

Natural Resources Conservation Service

Arizona Basin Outlook Report January 1, 2021



Issued by

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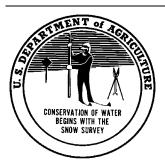
Basin Outlook Reports And Federal – State – Private Cooperative Snow Surveys

How forecasts are made

Most of the annual streamflow in Arizona originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated Snow Telemetry (SNOTEL) sites, along with precipitation and streamflow values, are used in statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service (NRCS) the National Weather Service, and the Salt River Project.

Forecasts of any kind are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertainty of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known. This is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or are concerned about having an adequate water supply, they may want to base their decisions on the 90% or 70% exceedance probability forecasts. On the other hand, if users anticipate receiving too much water, or are concerned about the threat of flooding, they may want to base their decisions on the 30% or 10% exceedance probability forecasts. Regardless of the forecast value users choose, they should be prepared to deal with either more or less water.



For more water supply and resource management information, contact:

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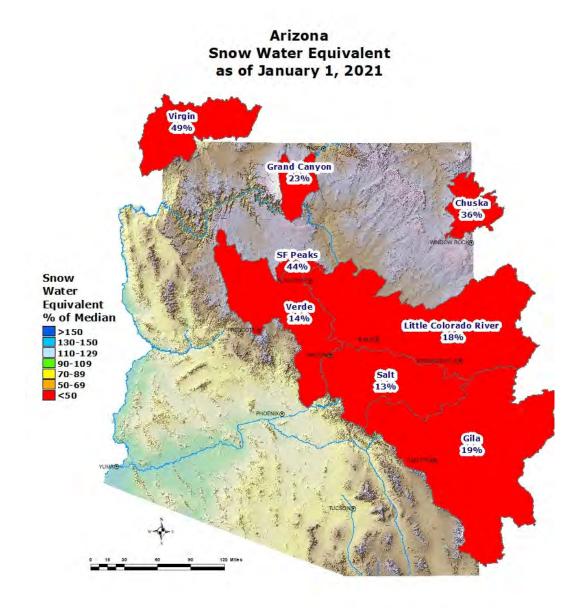
ARIZONA Basin Outlook Report as of January 1, 2021

SUMMARY

As of January 1, snowpack levels are well below normal throughout the major basins of the state. Precipitation for the month of December was well below normal in the major river basins. The Salt and Verde River reservoir system stands at 76 percent of capacity, while San Carlos Reservoir is at 2 percent of capacity. The forecast calls for well below normal runoff in all basins for the spring runoff period.

SNOWPACK

Snow water equivalent levels in the state's major river basins are well below normal, ranging from 19 percent of median in the Upper Gila River Basin to 13 percent of median in the Salt River Basin. The statewide snowpack is well below normal at 27 percent of median.

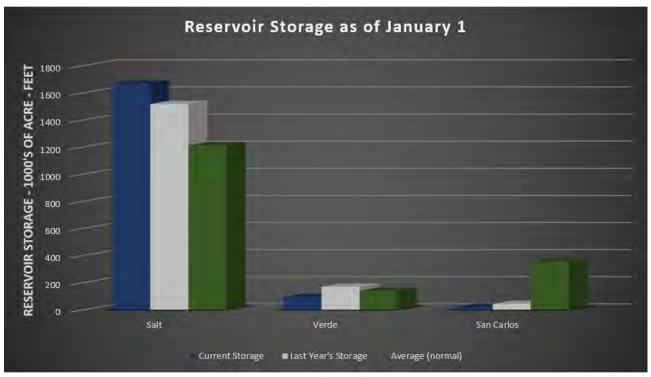


PRECIPITATION

Mountain data from NRCS SNOTEL sites and NWS Cooperator gages show that precipitation for December was well below average in the major river basins. Cumulative precipitation since October 1 is also well below normal throughout the basins. Please refer to the precipitation bar graphs found in this report for more information on precipitation levels in the basins.

RESERVOIR STORAGE

As of January 1, the Salt and Verde River reservoir system stands at 76 percent of capacity. San Carlos Reservoir is currently at 2 percent of capacity.



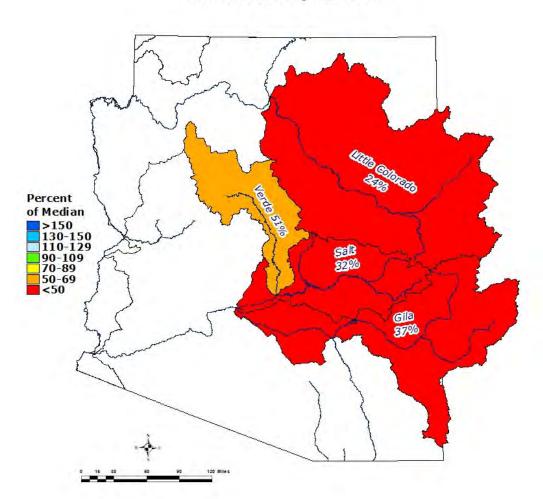
Key storage volumes displayed in thousands of acre-feet (x1000):

<u>Reservoir</u>	Current <u>Storage</u>	Last Year <u>Storage</u>	30-Year <u>Average</u>	Storage <u>Capacity</u>
Salt River System	1666.8	1516.7	1181.0	2025.8
Verde River System	93.4	169.3	135.7	287.4
San Carlos Reservoir	19.6	42.7	324.9	875.0
Lyman Lake	7.7	8.7	11.8	30.0
Lake Havasu	553.2	583.1	562.7	619.0
Lake Mohave	1581.0	1638.1	1602.0	1810.0
Lake Mead	10328.0	10899.0	20297.0	26159.0
Lake Powell	10130.0	12604.0	17745.0	24322.0

STREAMFLOW

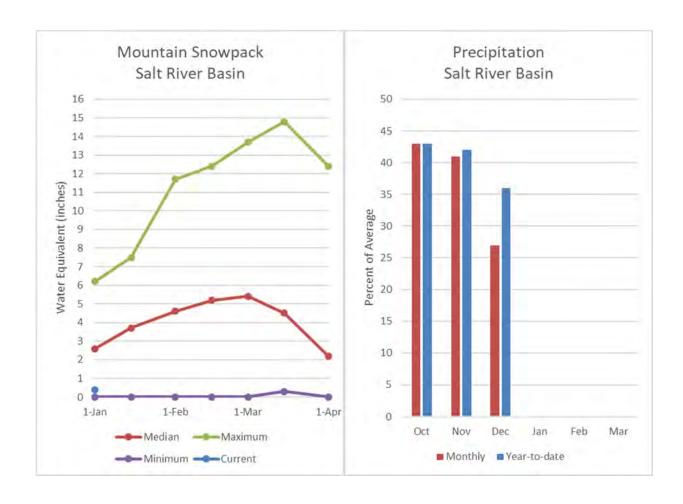
As of January 1, the forecast calls for well below normal streamflow for the spring runoff period, ranging from 24 percent of median in the Little Colorado River above Lyman Lake to 51 percent of median in the Verde River near above Horseshoe Dam. Total precipitation since the beginning of the water year has been well below average for the state, leaving soil conditions dry and producing less than ideal conditions for runoff. Please refer to the basin forecast tables found in this report for more information regarding water supply forecasts.

Arizona
Spring Streamflow Forecasts
as of January 1, 2021



SALT RIVER BASIN as of January 1, 2021

Well below normal streamflow levels are forecast for the basin. In the Salt River, near Roosevelt, the forecast calls for 32% of median streamflow through May, while at Tonto Creek, the forecast calls for 29% of median streamflow through May. Snow survey measurements show the Salt snowpack to be at 13% of median.



Salt
Streamflow Forecasts - January 1, 2021

	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						nt	
Salt	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Salt R nr Roosevelt ³								
	JAN	0.68	5.5	13.2	55%	26	57	24
	JAN-MAY	22	59	100	32%	156	270	310
	MAR-MAY	14.2	36	60	25%	92	158	240
Tonto Ck ab Gun Ck nr Roosevelt3								
	JAN	0.16	0.45	0.9	24%	1.81	5.1	3.8
	JAN-MAY	0.24	4.2	12	29%	26	62	42

^{1) 90%} and 10% exceedance probabilities are actually 95% and 5%

Salt

Reservoir Storage End of December, 2020	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Salt River Reservoir System	1666.8	1516.7	1181.0	2025.8
Basin-wide Total	1666.8	1516.7	1181.0	2025.8
# of reservoirs	1	1	1	1
Watershed Snowpack Analysis	# of Sites	% Median	Last Year	

10

13%

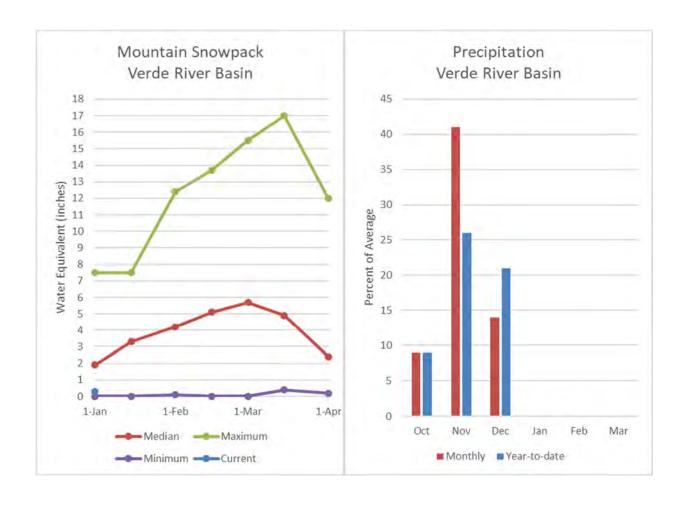
161%

²⁾ Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

³⁾ Median value used in place of average

VERDE RIVER BASIN as of January 1, 2021

Well below normal streamflow levels are forecast for the basin. In the Verde River above Horseshoe Dam, the forecast calls for 51% of median streamflow through May. Snow survey measurements show the Verde snowpack to be at 14% of median.



Verde Streamflow Forecasts - January 1, 2021 Forecast Exceedance Probabilities for Risk Assessment

	Chance that actual volume will exceed forecast							
Verde	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Verde R bl Tangle Ck ab Horseshoe Dam ³								
	JAN JAN-MAY	4.8 33	8.5 56	12.5 80	54% 51%	18.3 115	32 196	23 157

^{1) 90%} and 10% exceedance probabilities are actually 95% and 5%

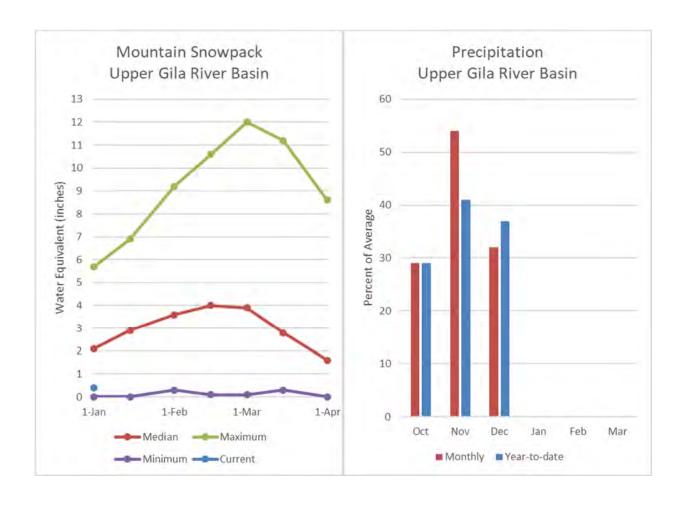
³⁾ Median value used in place of average

Reservoir Storage End of December, 2020	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Verde River Reservoir System	93.4	169.3	135.7	287.4
Basin-wide Total	93.4	169.3	135.7	287.4
# of reservoirs	1	1	1	1
Watershed Snowpack Analysis January 1, 2021	# of Sites	% Median	Last Year % Median	
Verde	8	14%	262%	

²⁾ Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

SAN FRANCISCO-UPPER GILA RIVER BASIN as of January 1, 2021

Well below normal streamflow levels are forecast for the basin. In the San Francisco River, at Clifton, the forecast calls for 38% of median streamflow levels through May. In the Gila River, near Solomon, the forecast calls for 37% of median streamflow levels through May. At San Carlos Reservoir, inflow to the lake is forecast at 24% of median through May. Snow survey measurements show the snowpack for this basin to be at 37% of median.



San Francisco-Upper Gila Streamf<u>low Forecasts - January 1, 2021</u>

San Francisco-Upper Gila		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Gila R at Gila ³								
	JAN-MAY	6.1	13.3	21	38%	30	49	56
Gila R bl Blue Ck nr Virden ³								
	JAN-MAY	0.77	9.8	22	29%	38	71	76
San Francisco R at Glenwood ³								
	JAN-MAY	1.62	5	8.7	41%	14.6	27	21
San Francisco R at Clifton ³								
	JAN-MAY	1.03	10.5	23	38%	39	72	61
Gila R nr Solomon ³								
	JAN	2.3	7.4	12.5	63%	19	31	19.7
	JAN-MAY	1.44	22	51	37%	91	171	137
San Carlos Reservoir Inflow ³								
	JAN-MAY	1.9	5.7	23	24%	56	107	95

^{1) 90%} and 10% exceedance probabilities are actually 95% and 5%

³⁾ Median value used in place of average

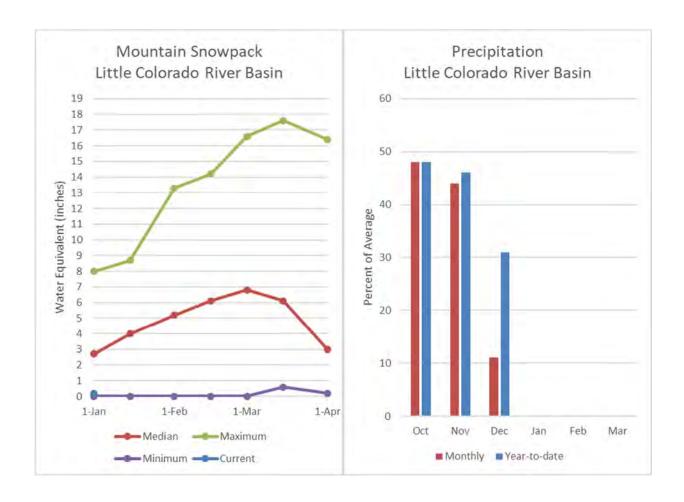
Reservoir Storage End of December, 2020	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
San Carlos Reservoir	19.6	42.6	324.9	875.0
Basin-wide Total	19.6	42.6	324.9	875.0
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis January 1, 2021	# of Sites	% Median	Last Year % Median
San Francisco-Upper Gila	7	19%	122%

²⁾ Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

LITTLE COLORADO RIVER BASIN as of January 1, 2021

Well below normal streamflow levels are forecast for the basin. In the Little Colorado River, above Lyman Lake, the forecast calls for 24% of median streamflow through June. At Blue Ridge (C.C. Cragin) Reservoir, inflow to the lake is forecast at 18% of median through May. Snowpacks along the southern headwaters of the Little Colorado River, and along the central Mogollon Rim, were measured at 18% and 5% of median, respectively.



Little Colorado

Streamflow Forecasts - January 1, 2021

Forecast Exceedance Probabilities for Risk Assessment

		Chance that actual volume will exceed forecast						
Little Colorado	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Little Colorado R ab Lyman Lake ³								
	JAN-JUN	0.31	0.95	1.7	24%	2.8	5	7.1
Rio Nutria nr Ramah ³								
	JAN-MAY	0.04	0.16	0.3	21%	0.84	2.4	1.42
Zuni R ab Black Rock Reservoir ³								
2	JAN-MAY	0.01	0.11	0.2	43%	0.61	0.85	0.47
Blue Ridge Reservoir Inflow ³				•	400/			40.0
	JAN-MAY	0.09	1.12	3	18%	6.3	14.6	16.6
Lake Mary Reservoir Inflow ³		0.40	4.00		400/			
	JAN-MAY	0.43	1.26	2.2	46%	3.5	6.3	4.8

^{1) 90%} and 10% exceedance probabilities are actually 95% and 5% $\,$

³⁾ Median value used in place of average

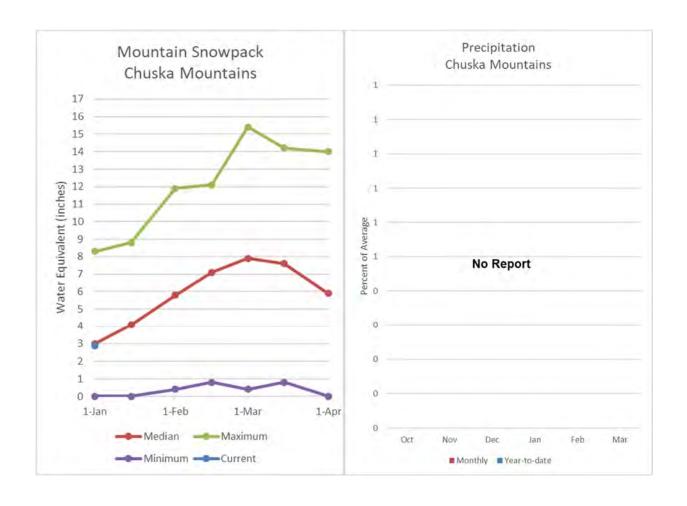
Reservoir Storage	Current	Last Year	Average	Capacity	
End of December, 2020	(KAF)	(KAF)	(KAF)	(KAF)	
Lyman Reservoir	7.7	8.7	11.8	30.0	
Basin-wide Total	7.7	8.7	11.8	30.0	
# of reservoirs	1	1	1	1	

Watershed Snowpack Analysis January 1, 2021	# of Sites	% Median	Last Year % Median
Little Colorado	13	18%	182%
Central Mogollon Rim	3	5%	249%

²⁾ Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

CHUSKA MOUNTAINS as of January 1, 2021

Snow survey measurements conducted by staff of the Navajo Nation Water Management Branch show the Chuska snowpack to be at 36% of median. The forecast calls for well below normal runoff for Wheatfields Creek, Captain Tom Wash, and Bowl Canyon Creek.



Data Current as of: 1/7/2021 1:51:09 PM

Chuska-Defiance

Streamflow Forecasts - January 1, 2021 Forecast Exceedance Probabilities for Risk Assessment

		Chance that actual volume will exceed forecast						
Chuska-Defiance	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Captain Tom Wash nr Two Gray Hills								
	MAR-MAY	0.05	0.23	0.7	27%	2.4	5.3	2.6
Wheatfields Ck nr Wheatfields								
	MAR-MAY	0.02	0.2	0.7	33%	1.52	3.3	2.1
Bowl Canyon Ck ab Asaayi Lake								
	MAR-MAY	0.01	0.24	0.57	44%	1.06	2	1.3

^{1) 90%} and 10% exceedance probabilities are actually 95% and 5%

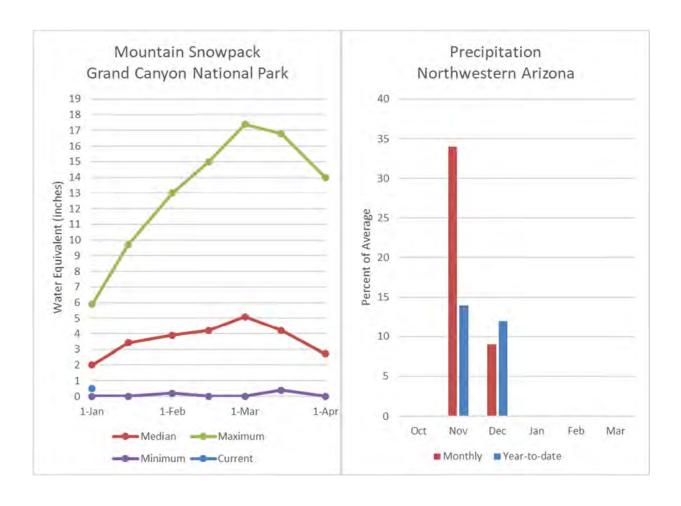
³⁾ Median value used in place of average

Watershed Snowpack Analysis January 1, 2021	# of Sites	% Median	Last Year % Median
Chuska-Defiance	2	36%	122%
Chuska Mountains	1	29%	140%
Defiance Plateau	1	60%	60%

²⁾ Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

NORTHWESTERN ARIZONA as of January 1, 2021

On the Colorado River, well below normal inflow to Lake Powell is forecast at 50% of the 30-year average for the forecast period April-July. At the Grand Canyon, measurements conducted by park rangers show the snowpack to be at 23% of median.



Grand Canyon

Streamflow Forecasts - January 1, 2021

		F			abilities for Ris		nt	
Grand Canyon	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Lake Powell Inflow ²								
	APR-JUL	1300	2530	3600	50%	4860	7050	7160

^{1) 90%} and 10% exceedance probabilities are actually 95% and 5%

³⁾ Median value used in place of average

Reservoir Storage	Current	Last Year	Average	Capacity
End of December, 2020	(KAF) (KAF) (KAF)		(KAF)	(KAF)
Lake Havasu	553.2	586.1	562.7	619.0
Lake Mohave	1581.0	1634.0	1602.0	1810.0
Lake Mead	10328.0	10899.0	20297.0	26159.0
Lake Powell	10130.0	12603.9	17745.0	24322.0
Basin-wide Total	22592.2	25723.0	40206.7	52910.0
# of reservoirs	4	4	4	4

Watershed Snowpack Analysis January 1, 2021	# of Sites	% Median	Last Year % Median
Grand Canyon	1	23%	87%

²⁾ Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Basinwide Summary: January 1, 2021 (Averages/Medians based on 1981-2010 reference period)

Snowpack Summary for January 1, 2021

(Averages/Medians based on 1501-2		oc perioa)						
Salt	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Baldy	SNOTEL	9125	2		3.7	14%	5.9	159%
Beaver Head	SNOTEL	7990	0	0.0	2.7	0%	2.1	78%
Buck Spring	SC	7400	0	0.0	1.5	0 70	1.4	93%
Coronado Trail	SC	8350			0.7			0070
Coronado Trail	SNOTEL	8400	0	0.0	1.8	0%	2.8	156%
Fort Apache	SC	9160	6	0.6	3.7	16%	6.9	186%
Hannagan Meadows	SNOTEL	9020	6	2.0	5.0	40%	6.4	128%
Hawley Lake	SNOTEL	8300	5	1.5	0.0	.0,0	7.1	0,0
Heber	SNOTEL	7640	0	0.0	1.6	0%	3.9	244%
Maverick Fork	SNOTEL	9200	2	0.3	4.0	8%	6.1	153%
Promontory	SNOTEL	7930	1	0.3	3.3	9%	6.9	209%
Wildcat	SNOTEL	7850	0	0.0	1.3	0%	1.8	138%
Workman Creek	SNOTEL	6900	0	0.0	1.9	0%	4.0	211%
Basin Index						13%		161%
# of sites						10		10
	N 1 ()	Elevation	Depth	SWE	Median	%	Last Year	Last Year
Verde	Network	(ft)	(in)	(in)	(in)	Median	SWE (in)	% Median
Baker Butte	SNOTEL	7300	0	0.0	1.6	0%	5.4	338%
Baker Butte No. 2	SC	7700			3.4		6.9	203%
Baker Butte Smt	SNOTEL	7700	1	0.4			10.0	
Bar M	SNOTEL	6393	0	0.0			3.5	
Chalender	SNOTEL	7100	0	0.0			3.9	
Chalender	SC	7100			0.6		1.4	233%
Fort Valley	SNOTEL	7350	0	0.0			1.5	
Fort Valley	SC	7350	2	0.2	0.8	25%	1.6	200%
Fry	SNOTEL	7200	2	0.4	2.8	14%	6.9	246%
Happy Jack	SC	7630			1.0		2.9	290%
Happy Jack	SNOTEL	7630	3	0.8	1.7	47%	4.1	241%
Mormon Mountain	SNOTEL	7500	0	0.0	1.8	0%	5.3	294%
Mormon Mountain Summit #2	SC	8470	2	0.4	3.6	11%	7.6	211%
Mormon Mtn Summit	SNOTEL	8500	0	0.0			6.3	
Newman Park	SC	6750	2	0.2	0.6	33%	2.9	483%
Snow Bowl #2	SC	11200			8.0		15.2	190%
White Horse Lake	SNOTEL	7180	0	0.0	1.4	0%	3.6	257%
Williams Ski Run	SC	7720			2.6			
Basin Index	<u> </u>					14%		262%
# of sites						8		8
San Francisco Peaks	Network	Elevation	•		Median	% Modian	Last Year	
O P 1 #0	00	(ft)	(in)	(in)	(in)	wedian	SWE (in)	
Snow Bowl #2	SC	11200	40	~ ~	8.0	4.407	15.2	190%
Snowslide Canyon	SNOTEL	9730	12	3.6	8.1	44%	14.1	174%
Basin Index # of sites						44% 1		174% 1
	NI-6	Elevation	Depth	SWE	Median	%	Last Year	Last Year
San Francisco-Upper Gila	Network	(ft)	(in)	(in)	(in)		SWE (in)	

Beaver Head	SNOTEL	7990	0	0.0	2.7	0%	2.1	78%
Coronado Trail	SC	8350			0.7			
Coronado Trail	SNOTEL	8400	0	0.0	1.8	0%	2.8	156%
Frisco Divide	SNOTEL	8000	0	0.0	1.5	0%	1.5	100%
Hannagan Meadows	SNOTEL	9020	6	2.0	5.0	40%	6.4	128%
Lookout Mountain	SNOTEL	8500	0	0.0	1.4	0%	1.0	71%
Nutrioso	SC	8500			0.4			
Nutrioso	SNOTEL	8500	0	0.0			1.3	
Signal Peak	SNOTEL	8360	0	0.0	1.9	0%	1.3	68%
Silver Creek Divide	SNOTEL	9000	6	1.4	3.5	40%	6.7	191%
State Line	SC	8000			0.6			
Basin Index						19%		122%
# of sites						7		7
Little Colorado	Network	Elevation	Depth	SWE	Median	%		Last Year
Little Colorado	Network	(ft)	(in)	(in)	(in)	Median	SWE (in)	% Median
Baker Butte	SNOTEL	7300	0	0.0	1.6	0%	5.4	338%
Baker Butte No. 2	SC	7700			3.4		6.9	203%
Baker Butte Smt	SNOTEL	7700	1	0.4			10.0	
Baldy	SNOTEL	9125	2	0.5	3.7	14%	5.9	159%
Boon	SC	8140	2	0.4	1.4	29%	1.2	86%
Buck Spring	SC	7400			1.5		1.4	93%
Cheese Springs	SC	8700	5	0.2	2.8	7%	3.5	125%
Dan Valley	SC	7640	2	0.4	1.2	33%	0.2	17%
Fort Apache	SC	9160	6	0.6	3.7	16%	6.9	186%
Fort Valley	SNOTEL	7350	0	0.0			1.5	
Fort Valley	SC	7350	2	0.2	0.8	25%	1.6	200%
Heber	SNOTEL	7640	0	0.0	1.6	0%	3.9	244%
Lake Mary	SC	6930			1.0		1.8	180%
Maverick Fork	SNOTEL	9200	2	0.3	4.0	8%	6.1	153%
Mcgaffey	SC	8120			1.0		0.6	60%
Mormon Mountain	SNOTEL	7500	0	0.0	1.8	0%	5.3	294%
Mormon Mountain Summit #2	SC	8470	2	0.4	3.6	11%	7.6	211%
Mormon Mtn Summit	SNOTEL	8500	0	0.0			6.3	
Nutrioso	SC	8500			0.4			
Nutrioso	SNOTEL	8500	0	0.0			1.3	
Promontory	SNOTEL	7930	1	0.3	3.3	9%	6.9	209%
Snow Bowl #2	SC	11200			8.0		15.2	190%
Snowslide Canyon	SNOTEL	9730	12	3.6	8.1	44%	14.1	174%
Basin Index						18%		182%
# of sites						13		13
Control Magallan Pim	Network	Elevation	Depth	SWE	Median	%	Last Year	Last Year
Central Mogollon Rim	Network	(ft)	(in)	(in)	(in)	Median	SWE (in)	% Median
Baker Butte	SNOTEL	7300	0	0.0	1.6	0%	5.4	338%
Baker Butte No. 2	SC	7700			3.4		6.9	203%
Baker Butte Smt	SNOTEL	7700	1	0.4			10.0	
Heber	SNOTEL	7640	0	0.0	1.6	0%	3.9	244%
Promontory	SNOTEL	7930	1	0.3	3.3	9%	6.9	209%
Basin Index						5%		249%
# of sites						3		3
Chuoka Deficines	Moturaria	Elevation	Depth	SWE	Median	%	Last Year	Last Year
Chuska-Defiance	Network	(ft)	(in)	(in)	(in)	Median	SWE (in)	% Median
			-	-				

Beaver Spring SNOTEL 9200 6			SC	9220			3.9			
Bowl Caryon	peaver sonno				6	1.1	0.0		6.5	
Fluted Rock SC 7800 3							3.5	29%		140%
Hidden Valley Missionary Spring Navajo Whiskey CR	•									
Missionary Spring					•	0.0		00,0		3373
Navajo Whiskey Ck	-						11			64%
Tasalle Canyon #1					4		•••			0.70
Mais Carnyom #3	-				•		23			196%
Network SC 9050 SUB					21	5.0		155%	4.0	13070
Basin Index # of sites	•				21	5.5		13370		
Metwork	WHISKEY OFECK	Rasin Index		3030			0.0	36%		122%
Polymory Polymory										
Beaver Spring		" or onco						_		_
Beaver Spring SNOTEL SC 8980 6	Chuska Mounta	ins	Network		•					
Bowl Canyon	Beaver Spring		SC	9220			3.9			
Bowl Canyon			SNOTEL	9200	6	1.1			6.5	
Hidden Valley			SC		6		3.5	29%		140%
Missionary Spring SC 7940	•									
Navajo Whiskey Ck SNOTEL 9950 4 US 1 7.0 4 1 7.0 196% Tsaile Canyon #1 SC 8160 2.3 15.9 3.8 155% 196% Tsaile Canyon #3 SC 8920 21 5.9 3.8 155% 140% Whiskey Creek SC 9950 "SWE 15.9 3.8 155% 140% Defiance Plateau Network Elevation (ft) Depth (in) Well (in) Median (in) SWE (in) Weld (in) Weld (in) Well (in) Well (in) Well (in) SWE (in) Well (in)	•						1.1			64%
Tsaile Canyon #1					4					2.72
Tsaile Canyon #3 SC SC 9050 21 5.9 3.8 155% 155% 140% 140% 155							2.3			196%
Methiskey Creek SC 9050 SUB SUB					21	5.9		155%		.0070
Defiance Plateau						0.0		.0070		
Network		Basin Index					0.0	29%		140%
Defiance Plateau Network (ft) (ft) (ft) (ft) (ft) (ft) (ft) (ft)										
Fluted Rock SC 7800 3 0.6 1.0 60% 0.6 60%		# OI SILES								
Pluted Rock SC 7800 3 0.6 1.0 60% 0.6 60%		# OI SILES								
Basin Index # of sites	Defiance Platea		Network		-					
Grand Canyon Network Elevation (ft) Depth (in) SWE (in) Median (in) Last Year Nedian (in) Last Year Nedian (in) Median SWE (in) Last Year SWE (in) Median SWE (in)				(ft)	(in)	(in)	(in)	Median	SWE (in)	% Median
Scand Canyon Scan		au		(ft)	(in)	(in)	(in)	Median 60%	SWE (in)	% Median 60%
Scand Canyon Scan		au Basin Index		(ft)	(in)	(in)	(in)	Median 60% 60%	SWE (in)	% Median 60% 60%
Grand Canyon SC 7500 0.9 Basin Index # of sites # of sites 23% 87% Virgin Network Elevation (ft) Depth (in) SWE (in) Median (in) % Median SWE (in) Last Year SWE (in) Last Year SWE (in) Median SWE (in) % Median SWE (in) Median SWE (in) % Median SWE (in) Median SWE (in) % Median SWE		au Basin Index		(ft)	(in)	(in)	(in)	Median 60% 60%	SWE (in)	% Median 60% 60%
Basin Index # of sites # of sites 23% 87% Virgin Network Elevation (ft) Depth (in) SWE (in) Median (in) % Median (in) Last Year SWE (in) Last Year SWE (in) Median SWE (in) % Media	Fluted Rock	Basin Index # of sites	SC	(ft) 7800 Elevation	(in) 3 Depth	(in) 0.6 SWE	(in) 1.0 Median	Median 60% 60% 1	SWE (in) 0.6 Last Year	% Median 60% 60% 1 Last Year
Virgin Network Elevation (ft) Depth (in) SWE (in) Median (in) % Median (in) Last Year SWE (in) Last Year Median (in) Gardner Peak SNOTEL 8322 11 2.0 3.5 57% 8.7 249% Gutz Peak SNOTEL 6763 6 0.7 2.3 30% 7.9 343% Harris Flat SNOTEL 7792 5 0.9 2.3 39% 7.1 309% Kolob SNOTEL 9263 24 4.4 7.5 59% 13.6 181% Little Grassy SNOTEL 6065 5 0.8 1.3 62% 2.6 200% Long Flat SNOTEL 7982 5 0.7 2.5 28% 5.7 228% Long Valley Jct SNOTEL 7465 6 0.5 1.6 31% 5.7 356% Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171%	Fluted Rock Grand Canyon	Basin Index # of sites	SC Network	(ft) 7800 Elevation (ft)	(in) 3 Depth (in)	(in) 0.6 SWE (in)	(in) 1.0 Median (in)	Median 60% 60% 1 % Median	SWE (in) 0.6 Last Year SWE (in)	% Median 60% 60% 1 Last Year % Median
Virgin Network Elevation (ft) Depth (in) SWE (in) Median (in) % Last Year SWE (in) Last Year SWE (in) Last Year SWE (in) Gardner Peak SNOTEL 8322 11 2.0 3.5 57% 8.7 249% Gutz Peak SNOTEL 6763 6 0.7 2.3 30% 7.9 343% Harris Flat SNOTEL 7792 5 0.9 2.3 39% 7.1 309% Kolob SNOTEL 9263 24 4.4 7.5 59% 13.6 181% Little Grassy SNOTEL 6065 5 0.8 1.3 62% 2.6 200% Long Flat SNOTEL 7982 5 0.7 2.5 28% 5.7 228% Long Valley Jct SNOTEL 7465 6 0.5 1.6 31% 5.7 356% Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% <	Fluted Rock Grand Canyon Bright Angel	Basin Index # of sites	SC Network SC	(ft) 7800 Elevation (ft) 8400	(in) 3 Depth (in)	(in) 0.6 SWE (in)	(in) 1.0 Median (in) 3.0	Median 60% 60% 1 % Median	SWE (in) 0.6 Last Year SWE (in)	% Median 60% 60% 1 Last Year % Median 87%
Cardner Peak SNOTEL 8322 11 2.0 3.5 57% 8.7 249%	Fluted Rock Grand Canyon Bright Angel	Basin Index # of sites	SC Network SC	(ft) 7800 Elevation (ft) 8400	(in) 3 Depth (in)	(in) 0.6 SWE (in)	(in) 1.0 Median (in) 3.0	Median 60% 60% 1 % Median 23%	SWE (in) 0.6 Last Year SWE (in)	% Median 60% 60% 1 Last Year % Median 87%
Cardner Peak SNOTEL 8322 11 2.0 3.5 57% 8.7 249%	Fluted Rock Grand Canyon Bright Angel	Basin Index # of sites n Basin Index	SC Network SC	(ft) 7800 Elevation (ft) 8400	(in) 3 Depth (in)	(in) 0.6 SWE (in)	(in) 1.0 Median (in) 3.0	Median 60% 60% 1 % Median 23%	SWE (in) 0.6 Last Year SWE (in)	% Median 60% 60% 1 Last Year % Median 87%
Gutz Peak SNOTEL 6763 6 0.7 2.3 30% 7.9 343% Harris Flat SNOTEL 7792 5 0.9 2.3 39% 7.1 309% Kolob SNOTEL 9263 24 4.4 7.5 59% 13.6 181% Little Grassy SNOTEL 6065 5 0.8 1.3 62% 2.6 200% Long Flat SNOTEL 7982 5 0.7 2.5 28% 5.7 228% Long Valley Jct SNOTEL 7465 6 0.5 1.6 31% 5.7 356% Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247%	Fluted Rock Grand Canyon Bright Angel	Basin Index # of sites n Basin Index	SC Network SC	(ft) 7800 Elevation (ft) 8400	(in) 3 Depth (in)	(in) 0.6 SWE (in)	(in) 1.0 Median (in) 3.0	Median 60% 60% 1 % Median 23%	SWE (in) 0.6 Last Year SWE (in)	% Median 60% 60% 1 Last Year % Median 87%
Harris Flat SNOTEL 7792 5 0.9 2.3 39% 7.1 309% Kolob SNOTEL 9263 24 4.4 7.5 59% 13.6 181% Little Grassy SNOTEL 6065 5 0.8 1.3 62% 2.6 200% Long Flat SNOTEL 7982 5 0.7 2.5 28% 5.7 228% Long Valley Jct SNOTEL 7465 6 0.5 1.6 31% 5.7 356% Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247%	Grand Canyon Bright Angel Grand Canyon	Basin Index # of sites n Basin Index	SC Network SC SC	(ft) 7800 Elevation (ft) 8400 7500 Elevation	Depth (in) 3 Depth	(in) 0.6 SWE (in) 0.7	(in) 1.0 Median (in) 3.0 0.9	Median 60% 60% 1 % Median 23% 23% 1	SWE (in) 0.6 Last Year SWE (in) 2.6	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year
Kolob SNOTEL 9263 24 4.4 7.5 59% 13.6 181% Little Grassy SNOTEL 6065 5 0.8 1.3 62% 2.6 200% Long Flat SNOTEL 7982 5 0.7 2.5 28% 5.7 228% Long Valley Jct SNOTEL 7465 6 0.5 1.6 31% 5.7 356% Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247%	Grand Canyon Bright Angel Grand Canyon Virgin	Basin Index # of sites n Basin Index	SC Network SC SC	Elevation (ft) 8400 7500 Elevation (ft)	Depth (in) 3 Depth (in)	(in) 0.6 SWE (in) 0.7	Median (in) 3.0 0.9 Median (in)	Median 60% 60% 1 % Median 23% 1 % Median	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in)	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median
Little Grassy SNOTEL 6065 5 0.8 1.3 62% 2.6 200% Long Flat SNOTEL 7982 5 0.7 2.5 28% 5.7 228% Long Valley Jct SNOTEL 7465 6 0.5 1.6 31% 5.7 356% Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247% Basin Index 49% 227%	Grand Canyon Bright Angel Grand Canyon Virgin Gardner Peak	Basin Index # of sites n Basin Index	SC Network SC SC Network SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322	Depth (in) Depth (in) Depth (in)	(in) 0.6 SWE (in) 0.7 SWE (in) 2.0	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5	Median 60% 60% 1 % Median 23% 1 % Median 57%	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in) 8.7	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249%
Long Flat SNOTEL 7982 5 0.7 2.5 28% 5.7 228% Long Valley Jct SNOTEL 7465 6 0.5 1.6 31% 5.7 356% Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247% Basin Index 49% 227%	Grand Canyon Bright Angel Grand Canyon Virgin Gardner Peak Gutz Peak	Basin Index # of sites n Basin Index	SC Network SC SC Network SNOTEL SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322 6763	Depth (in) 3 Depth (in) 11 6	(in) 0.6 SWE (in) 0.7 SWE (in) 2.0 0.7	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5 2.3	Median 60% 60% 1 % Median 23% 1 % Median 57% 30%	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in) 8.7 7.9	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249% 343%
Long Valley Jct SNOTEL 7465 6 0.5 1.6 31% 5.7 356% Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247% Basin Index 49% 227%	Grand Canyon Bright Angel Grand Canyon Virgin Gardner Peak Gutz Peak Harris Flat	Basin Index # of sites n Basin Index	SC Network SC SC Network SNOTEL SNOTEL SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322 6763 7792	(in) 3 Depth (in) 3 Depth (in) 11 6 5	(in) 0.6 SWE (in) 0.7 SWE (in) 2.0 0.7 0.9	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5 2.3 2.3	Median 60% 60% 1 % Median 23% 1 % Median 57% 30% 39%	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in) 8.7 7.9 7.1	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249% 343% 309%
Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247% Basin Index 49% 227%	Grand Canyon Bright Angel Grand Canyon Virgin Gardner Peak Gutz Peak Harris Flat Kolob	Basin Index # of sites n Basin Index	SC Network SC SC Network SNOTEL SNOTEL SNOTEL SNOTEL SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322 6763 7792 9263	(in) 3 Depth (in) 3 Depth (in) 11 6 5 24	(in) 0.6 SWE (in) 0.7 SWE (in) 2.0 0.7 0.9 4.4	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5 2.3 7.5	Median 60% 60% 1 % Median 23% 1 % Median 57% 30% 39% 59%	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in) 8.7 7.9 7.1 13.6	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249% 343% 309% 181%
Midway Valley SNOTEL 9827 29 4.5 8.4 54% 14.4 171% Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247% Basin Index 49% 227%	Grand Canyon Bright Angel Grand Canyon Virgin Gardner Peak Gutz Peak Harris Flat Kolob Little Grassy	Basin Index # of sites n Basin Index	SC Network SC SC Network SNOTEL SNOTEL SNOTEL SNOTEL SNOTEL SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322 6763 7792 9263 6065	(in) 3 Depth (in) 3 Depth (in) 11 6 5 24 5	SWE (in) 0.7 SWE (in) 2.0 0.7 0.9 4.4 0.8	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5 2.3 2.3 7.5 1.3	Median 60% 60% 1 % Median 23% 1 % Median 57% 30% 39% 59% 62%	Last Year SWE (in) 2.6 Last Year SWE (in) 8.7 7.9 7.1 13.6 2.6	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249% 343% 309% 181% 200%
Webster Flat SNOTEL 9203 12 2.2 4.9 45% 12.1 247% Basin Index 49% 227%	Grand Canyor Bright Angel Grand Canyon Virgin Gardner Peak Gutz Peak Harris Flat Kolob Little Grassy Long Flat	Basin Index # of sites n Basin Index	SC Network SC SC Network SNOTEL SNOTEL SNOTEL SNOTEL SNOTEL SNOTEL SNOTEL SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322 6763 7792 9263 6065 7982	(in) 3 Depth (in) 3 Depth (in) 11 6 5 24 5 5	SWE (in) 0.7 SWE (in) 2.0 0.7 0.9 4.4 0.8 0.7	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5 2.3 7.5 1.3 2.5	Median 60% 60% 1 % Median 23% 1 % Median 57% 30% 39% 59% 62% 28%	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in) 8.7 7.9 7.1 13.6 2.6 5.7	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249% 343% 309% 181% 200% 228%
Basin Index 49% 227%	Grand Canyon Bright Angel Grand Canyon Virgin Gardner Peak Gutz Peak Harris Flat Kolob Little Grassy Long Flat Long Valley Jct	Basin Index # of sites n Basin Index	SC Network SC SC Network SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322 6763 7792 9263 6065 7982 7465	(in) 3 Depth (in) 3 Depth (in) 11 6 5 24 5 6	SWE (in) 0.7 SWE (in) 2.0 0.7 0.9 4.4 0.8 0.7 0.5	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5 2.3 7.5 1.3 2.5 1.6	Median 60% 60% 1 % Median 23% 1 % Median 57% 30% 39% 59% 62% 28% 31%	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in) 8.7 7.9 7.1 13.6 2.6 5.7 5.7	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249% 343% 309% 181% 200% 228% 356%
	Grand Canyon Bright Angel Grand Canyon Virgin Gardner Peak Gutz Peak Harris Flat Kolob Little Grassy Long Flat Long Valley Jct Midway Valley	Basin Index # of sites n Basin Index	SC Network SC SC Network SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322 6763 7792 9263 6065 7982 7465 9827	Depth (in) 3 Depth (in) 3 Depth (in) 11 6 5 24 5 6 29	(in) 0.6 SWE (in) 0.7 0.9 4.4 0.8 0.7 0.5 4.5	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5 2.3 2.3 7.5 1.3 2.5 1.6 8.4	Median 60% 60% 1 % Median 23% 1 % Median 57% 30% 39% 59% 62% 28% 31% 54%	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in) 8.7 7.9 7.1 13.6 2.6 5.7 5.7 14.4	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249% 343% 309% 181% 200% 228% 356% 171%
# of sites 9 9	Grand Canyon Bright Angel Grand Canyon Virgin Gardner Peak Gutz Peak Harris Flat Kolob Little Grassy Long Flat Long Valley Jct Midway Valley	Basin Index # of sites Basin Index # of sites	SC Network SC SC Network SNOTEL	(ft) 7800 Elevation (ft) 8400 7500 Elevation (ft) 8322 6763 7792 9263 6065 7982 7465 9827	Depth (in) 3 Depth (in) 3 Depth (in) 11 6 5 24 5 6 29	(in) 0.6 SWE (in) 0.7 0.9 4.4 0.8 0.7 0.5 4.5	(in) 1.0 Median (in) 3.0 0.9 Median (in) 3.5 2.3 2.3 7.5 1.3 2.5 1.6 8.4	Median 60% 60% 1 % Median 23% 1 % Median 57% 30% 39% 59% 62% 28% 31% 54% 45%	SWE (in) 0.6 Last Year SWE (in) 2.6 Last Year SWE (in) 8.7 7.9 7.1 13.6 2.6 5.7 5.7 14.4	% Median 60% 60% 1 Last Year % Median 87% 1 Last Year % Median 249% 343% 309% 181% 200% 228% 356% 171% 247%

Arizona Snow Survey Data Sites

