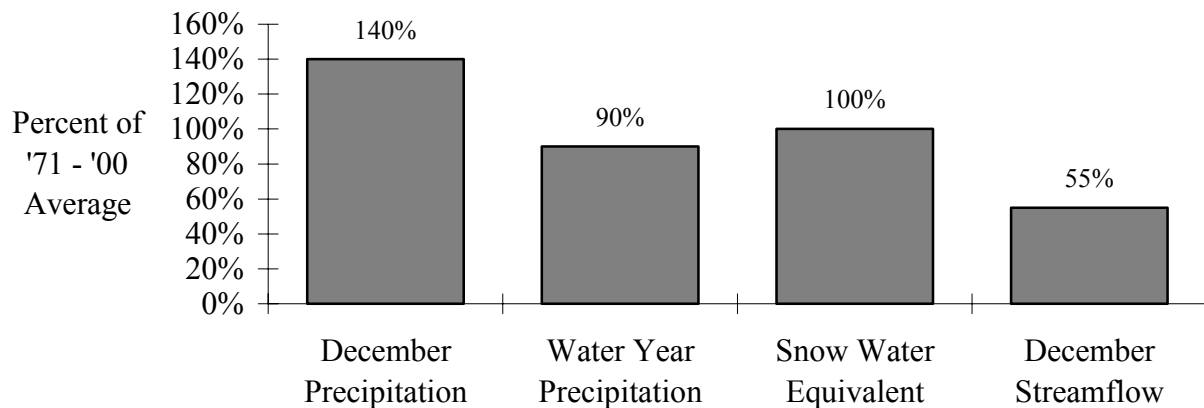
## VIRGIN RIVER

Snow coverage is 100% of average for most of the Virgin River Basin. Conditions being only drier in the Santa Clara Watershed. Therefore, forecasted stream flows are near average for the Virgin mainstem and below average for its tributary, the Santa Clara River.

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



## BASIN CONDITIONS - JANUARY 1, 2004



Specific site forecasts are listed on page 6.

## SPECIFIC SITE FORECASTS—WATER YEAR 2004

January 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	4.2	57	11.2	0.97
	WOODRUFF	2.1	58	5.4	0.47
RIO NUTRIA	RAMAH, NR	1.4	45	8.7	0.15
ZUNI	BLACK ROCK RES, ABV	0.9	61	1.79	0.37
CEBOLLA CK	RAMAH RES	0.77	45	6.1	0.09
EAST CLEAR CK	BLUE RIDGE RES, PINE, NR	8	47	19.7	1.5
CLEAR CK	WINSLOW, NR	22	65	32	6.8
CHEVELON CK	WINSLOW, NR, WILDCAT CYN, BLO	2.6	65	4	1
WALNUT CK	LAKE MARY	2	40	3.8	0.87
SANTA CLARA	PINE VALLEY, NR	4.6	84	10.4	1.13
VIRGIN	VIRGIN	65	102	127	24
	HURRICANE, NR	68	99	105	31
	LITTLEFIELD	67	91	103	31
GILA	GILA, NR	27	45	52	15
	VIRDEN, NR, BLUE CK, BLO	30	36	89	13.3
	SOLOMON, NR, HEAD OF SAFFORD V	45	27	197	25
	CALVA	21	19	89	7.8
	SAN CARLOS RES, COOLIDGE DAM,	22	23	128	6.7
SAN FRANCISCO	GLENWOOD, NR	14	52	24	7.2
	CLIFTON	36	51	97	11.9
SAN PEDRO	CHARLESTON	3.4	87	5.3	2
SALT	ROOSEVELT, NR	165	43	385	50
TONTO CK	ROOSEVELT, NR, GUN CK, ABV	25	45	92	2.4
VERDE	HORSESHOE DAM, ABV, TANGLE CK,	125	57	305	35
COLORADO	✕ LAKE POWELL, GLEN CYN DAM, AT	7100	91		

◆ = January-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).

## December 2003 END OF MONTH RESERVOIR CONTENTS

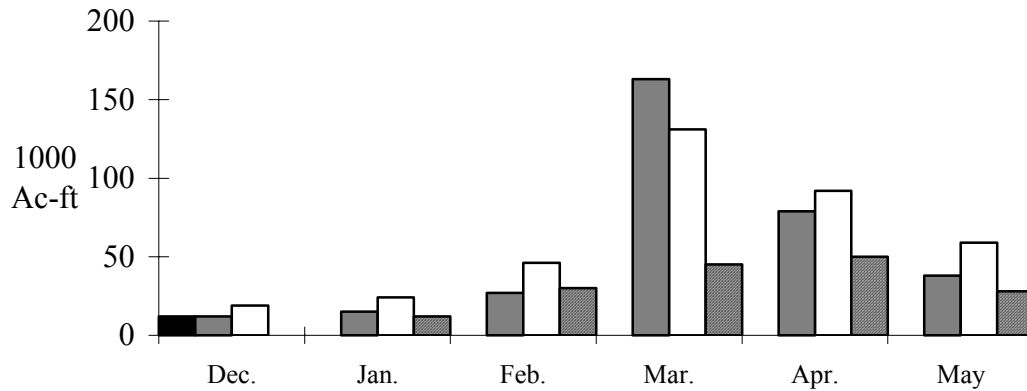
RESERVOIR (vol. in 1000 ac-ft)	Usable Capacity	EOM Usable Contents	Percent Usable Capacity (%)
Roosevelt	1653.0	493.0	30%
Horse Mesa	245.0	218.0	89%
Mormon Flat	58.0	55.0	95%
Stewart Mountain	70.0	66.0	94%
Horseshoe	109.2	12.0	11%
Bartlett	178.0	102.0	57%
Total SRP Reservoirs	2313.2	946.0	41%
San Carlos	867.0	27.0	3%
Waddell	1145.0	489.0	43%
Painted Rock	2476.0	0.0	0%
Alamo	1045.0	54.0	5%
Lyman	31.0	2.0	6%
Lake Powell	24322.0	11486.0	47%
Mead	27380.0	15319.0	56%
Mohave	1810.0	1605.0	89%
Havasu	619.0	508.0	82%

NA = Not Available.

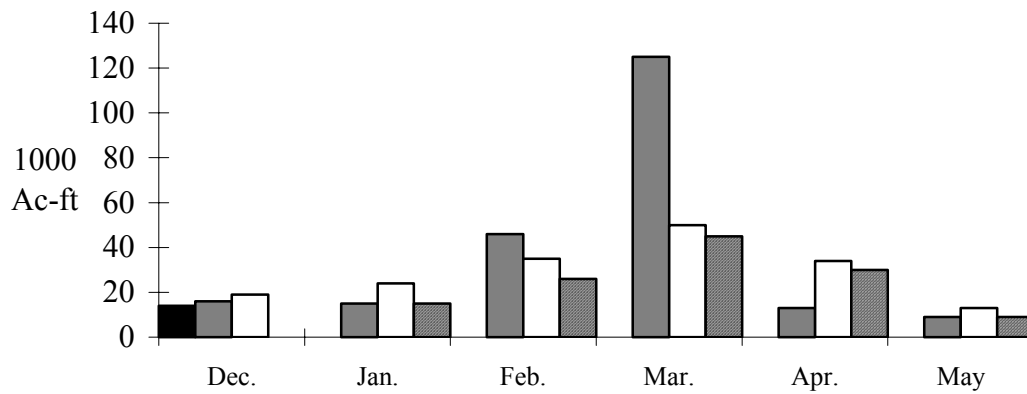
# MONTHLY STREAMFLOWS



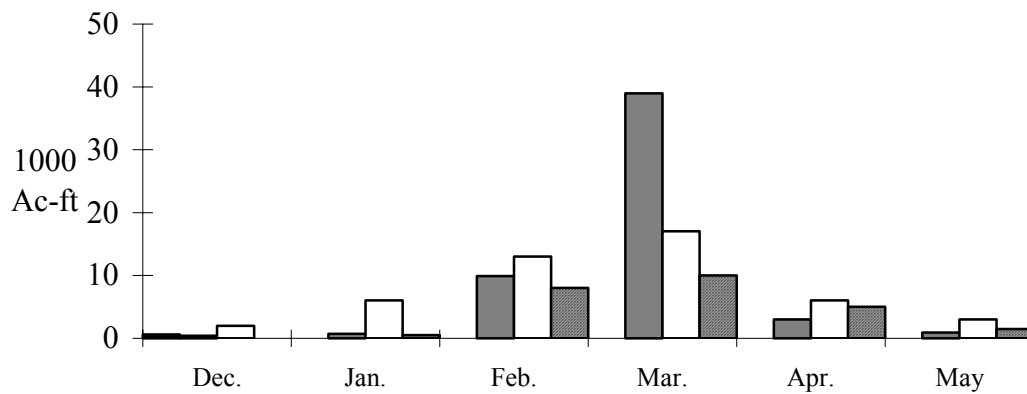
## Salt - Roosevelt:



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



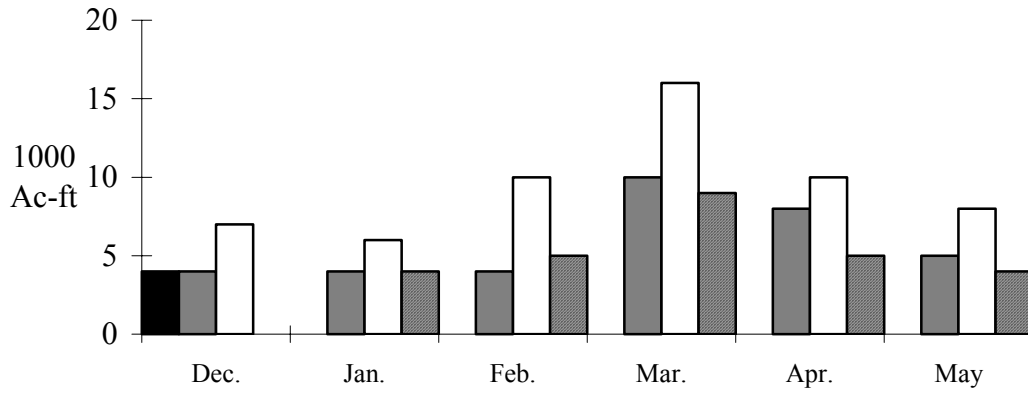
## Tonto Ck - Roosevelt, nr, Gun Ck, abv:



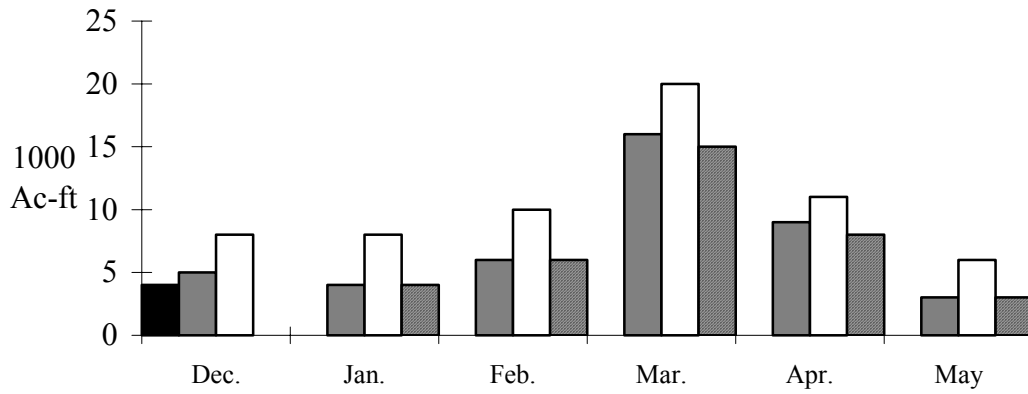




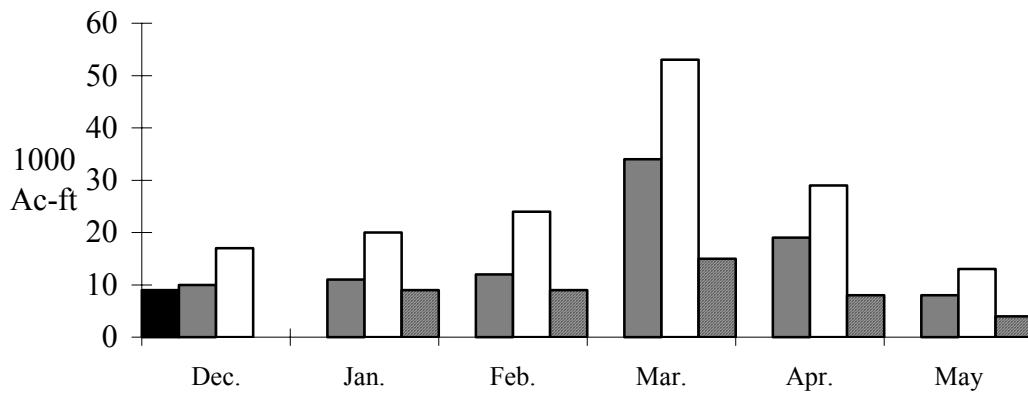
**Gila - Gila, nr:**



**San Francisco - Clifton:**



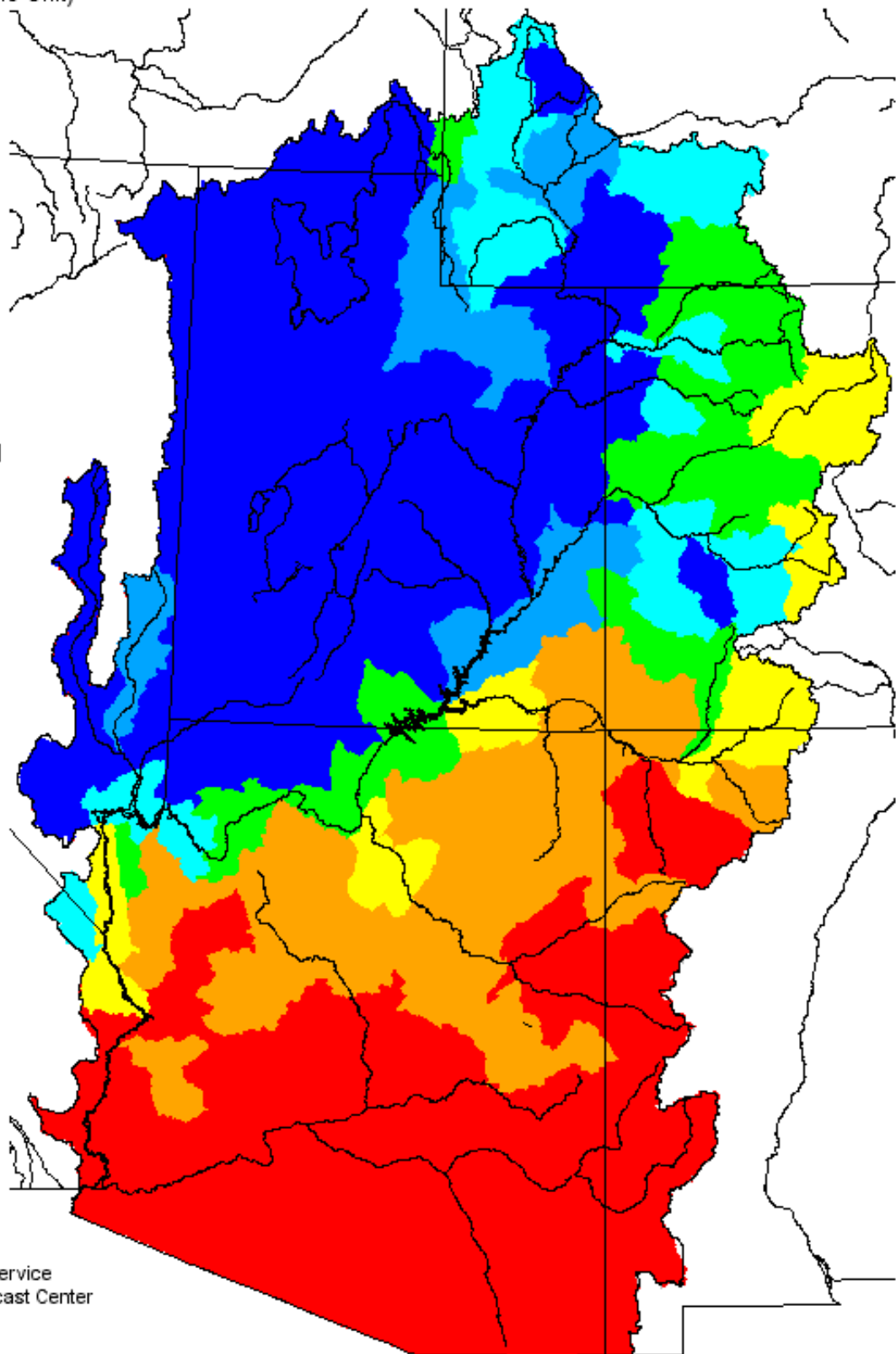
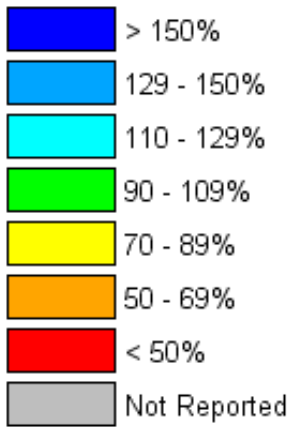
**Gila - Solomon:**



# Monthly Precipitation for December 2003

(Averaged by Hydrologic Unit)

## % Average

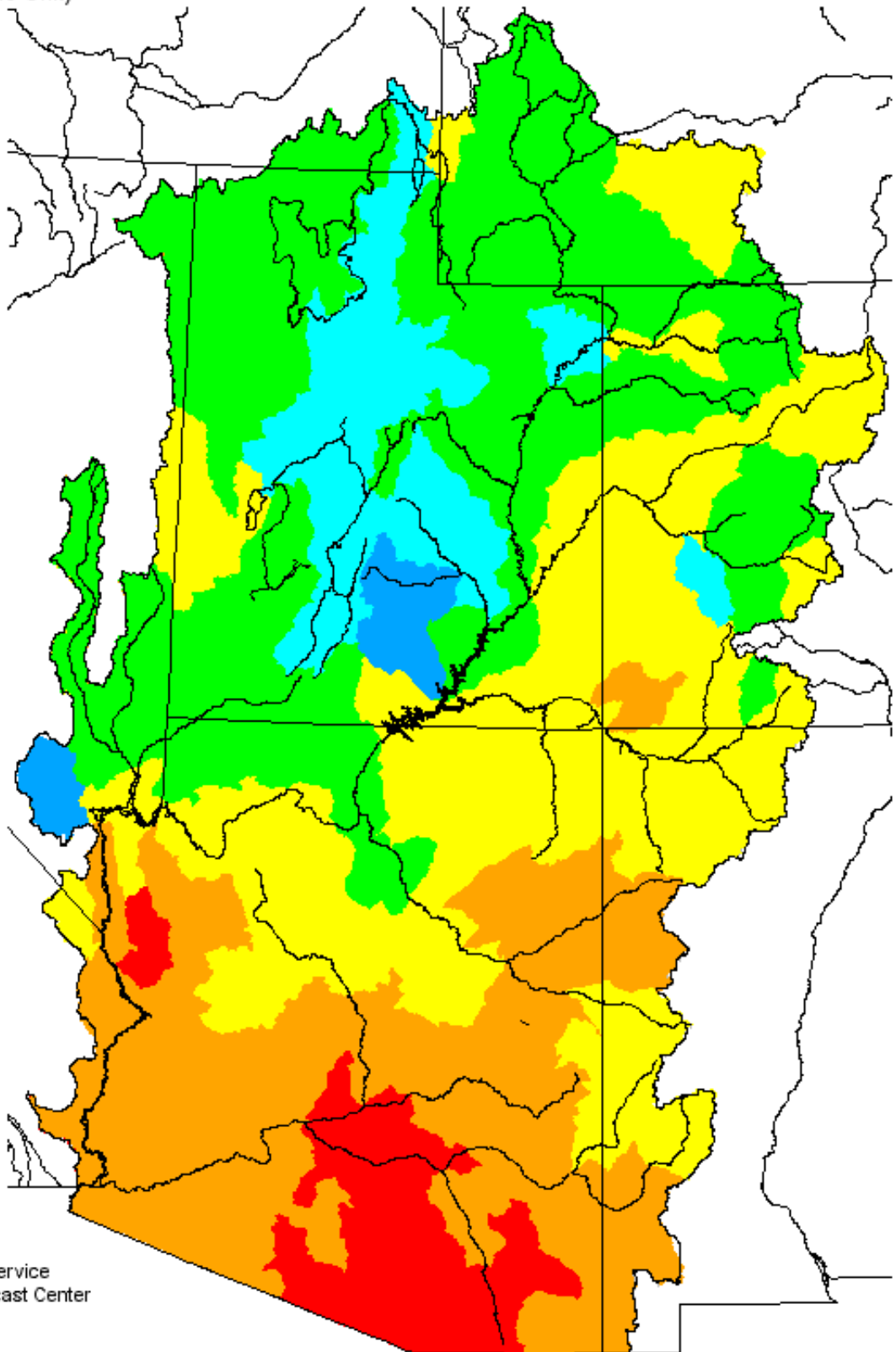
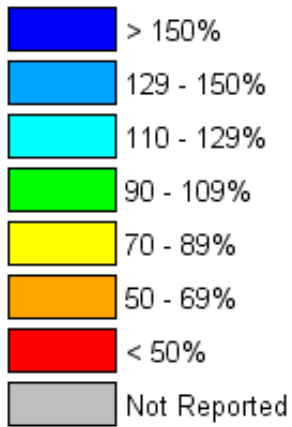


Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

# Seasonal Precipitation, October 2003 - December 2003

(Averaged by Hydrologic Unit)

## % Average



Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
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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>