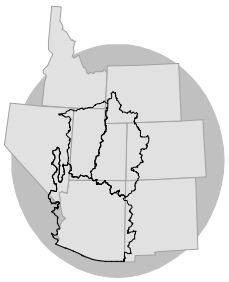
WATER SUPPLY OUTLOOK
for the
LOWER COLORADO
COLORADO BASIN
RIVER FORECAST CENTER

NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT

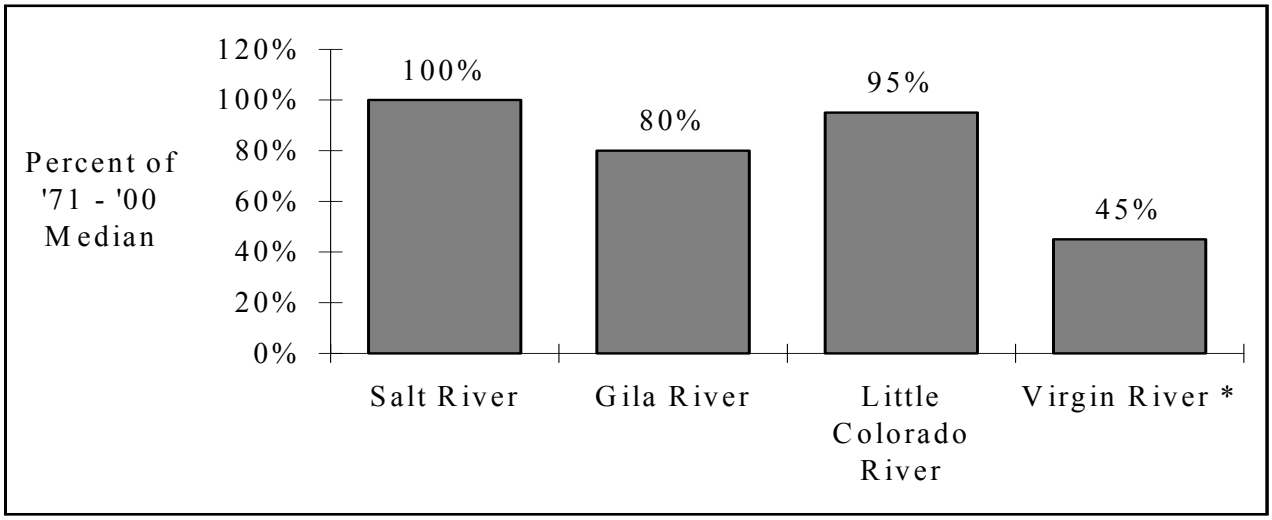


APRIL 1, 2003

SUMMARY

The forecast runoff volumes for April through May vary throughout the Lower Colorado Basin from much below average in the Northwest (Virgin) to near median in the Northeast and Central Basin (Little Colorado, Salt, Verde, and Tonto) to below median in the South (Gila). During the month, conditions improved in the Salt and Gila River Basins. However, conditions remained essentially the same in the Little Colorado and Virgin River Basins.

April - MAY VOLUME FORECASTS



	INSIDE

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

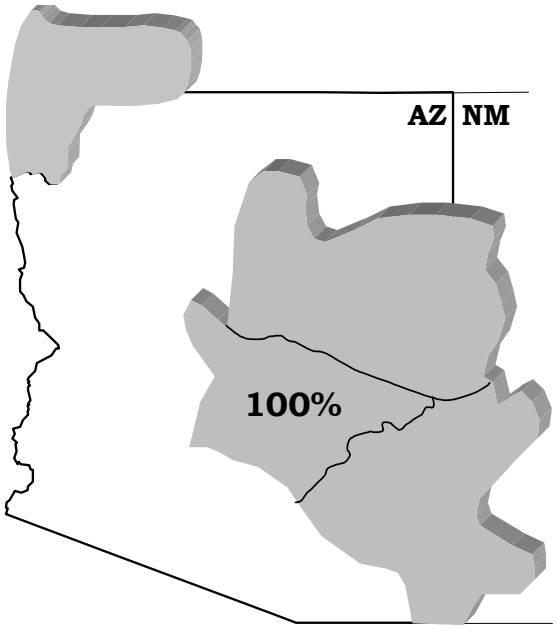
SALT RIVER The 2003 Water Year continues to be several times wetter than the 2002 Water Year. The remaining runoff period is forecasted to be near median.

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

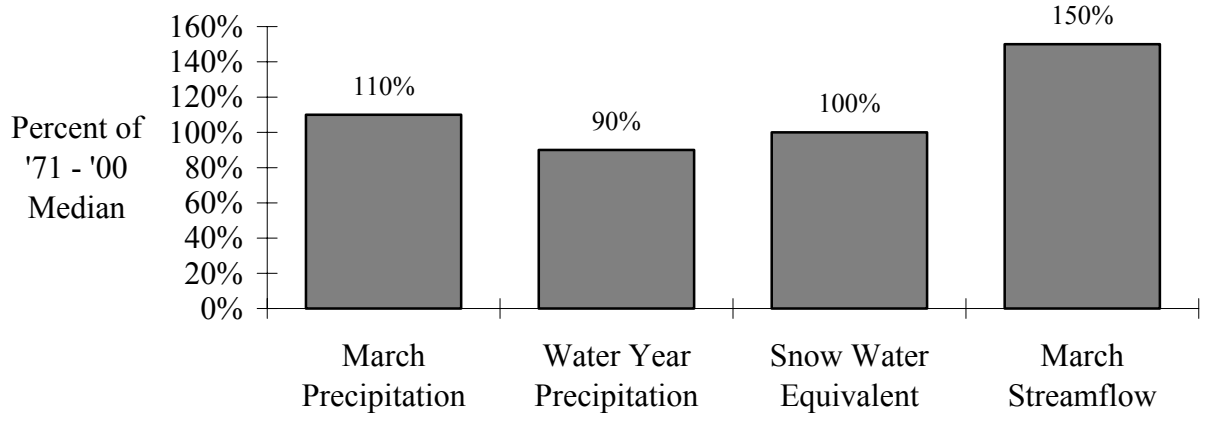
Verde River:
Near Median

Tonto Creek:
Near Median

Salt River:
Near Median



BASIN CONDITIONS - APRIL 1, 2003



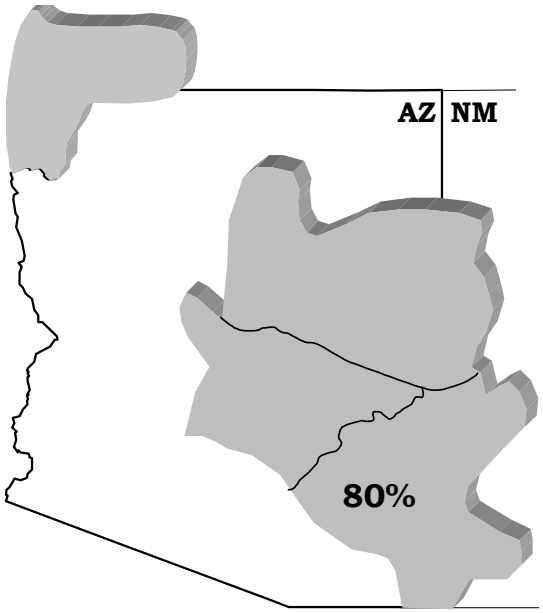
Specific site forecasts are listed on page 6.

GILA RIVER

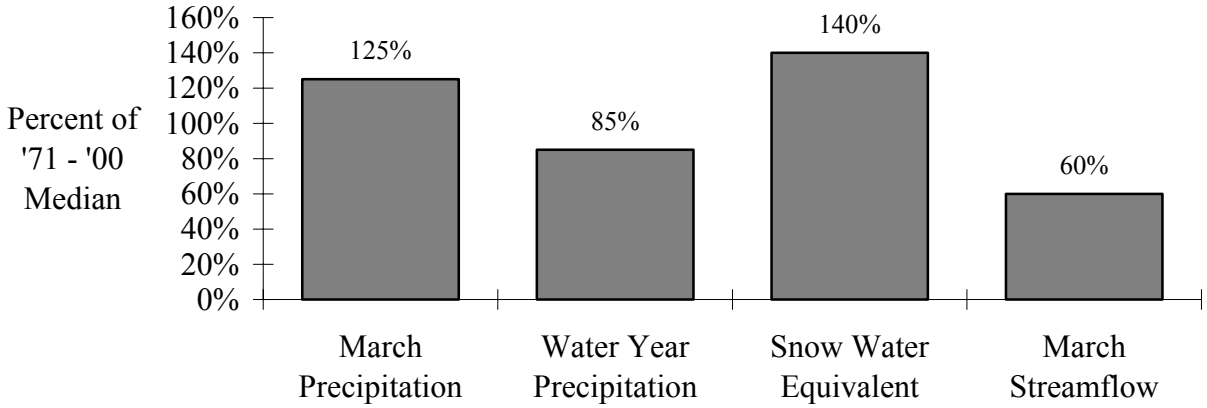
In general, watershed conditions continued to improve in March. The forecasted stream flows are near median in the San Pedro, and the headwaters of the San Francisco and Gila River Basins. However, as you move downstream, conditions remain dry. Therefore, San Carlos Reservoir inflow continues to be forecasted much below median.

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

Gila River:
Below Median



BASIN CONDITIONS - APRIL 1, 2003



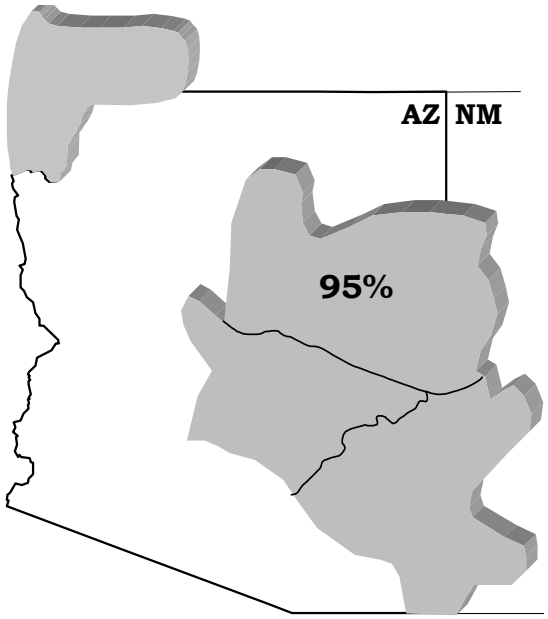
Specific site forecasts are listed on page 6.

Little Colorado River

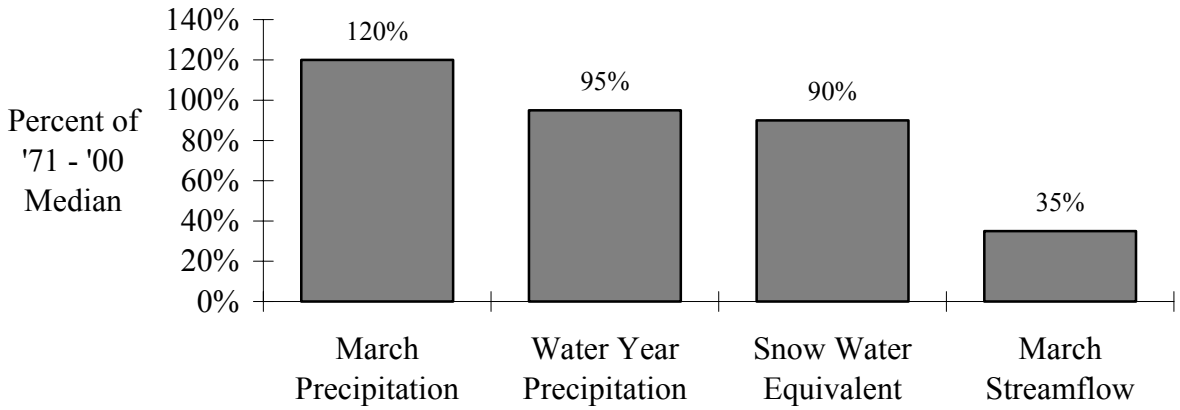
In general, the snowpack within the Little Colorado Watershed has stayed near median. Yet there are several areas within the basin that are wetter than others and several areas that have remained dry. Forecasted runoff ranges from 59% to 115% of median.

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

Little Colorado River:
Near Median



Basin Conditions - April 1, 2003

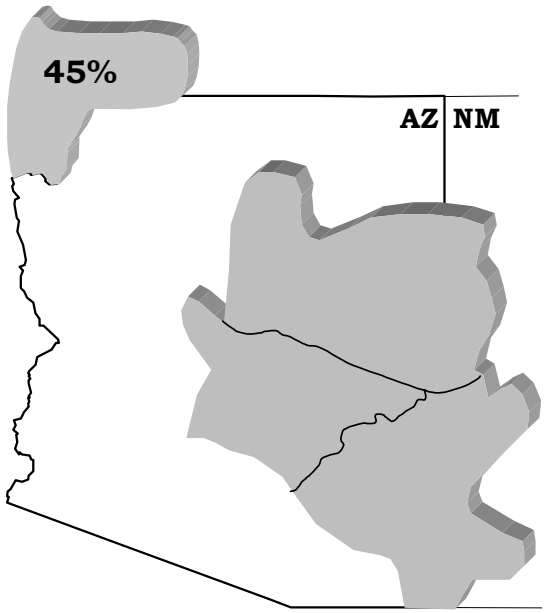


Specific site forecasts are listed on page 6.

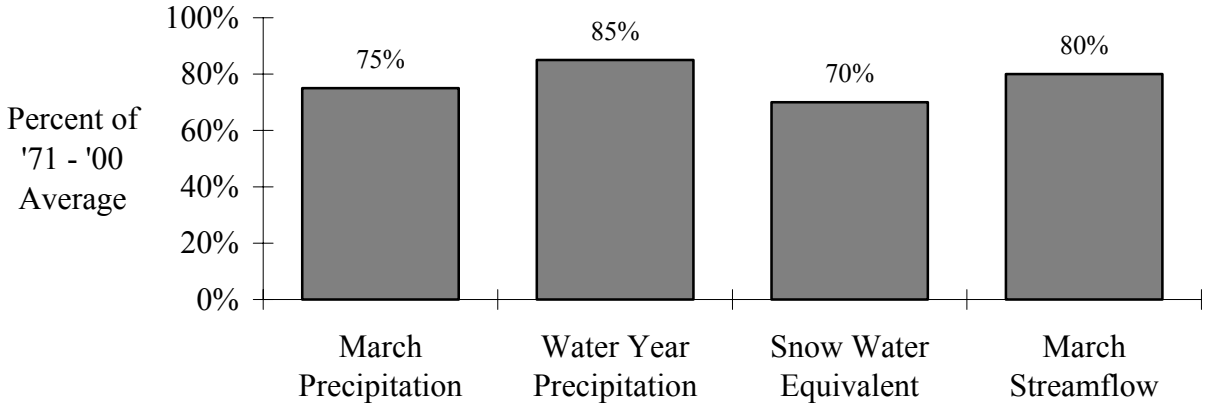
VIRGIN RIVER Snow coverage remained below average from March 1st to April 1st. The forecasts continue to be for much below average runoffs due to the prolonged dryness of the region. However, this is a vast improvement over the almost nonexistent flows of last year.

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

Virgin River:
Much Below Average



BASIN CONDITIONS - APRIL 1, 2003



Specific site forecasts are listed on page 6.

Specific Site Forecasts—Water Year 2003

April 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	4.1	95	8.4	1.6
	WOODRUFF	0.88	105	2	0.08
RIO NUTRIA	RAMAH, NR	0.6	115	1.58	0.14
ZUNI	BLACK ROCK RES, ABV	0.68	106	2.2	0.02
CEBOLLA CK	RAMAH RES	0.33	114	1.27	0.03
EAST CLEAR CK	BLUE RIDGE RES, PINE, NR	2.9	59	5.4	1.18
CLEAR CK	WINSLOW, NR	15.5	78	32	6
CHEVELON CK	WINSLOW, NR, WILDCAT CYN, BLO	1.08	73	2.1	0.44
WALNUT CK	LAKE MARY	1.13	77	2.6	0.36
SANTA CLARA ↗	PINE VALLEY, NR	2.2	40	4.1	0.88
VIRGIN ↗	VIRGIN	34	53	53	19.2
↗	HURRICANE, NR	32	46	49	19.3
↗	LITTLEFIELD	25	34	42	17.2
GILA	GILA, NR	16	92	25	9.8
	VIRDEN, NR, BLUE CK, BLO	15.5	65	34	5.8
	SOLOMON, NR, HEAD OF SAFFORD V	30	71	71	7.3
	CALVA	16.6	64	38	4.4
	SAN CARLOS RES, COOLIDGE DAM,	15.2	63	35	3.8
SAN FRANCISCO	GLENWOOD, NR	8.1	104	14.8	3.8
	CLIFTON	15.5	84	30	1.4
SAN PEDRO	CHARLESTON	1.1	94	1.6	0.86
SALT	ROOSEVELT, NR	140	98	198	94
TONTO CK	ROOSEVELT, NR, GUN CK, ABV	8	95	14.9	3.7
VERDE	HORSESHOE DAM, ABV, TANGLE CK,	45	102	70	27
COLORADO ↗	LAKE POWELL, GLEN CYN DAM, AT	5200	66		

◆ = April-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).

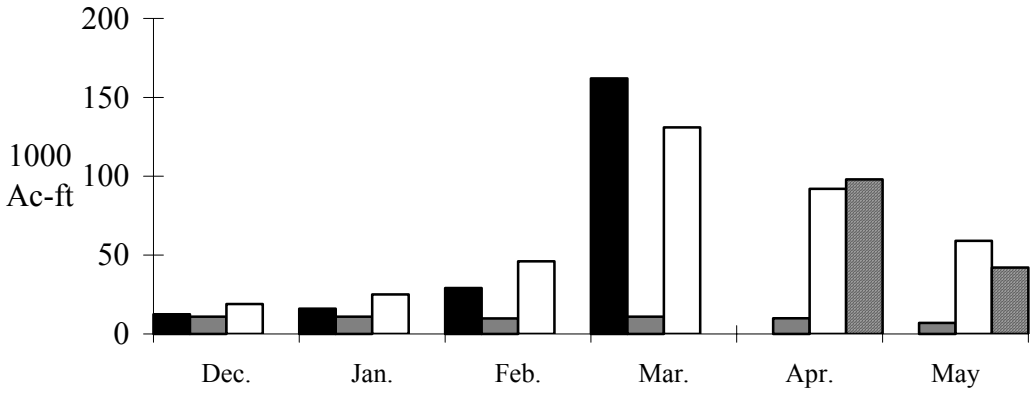
March 2003 End Of Month Reservoir Contents

RESERVOIR (vol. in 1000 ac-ft)	Usable Capacity	EOM Usable Contents	Percent Usable Capacity (%)
Roosevelt	1653.0	419.0	25%
Horse Mesa	245.0	230.0	94%
Mormon Flat	58.0	55.0	95%
Stewart Mountain	70.0	65.0	93%
Horseshoe	109.2	39.0	36%
Bartlett	178.0	159.0	89%
Total SRP Reservoirs	2313.2	967.0	42%
San Carlos	867.0	42.0	5%
Waddell	1145.0	701.0	61%
Painted Rock	2476.0	0.0	0%
Alamo	1045.0	72.0	7%
Lyman	31.0	3.0	10%
Lake Powell	24322.0	12435.0	51%
Mead	27380.0	16987.0	62%
Mohave	1810.0	1507.0	83%
Havasu	619.0	552.0	89%

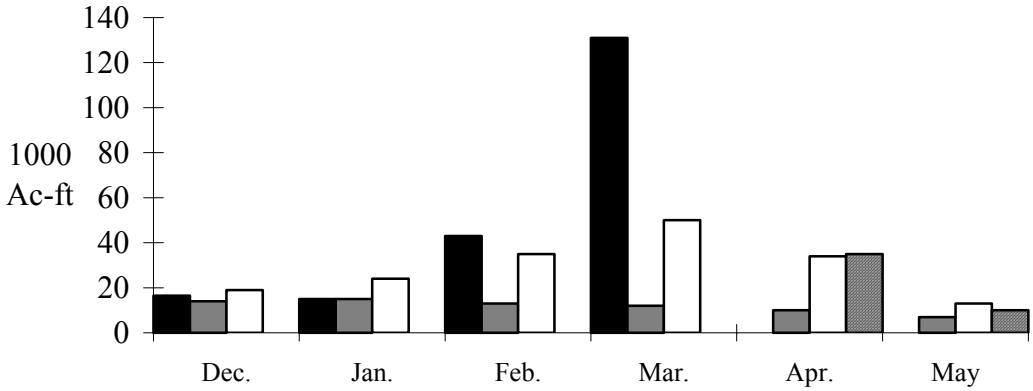
NA = Not Available.

Monthly Streamflows

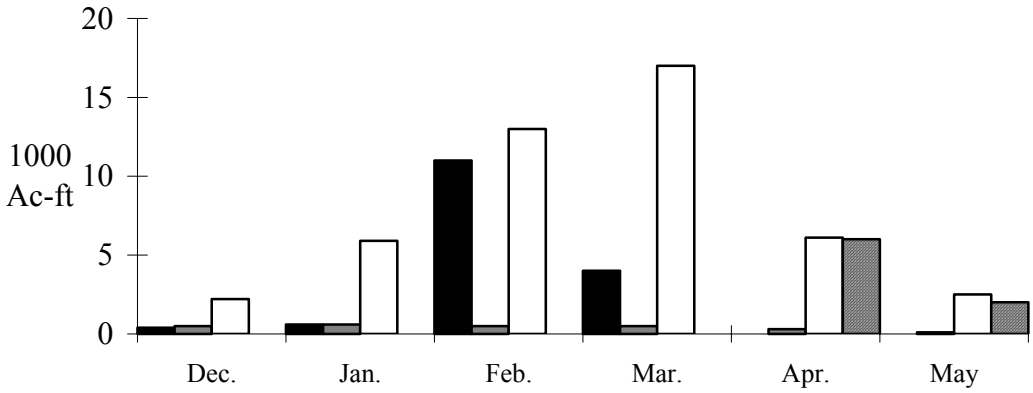
Salt - Roosevelt:



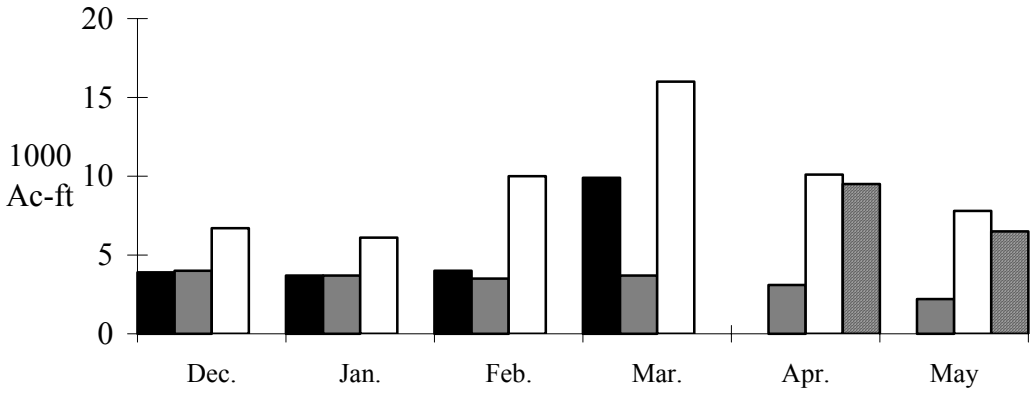
Verde - Horseshoe Dam, abv, Tangle Ck, blo:



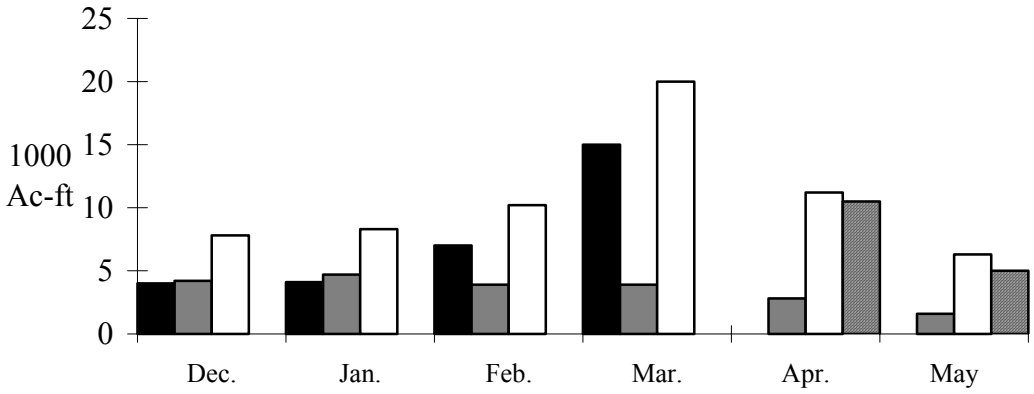
Tonto Ck - Roosevelt, nr, Gun Ck, abv:



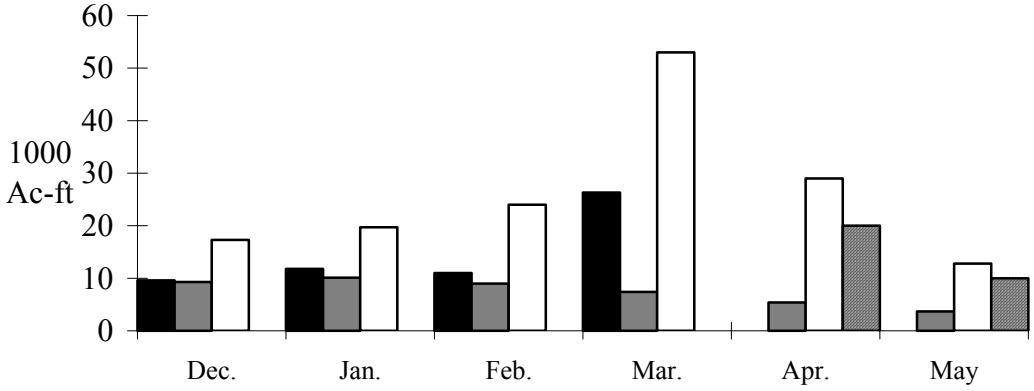
Gila - Gila, nr:



San Francisco - Clifton:

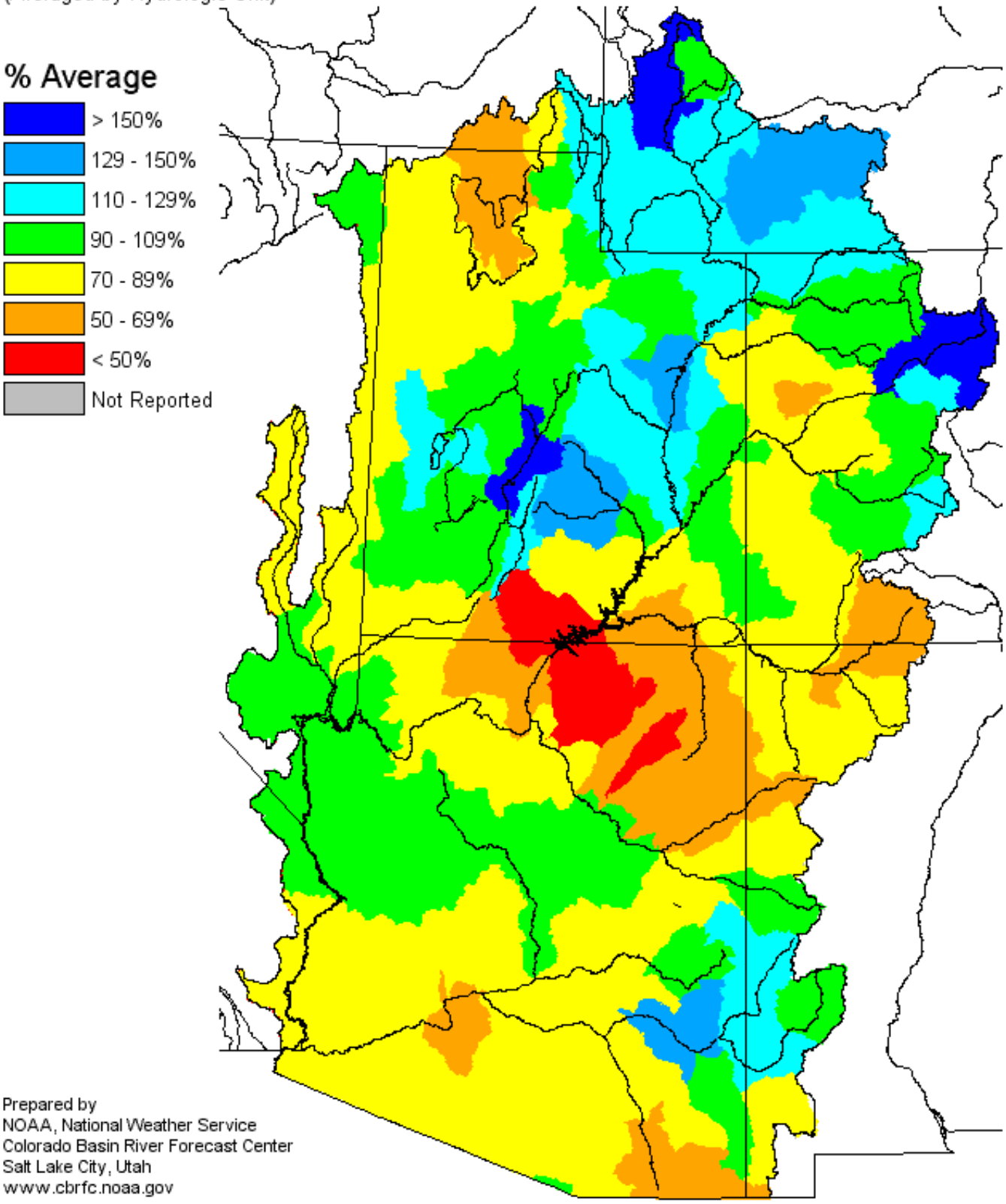


Gila - Solomon:



Monthly Precipitation for March 2003

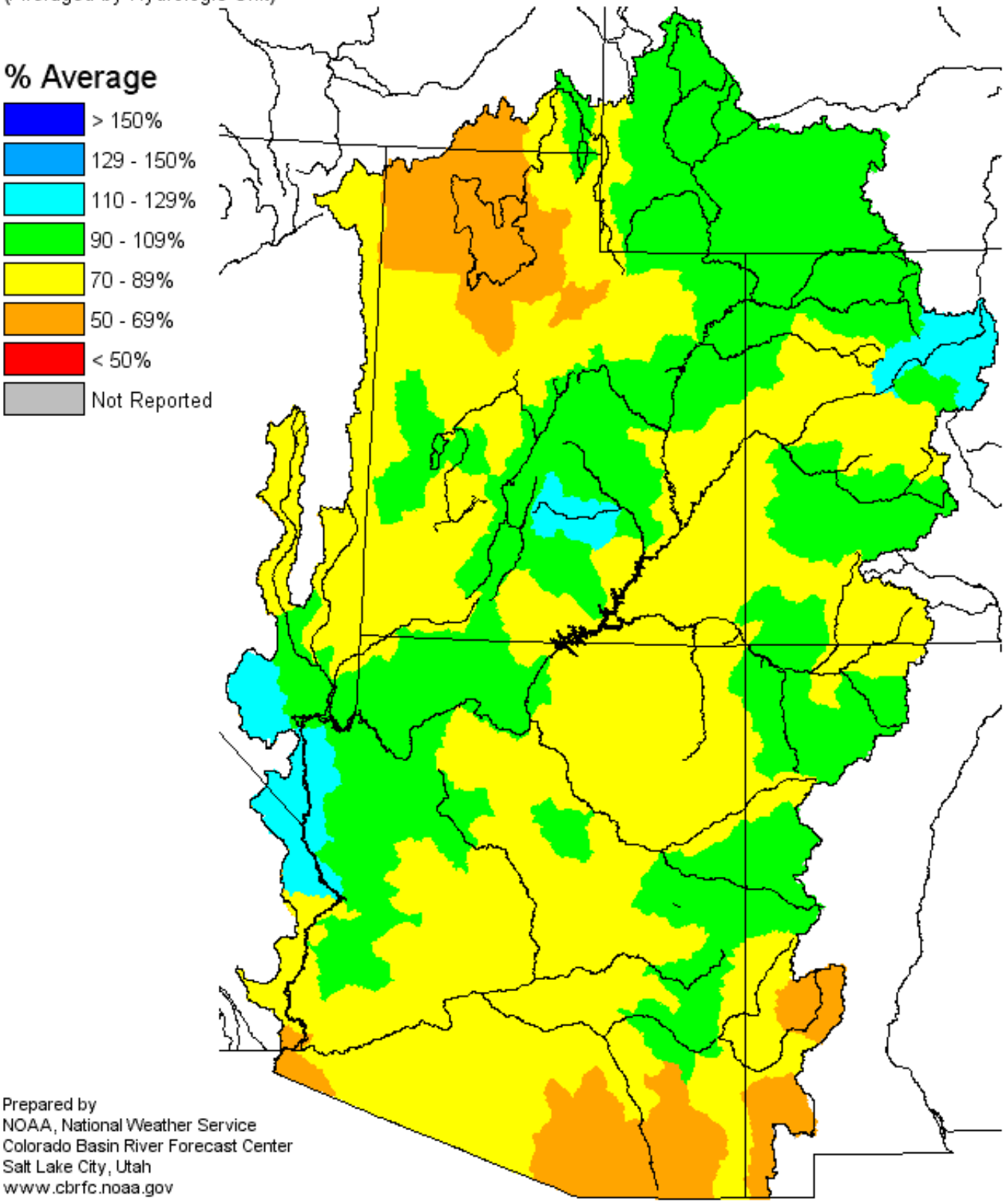
(Averaged by Hydrologic Unit)



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

Seasonal Precipitation, October 2002 - March 2003

(Averaged by Hydrologic Unit)



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

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