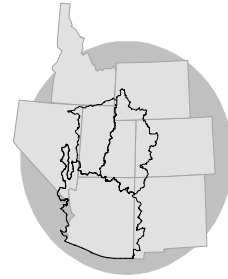


WATER SUPPLY OUTLOOK

for the LOWER COLORADO COLORADO BASIN RIVER FORECAST CENTER

NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT

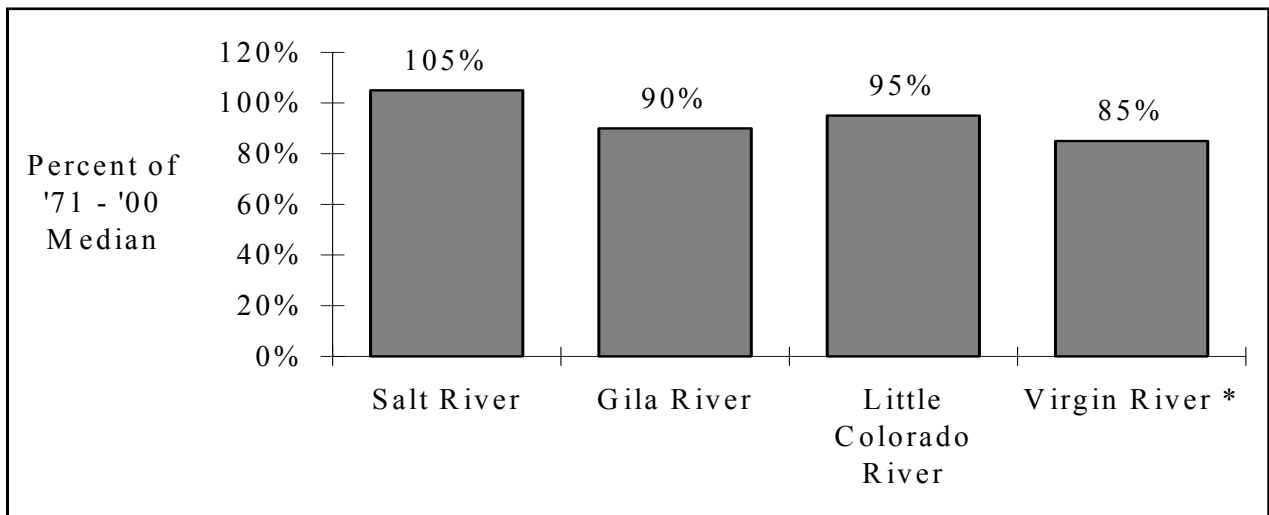


JANUARY 1, 2003

SUMMARY

The forecast runoff volumes for January through May are significantly higher than last year. The Lower Colorado watershed will in general receive near median to above median flows. However, the Virgin River is forecasted below median at this time.

January - May VOLUME FORECASTS



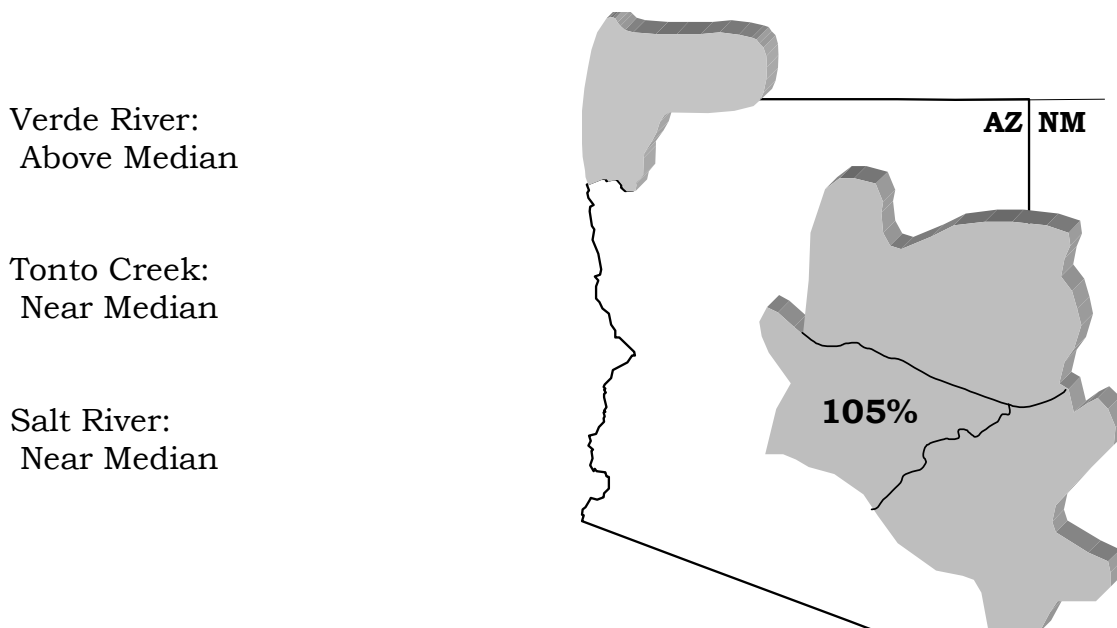
INSIDE	
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* Virgin River Basin forecasts are for the April through July period and expressed in percent of average.

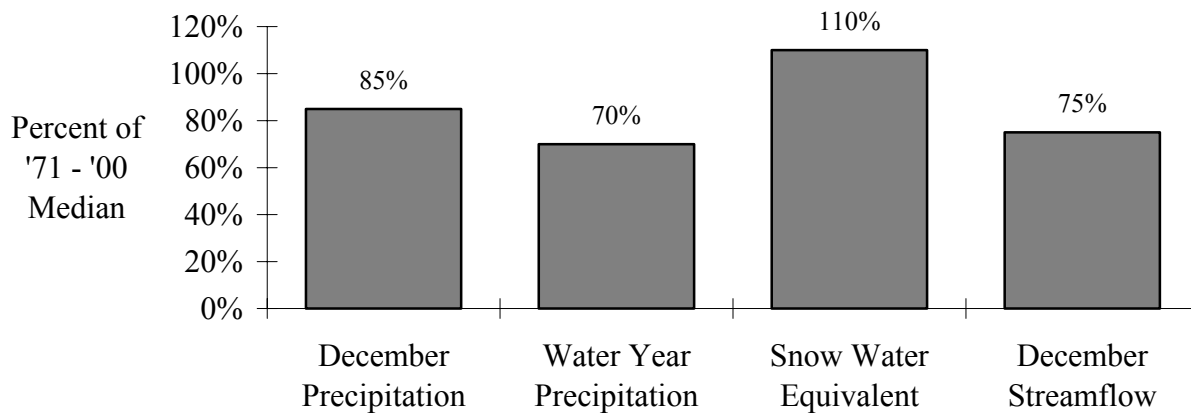
SALT RIVER

The 2003 Water Year is forecasted to be significantly wetter than the 2002 Water Year. The overall snow coverage is already above median.

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



BASIN CONDITIONS - January 1, 2003

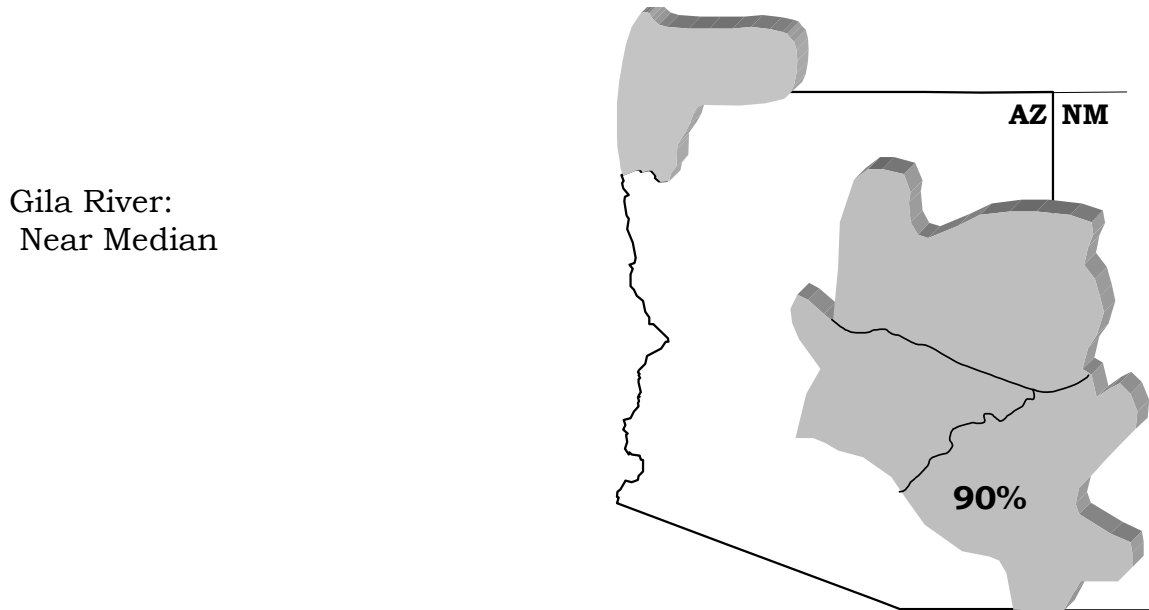


Specific site forecasts are listed on page 6.

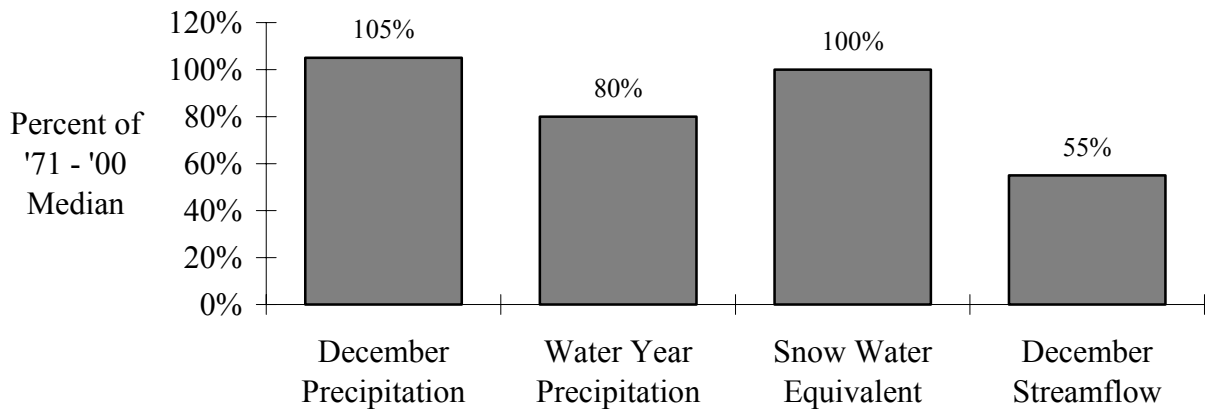
GILA RIVER

The 2003 Water Year in the Gila watershed began dry but is improving. The forecasted stream flows are approaching median.

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



BASIN CONDITIONS - JANUARY 1, 2003



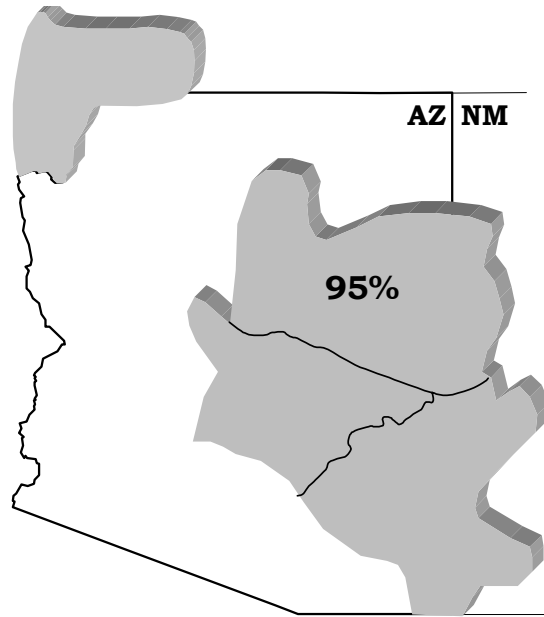
Specific site forecasts are listed on page 6.

LITTLE COLORADO RIVER

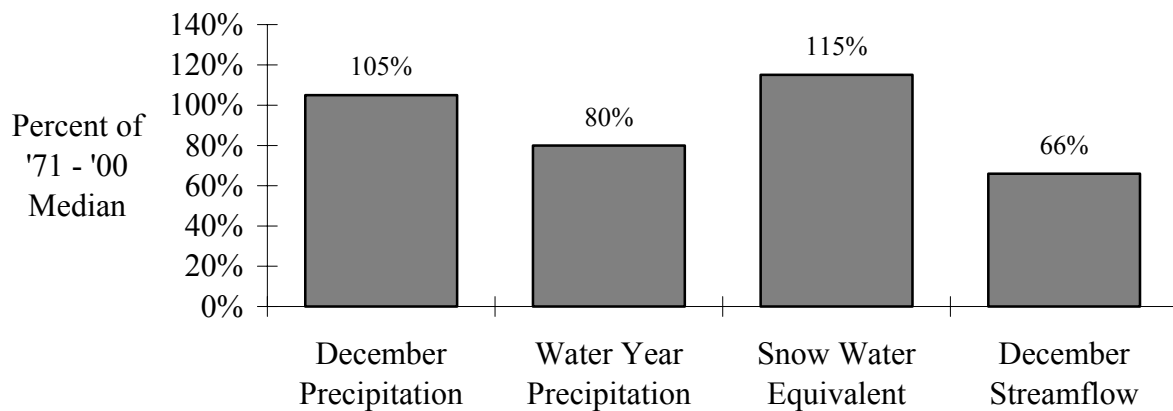
The snow pack within the Little Colorado watershed is above median. Forecasted runoff now ranges from 82% to 135% of median.

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

Little Colorado River:
Near Median



Basin Conditions - January 1, 2003



Specific site forecasts are listed on page 6.

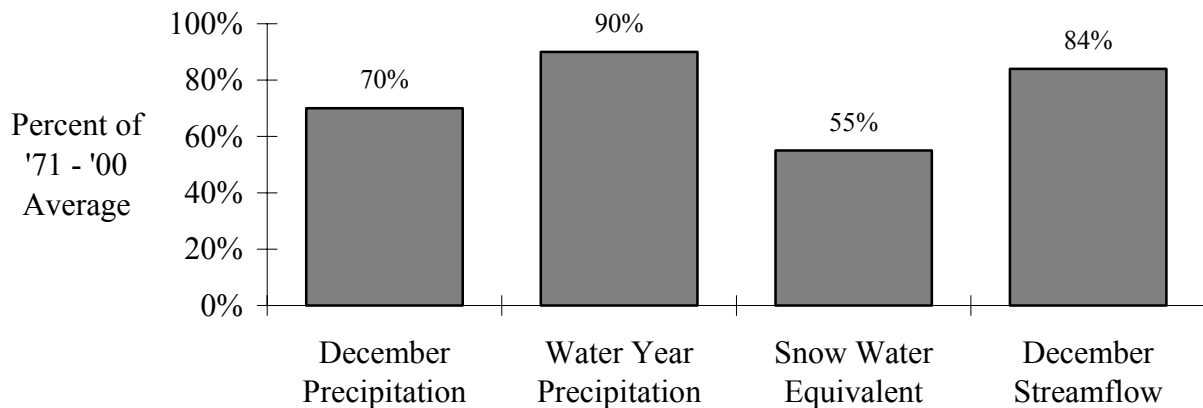
VIRGIN RIVER

The forecast is for below average runoff; however, this is a vast improvement over the almost nonexistent flows of last year. Snow coverage is still much below average but this is expected to change in the upcoming months.

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



BASIN CONDITIONS - JANUARY 1, 2003



Specific site forecasts are listed on page 6.

SPECIFIC SITE FORECASTS—WATER YEAR 2003

Stream	Station	Most Probable	Percent Med.	Reas. Max	Reas. Min
LITTLE COLORADO	◆ LYMAN LK, ABV, ST. JOHNS, NR	7.5	101	17.2	2.4
	WOODRUFF	3.4	94	12	1.5
RIO NUTRIA	RAMAH, NR	4	129	27	0.06
ZUNI	BLACK ROCK RES, ABV	2	135	3.4	0.52
CEBOLLA CK	RAMAH RES	2.2	129	7.5	0.16
EAST CLEAR CK	BLUE RIDGE RES, PINE, NR	14	82	29	4.5
CLEAR CK	WINSLOW, NR	28	82	112	14
CHEVELON CK	WINSLOW, NR, WILDCAT CYN, BLO	3.5	88	14	1.75
WALNUT CK	LAKE MARY	4.5	90	7.5	2.4
SANTA CLARA	✕ PINE VALLEY, NR	4.5	82	10.3	1.08
VIRGIN	✕ VIRGIN	53	83	110	22
	✕ HURRICANE, NR	57	83	94	31
	✕ LITTLEFIELD	53	72	89	30
GILA	GILA, NR	55	92	93	29
	VIRDEN, NR, BLUE CK, BLO	75	90	134	40
	SOLOMON, NR, HEAD OF SAFFORD V	143	87	295	63
	CALVA	93	85	191	38
SAN FRANCISCO	SAN CARLOS RES, COOLIDGE DAM,	123	85	230	59
	GLENWOOD, NR	25	93	40	14.6
	CLIFTON	60	86	121	19.7
SAN PEDRO	CHARLESTON	4.5	115	13.5	2.3
SALT	ROOSEVELT, NR	390	101	755	167
TONTO CK	ROOSEVELT, NR, GUN CK, ABV	60	107	167	12.6
VERDE	HORSESHOE DAM, ABV, TANGLE CK	245	111	510	93
COLORADO	✕ LAKE POWELL, GLEN CYN DAM, AT	5700	72		

◆ = January-June forecast period.

✕ = April-July forecast period.

NA = Not Available.

Special Notes:

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

December 2002 END OF MONTH RESERVOIR CONTENTS

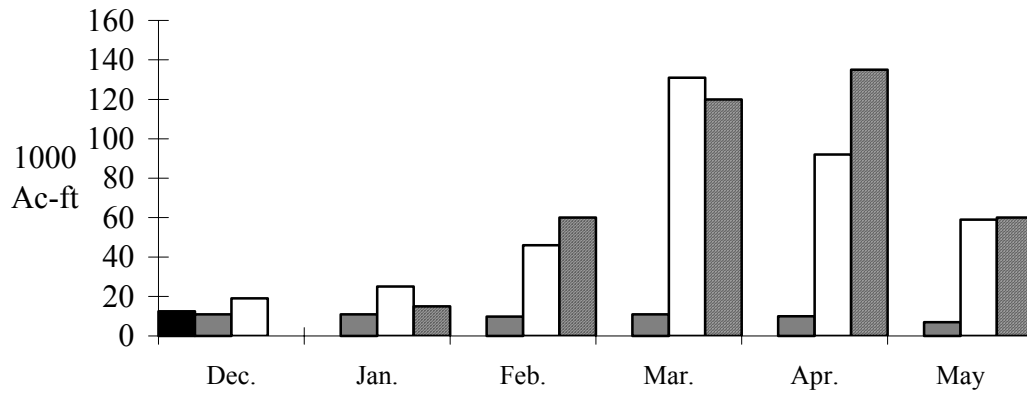
RESERVOIR (vol. in 1000 ac-ft)	Usable Capacity	EOM Usable Contents	Percent Usable Capacity (%)
Roosevelt	1653.0	211.0	13%
Horse Mesa	245.0	216.0	88%
Mormon Flat	58.0	55.0	95%
Stewart Mountain	70.0	65.0	93%
Horseshoe	109.2	0.0	0%
Bartlett	178.0	62.0	35%
Total SRP Reservoirs	2313.2	609.0	26%
San Carlos	867.0	NA	NA
Waddell	1145.0	398.0	35%
Painted Rock	2476.0	0.0	0%
Alamo	1045.0	71.0	7%
Lyman	31.0	2.0	6%
Lake Powell	24322.0	13774.0	57%
Mead	27380.0	16758.0	61%
Mohave	1810.0	1665.0	92%
Havasu	619.0	552.0	89%

NA = Not Available.

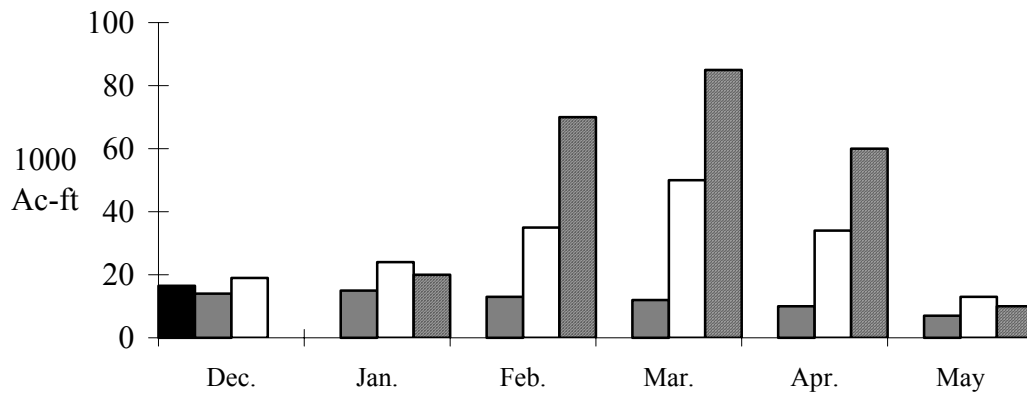
MONTHLY STREAMFLOWS



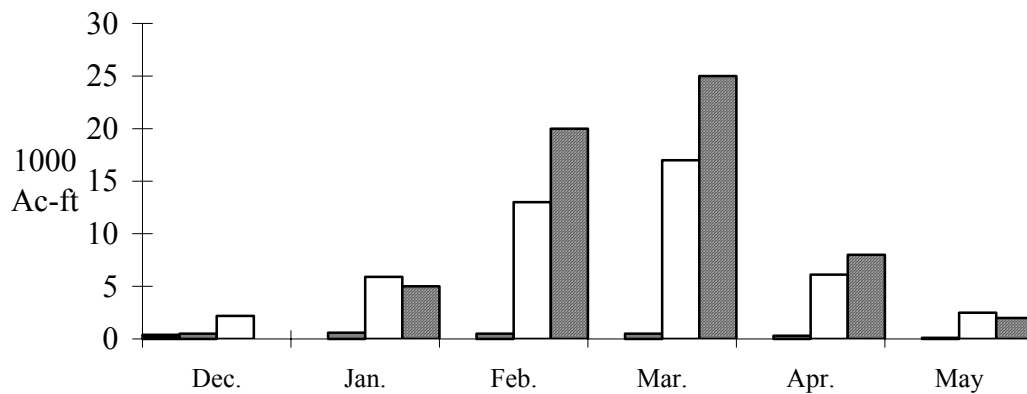
Salt - Roosevelt:



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

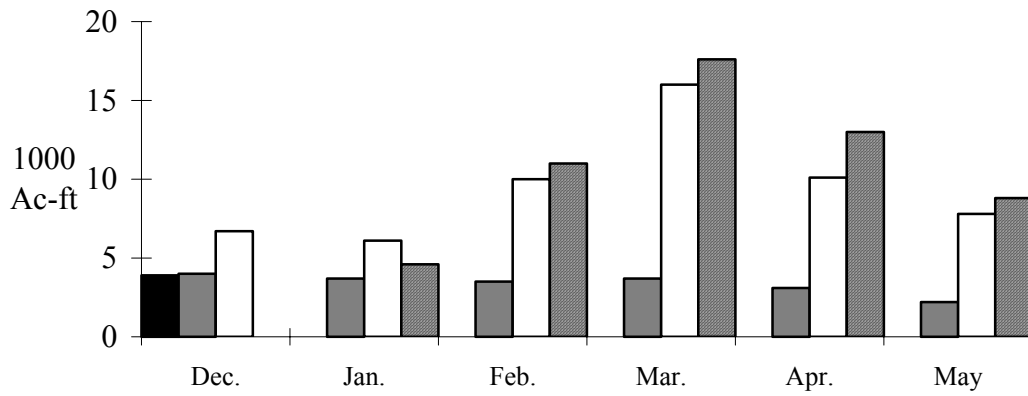


Tonto Ck - Roosevelt, nr, Gun Ck, abv:

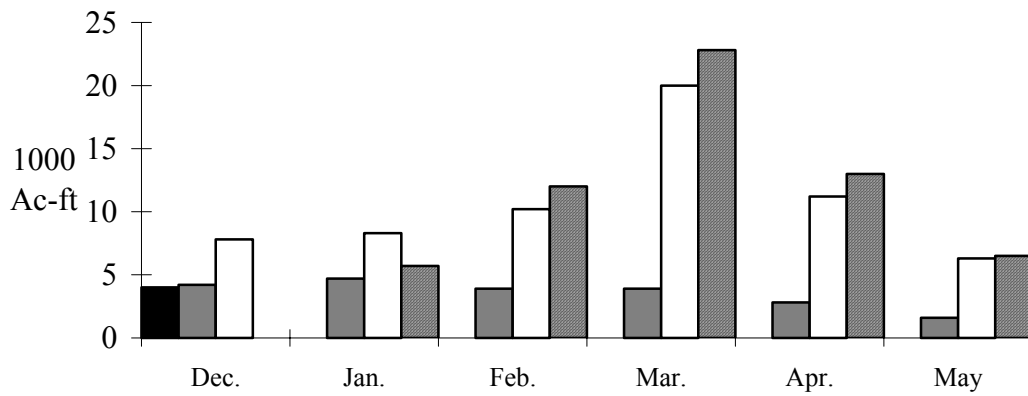




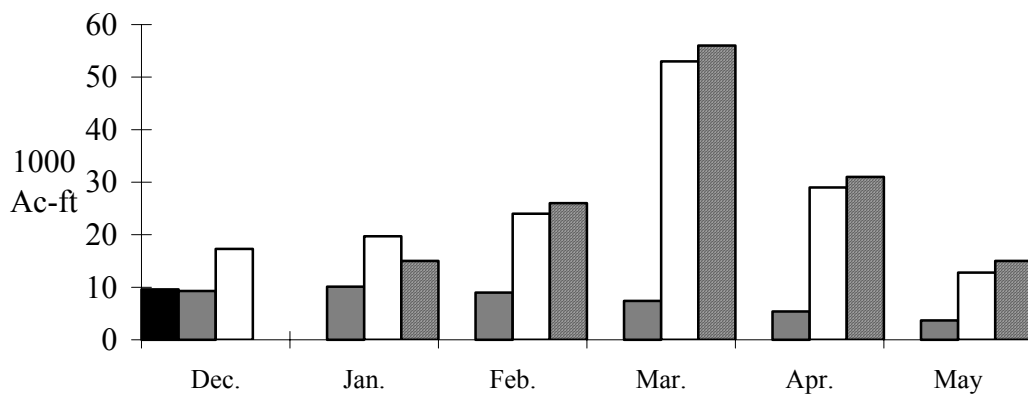
Gila - Gila, nr:



San Francisco - Clifton:



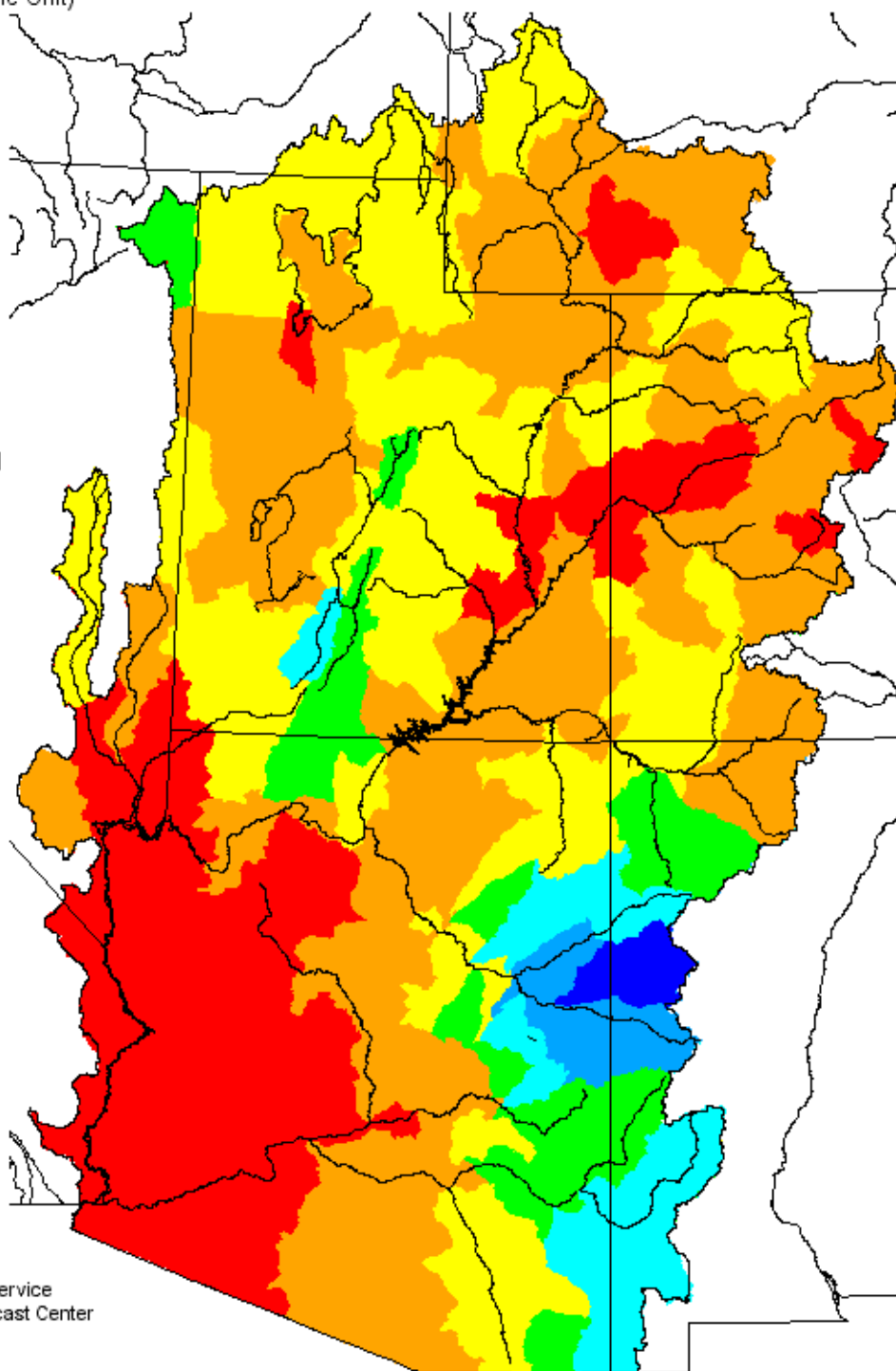
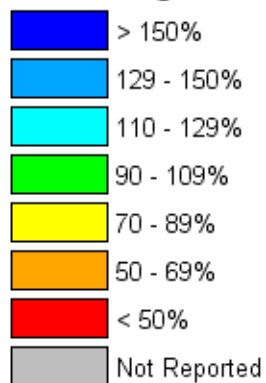
Gila - Solomon:



Monthly Precipitation for December 2002

(Averaged by Hydrologic Unit)

% Average

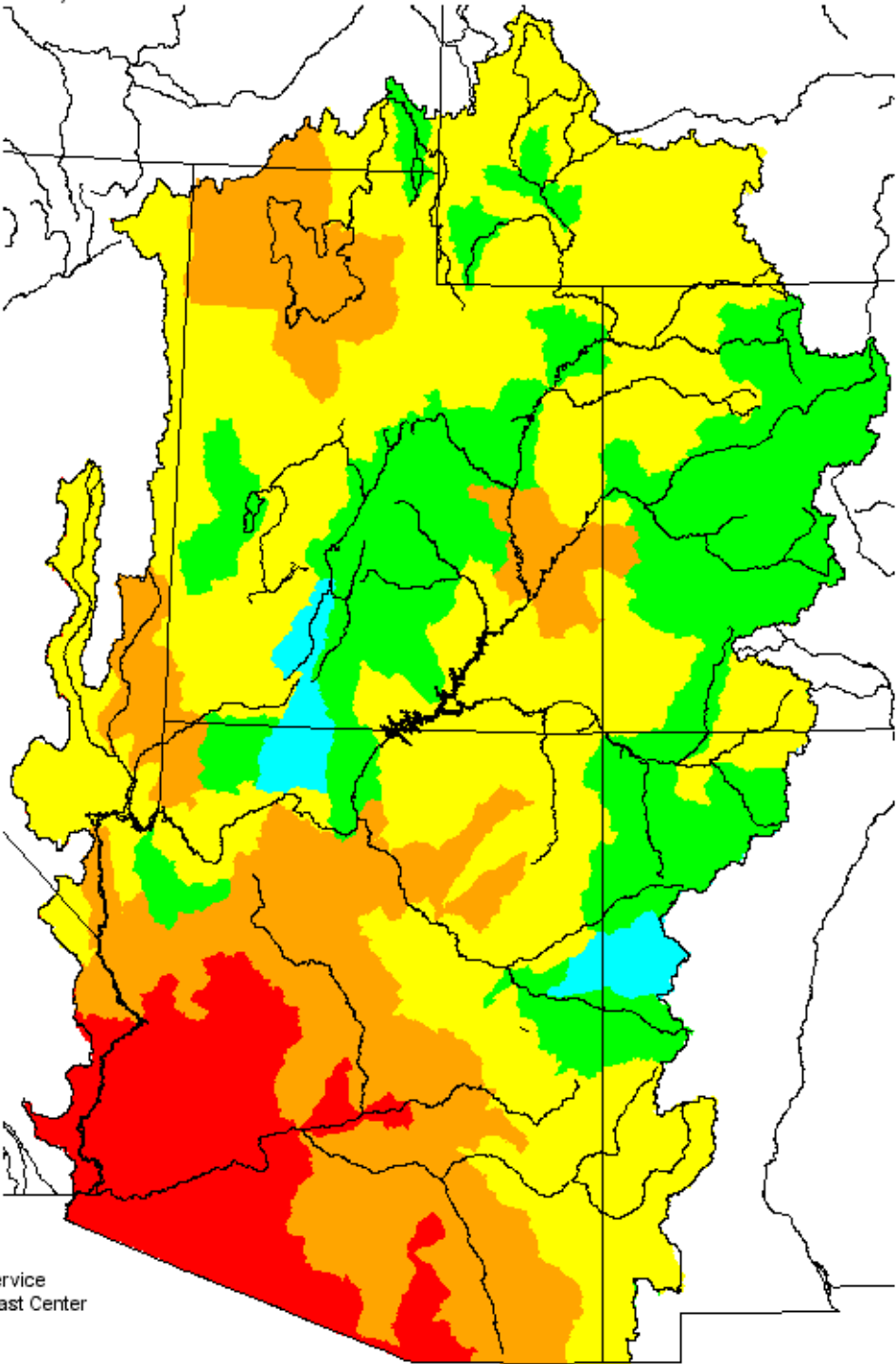
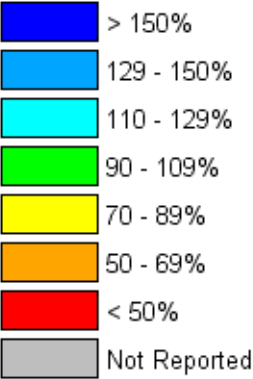


Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbrfc.noaa.gov

Seasonal Precipitation, October 2002 - December 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

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>