



Natural  
Resources  
Conservation  
Service

# Arizona

## Basin Outlook Report

### February 1, 2007



# ARIZONA

## Water Supply Outlook Report as of February 1, 2007

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

### 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](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 officials of the USDA’s Agricultural Statistic Service and University of Arizona, College of Agriculture.

## SUMMARY

Snowpack levels have risen substantially in the northern watersheds since the last report was issued on January 15, due to severe winter weather. Snowpack levels, however, still lag behind the 30-year average for February 1. As a result, water users can expect well below median streamflow volumes through May, ranging from 49 percent of median on the Virgin River to 86 percent of median on the Little Colorado River at Woodruff, Arizona. In-state reservoir storage levels remain in fair shape in spite of the on-going drought.

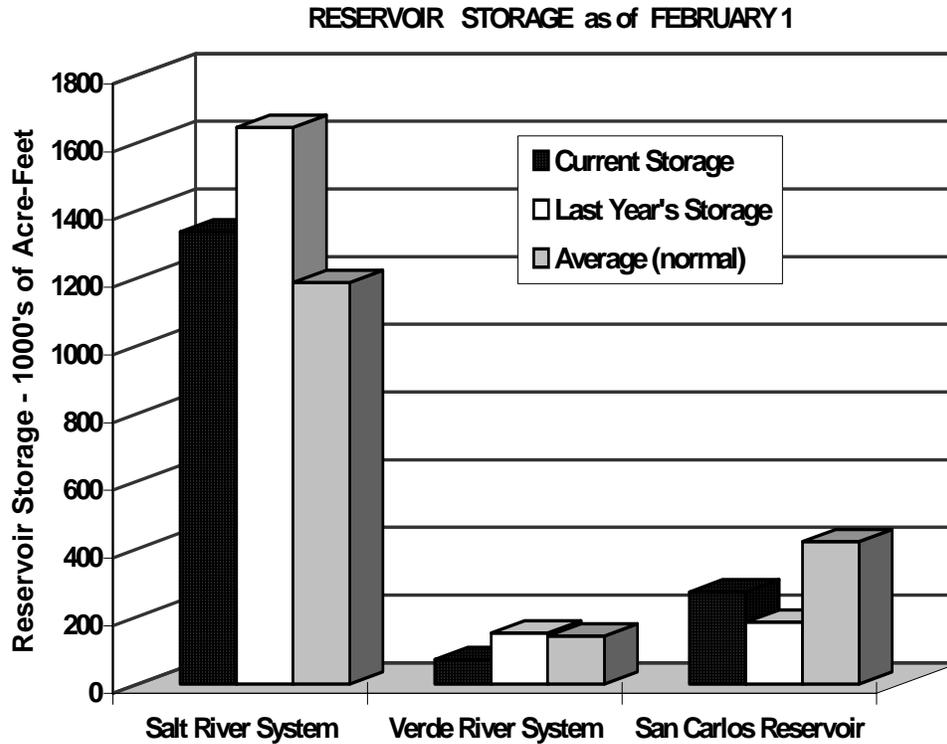
## SNOWPACK

Key Watersheds	Percent (%) of 30-Yr. Average Snowpack Levels as of February 1
Salt River Basin	86%
Verde River Basin	69%
Little Colorado River Basin	73%
San Francisco-Upper Gila River Basin	97%
<b>Other Points of Interest</b>	
Chuska Mountains	56%
Central Mogollon Rim	78%
Grand Canyon	28%
San Francisco Peaks	60%
Statewide Snowpack	71%

## PRECIPITATION

River basin precipitation totals for the month of January varied from 22 percent to 119 percent of average, while cumulative precipitation since October 1 ranged from 48 percent to 78 percent of average. Please refer to the basin precipitation bar graphs found in this report for more information.

## RESERVOIR

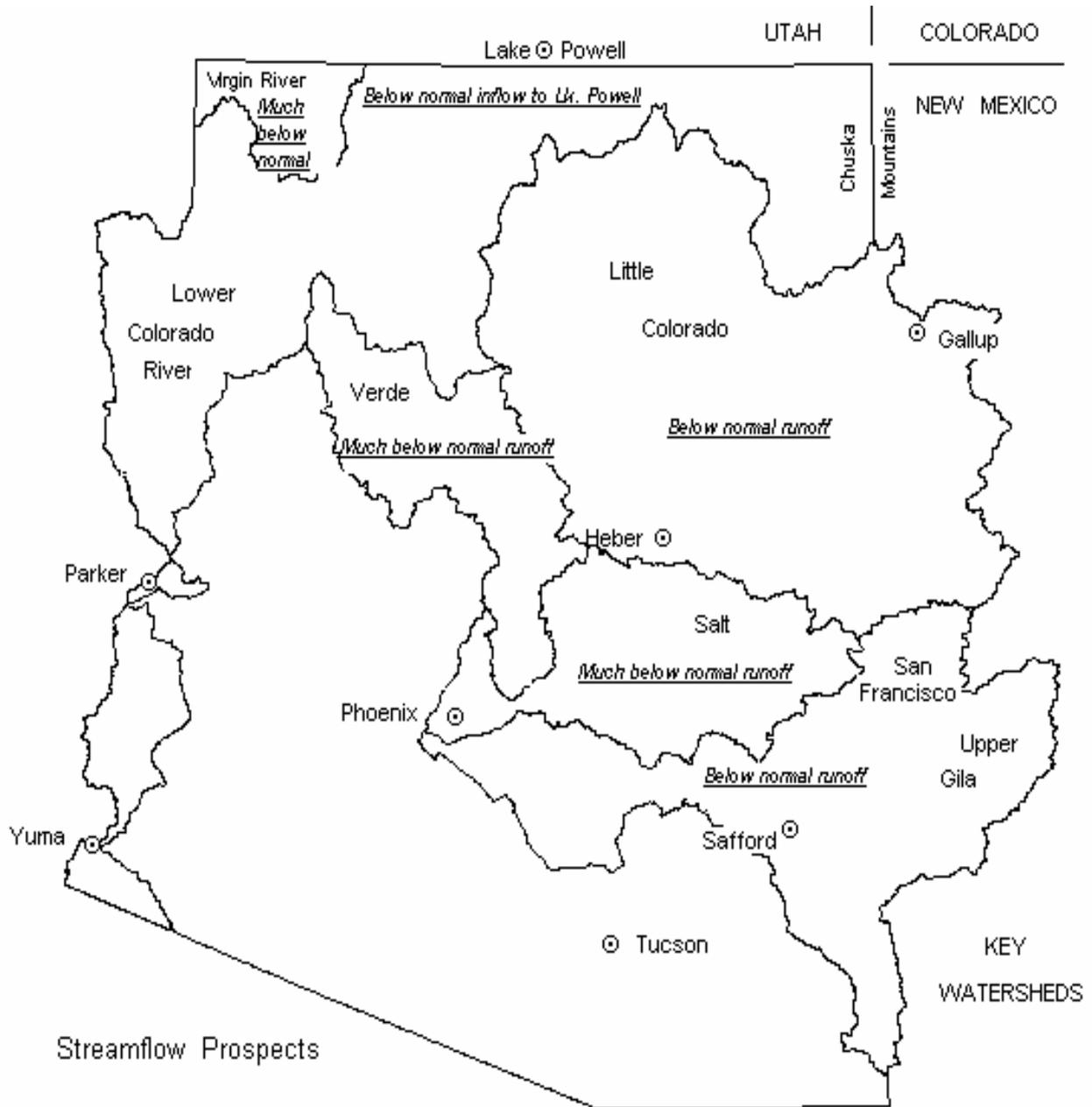


Key storage volumes displayed in thousands of acre-feet(1000x):

RESERVOIR	CURRENT STORAGE	LAST YEAR STORAGE	30-YEAR AVERAGE
Salt River System	1336.9	1644.6	1187.0
Verde River System	72.6	151.0	142.2
San Carlos Reservoir	272.5	183.7	421.8
Lyman Lake	7.4	8.0	14.7
Show Low Lake	Discontinued	5.1	2.9
Lake Pleasant	685.2	699.7	----
Lake Havasu	574.5	561.9	551.8
Lake Mohave	1656.0	1631.5	1672.3
Lake Mead	14309.0	15335.0	21992.0
Lake Powell	11703.0	11206.0	18463.0

# STREAMFLOW

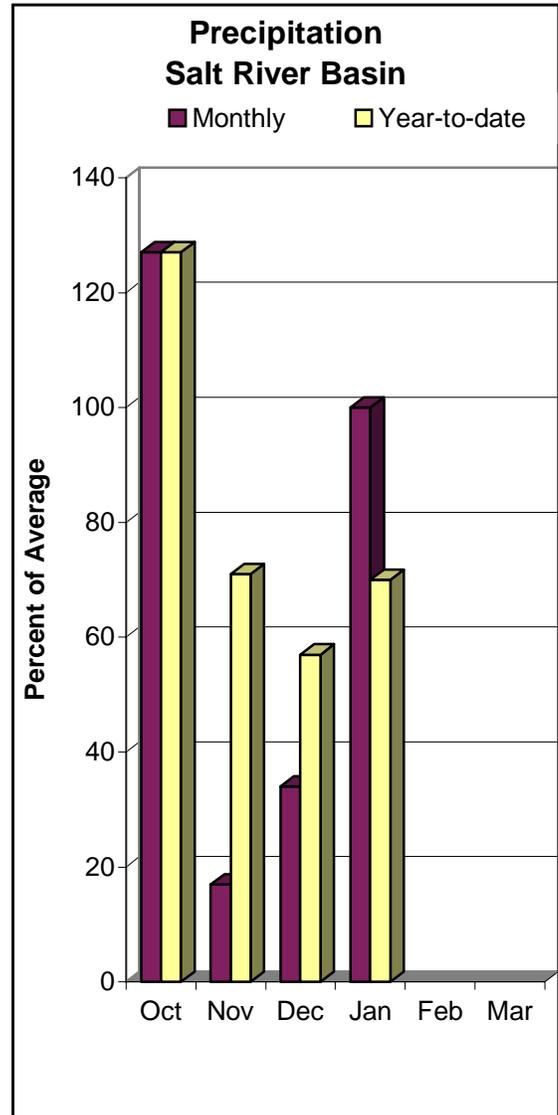
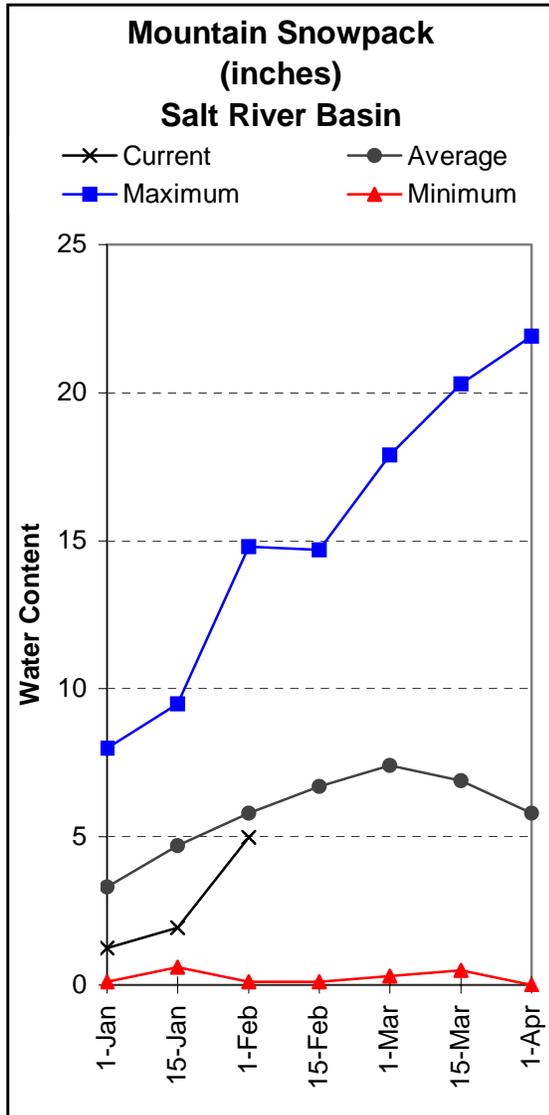
Stream flow volumes are predicted to be 49 percent to 86 percent of median levels for Arizona streams monitored in this report. Please refer to the river basin forecast tables found in this report for more information regarding seasonal surface water supplies for Arizona.



## SALT RIVER BASIN as of February 1, 2007

Much below median runoff is forecast for the basin. In the Salt River, near Roosevelt, the forecast calls for 55% of median stream flow volume through MAY, while in Tonto Creek, the forecast calls for 70% of median stream flow volume through MAY.

February 1 snow survey measurements show the Salt snowpack to be 86% of the 30-year average, while combined reservoir storage for the Salt River system is reported at 1,336,900 acre-feet.



SALT RIVER BASIN  
Streamflow Forecasts - February 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							
FEB-MAY	73	136	195	55	268	407	355
FEBRUARY	6.4	15.5	25	54	38	64	46
Tonto Creek ab Gun Creek nr Roosevelt							
FEB-MAY	5.5	18.8	35	70	59	109	50
FEBRUARY	1.9	4.5	10.0	79	17.7	33	12.6

\* 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 January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
SALT RIVER RES SYSTEM	2025.8	1336.9	1644.6	1187.0

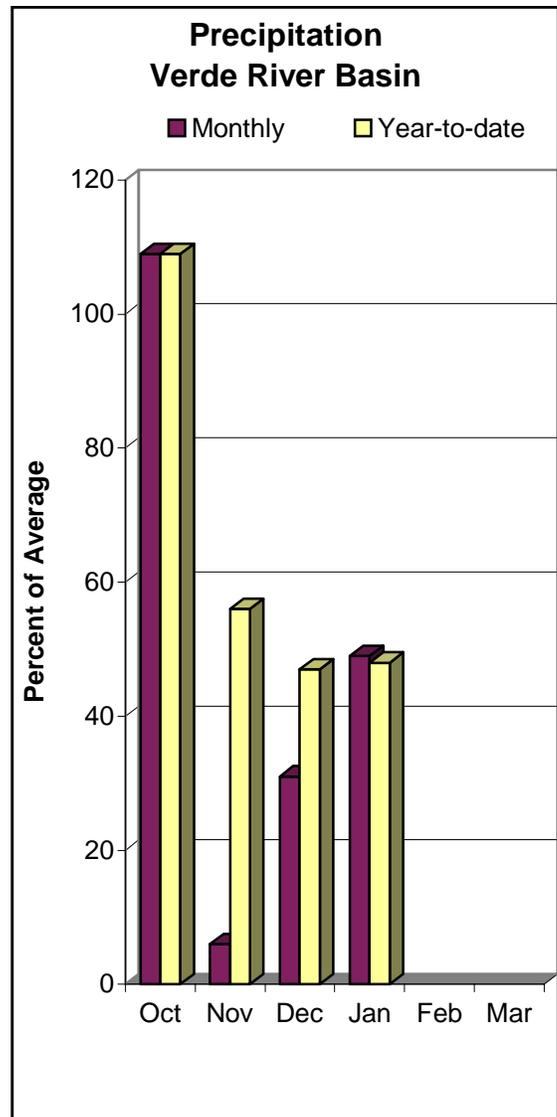
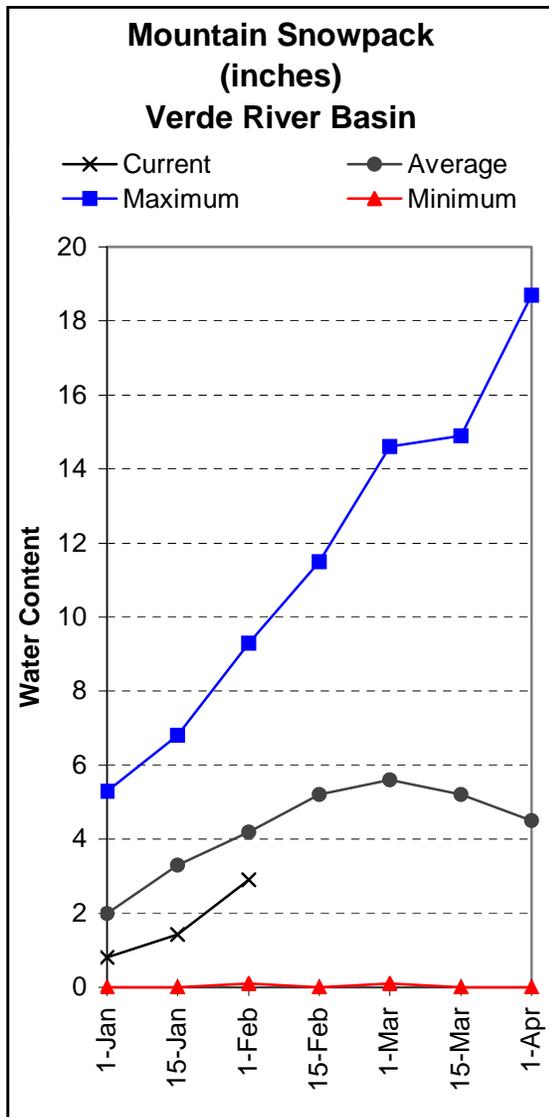
SALT RIVER BASIN  
Watershed Snowpack Analysis - February 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SALT RIVER BASIN	8	687	86

## VERDE RIVER BASIN as of February 1, 2007

Much below median runoff is forecast for the basin. In the Verde River, at Horseshoe Dam, the forecast calls for 70% of median stream flow volume through MAY.

February 1 snow survey measurements show the Verde snowpack to be 69% of the 30-year average, while combined reservoir storage on the Verde River system is reported to be 72,600 acre-feet.



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VERDE RIVER BASIN  
Streamflow Forecasts - February 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							
FEB-MAY	57	101	140	70	189	279	200
FEBRUARY	14.0	22	35	100	52	85	35

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

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Reservoir	Usable	***** Usable Storage *****		
	Capacity	This Year	Last Year	Average
VERDE RIVER RES SYSTEM	287.4	72.6	151.0	142.2

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VERDE RIVER BASIN  
Watershed Snowpack Analysis - February 1, 2007

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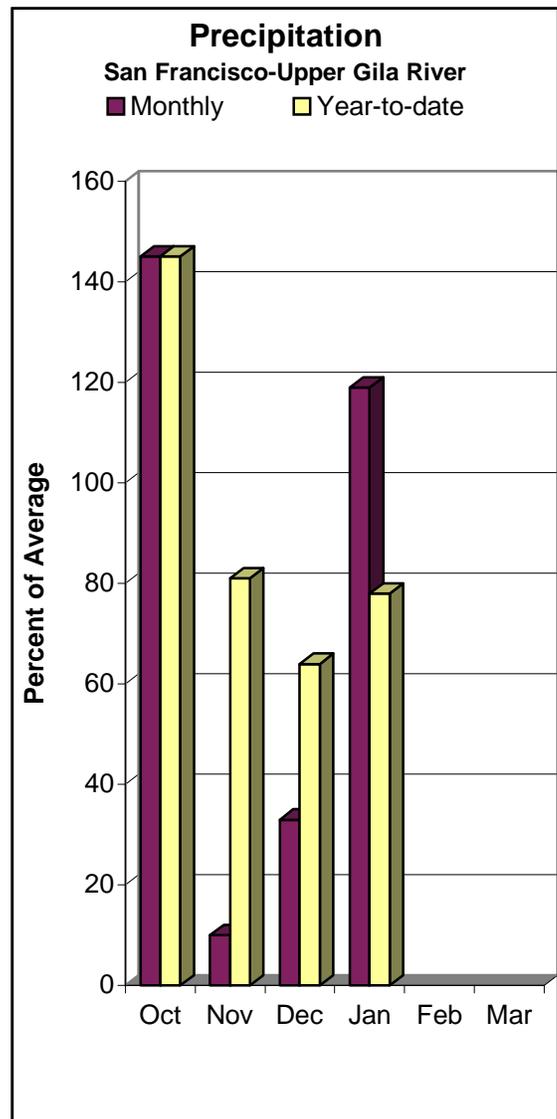
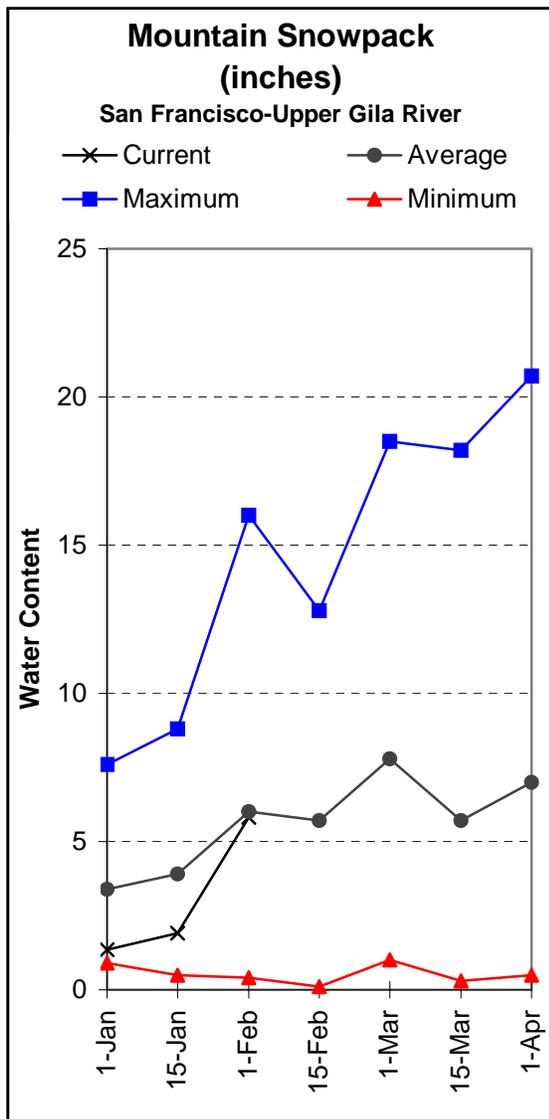
Watershed	Number of	This Year as Percent of	
	Data Sites	Last Year	Average
VERDE RIVER BASIN	10	1794	69
SAN FRANCISCO PEAKS	3	354	60

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

Below median runoff is forecast for the basin. In the San Francisco River, at Clifton, the forecast calls for 81% of median stream flow volume through MAY, while in the Gila River, near Solomon, the forecast calls for 77% of median stream flow volume through MAY. At San Carlos Reservoir, inflow volume to the lake is forecast at 79% of median through MAY.

At San Carlos, reservoir storage stands at 272,500 acre-feet, while snow survey measurements show snowpack levels to be near normal at 97% of the 30-year average.



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

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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)		
=====							
Gila River at Gila							
FEB-MAY	26	37	46	87	56	74	53
Gila River nr Virden							
FEB-MAY	20	35	57	76	79	111	75
San Francisco River at Glenwood							
FEB-MAY	11.5	16.7	21	88	26	35	24
San Francisco River at Clifton							
FEB-MAY	8.9	25	48	81	71	104	59
Gila River nr Solomon							
FEB-MAY	28	55	111	77	167	248	144
FEBRUARY			24	100			24
San Carlos Reservoir inflow							
FEB-MAY	3.4	24	66	79	108	169	84

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

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Reservoir	Usable Capacity	***** Usable Storage *****		
		This Year	Last Year	Average
SAN CARLOS	875.0	272.5	183.7	421.8
PAINTED ROCK DAM		NO REPORT		

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

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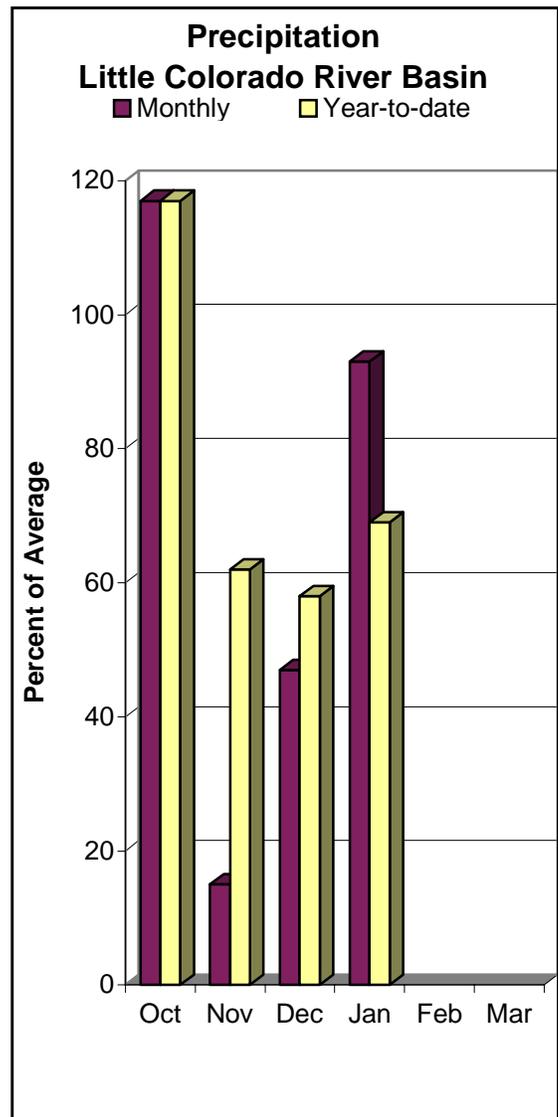
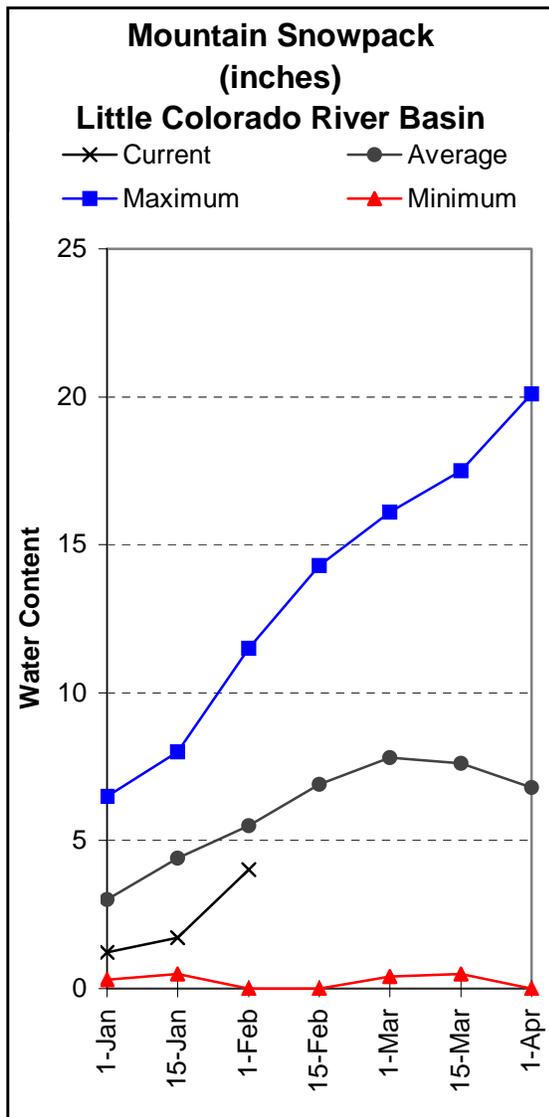
Watershed	Number of Data Sites	This Year as Percent of	
		Last Year	Average
SAN FRANCISCO - UPPER GILA R	9	696	97

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## LITTLE COLORADO RIVER BASIN as of February 1, 2007

Below median runoff is forecast for the basin. In the Little Colorado River, at Lyman Lake, the forecast calls for 80% of median stream flow volume through JUNE, while at Woodruff, the forecast calls for 86% of median stream flow volume through MAY.

February 1 snow levels along the southern headwaters of the Little Colorado River, and along the central Mogollon Rim, was monitored at 73% and 78% of the 30-year average, respectively.



LITTLE COLORADO RIVER BASIN  
Streamflow Forecasts - February 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)						
Little Colorado River abv Lyman Lake							
FEB-JUN	1.52	3.57	5.70	80	8.54	14.23	7.10
Rio Nutria nr Ramah							
FEB-MAY	0.22	1.28	2.80	93	5.22	10.83	3.00
Ramah Reservoir inflow							
FEB-MAY	0.12	0.66	1.44	87	2.80	5.80	1.66
Zuni River abv Black Rock Reservoir							
FEB-MAY	0.49	0.85	1.18	87	1.58	2.31	1.36
Little Colorado River at Woodruff							
FEB-MAY	0.28	0.68	2.40	86	4.12	6.60	2.80
Blue Ridge Reservoir inflow							
FEB-MAY	3.9	8.0	11.6	71	15.9	23	16.3
Lake Mary inflow							
FEB-MAY	1.19	2.32	3.40	71	4.77	7.40	4.80

\* 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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LITTLE COLORADO RIVER BASIN  
Reservoir Storage (1000AF) End of January

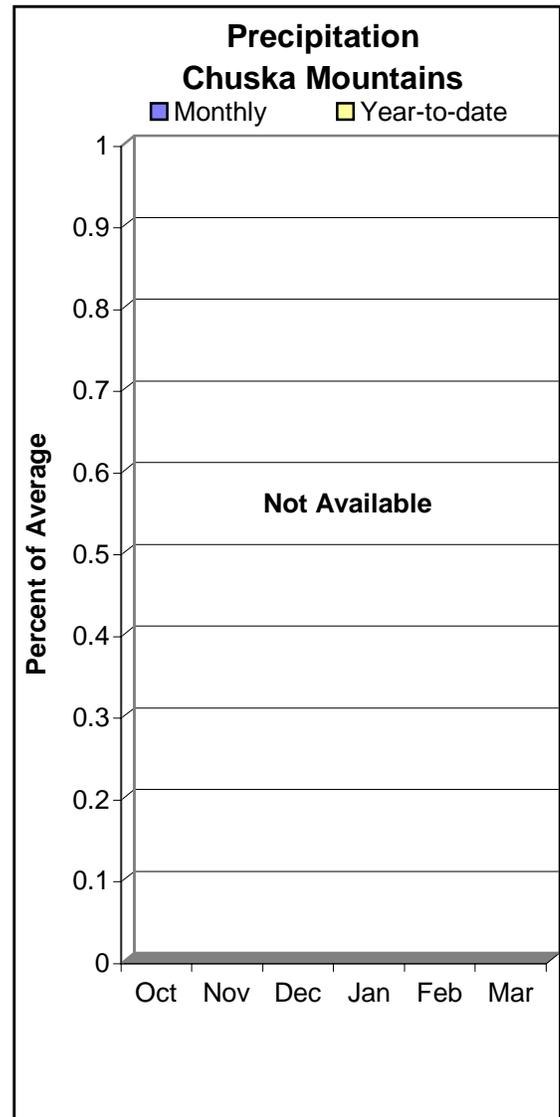
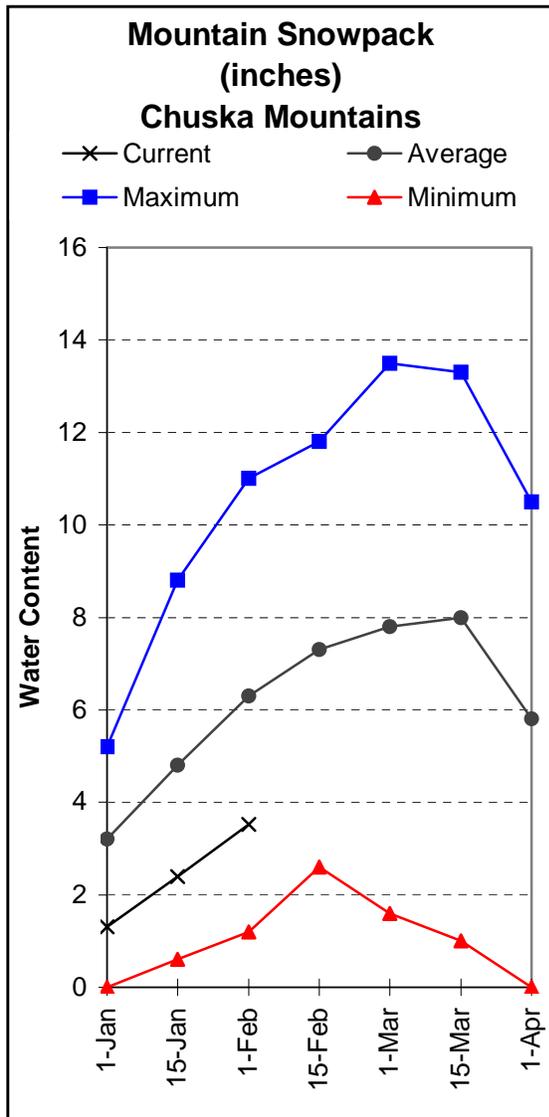
Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
LYMAN RESERVOIR	30.0	7.4	8.0	14.7
SHOW LOW LAKE		NO REPORT		

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

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
LITTLE COLORADO - SOUTHERN H	9	1127	73
CENTRAL MOGOLLON RIM	4	5300	78

## CHUSKA MOUNTAINS and DEFIANCE PLATEAU as of February 1, 2007

Navajo Nation snowpack levels in the Chuska Mountains and the Defiance Plateau were monitored at 56% and 75% of average, respectively. As a result, below average streamflow levels are forecast for Captain Tom Wash, Wheatfields Creek, Bowl Canyon Creek, and Kinlechee Creek through springtime.



CHUSKA MOUNTAINS and DEFIANCE PLATEAU  
Streamflow Forecasts - February 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	0.02	0.37	1.10	39	2.43	5.85	2.83
Wheatfields Creek Nr Wheatfields							
MAR-MAY	0.39	0.79	1.18	41	1.68	2.65	2.90
Bowl Canyon Creek Abv Asaayi Lake							
MAR-MAY	0.13	0.36	0.62	62	0.98	1.72	1.00
Kinlichee Creek							
MAR-MAY	0.09	0.24	0.53	31	1.00	2.11	1.70

\* 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 is computed for the 1971-2000 base period.

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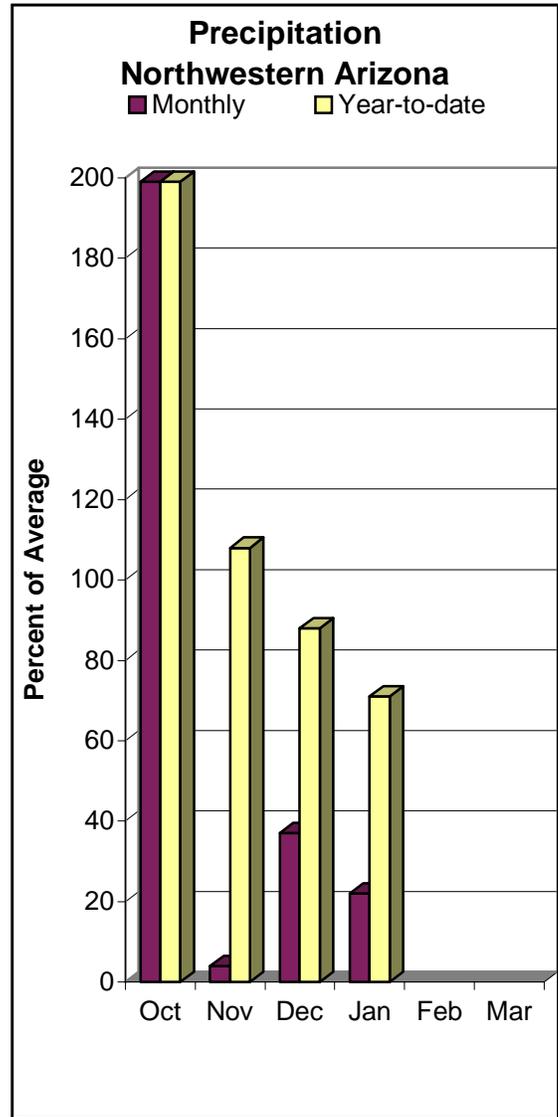
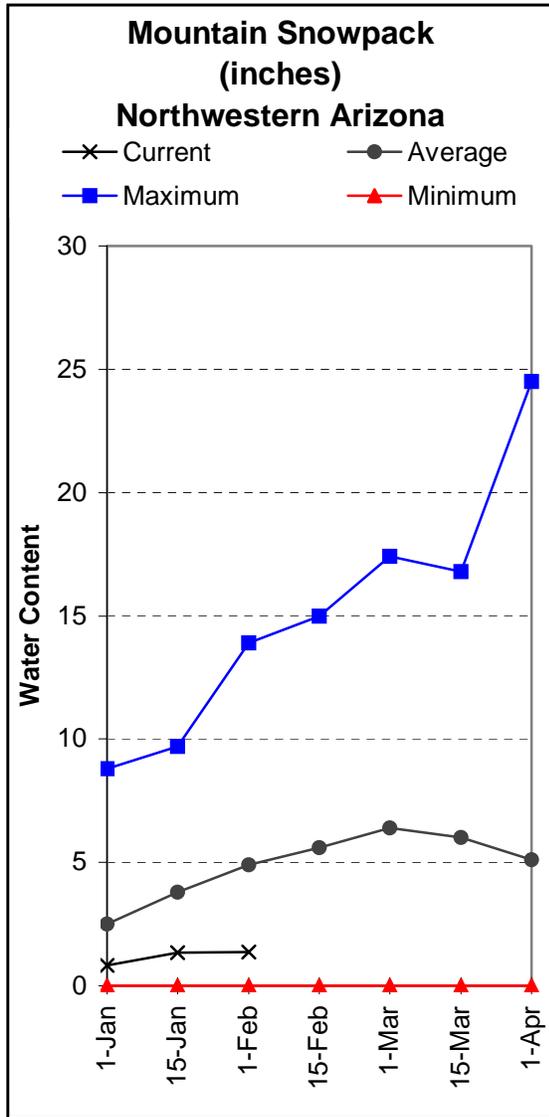
CHUSKA MOUNTAINS and DEFIANCE PLATEAU  
Watershed Snowpack Analysis - February 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
CHUSKA MOUNTAINS	7	272	56
DEFIANCE PLATEAU	2	430	75

## NORTHWESTERN ARIZONA as of February 1, 2007

On the Colorado River, inflow volume to Lake Powell is forecast at 74% of the 30-year average for the forecast period APRIL-JULY, while at Littlefield, the Virgin River is forecast at 49% of average APRIL-JULY.

At the Grand Canyon, snow survey measurements conducted by Park Rangers show the snowpack to be at 28% of the 30-year average.



NORTHWESTERN ARIZONA  
Streamflow Forecasts - February 1, 2007

Forecast Pt Forecast Period	<=== Drier === Future Conditions === Wetter ===>						30 Yr Avg (1000AF)
	Chance of Exceeding *						
	90%	70%	50%	30%	10%		
	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)	(1000AF)	
Virgin River at Littlefield							
APR-JUL	12.6	22	36	49	54	87	74
Lake Powell Inflow (2)							
APR-JUL	2760	4630	5900	74	7170	9040	7930

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NORTHWESTERN ARIZONA  
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
LAKE HAVASU	619.0	574.5	561.9	551.8
LAKE MOHAVE	1810.0	1656.0	1631.5	1672.3
LAKE MEAD	26159.0	14309.0	15335.0	21992.0
LAKE POWELL	24322.0	11703.0	11206.0	18463.0

NORTHWESTERN ARIZONA  
Watershed Snowpack Analysis - February 1, 2007

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
GRAND CANYON	2	560	28

S N O W   S U R V E Y   D A T A

FEBRUARY 1, 2007

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
ARBABS FOREST (AK)	7680	1/31	15	2.2	.6	2.6
BAKER BUTTE SNOTEL	7330	2/01	24	4.3	.0	4.6
BAKER BUTTE #2	7700	1/29	15	4.1	0.4	8.2
BALDY SNOTEL	9220	2/01	18	3.6	1.1	5.7
BEAVER HEAD	8000	1/31	13	2.2	0.2	2.8
BEAVER HEAD SNOTEL	7990	2/01	16	5.1	.9	3.1
BEAVER SPRING	9220	1/30	16	3.6	1.9	7.5
BRIGHT ANGEL	8400	1/27	6	1.3	0.5	7.5
BUCK SPRING	7400	1/31	11	1.8	.0	4.8
CHALENDER	7100	1/31	6	0.9	.0	2.5
CHEESE SPRINGS	8600	1/31	18	2.7	0.7	4.3
CORONADO TRL SNOTEL	8400	2/01	13	2.7	1.1	3.2
CORONADO TRAIL	8350	1/31	12	1.2	0.5	2.6
FLUTED ROCK	7800	1/31	16	2.1	.4	3.1
FORT APACHE	9160	1/31	22	4.1	1.1	6.1
FORT VALLEY	7350	1/30	3	0.5	.0	2.4
FRY SNOTEL	7220	2/01	20	3.7	.5	4.9
GRAND CANYON	7500	1/31	6	1.5	.0	2.6
HANNAGAN MDWS SNOTEL	9020	2/01	32	6.7	1.1	8.6
HAPPY JACK	7630	1/26	15	3.2	.0	3.8
HAPPY JACK SNOTEL	7630	2/01	27	5.3	.5	3.7
HEBER SNOTEL	7640	2/01	22	4.7	.0	4.8
LAKE MARY	6930	1/29	15	3.8	.0	2.7
MAVERICK FORK SNOTEL	9200	2/01	-	5.1	1.0	7.3
MORMON MTN SNOTEL	7500	2/01	23	4.0	.0	4.9
MORMON MT. SUMMIT #2	8470	1/29	23	6.0	0.7	9.0
NEWMAN PARK	6750	1/30	8	2.1	.0	2.5
NUTRIOSO	8500	1/31	10	1.3	0.2	1.7
PROMONTORY SNOTEL	7900	2/01	36	8.1	.0	9.7
SNOW BOWL #1 ALT.	10260	1/26	17	3.6	0.4	8.7
SNOW BOWL #2	11000	1/26	24	4.6	1.4	11.8
SNOWSLIDE CYN SNOTEL	9750	2/01	31	9.5	3.2	9.1
TSAILE CANYON #1	8160	1/30	13	3.2	1.2	5.3
TSAILE CANYON #3	8920	1/30	18	4.3	1.6	7.2
WHITE HORSE SNOTEL	7180	2/01	5	1.0	.0	3.8
WILDCAT SNOTEL	7850	2/01	14	2.9	.0	3.4
WILLIAMS SKI RUN	7720	1/31	15	2.7	.0	6.1
WORKMAN CREEK SNOTEL	6900	2/01	31	7.3	.0	4.8

*Issued by*

**Arlen Lancaster**  
**Chief**  
**Natural Resources Conservation Service**  
**U.S. Department of Agriculture**

*Released by*

**David L. McKay**  
**State Conservationist**  
**Natural Resources Conservation Service**  
**Phoenix, Arizona**

*For more water supply and resource management information, contact:*

**Larry P. Martinez**  
**Water Supply Specialist**  
**230 N. First Avenue, Suite 509**  
**Phoenix, AZ 85003-1706**  
**(602) 280-8841**  
**Email: [Larry.Martinez@az.usda.gov](mailto:Larry.Martinez@az.usda.gov)**

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