

USDA United States
Department of
Agriculture

**Natural
Resources
Conservation
Service**

Arizona

Basin Outlook Report

April 1, 2007



Arizona Water Supply Outlook Report as of April 1, 2007

A full range of Snow Survey and Water Supply Forecasting products is available on the Arizona NRCS Home Page

Arizona Snow Survey Program

<http://www.az.nrcs.usda.gov/snow/index.html>

Helpful Internet Sites

Defending Against Drought – NRCS

<http://www.nrcs.usda.gov/feature/highlights/drought.html>

- Ideas on water, land, and crop management for you to consider while creating your drought plan.

Arizona Agri-Weekly

http://www.nass.usda.gov/Statistics_by_State/Arizona/Publications/Crop_Progress_&_Condition/cur-agwk.pdf

- Provides an overview of Arizona’s crop, livestock, range and pasture conditions as reported by local staffs of the USDA’s Agricultural Statistic Service and the University of Arizona.

SUMMARY

The dry weather continued and the outlook for surface water supplies in Arizona continued to deteriorate. Little precipitation fell in the watersheds during March ranging from 46 to 78 percent of average. March runoff on major streams was below the seasonal median. The snowpack is virtually gone below 7,500 feet elevation on April 1. Available water in major reservoirs on the Salt and Gila rivers is generally in fair condition for a drought.

SNOWPACK

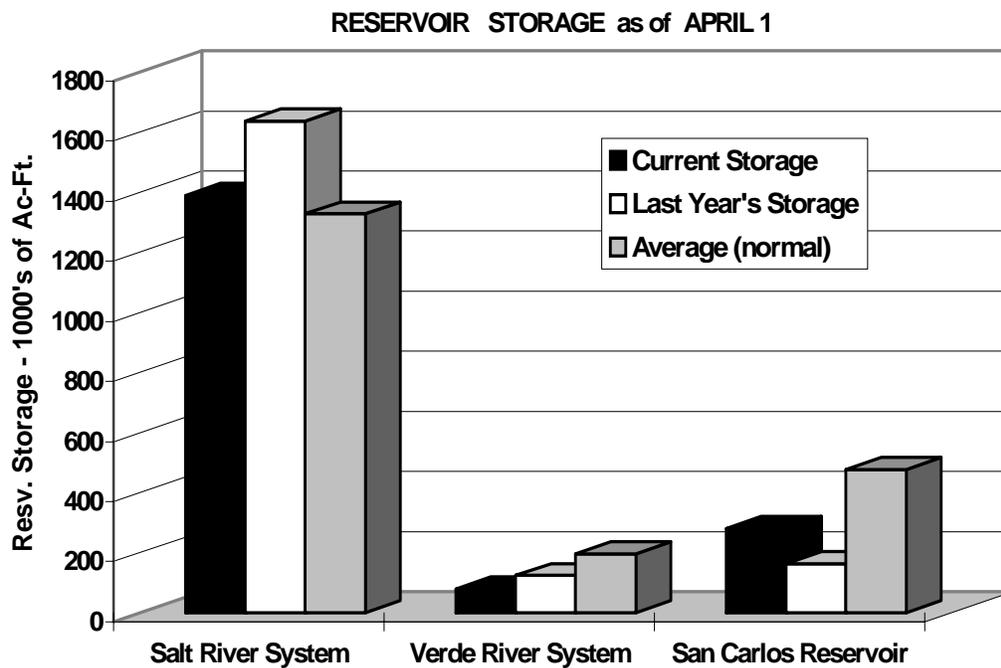
Watershed	Percent (%) of 30-Yr. Average Snowpack Levels as of April 1
Salt River Basin	27%
Verde River Basin	9%
Little Colorado River Basin	10%
San Francisco-Upper Gila River Basin	54%
Other Points of Interest	
Chuska Mountains	20%
Central Mogollon Rim	6%
Grand Canyon	4%
San Francisco Peaks	32%
Statewide Snowpack	20%

PRECIPITATION

Monitored data shows that mountain precipitation for March was 51 percent of average over the Salt River basin, 46 percent over the Verde River basin, and 74 percent of average over the San Francisco-Upper Gila River basin. The Little Colorado River basin received 45 percent of average precipitation in March.

Seasonal precipitation for the water year is low in all basins ranging from 46 to 75 percent of average. Please refer to the basin bar graphs found in the report for more information regarding seasonal precipitation amounts.

RESERVOIR



Key storage volumes displayed in thousands of acre-feet (1000 x):

RESERVOIR	CURRENT STORAGE	LAST YEAR STORAGE	30-YEAR AVERAGE
Lyman Lake	8.3	8.1	17.2
Lake Pleasant	738.9	746.1	----
Lake Havasu	562.2	563.9	562.3
Lake Mohave	1684.8	1664.7	1680.4
Lake Mead	13930.0	15337.0	21999.0
Lake Powell	11637.0	10704.0	18326.0
Salt River System	1388.9	1636.3	1327.4
Verde River System	78.4	124.3	195.7
San Carlos Reservoir	280.7	163.1	476.9

STREAMFLOW

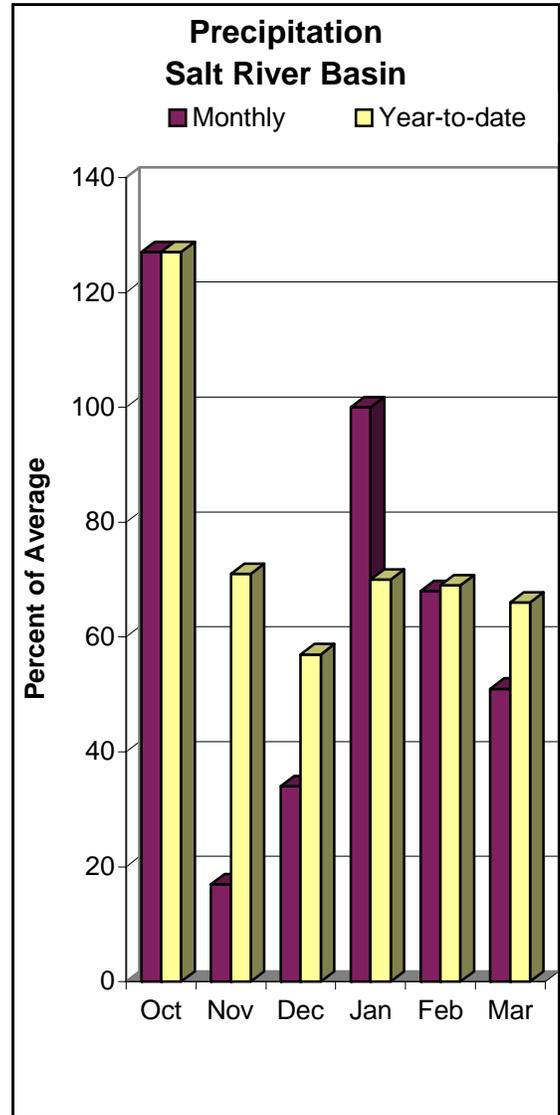
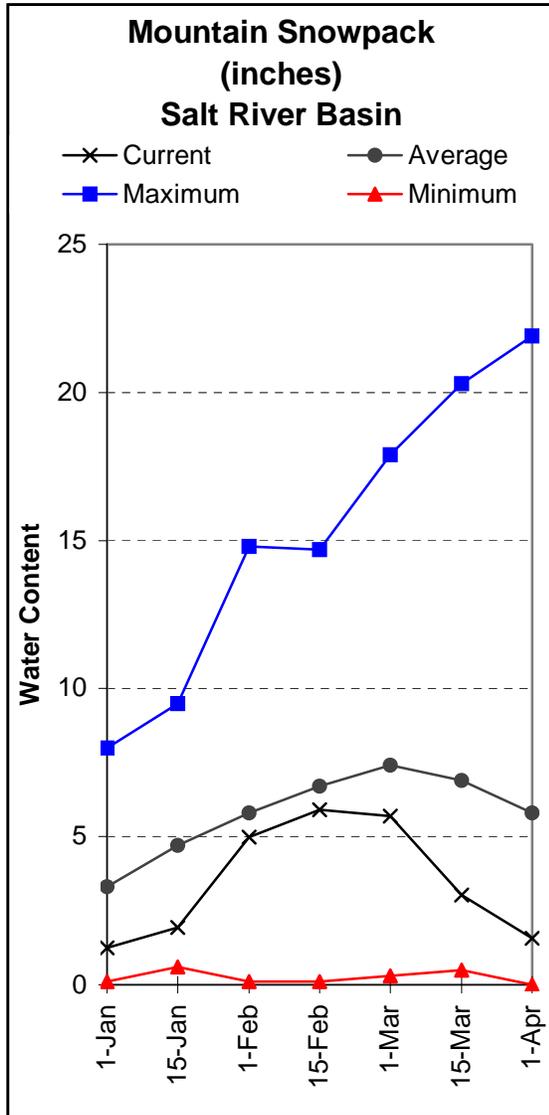
March runoff declined to very low levels and the April-May forecast calls for continued below median flows for streams monitored in this report. Please refer to the streamflow forecast tables for more information regarding seasonal water supplies.



SALT RIVER BASIN as of April 1, 2007

Much below median streamflow levels are forecast for the basin. In the Salt River, near Roosevelt, the forecast calls for 26% of median flows from April-May, while at Tonto Creek, the forecast calls for 17% of median streamflow from April-May.

Snow survey measurements show the basin snowpack to be 27% of the 30-year average, while combined reservoir storage in the Salt River system stands at 1,388,937 acre-feet on April 1.



SALT RIVER BASIN
Streamflow Forecasts - April 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Med (1000AF)
	Chance of Exceeding *						
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% MED.)	30% (1000AF)	10% (1000AF)		
Salt River nr Roosevelt							
APR-MAY	20	29	37	26	46	63	143
APRIL	12.0	15.0	28	30	41	60	92
Tonto Creek ab Gun Creek nr Roosevelt							
APR-MAY	0.42	0.81	1.40	17	2.22	3.93	8.40
APRIL	0.37	0.61	1.20	20	2.28	3.98	6.10

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average and median are computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

SALT RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
SALT RIVER RES SYSTEM	2025.8	1388.9	1636.3	1327.4

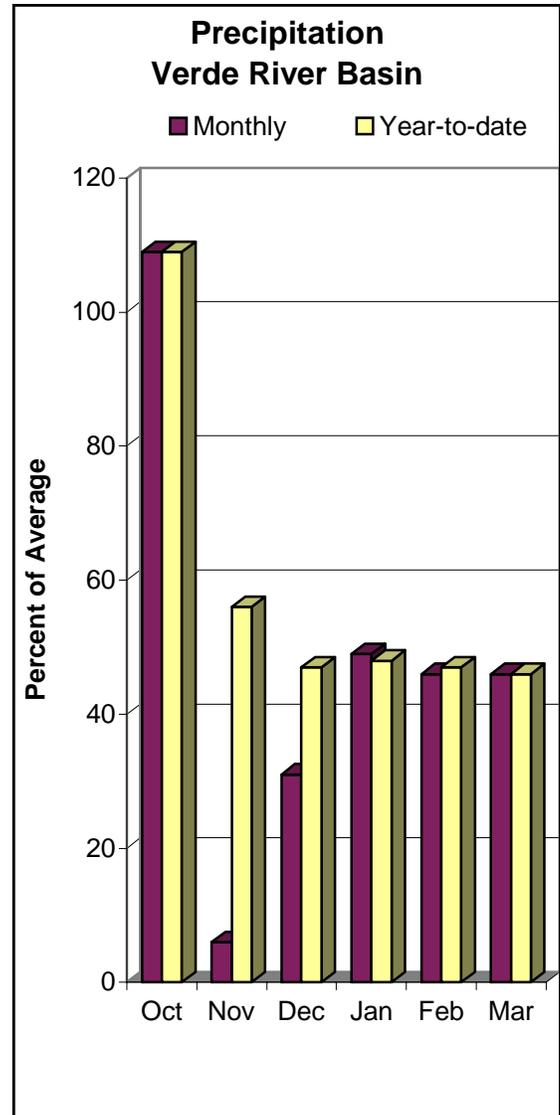
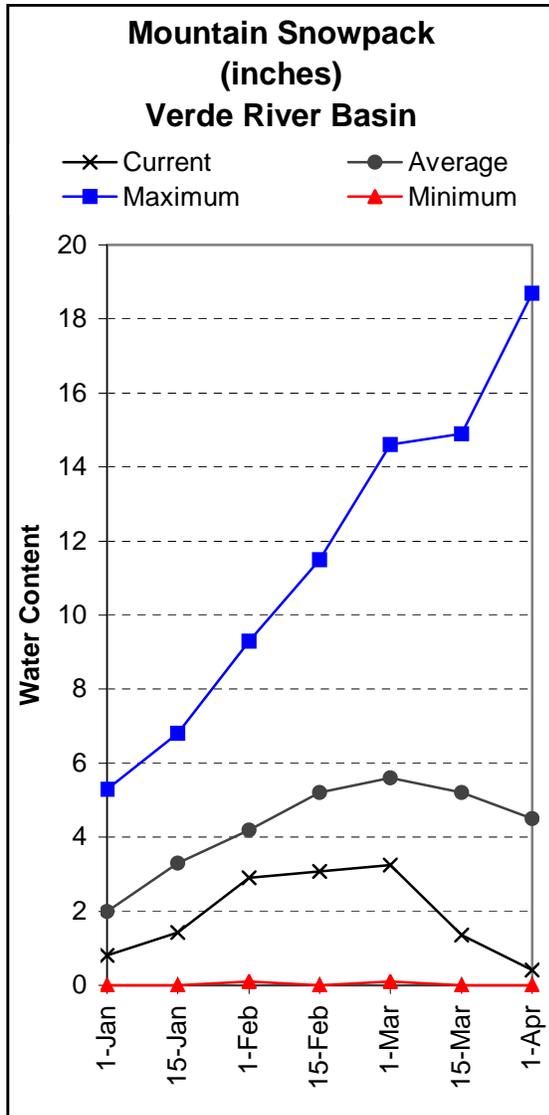
SALT RIVER BASIN
Watershed Snowpack Analysis - April 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SALT RIVER BASIN	8	152	27

VERDE RIVER BASIN as of April 1, 2007

Much below median streamflow levels are forecast for the basin. In the Verde River, above Horseshoe Dam, the forecast calls for 46% of median flows from April-May.

Snow survey measurements show the basin snowpack to be 9% of the 30-year average, while combined reservoir storage in the Verde River system was recorded at 78,404 acre-feet on April 1.



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VERDE RIVER BASIN
Streamflow Forecasts - April 1, 2007

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Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Med (1000AF)
	Chance of Exceeding *						
	90%	70%	50%	30%	10%		
	(1000AF)	(1000AF)	(1000AF) (% MED.)	(1000AF)	(1000AF)	(1000AF)	
Verde River abv Horseshoe Dam							
APR-MAY	15.8	17.6	20	46	25	35	44
APRIL	8.8	10.2	12.0	35	17.5	26	34

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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- (2) - The value is natural volume - actual volume may be affected by upstream water management.

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VERDE RIVER BASIN
Reservoir Storage (1000AF) End of March

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Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
VERDE RIVER RES SYSTEM	287.4	78.4	124.3	195.7

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VERDE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2007

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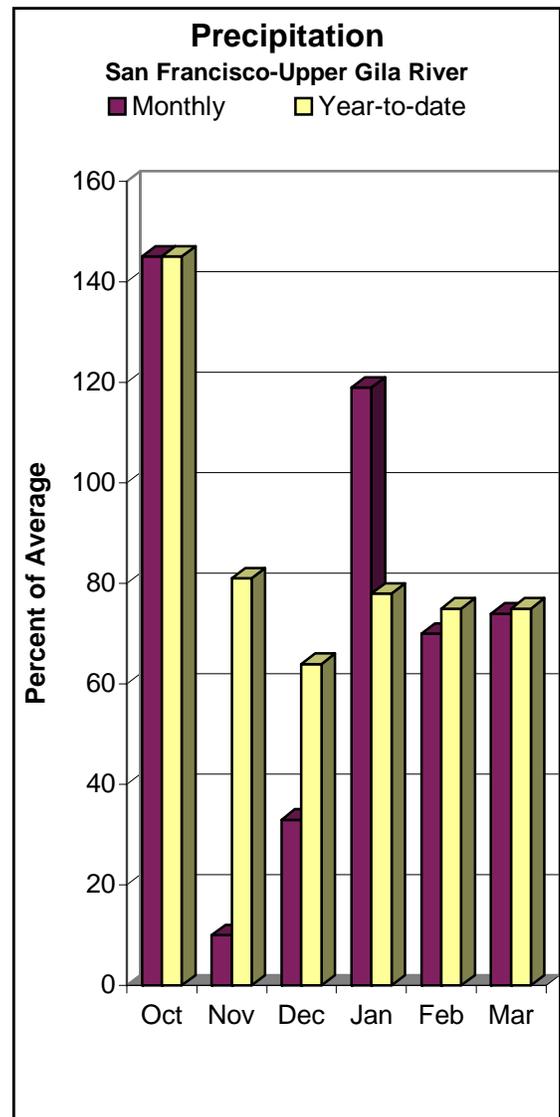
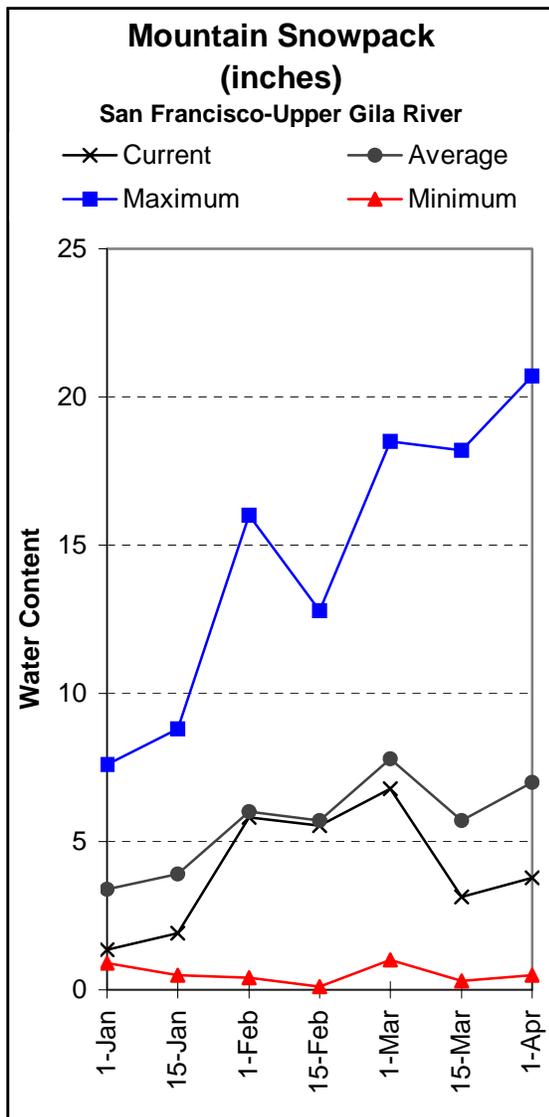
Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
VERDE RIVER BASIN	10	48	9
SAN FRANCISCO PEAKS	3	81	32

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SAN FRANCISCO-UPPER GILA RIVER BASIN as of April 1, 2007

Much below median streamflow levels are forecast for the basin. In the San Francisco River, at Clifton, the forecast calls for 72% of median flows from April-May, while in the Gila River, near Solomon, the forecast calls for 71% of median flows from April-May. At San Carlos reservoir, inflow to the lake is forecast at 49% of median from April-May.

At San Carlos reservoir, storage was recorded at 280,700 acre-feet on April 1, while snow survey measurements show the basin snowpack to be 54% of the 30-year average.



SAN FRANCISCO - UPPER GILA RIVER BASIN
Streamflow Forecasts - April 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Med (1000AF)
	Chance of Exceeding * 90% 70% 50% 30% 10%						
	(1000AF)	(1000AF)	(1000AF)	(% MED.)	(1000AF)	(1000AF)	(1000AF)
Gila River at Gila							
APR-MAY	8.6	11.8	14.4	83	17.3	22	17.3
Gila River nr Virden							
APR-MAY	6.7	12.2	17.0	71	24	35	24
San Francisco River at Glenwood							
APR-MAY	2.42	4.14	5.70	73	7.60	11.09	7.80
San Francisco River at Clifton							
APR-MAY	6.3	10.9	13.4	72	20	30	18.5
Gila River nr Solomon							
APR-MAY	16.6	26	30	71	46	65	42
APRIL			20	69			29
San Carlos Reservoir inflow							
APR-MAY	0.8	3.1	7.5	49	15.7	28	15.4

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.
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(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

SAN FRANCISCO - UPPER GILA RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
SAN CARLOS	875.0	280.7	163.1	476.9

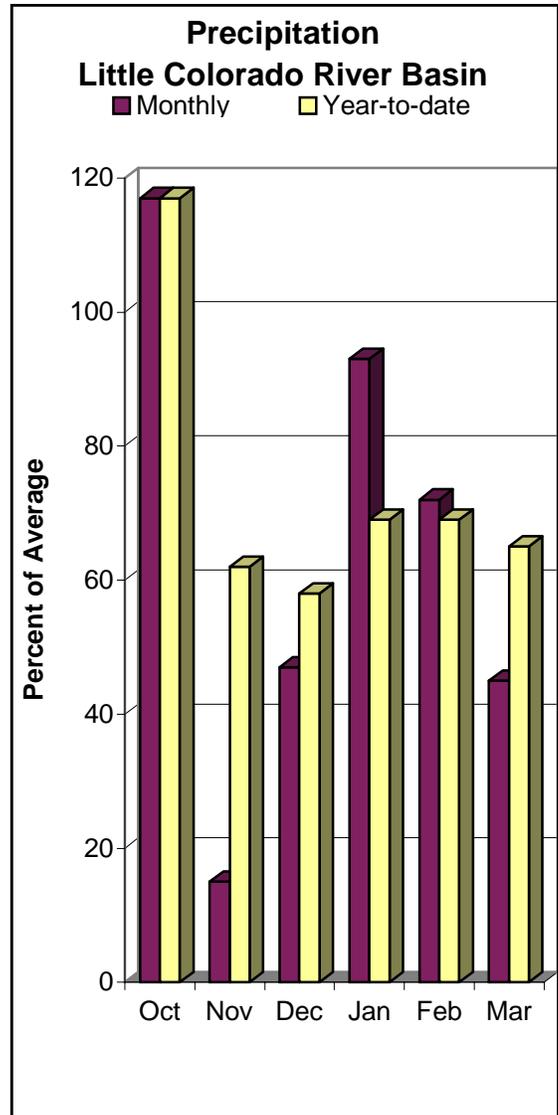
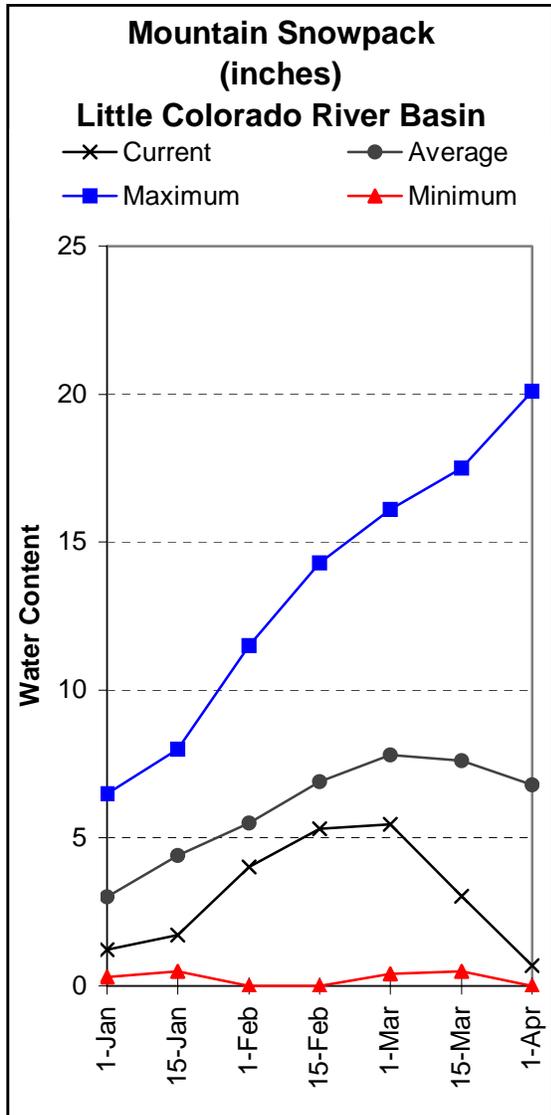
SAN FRANCISCO - UPPER GILA RIVER BASIN
Watershed Snowpack Analysis - April 1, 2007

Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
SAN FRANCISCO - UPPER GILA R	8	309	54

LITTLE COLORADO RIVER BASIN as of April 1, 2007

Much below median streamflow levels are forecast for the basin. In the Little Colorado River, above Lyman Lake, the forecast calls for 31% of median flows from April-June, while at Woodruff, the forecast calls for 42% of median flows from April-May.

Snow remaining along the southern headwaters of the Little Colorado River and the central Mogollon Rim was monitored at 10% and 6% of the 30-year average, respectively.



LITTLE COLORADO RIVER BASIN
Streamflow Forecasts - April 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Med (1000AF)
	Chance of Exceeding * 90% (1000AF) 70% (1000AF) 50% (1000AF) (% MED.) 30% (1000AF) 10% (1000AF)						
Little Colorado River abv Lyman Lake							
APR-JUN	0.30	0.80	1.35	31	2.10	3.65	4.30
Rio Nutria nr Ramah							
APR-MAY	0.01	0.05	0.12	23	0.24	0.54	0.52
Ramah Reservoir inflow							
APR-MAY	0.00	0.03	0.06	21	0.17	0.29	0.29
Zuni River abv Black Rock Reservoir							
APR-MAY	0.00	0.06	0.13	20	0.32	0.64	0.64
Little Colorado River at Woodruff							
APR-MAY	0.08	0.17	0.35	42	0.81	1.48	0.84
Blue Ridge Reservoir inflow							
APR-MAY	0.08	0.42	0.80	16	1.31	2.28	4.90
Lake Mary inflow							
APR-MAY	0.10	0.29	0.50	34	0.79	1.41	1.46

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LITTLE COLORADO RIVER BASIN
Reservoir Storage (1000AF) End of March

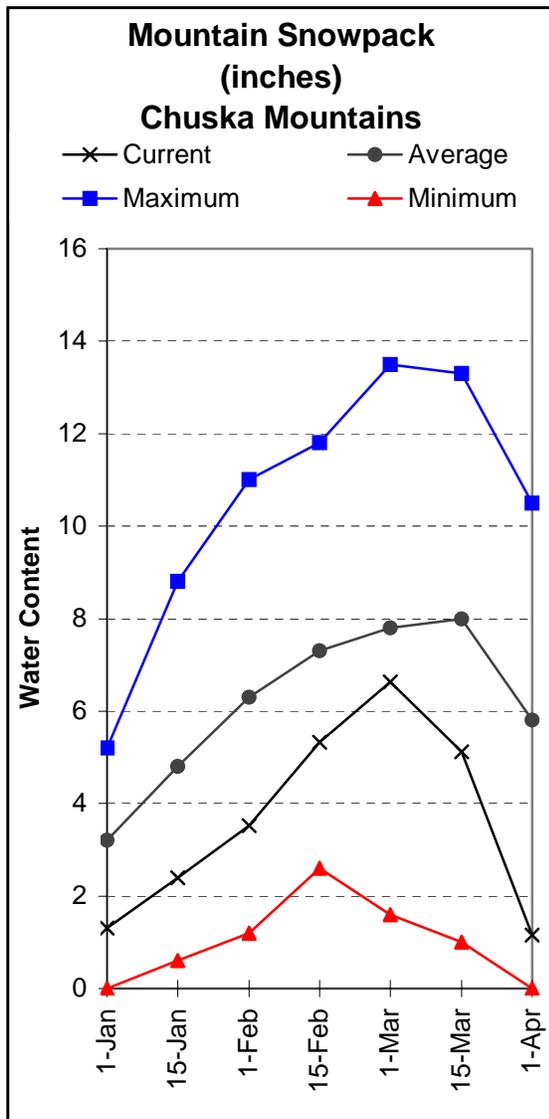
Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
LYMAN RESERVOIR	30.0	8.3	8.1	17.2

LITTLE COLORADO RIVER BASIN
Watershed Snowpack Analysis - April 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
LITTLE COLORADO - SOUTHERN H	9	54	10
CENTRAL MOGOLLON RIM	4	37	6

CHUSKA MOUNTAINS and DEFIANCE PLATEAU as of April 1, 2007

In the Chuska Mountains snow survey measurements conducted by staff of the Navajo Water Management Branch show the snowpack to be 20% of average on April 1, while the snowpack on the Defiance Plateau has melted out for the season. As a result of these conditions, much below average runoff is forecast for Captain Tom Wash, Wheatfields Creek, Bowl Canyon Creek, and Kinlichee Creek from March-May.



CHUSKA MOUNTAINS
Streamflow Forecasts - April 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>					30 Yr Avg (1000AF)	
	Chance of Exceeding *						
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
=====							
Captain Tom Wash Nr Two Gray Hills							
MAR-MAY	0.10	0.55	1.18	42	2.17	4.44	2.83
Wheatfields Creek Nr Wheatfields							
MAR-MAY	0.78	1.01	1.18	41	1.37	1.69	2.90
Bowl Canyon Creek Abv Asaayi Lake							
MAR-MAY	0.33	0.46	0.56	56	0.68	0.88	1.00
Kinlichee Creek							
MAR-MAY	0.17	0.47	0.80	47	1.26	2.23	1.70

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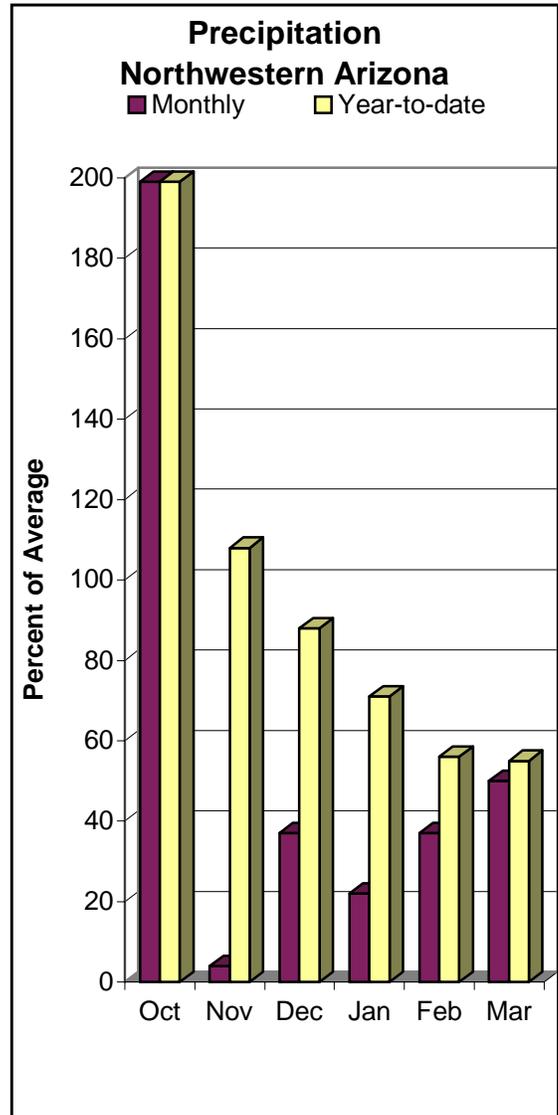
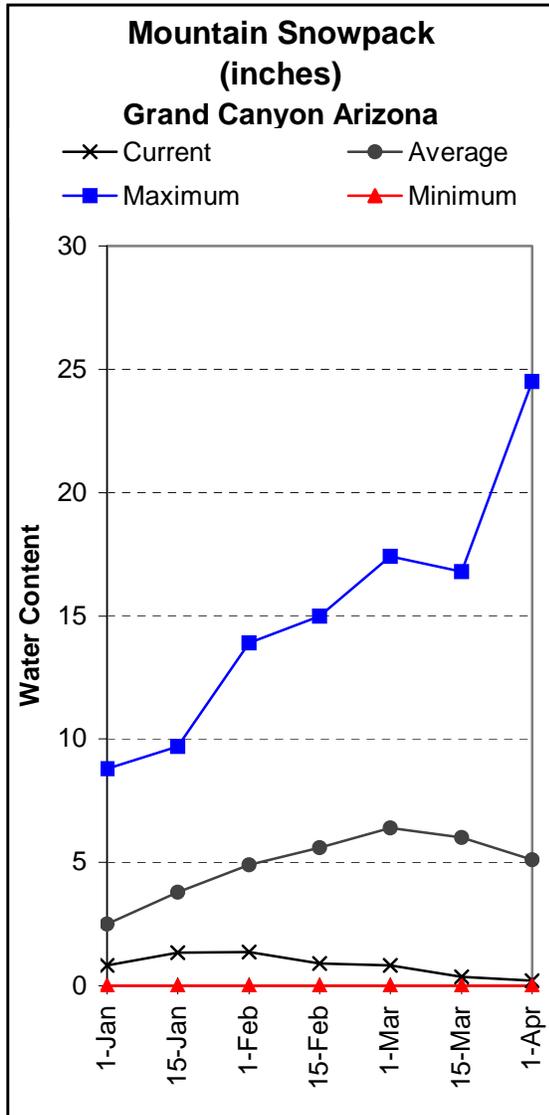
CHUSKA MOUNTAINS
Watershed Snowpack Analysis - April 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
CHUSKA MOUNTAINS	7	65	20
DEFIANCE PLATEAU	2	0	0

NORTHWESTERN ARIZONA as of April 1, 2007

In the Colorado River, inflow to Lake Powell is forecast at 50% of average for the forecast period April-July, while at Littlefield, the Virgin River is forecast at 23% of average from April-July.

At the Grand Canyon, snow survey measurements conducted by Park rangers show the snowpacks to be 4% of average on April 1.



NORTHWESTERN ARIZONA
Streamflow Forecasts - April 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	Chance of Exceeding *						
	90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
Virgin River at Littlefield							
APR-JUL	14.1	15.5	17.0	23	22	36	74
Lake Powell Inflow (2)							
APR-JUL	1450	2970	4000	50	5030	6550	7930

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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NORTHWESTERN ARIZONA
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
LAKE HAVASU	619.0	562.2	563.9	562.3
LAKE MOHAVE	1810.0	1684.8	1664.7	1680.4
LAKE MEAD	26159.0	13930.0	15337.0	21999.0
LAKE POWELL	24322.0	11637.0	10704.0	18326.0

NORTHWESTERN ARIZONA
Watershed Snowpack Analysis - April 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
GRAND CANYON	2	8	4

S N O W S U R V E Y D A T A

APRIL 1, 2007

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
ARBABS FOREST (AK)	7680	4/02	0	.0	.0	.3
BAKER BUTTE SNOTEL	7330	4/01	0	.0	.0	4.5
BAKER BUTTE #2	7700	3/29	5	1.9	3.1	13.9
BALDY SNOTEL	9220	4/01	1	.2	.9	6.9
BEAVER HEAD	8000	4/02	0	0.0	.0	1.3
BEAVER HEAD SNOTEL	7990	4/01	3	1.7	.0	1.5
BEAVER SPRING	9220	3/30	9	1.5	2.7	8.1
BRIGHT ANGEL	8400	3/30	4	0.4	5.3	9.9
BUCK SPRING	7400	3/29	0	0.0	0.4	.7
CHALENDER	7100	3/29	0	0.0	0.4	1.6
CHEESE SPRINGS	8600	3/29	0	0.0	1.0	3.8
CORONADO TRL SNOTEL	8400	4/01	0	.0	.0	.7
CORONADO TRAIL	8350	4/02	0	0.0	.0	1.2
FLUTED ROCK	7800	4/02	0	.0	.0	.6
FORT APACHE	9160	3/29	9	2.9	1.8	7.2
FORT VALLEY	7350	3/29	0	0.0	0.3	1.0
FRY SNOTEL	7220	4/01	0	.1	.0	3.2
GRAND CANYON	7500	3/29	0	0.0	.0	.8
HANNAGAN MDWS SNOTEL	9020	4/01	10	4.3	1.5	10.8
HAPPY JACK	7630	3/26	0	0.0	.0	3.0
HAPPY JACK SNOTEL	7630	4/01	0	.3	1.2	2.8
HEBER SNOTEL	7640	4/01	0	.0	.0	2.9
LAKE MARY	6930	3/29	0	0.0	.0	.5
MAVERICK FORK SNOTEL	9200	4/01	1	.2	1.7	9.0
MORMON MTN SNOTEL	7500	4/01	1	.8	1.6	5.0
MORMON MT. SUMMIT #2	8470	3/29	10	2.9	4.6	15.1
NEWMAN PARK	6750	3/29	0	0.0	.0	.9
NUTRIOSO	8500	4/02	0	0.0	.0	.7
PROMONTORY SNOTEL	7900	4/01	0	.1	2.3	11.4
SNOW BOWL #1 ALT.	10260	3/27	14	2.4	3.6	14.1
SNOW BOWL #2	11000	3/27	21	4.4	5.8	22.5
SNOWSLIDE CYN SNOTEL	9750	4/01	15	9.3	10.6	14.4
TSAILE CANYON #1	8160	3/27	0	.0	.7	3.4
TSAILE CANYON #3	8920	3/27	3	1.1	2.2	7.0
WHITE HORSE SNOTEL	7180	4/01	0	.0	.0	3.0
WILDCAT SNOTEL	7850	4/01	1	.2	.0	2.0
WILLIAMS SKI RUN	7720	3/29	0	0.0	.5	9.5
WORKMAN CREEK SNOTEL	6900	4/01	0	.0	.7	2.7

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