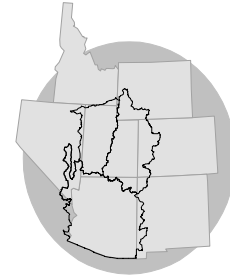


# WATER SUPPLY OUTLOOK

## for the LOWER COLORADO COLORADO BASIN RIVER FORECAST CENTER

NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT

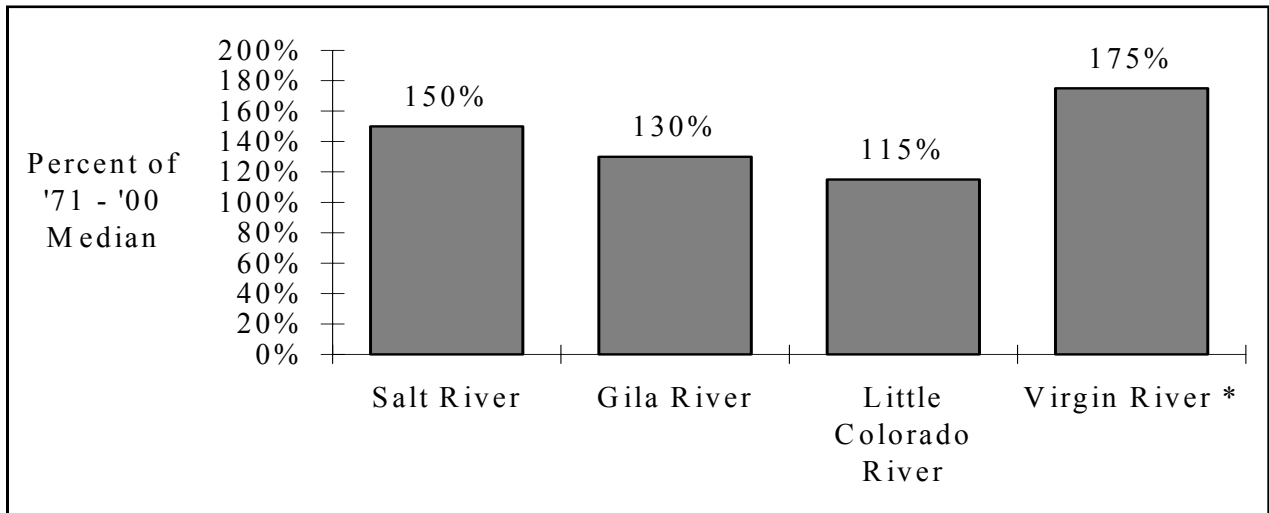


### JANUARY 1, 2005

## SUMMARY

The 2005 Lower Colorado Water Supply Outlook is wet for the first time in several years with almost all points forecasted much above, above, or near median (much above average for the Virgin River Basin). With the exception of the Little Colorado River Basin (where January 1st snow conditions were below median), the snow conditions are good; and in the Virgin River Basin, very good.

## JANUARY - MAY VOLUME FORECASTS



| <b>INSIDE</b>           |       |
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| Salt River              | 2     |
| Gila River              | 3     |
| Little Colorado River   | 4     |
| Virgin River            | 5     |
| Specific Site Forecasts | 6     |
| EOM Reservoir Contents  | 7     |
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| Precipitation Maps      | 10,11 |
| Additional Information  | 12    |

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

## SALT RIVER

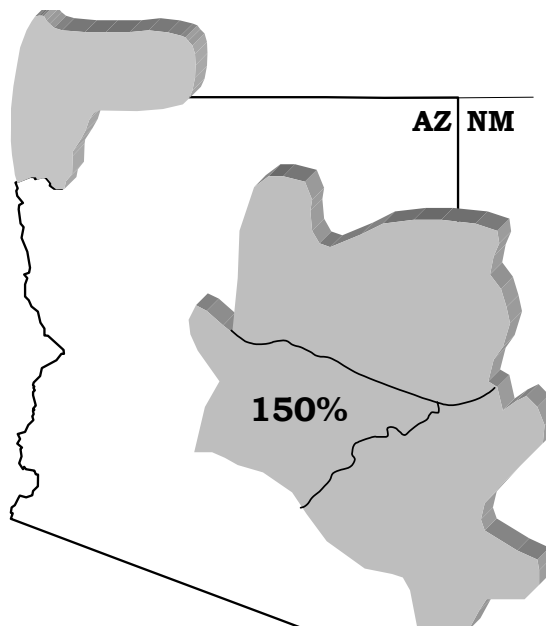
The 2005 Water Year is not another dry year in Arizona. Above normal temperatures and above normal precipitation is expected during January, February, and March. Therefore, forecasted stream flows are much above median (Verde and Tonto) or near median (Salt).

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

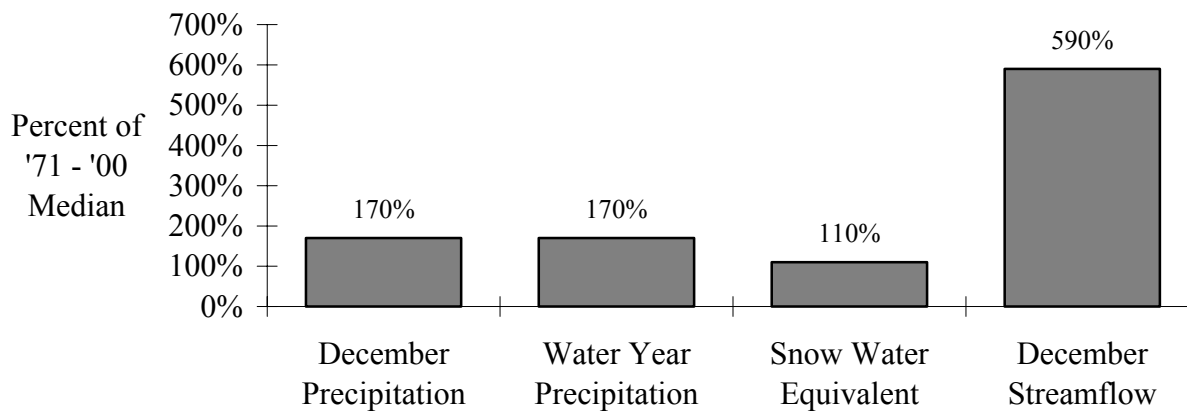
Verde River:  
Much Above Median

Tonto Creek:  
Much Above Median

Salt River:  
Near Median



## BASIN CONDITIONS - JANUARY 1, 2005



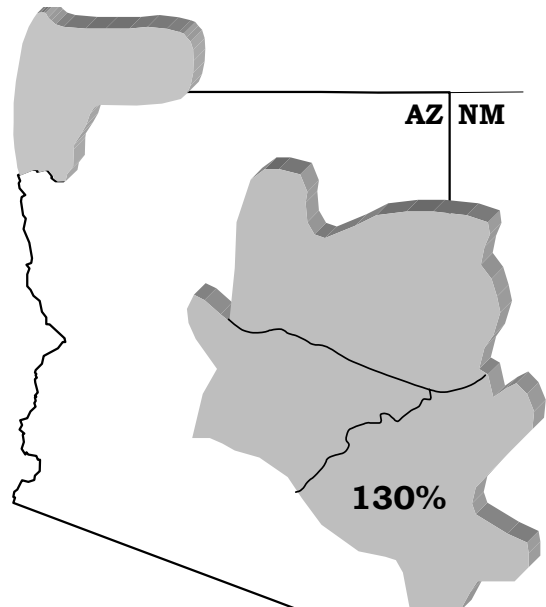
Specific site forecasts are listed on page 6.

## GILA RIVER

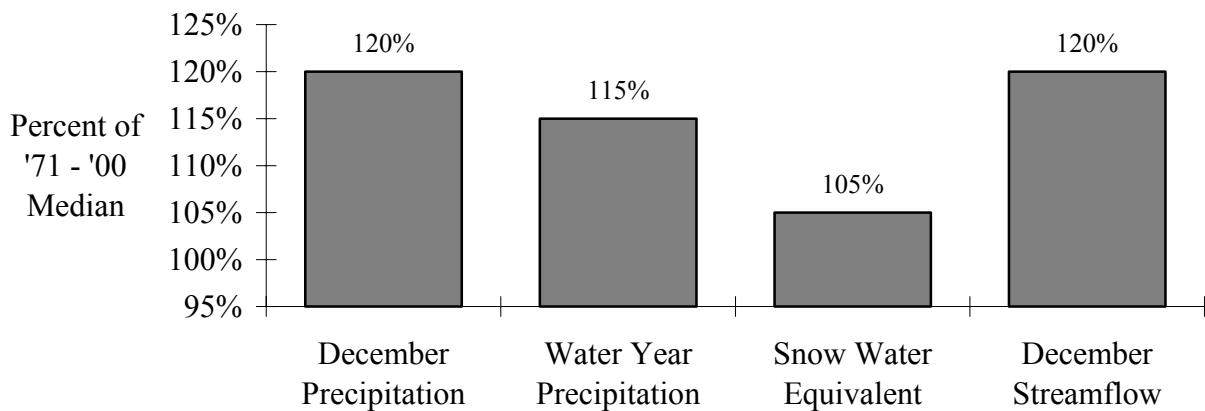
The 2005 Water Year is beginning with a wet December in most of Arizona and Southwest New Mexico. Above normal temperatures and above normal precipitation is expected during January, February, and March. Therefore, forecasted stream flows are much above median.

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

Gila River:  
Much Above Median



## BASIN CONDITIONS - JANUARY 1, 2005



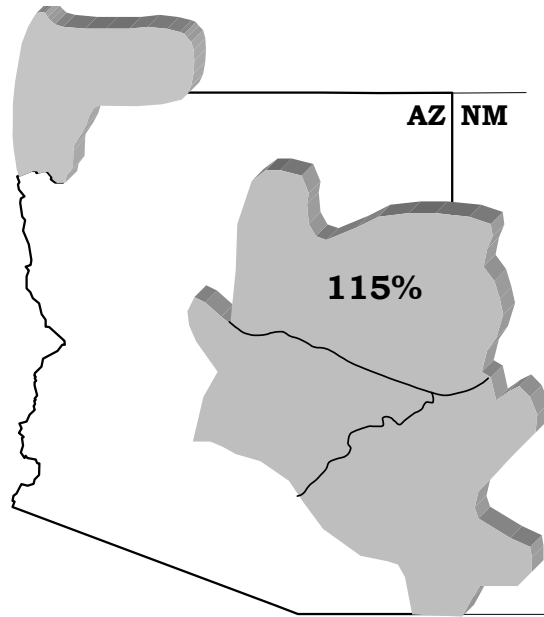
Specific site forecasts are listed on page 6.

## LITTLE COLORADO RIVER

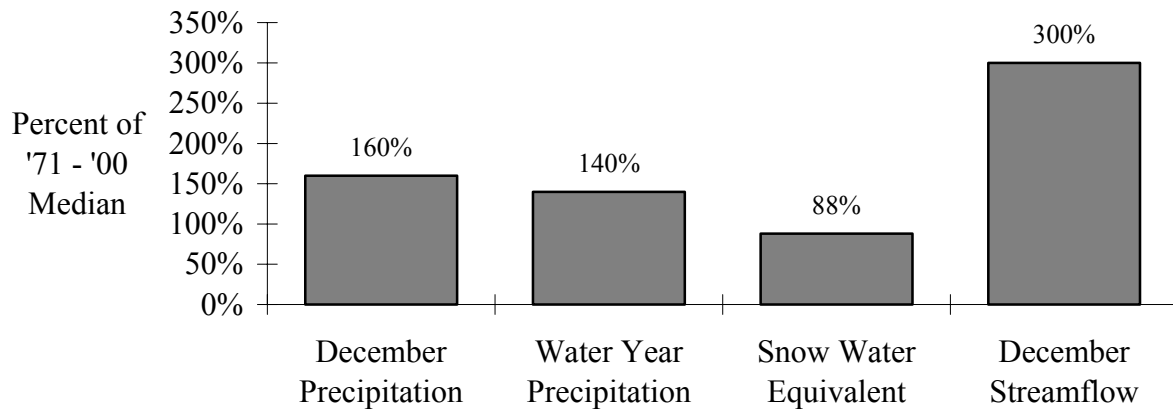
The 2005 Water Year is wet in Arizona. Above normal temperatures and above normal precipitation is expected during January, February, and March. Forecasted stream flows at this time range from 74% to 140% of median.

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

Little Colorado River:  
Above Median



## BASIN CONDITIONS - JANUARY 1, 2005

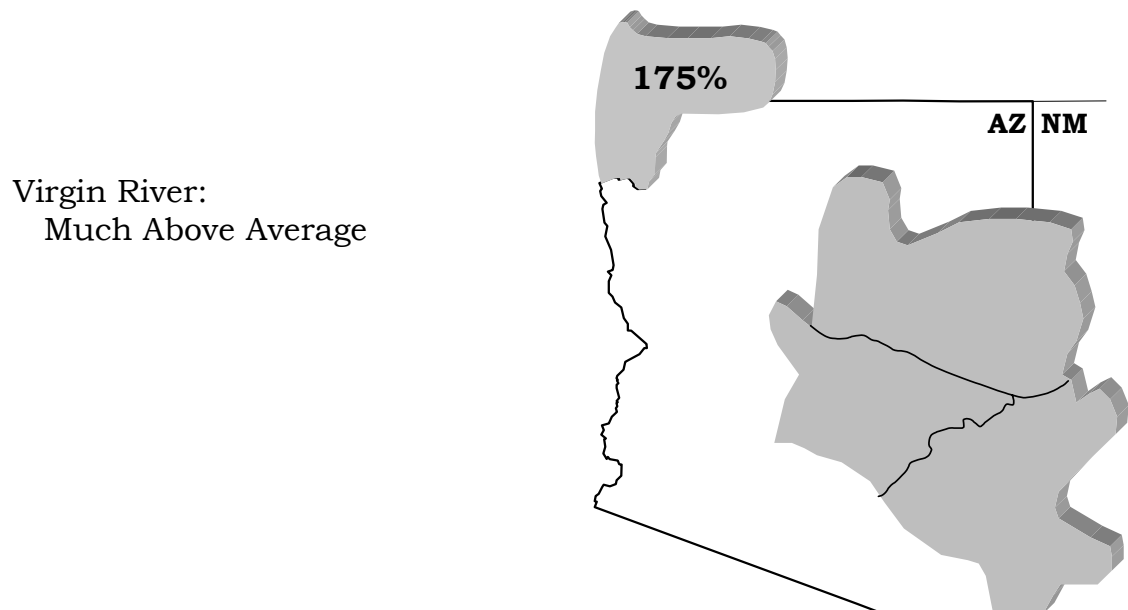


Specific site forecasts are listed on page 6.

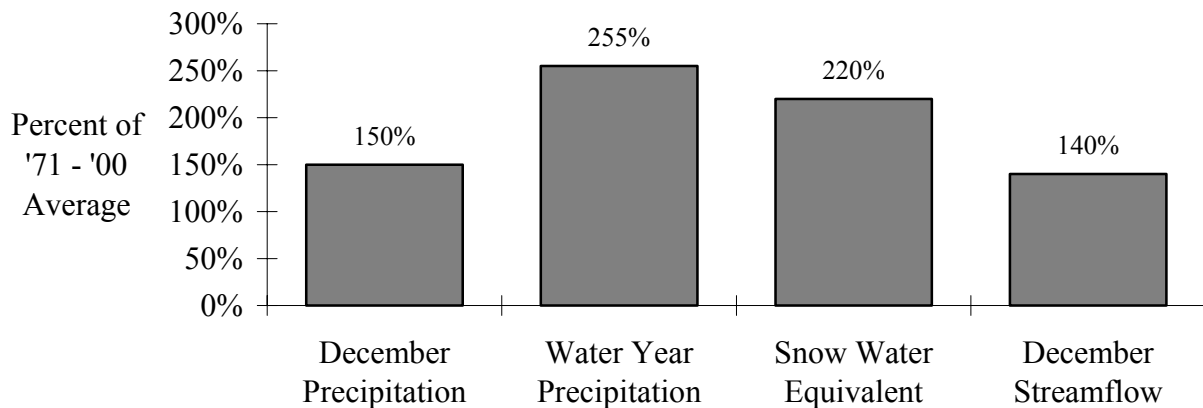
## VIRGIN RIVER

Snow is 220% of average for the Virgin River Basin on January 1st. Above normal temperatures and above normal precipitation is expected during January, February and March. Because of the forecasted high temperatures a significant percentage (approximately 30%) of the snowmelt runoff may occur in March prior to the April-July forecast period.

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



## BASIN CONDITIONS - JANUARY 1, 2005



Specific site forecasts are listed on page 6.

## SPECIFIC SITE FORECASTS—WATER YEAR 2005

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  | 7.5           | 101          | 17.2      | 2.4       |
|                 | WOODRUFF                        | 3.3           | 92           | 8.7       | 1         |
| RIO NUTRIA      | RAMAH, NR                       | 2.3           | 74           | 8.7       | 1         |
| ZUNI            | BLACK ROCK RES, ABV             | 1.1           | 74           | 2.1       | 0.5       |
| CEBOLLA CK      | RAMAH RES                       | 1.27          | 74           | 3.8       | 0.6       |
| EAST CLEAR CK   | BLUE RIDGE RES, PINE, NR        | 18.1          | 106          | 34        | 7         |
| CLEAR CK        | WINSLOW, NR                     | 38            | 112          | 96        | 22        |
| CHEVELON CK     | WINSLOW, NR, WILDCAT CYN, BLO   | 5.6           | 140          | 34        | 2.3       |
| WALNUT CK       | LAKE MARY                       | 5.6           | 112          | 9.5       | 2         |
| SANTA CLARA     | ✕ PINE VALLEY, NR               | 10            | 182          | 16.6      | 3.4       |
| VIRGIN          | ✕ VIRGIN                        | 110           | 172          | 162       | 58        |
|                 | ✕ HURRICANE, NR                 | 121           | 175          | 199       | 43        |
|                 | ✕ LITTLEFIELD                   | 130           | 176          | 215       | 43        |
| GILA            | GILA, NR                        | 81            | 135          | 129       | 47        |
|                 | VIRDEN, NR, BLUE CK, BLO        | 105           | 127          | 166       | 46        |
|                 | SOLOMON, NR, HEAD OF SAFFORD V  | 210           | 127          | 360       | 127       |
|                 | SAN CARLOS RES, COOLIDGE DAM,   | 160           | 167          | 265       | 55        |
| SAN FRANCISCO   | GLENWOOD, NR                    | 37            | 137          | 56        | 23        |
|                 | CLIFTON                         | 87            | 124          | 147       | 26        |
| SAN PEDRO       | CHARLESTON                      | 3.9           | 100          | 7.2       | 2         |
| SALT            | ROOSEVELT, NR                   | 400           | 104          | 770       | 173       |
| TONTO CK        | ROOSEVELT, NR, GUN CK, ABV      | 90            | 161          | 225       | 24        |
| VERDE           | BLO TANGLE CK, ABV HORSESHOE    | 425           | 193          | 790       | 194       |
|                 |                                 |               |              |           |           |
| COLORADO        | ✕ LAKE POWELL, GLEN CYN DAM, AT | 7800          | 98           |           |           |

◆ = 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 2004 END OF MONTH RESERVOIR CONTENTS

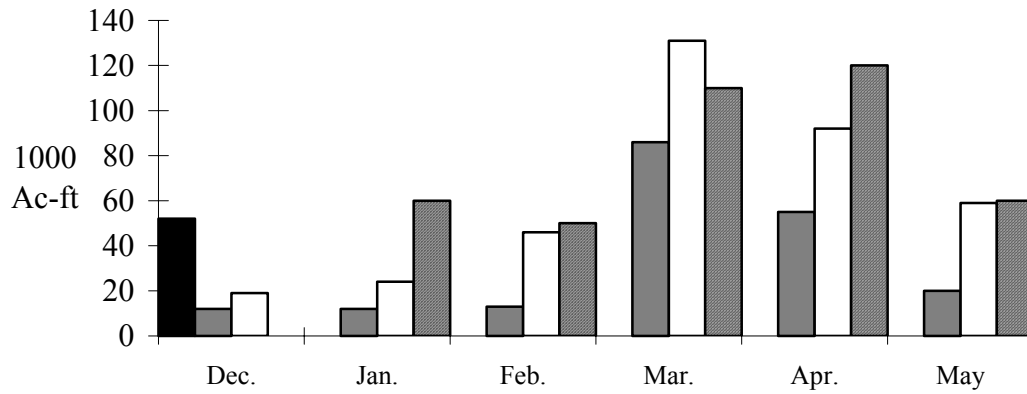
| RESERVOIR<br>(vol. in 1000 ac-ft) | Usable<br>Capacity | EOM Usable<br>Contents | Percent Usable<br>Capacity (%) |
|-----------------------------------|--------------------|------------------------|--------------------------------|
| Roosevelt                         | 1653.0             | 646.0                  | 39%                            |
| Horse Mesa                        | 245.0              | 229.0                  | 93%                            |
| Mormon Flat                       | 58.0               | 57.0                   | 98%                            |
| Stewart Mountain                  | 70.0               | 66.0                   | 94%                            |
| Horseshoe                         | 109.2              | 69.0                   | 63%                            |
| Bartlett                          | 178.0              | 136.0                  | 76%                            |
| Total SRP Reservoirs              | 2313.2             | 1203.0                 | 52%                            |
|                                   |                    |                        |                                |
| San Carlos                        | 867.0              | 27.0                   | 3%                             |
| Waddell                           | 1145.0             | 556.0                  | 49%                            |
| Painted Rock                      | 2476.0             | 0.0                    | 0%                             |
| Alamo                             | 1045.0             | 161.0                  | 15%                            |
| Lyman                             | 31.0               | 3.0                    | 10%                            |
| Lake Powell                       | 24322.0            | 8665.0                 | 36%                            |
| Mead                              | 27380.0            | 14360.0                | 52%                            |
| Mohave                            | 1810.0             | 1589.0                 | 88%                            |
| Havasu                            | 619.0              | 565.0                  | 91%                            |

NA = Not Available.

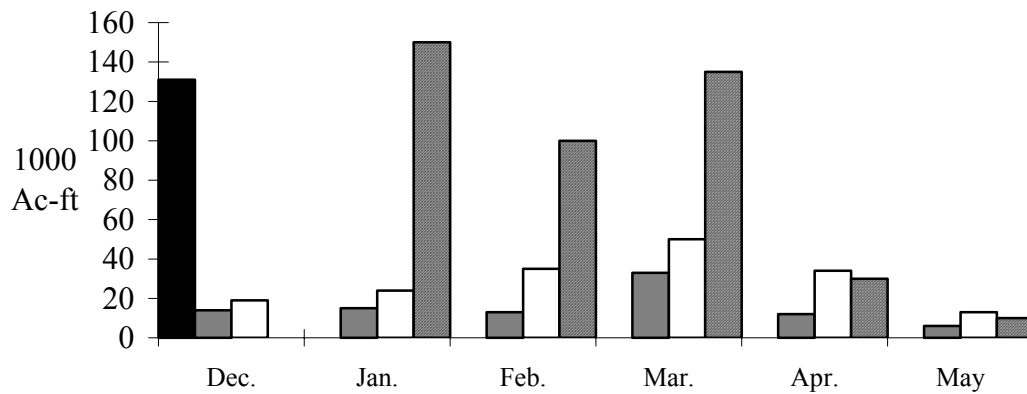
# MONTHLY STREAMFLOWS



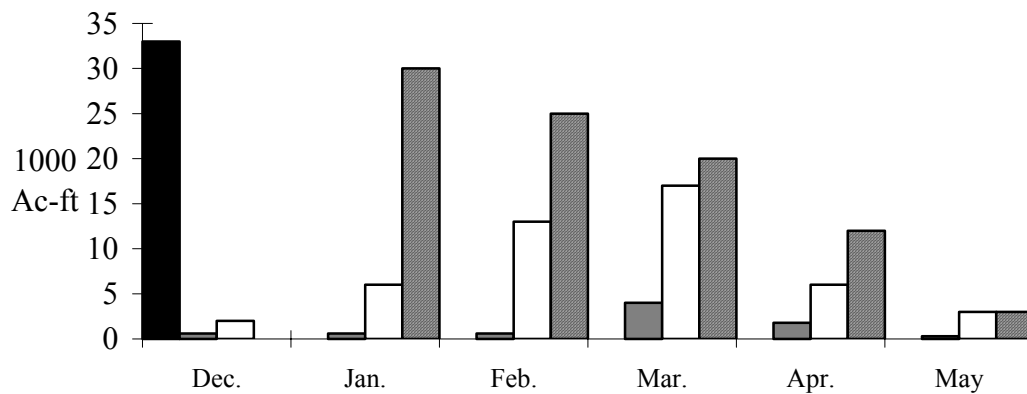
## Salt - Roosevelt:



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



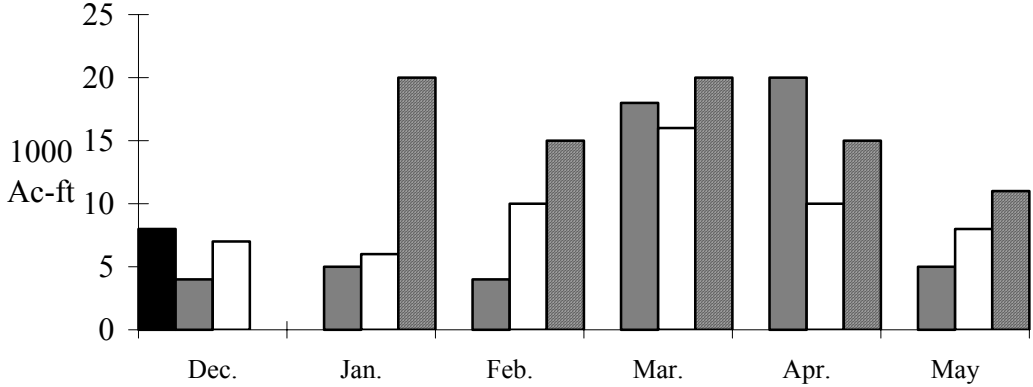
## Tonto Ck - Roosevelt, nr, Gun Ck, abv:



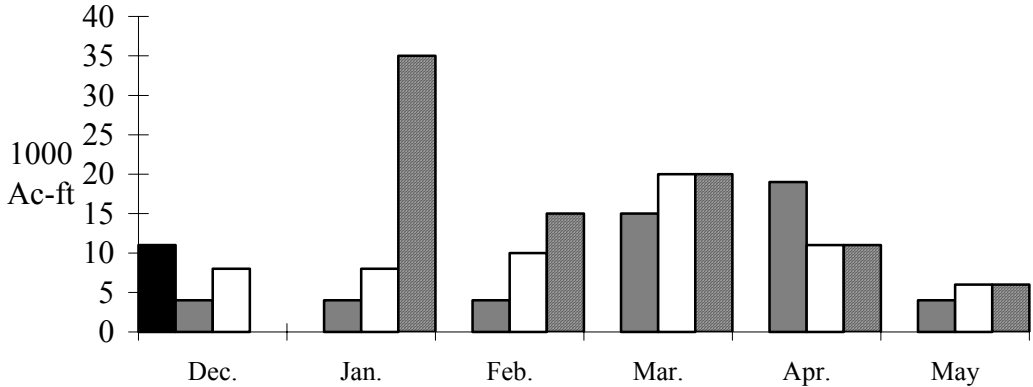




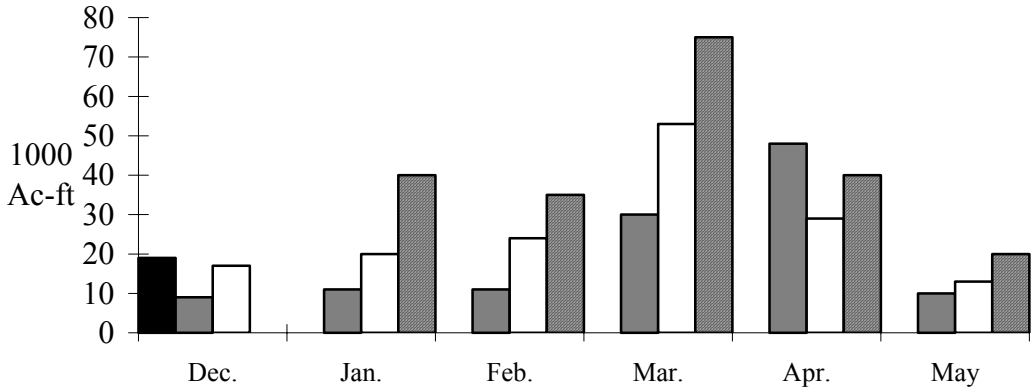
**Gila - Gila, nr:**



**San Francisco - Clifton:**



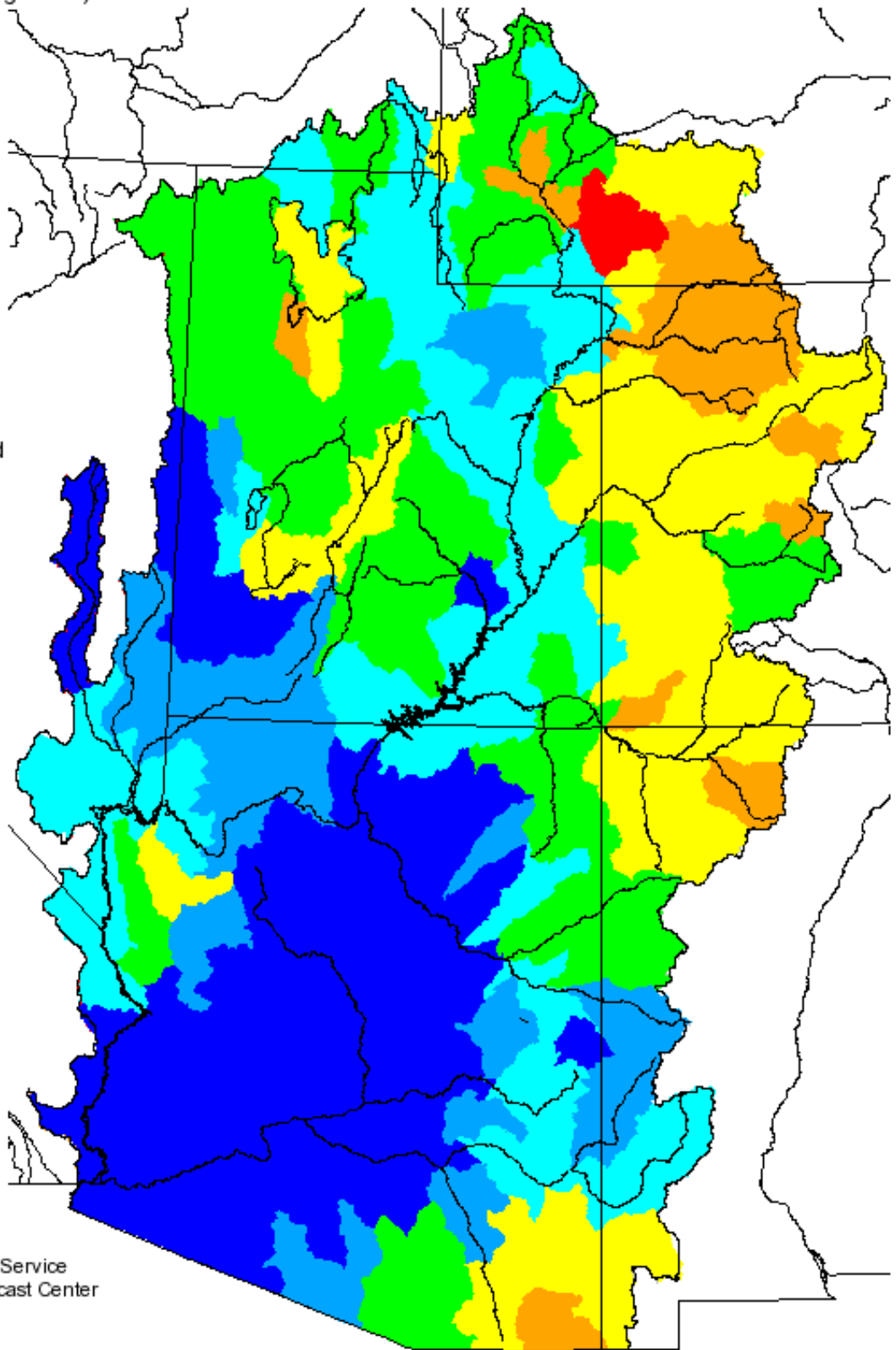
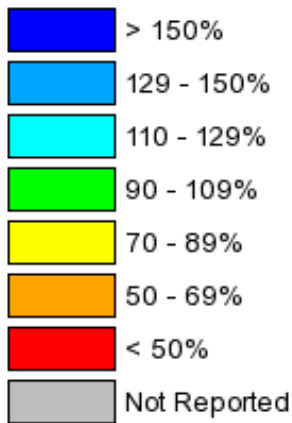
**Gila - Solomon:**



# Monthly Precipitation for December 2004

(Averaged by Hydrologic Unit)

## % Average

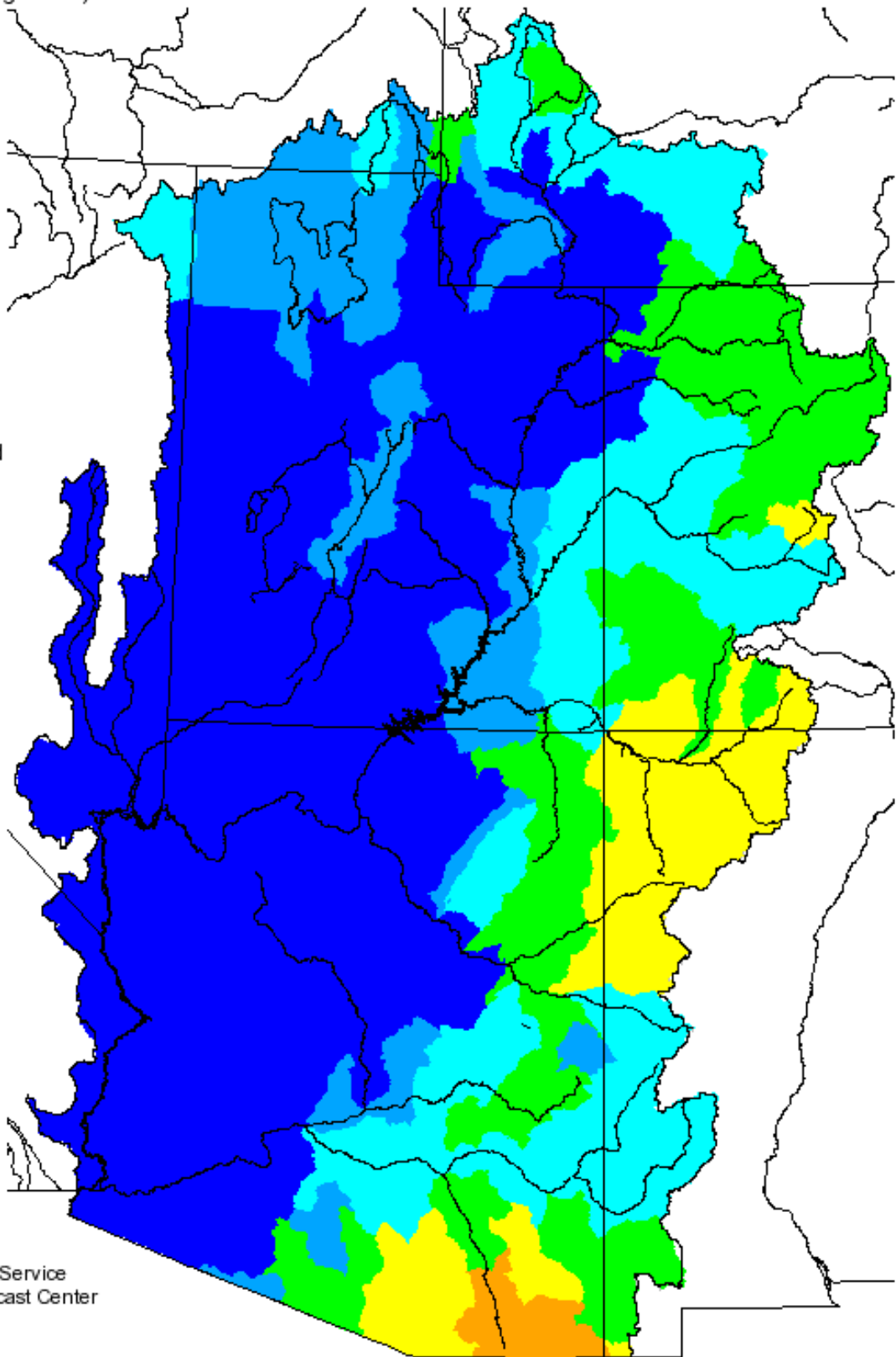
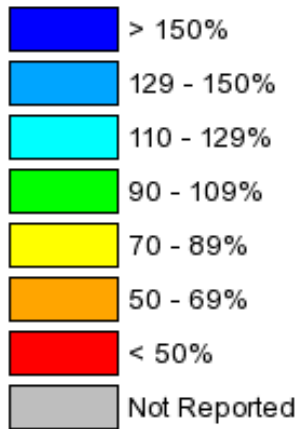


Prepared by  
NOAA, National Weather Service  
Colorado Basin River Forecast Center  
Salt Lake City, Utah  
[www.cbrfc.noaa.gov](http://www.cbrfc.noaa.gov)

# Seasonal Precipitation, October 2004 - December 2004

(Averaged by Hydrologic Unit)

## % Average



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