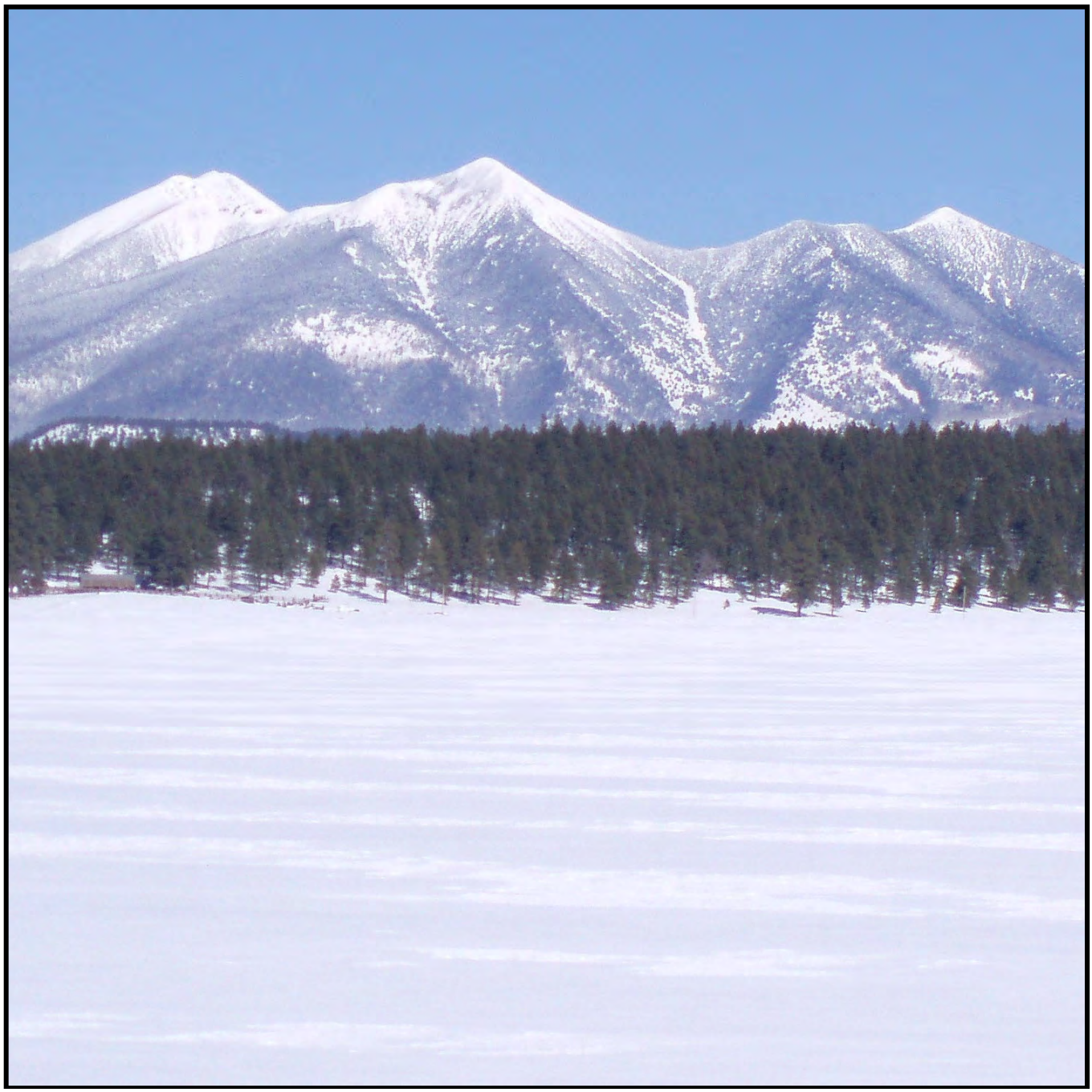
United States Department of Agriculture

Natural Resources Conservation Service

Arizona Basin Outlook Report January 1, 2022



Issued by

Terry Cosby
Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

Keisha L. Tatem
State Conservationist
Natural Resources Conservation Service
Phoenix, Arizona

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:

Travis Kolling
Water Supply Specialist
230 N. First Ave., Suite 509
Phoenix, AZ 85003-1706
Phone: (602) 280-8834
Email: travis.kolling@az.usda.gov

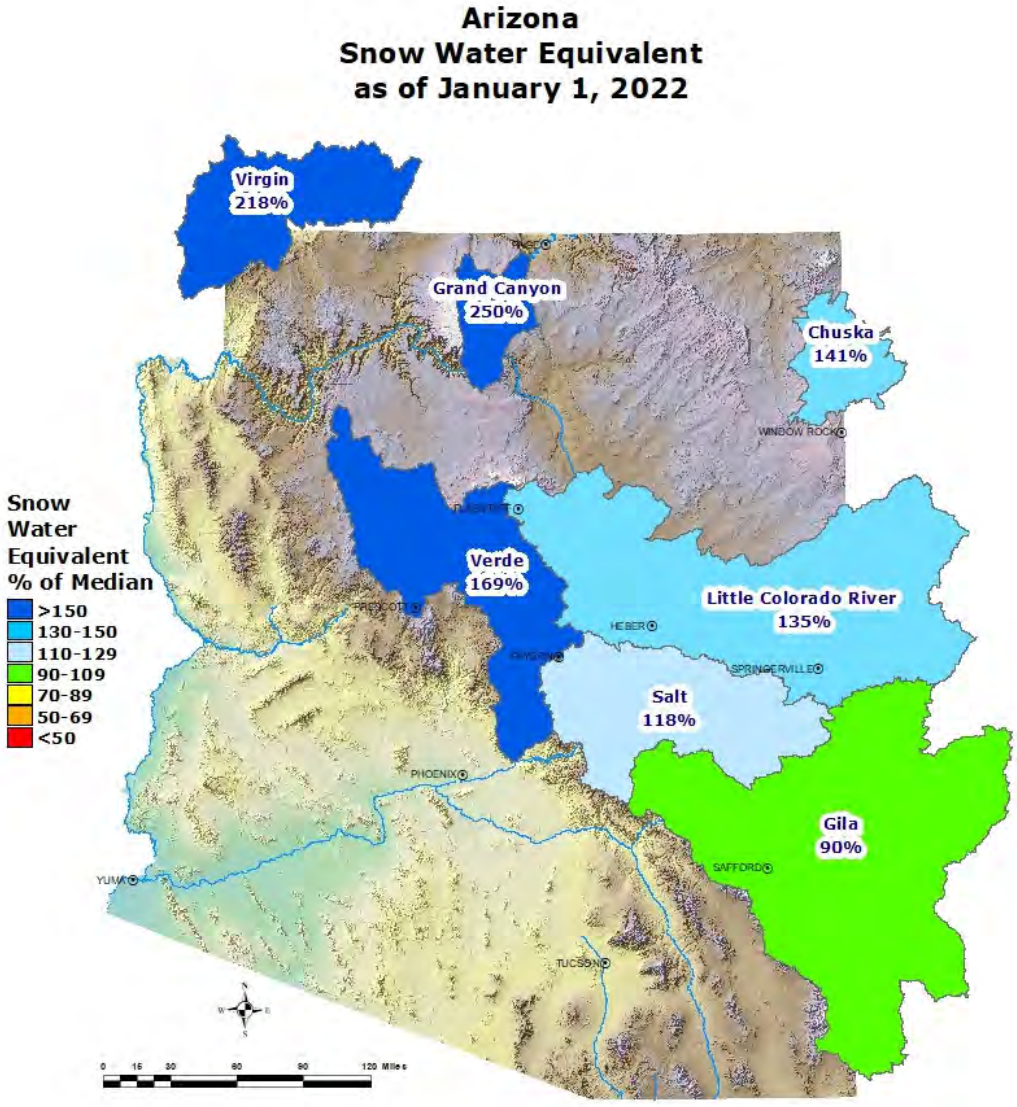
ARIZONA Basin Outlook Report
as of January 1, 2022

SUMMARY

As of January 1, snowpack is at median to well above median levels throughout the major basins of the state. Precipitation for the month of December was above median to well above median in the major river basins. The Salt and Verde River reservoir system stands at 68 percent of capacity, while San Carlos Reservoir is at 2 percent of capacity. The forecast calls for median to well above median runoff in the major basins for the spring runoff period.

SNOWPACK

Snow water equivalent in the state's major river basins are median to well above median levels, ranging from 90 percent of median in the Gila River Basin to 169 percent of median in the Verde River Basin.

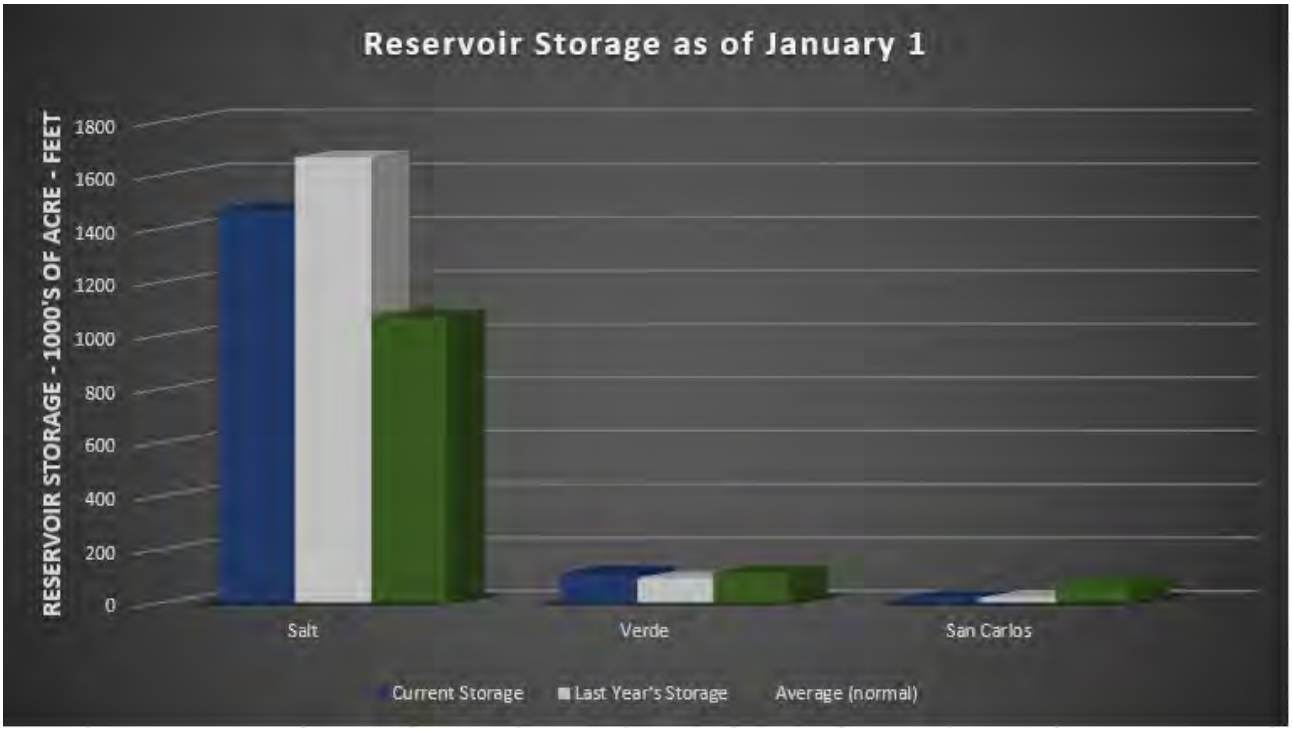


PRECIPITATION

Mountain data from NRCS SNOTEL sites and NWS Cooperator gages show that precipitation for December was above median to well above median in the major river basins, while cumulative precipitation since October 1 ranged from well below median to median levels throughout the state. Please refer to the precipitation 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 68 percent of capacity. San Carlos Reservoir is currently at 2 percent of capacity.

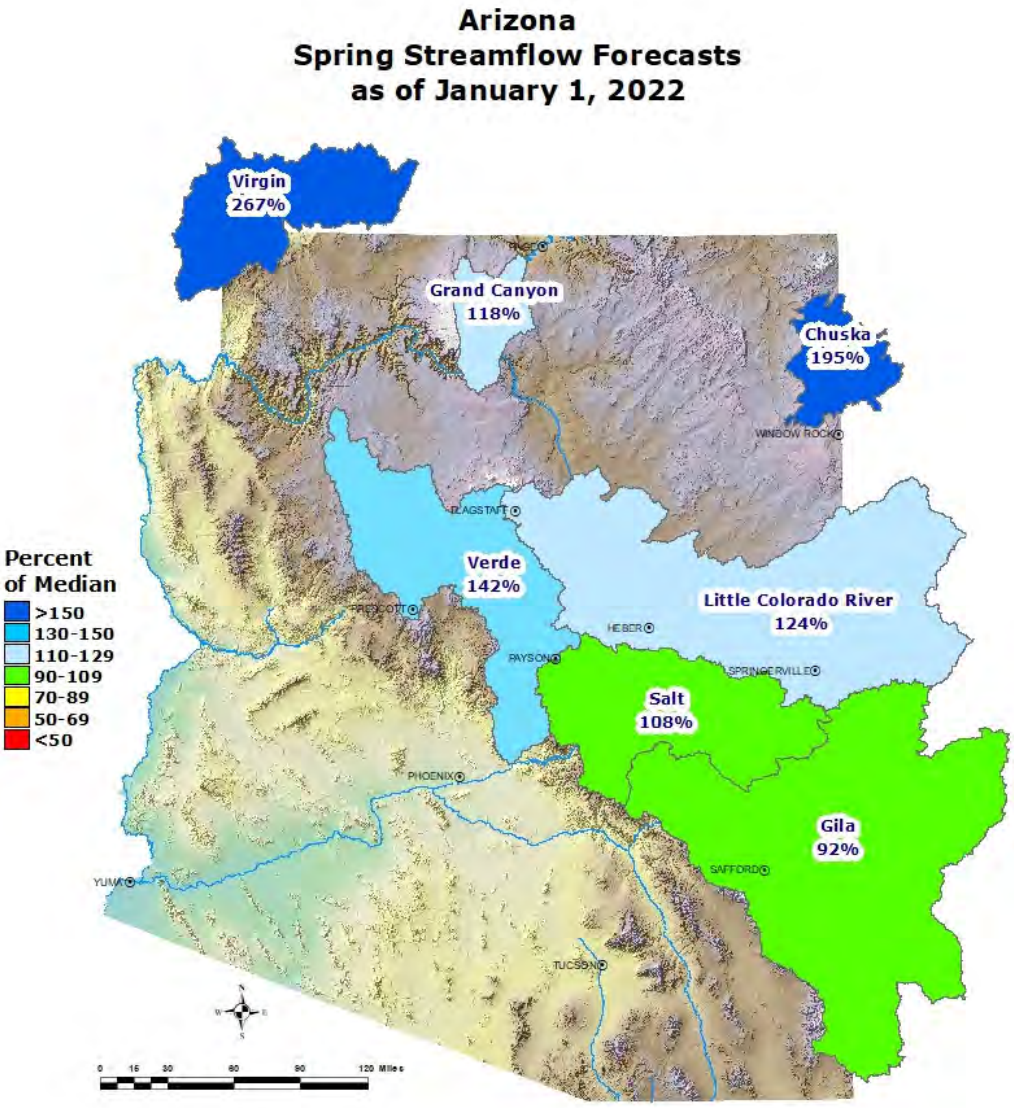


Key storage volumes displayed in thousands of acre-feet (x1000):

Reservoir	Current Storage	Last Year Storage	30-Year Median	Storage Capacity
Salt River System	1471.8	1666.8	1073.0	2025.8
Verde River System	111.3	93.4	112.8	287.4
San Carlos Reservoir	20.0	19.6	79.4	875.0
Lyman Lake	4.8	7.7	7.1	30.0
Lake Havasu	567.3	553.2	558.0	619.0
Lake Mohave	1572.7	1581.0	1608.0	1810.0
Lake Mead	8915.0	10328.0	15014.0	26159.0
Lake Powell	6713.0	10130.0	13921.0	24322.0

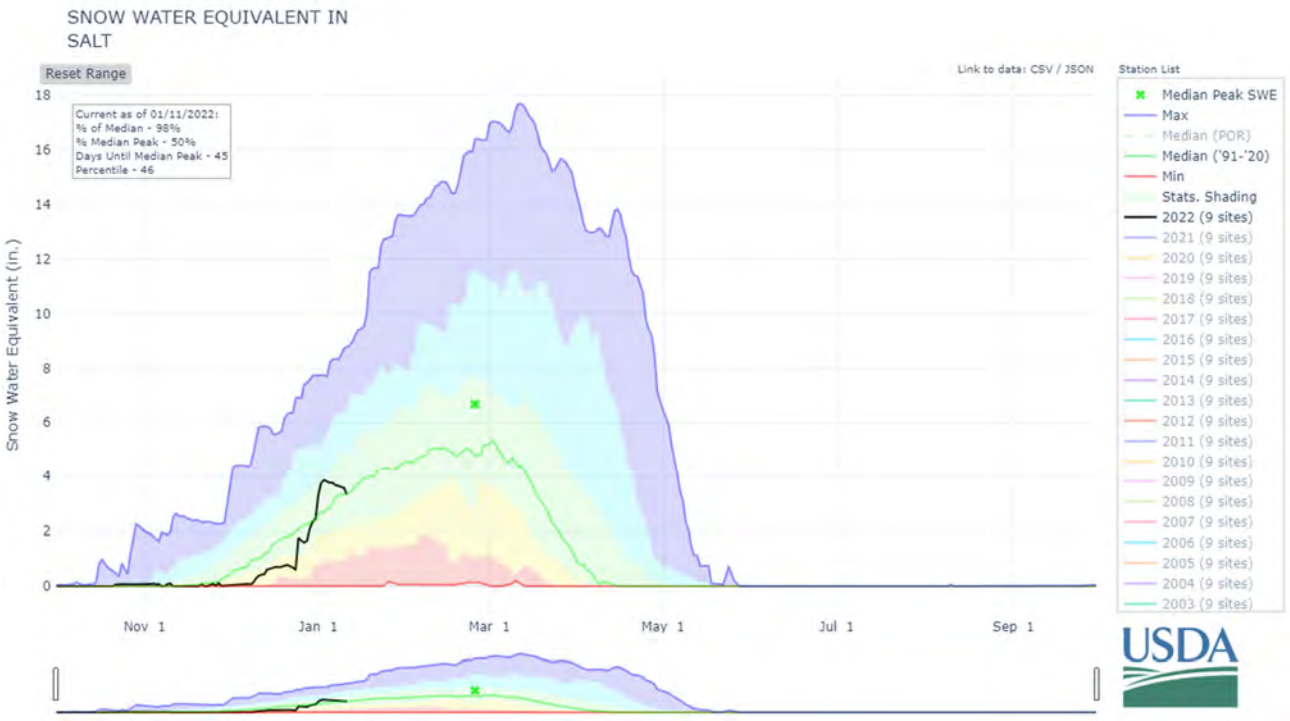
STREAMFLOW

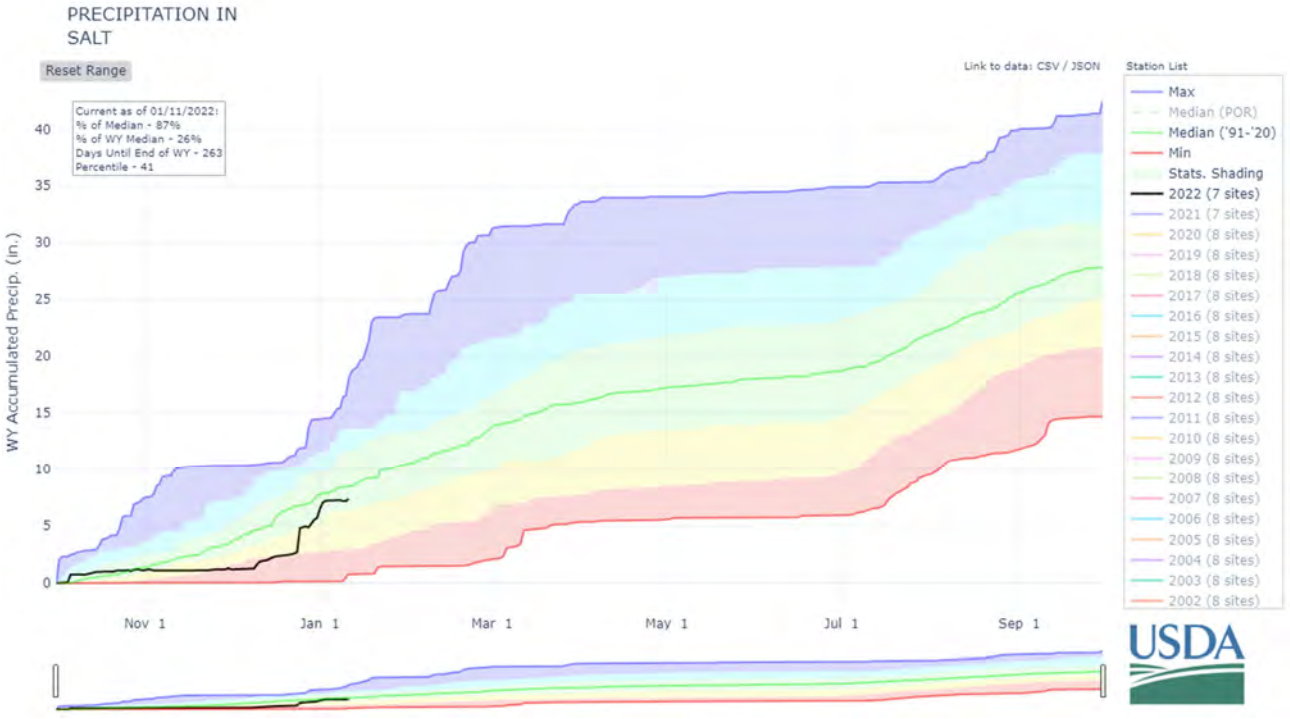
As of January 1, the forecast calls for median to well above median streamflow for the spring runoff period, ranging from 92 percent of median in the Gila River near Solomon to 142 percent of median in the Verde River above Horseshoe Dam. Please refer to the basin forecast tables found in this report for more information regarding water supply forecasts.



SALT RIVER BASIN as of January 1, 2022

Median streamflow levels are forecast for the basin. In the Salt River, near Roosevelt, the forecast calls for 108% of median streamflow through May, while at Tonto Creek, the forecast calls for 115% of median streamflow through May. Snow survey measurements show the Salt snowpack to be at 118% of median.





Data Current As of: 1/7/2022 1:12:45 PM

Salt

Streamflow Forecasts - January 1, 2022

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Salt	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Salt R nr Roosevelt								
	JAN	7.2	22	40	182%	65	117	22
	JAN-MAY	99	187	270	108%	375	570	250
	MAR-MAY	83	144	200	112%	270	395	179
Tonto Ck ab Gun Ck nr Roosevelt								
	JAN	0.98	2.7	5.5	145%	11.1	31	3.8
	JAN-MAY	6.7	24	45	115%	76	143	39

1) 90% And 10% exceedance probabilities are actually 95% And 5%

2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

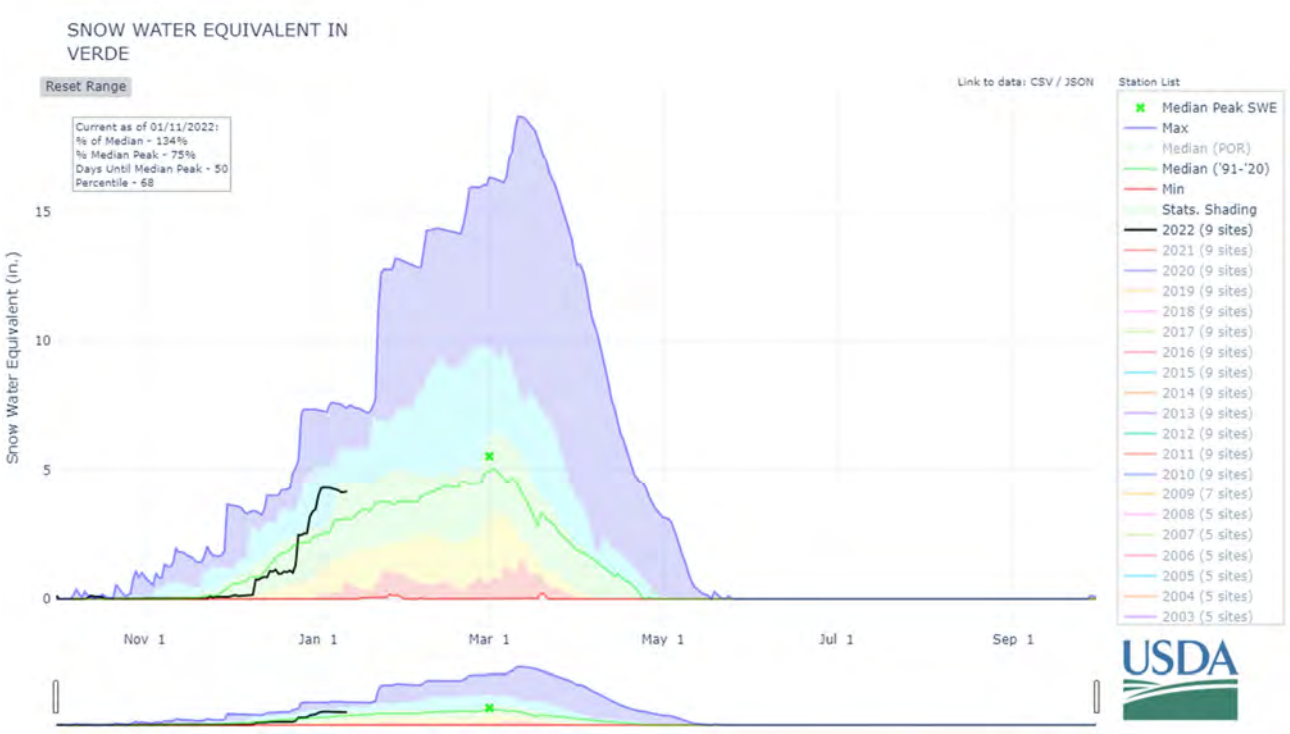
Reservoir Storage End of December, 2021	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)
Salt River Reservoir System	1471.8	1666.8	1073.0	2025.8

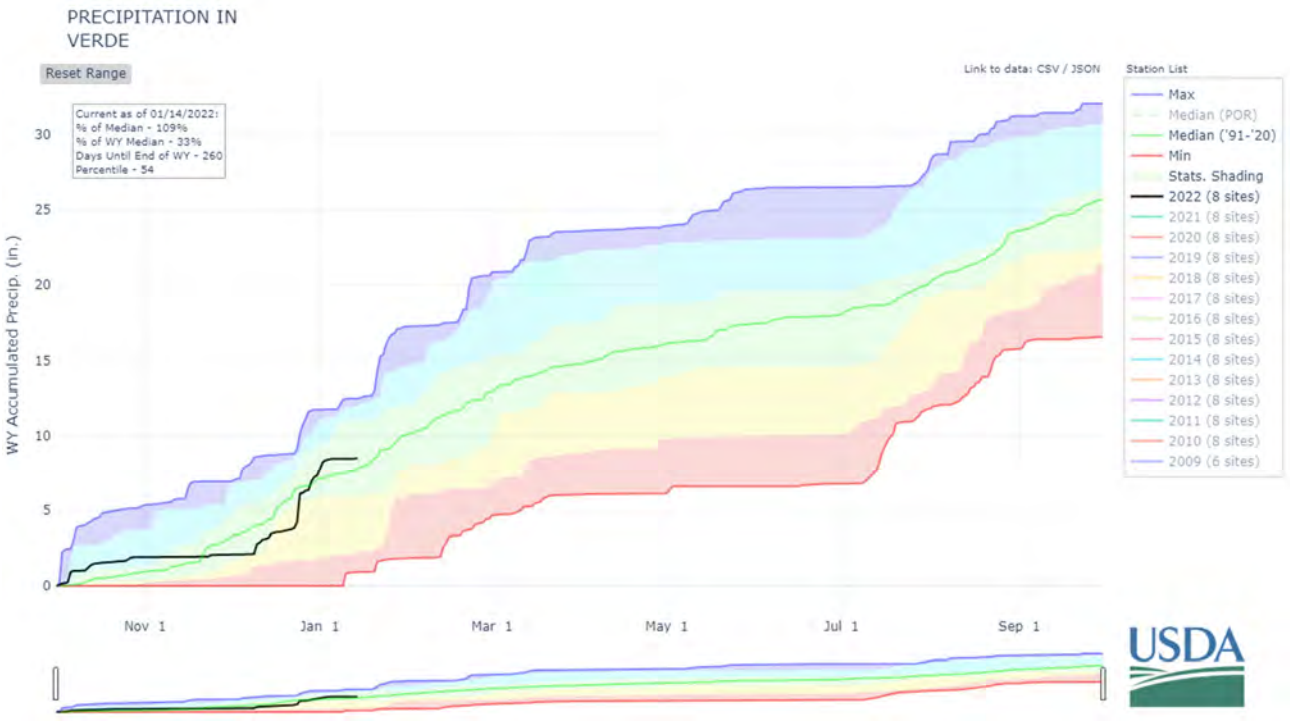
Basin Index

# of reservoirs

VERDE RIVER BASIN as of January 1, 2022

Well above median streamflow levels are forecast for the basin. In the Verde River above Horseshoe Dam, the forecast calls for 142% of median streamflow through May. Snow survey measurements show the Verde snowpack to be at 169% of median.





Data Current As of: 1/7/2022 1:12:58 PM

Verde

Streamflow Forecasts - January 1, 2022

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Verde	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Verde R bl Tangle Ck ab Horseshoe Dam								
	JAN	15.5	27	40	167%	59	103	24
	JAN-MAY	90	153	220	142%	315	540	155

1) 90% And 10% exceedance probabilities are actually 95% And 5%

2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

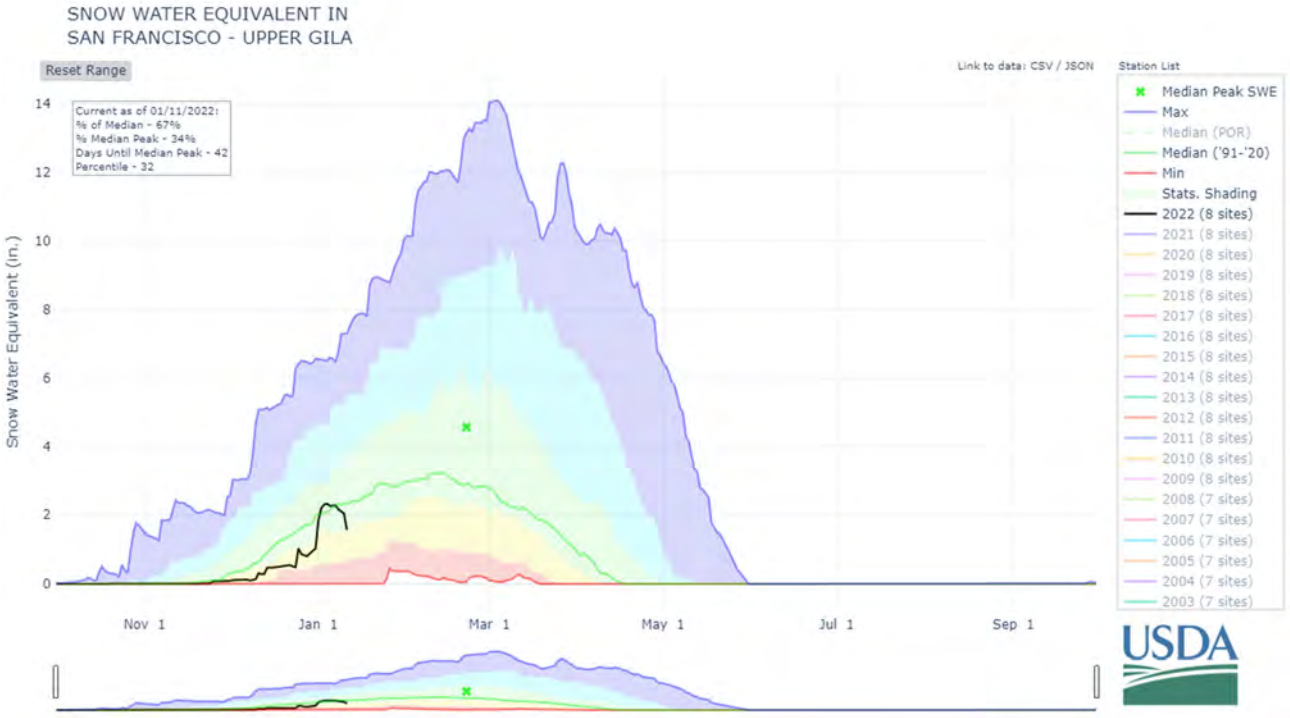
Reservoir Storage End of December, 2021	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)
Verde River Reservoir System	111.3	93.4	112.8	287.4

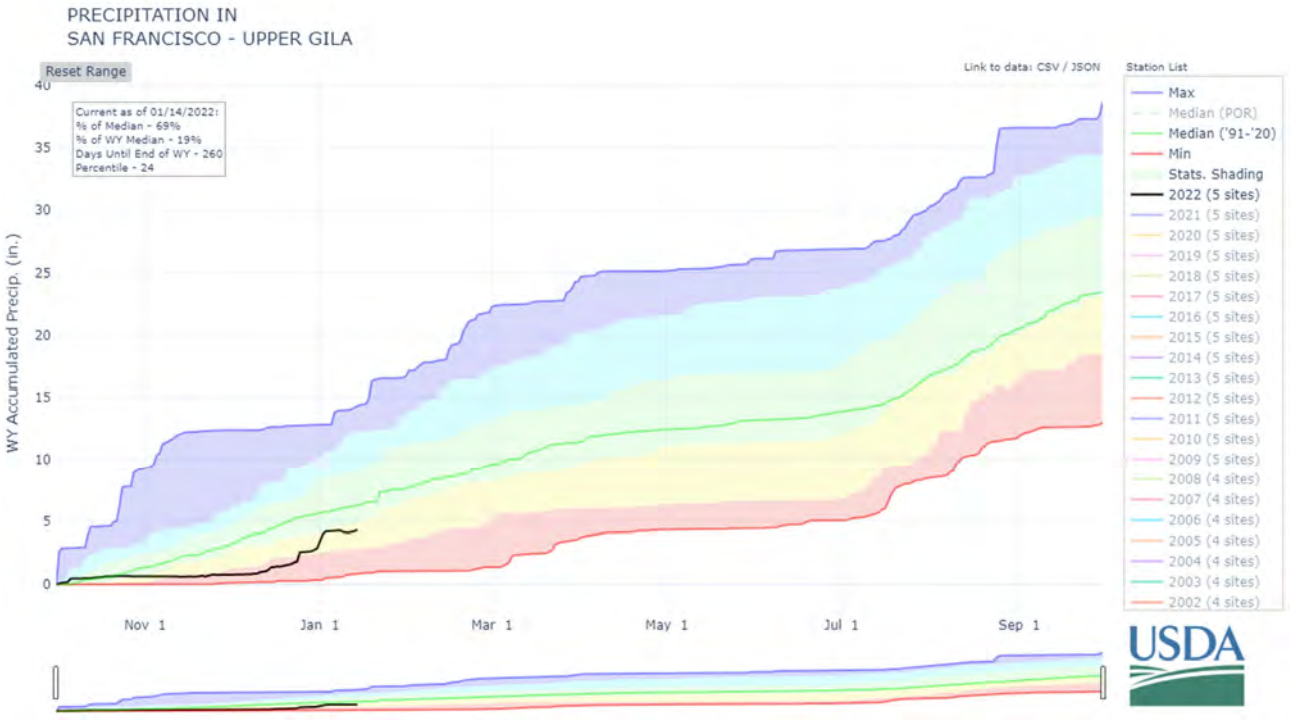
Basin Index

# of reservoirs

SAN FRANCISCO-UPPER GILA RIVER BASIN as of January 1, 2022

Median streamflow levels are forecast for the basin. In the San Francisco River, at Clifton, the forecast calls for 91% of median streamflow levels through May. In the Gila River, near Solomon, the forecast calls for 92% of median streamflow levels through May. At San Carlos Reservoir, inflow to the lake is forecast at 85% of median through May. Snow survey measurements show the snowpack for this basin to be at 90% of median.





Data Current As of: 1/7/2022 1:12:37 PM

San Francisco - Upper Gila
Streamflow Forecasts - January 1, 2022

San Francisco - Upper Gila	Forecast Period	Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast 90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Gila R nr Solomon								
	JAN	5.7	12.9	19.5	122%	27	41	16
	JAN-MAY	15.2	55	97	92%	150	250	106
Gila R bl Blue Ck nr Virden								
	JAN-MAY	3.5	16.9	32	50%	51	89	64
Gila R at Gila								
	JAN-MAY	9.2	18.3	27	52%	38	60	52
San Carlos Reservoir Inflow								
	JAN-MAY	2.6	29	62	85%	109	200	73
San Francisco R at Glenwood								
	JAN-MAY	4.5	10.5	16.7	90%	25	42	18.5
San Francisco R at Clifton								
	JAN-MAY	6.6	23	40	91%	61	101	44

1) 90% And 10% exceedance probabilities are actually 95% And 5%

2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

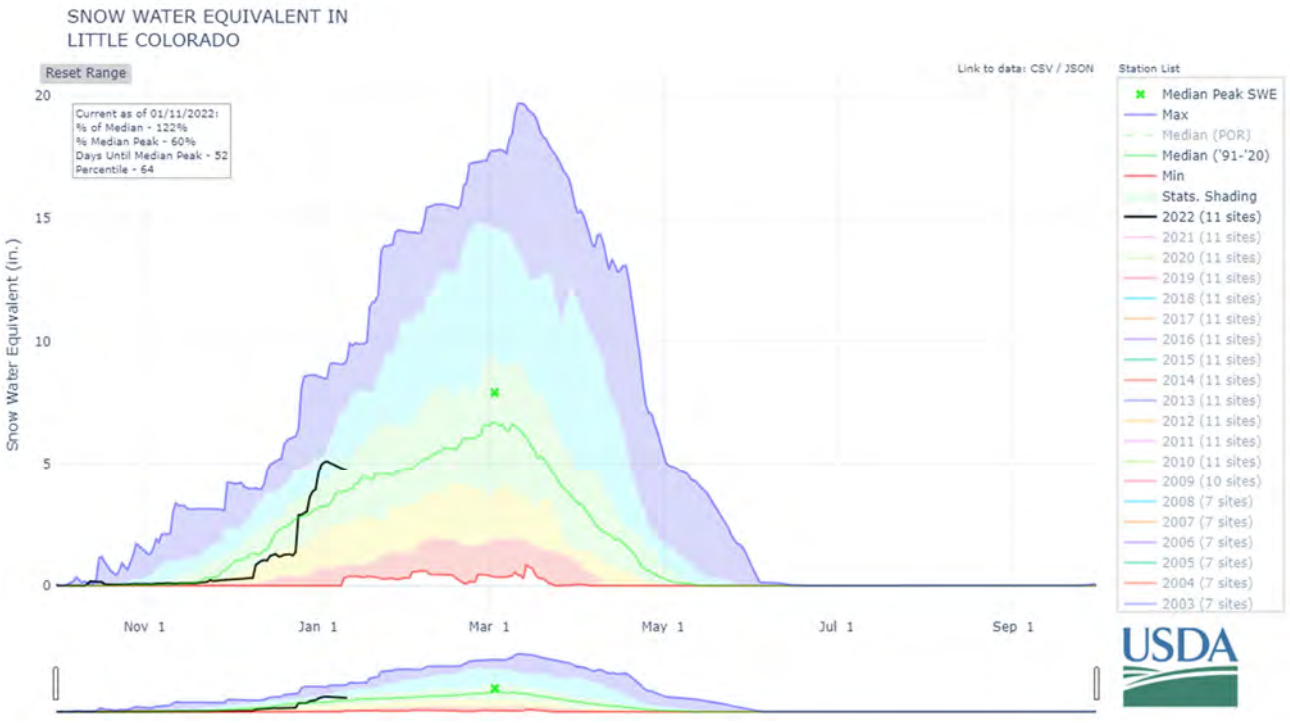
Reservoir Storage **End of December, 2021**	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)
San Carlos Reservoir	19.7	19.5	79.4	875.0

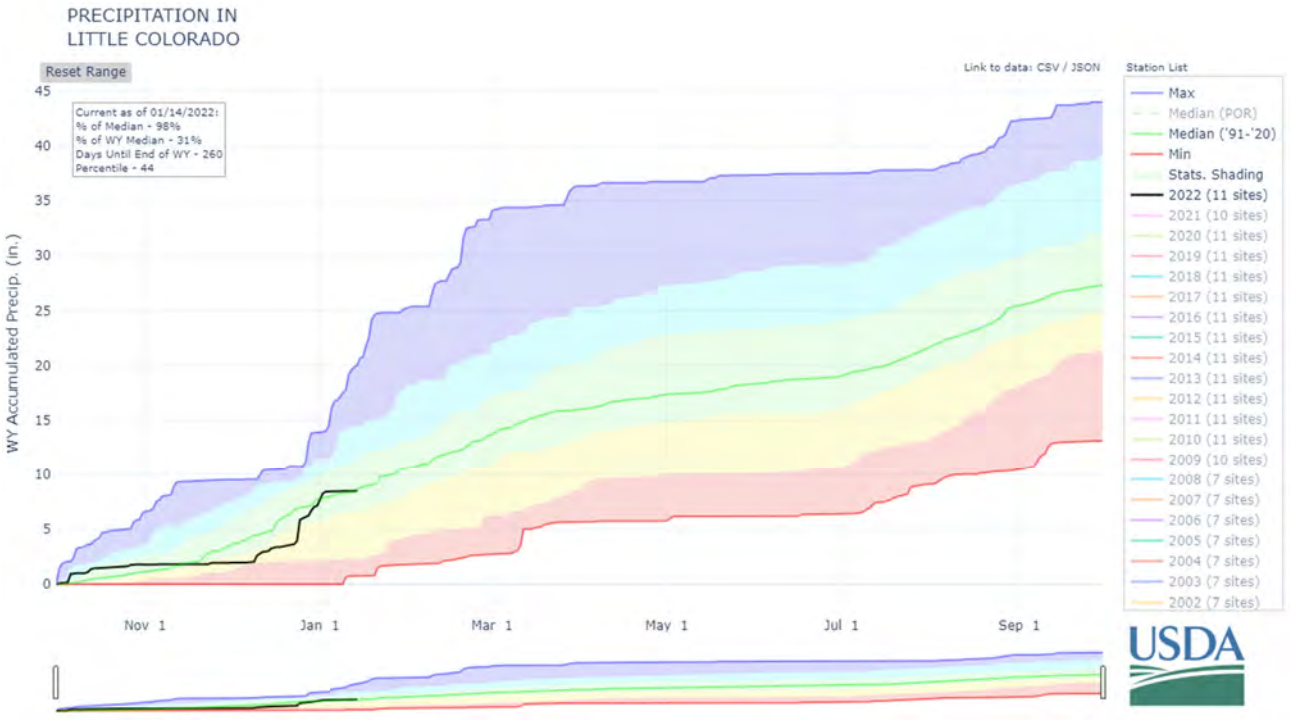
Basin Index

# of reservoirs

LITTLE COLORADO RIVER BASIN as of January 1, 2022

Above median streamflow levels are forecast for the basin. In the Little Colorado River, above Lyman Lake, the forecast calls for 124% of median streamflow through June. At Blue Ridge (C.C. Cragin) Reservoir, inflow to the lake is forecast at 157% of median through May. Snow survey measurements show the snowpack for this basin to be at 135% of median.





Data Current As of: 1/7/2022 1:12:51 PM

Little Colorado
Streamflow Forecasts - January 1, 2022

Forecast Exceedance Probabilities For Risk Assessment
Chance that actual volume will exceed forecast

Little Colorado	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Little Colorado R ab Lyman Lake	JAN-JUN	2.9	5.2	7.3	124%	9.9	14.9	5.9
Blue Ridge Reservoir Inflow	JAN-MAY	5	12.2	19.8	157%	30	51	12.6
Rio Nutria nr Ramah	JAN-MAY	0.05	0.47	1.16	159%	2.3	5.2	0.73
Zuni R ab Black Rock Reservoir	JAN-MAY	0	0.04	0.35	269%	1.2	4	0.13
Lake Mary Reservoir Inflow	JAN-MAY	3.1	5.7	8.1	180%	11.1	16.7	4.5

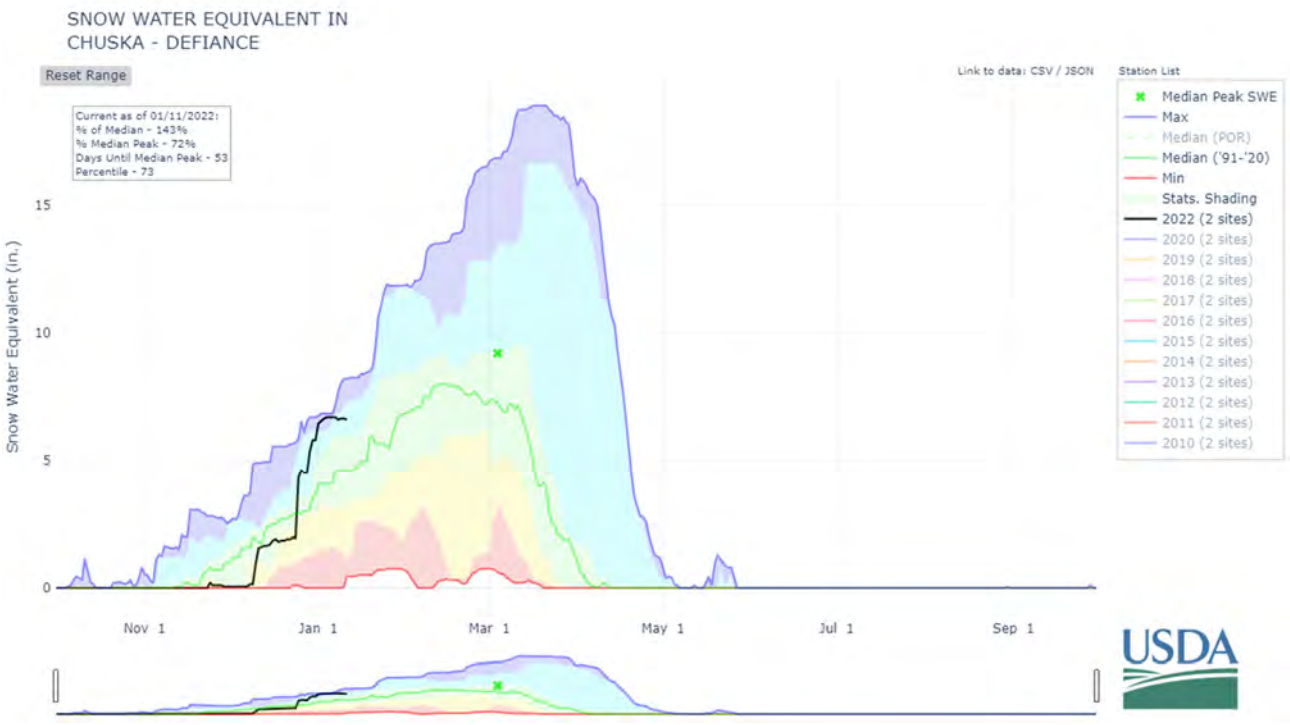
1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

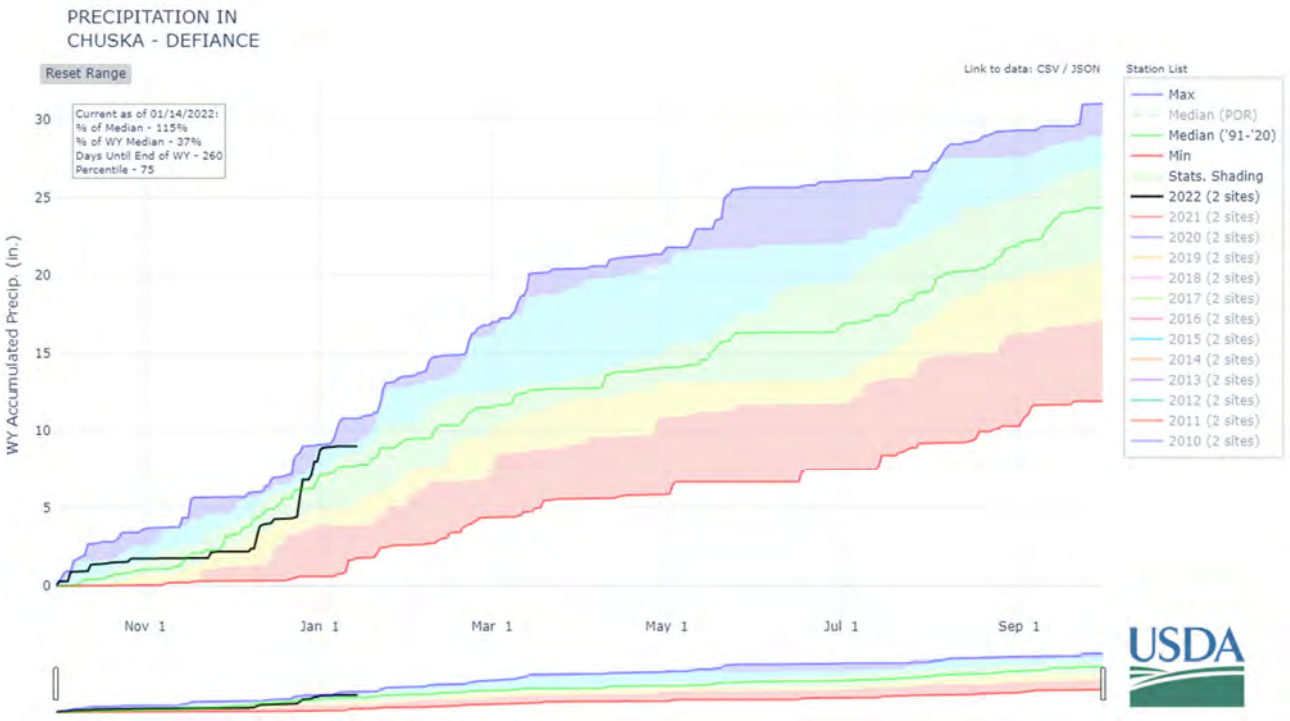
Reservoir Storage End of December, 2021	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)
Lyman Reservoir	4.8	7.7	7.1	30.0
Cragin Dam Reservoir	5.7	3.2	7.4	0.0
Show Low Lake				5.1

Basin Index
# of reservoirs

CHUSKA MOUNTAINS as of January 1, 2022

Well above median streamflow levels are forecast for Wheatfields Creek, Captain Tom Wash, and Bowl Canyon Creek. Snow survey measurements conducted by staff of the Navajo Nation Water Management Branch show the Chuska snowpack to be at 141% of median.





Data Current As of: 1/7/2022 1:13:05 PM

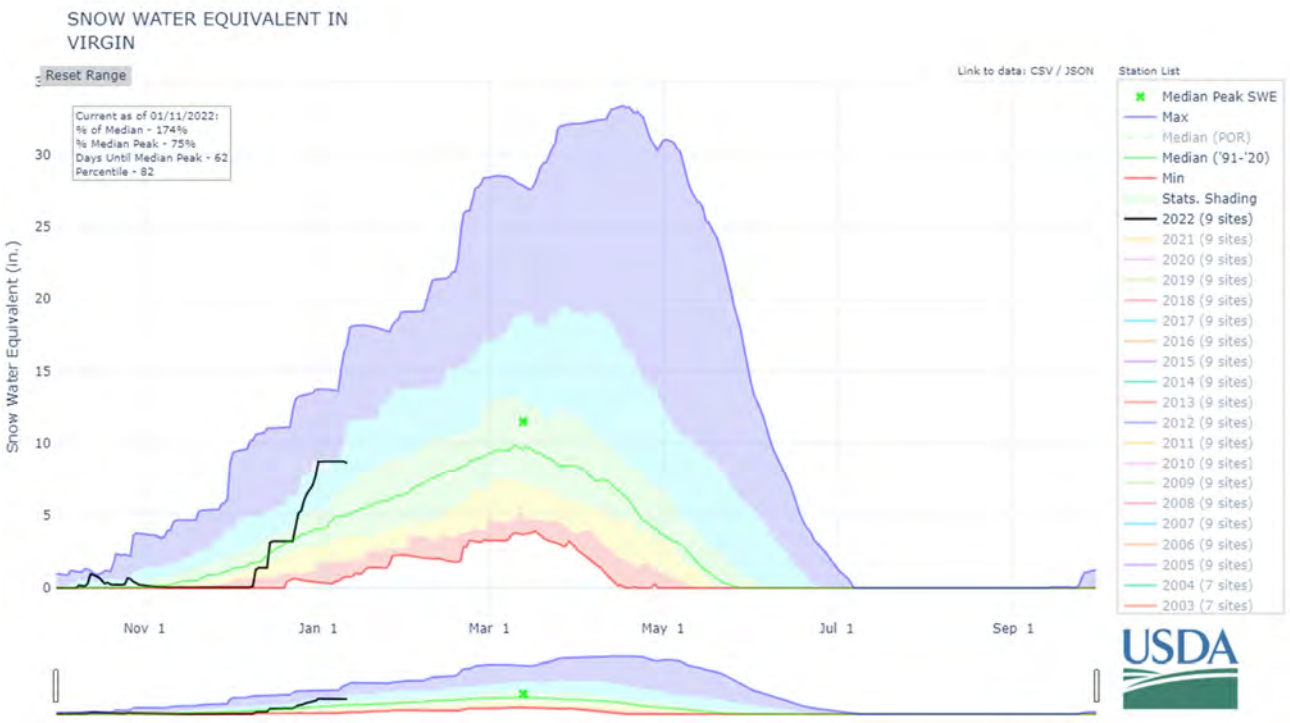
Chuska - Defiance
Streamflow Forecasts - January 1, 2022

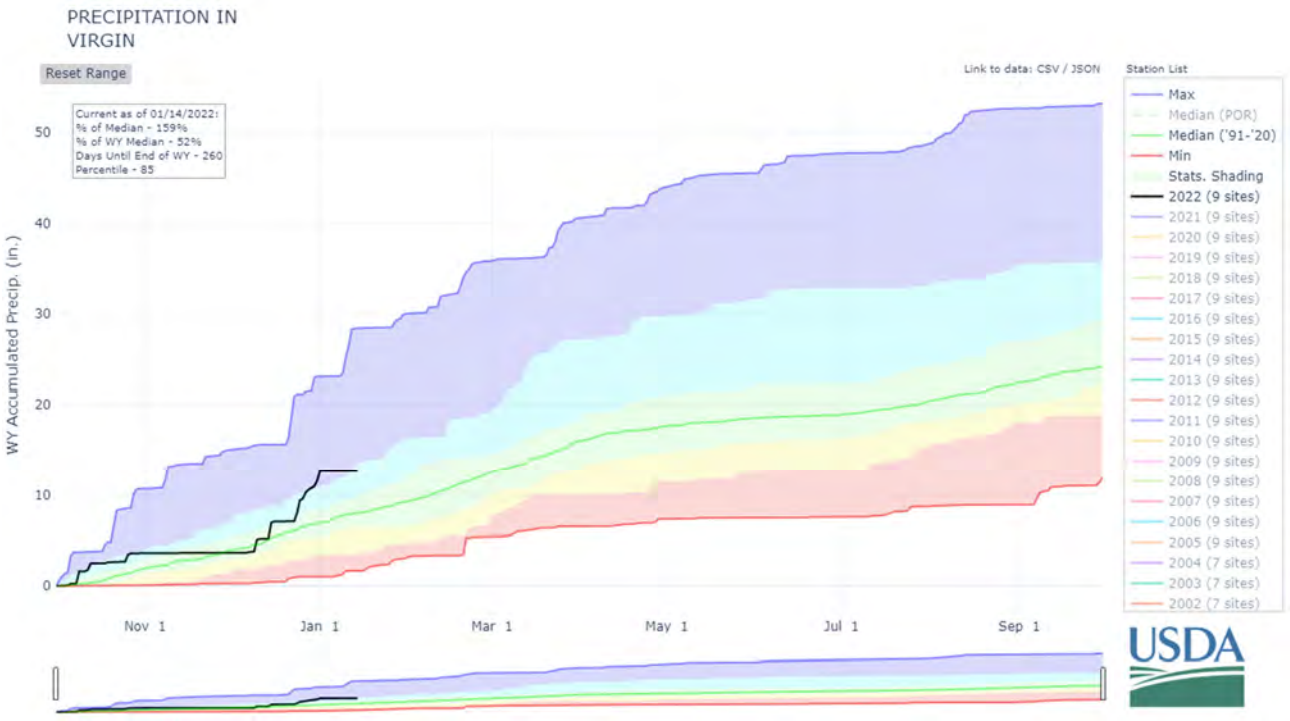
		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Chuska - Defiance	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Wheatfields Ck nr Wheatfields								
	MAR-MAY	0.37	1.41	2.5	301%	3.9	6.5	0.83
Bowl Canyon Ck ab Asaayi Lake								
	MAR-MAY	0.36	0.99	1.6	195%	2.4	3.7	0.82
Captain Tom Wash nr Two Gray Hills								
	MAR-MAY	0	0.49	1.92	310%	4.9	13.2	0.62

1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

VIRGIN RIVER BASIN as of January 1, 2022

Well above median streamflow levels are forecast for the basin, ranging from 267% of median in the Virgin River at Virgin, to 342% of median in the Virgin River at Littlefield. Snow survey measurements show the snowpack for this basin to be at 218% of median.





Data Current As of: 1/7/2022 1:13:19 PM

Virgin

Streamflow Forecasts - January 1, 2022

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Virgin	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Virgin R nr Hurricane	APR-JUL	38	75	100	323%	126	162	31
Virgin R at Littlefield	APR-JUL	43	85	113	342%	142	184	33
Virgin R at Virgin	APR-JUL	50	76	96	267%	119	157	36
Santa Clara R nr Pine Valley	APR-JUL	4.2	7	9.4	294%	12.1	16.7	3.2

1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

Reservoir Storage End of December, 2021	Current (KAF)	Last Year (KAF)	Median (KAF)	Capacity (KAF)
Kolob Reservoir	3.0	3.4		5.6
Sand Hollow Reservoir	37.7	44.7		50.0
Gunlock	4.5	4.7	6.2	10.4
Quail Creek	24.1	23.9	27.1	40.0

Basin Index
# of reservoirs

Report Created: 1/7/2022 1:11:54 PM

Basinwide Summary: January 1, 2022
(Medians based On 1991-2020 reference period)

Snowpack Summary For January 1, 2022

San Francisco - Upper Gila	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Beaver Head	SNOTEL	7990	2	2.0	2.0	100%	0.0	0%
Coronado Trail	SC	8350			0.5			
Coronado Trail	SNOTEL	8400	8	1.3	1.4	93%	0.0	0%
Frisco Divide	SNOTEL	8000	4	1.0	1.3	77%	0.0	0%
Hannagan Meadows	SNOTEL	9020	13	5.0	4.8	104%	2.0	42%
Lookout Mountain	SNOTEL	8500	2	0.4	1.2	33%	0.0	0%
Nutrioso	SC	8500			0.2			
Nutrioso	SNOTEL	8500	7	1.0	0.8	125%	0.0	0%
Signal Peak	SNOTEL	8360	6	1.5	1.6	94%	0.0	0%
Silver Creek Divide	SNOTEL	9000	9	2.4	3.1	77%	1.4	45%
State Line	SC	8000			0.7			
Basin Index						**90%**		**21%**
# of sites						8		8

Salt	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Baldy	SNOTEL	9125	19	2.7	3.2	84%	0.5	16%
Beaver Head	SNOTEL	7990	2	2.0	2.0	100%	0.0	0%
Buck Spring	SC	7400			1.0			
Coronado Trail	SC	8350			0.5			
Coronado Trail	SNOTEL	8400	8	1.3	1.4	93%	0.0	0%
Fort Apache	SC	9160	15	2.4	3.6	67%	0.6	17%
Hannagan Meadows	SNOTEL	9020	13	5.0	4.8	104%	2.0	42%
Hawley Lake	SNOTEL	8300	30	6.0			1.5	
Heber	SNOTEL	7640	17	3.7	1.6	231%	0.0	0%
Maverick Fork	SNOTEL	9200	21	4.1	3.9	105%	0.0	0%
Promontory	SNOTEL	7930	20	6.2	3.5	177%	0.3	9%
Wildcat	SNOTEL	7850	12	2.6	1.3	200%	0.0	0%
Workman Creek	SNOTEL	6900	8	2.0	1.8	111%	0.0	0%
Basin Index						**118%**		**13%**
# of sites						10		10

Little Colorado	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Baker Butte	SNOTEL	7300	6	1.8	1.8	100%	0.0	0%
Baker Butte No. 2	SC	7700	12	3.1	2.8	111%		
Baker Butte Smt	SNOTEL	7700	15	5.0	4.9	102%	0.4	8%
Baldy	SNOTEL	9125	19	2.7	3.2	84%	0.5	16%
Boon	SC	8140			1.2		0.4	33%
Buck Spring	SC	7400			1.0			
Cheese Springs	SC	8700	8	1.3	2.2	59%	0.2	9%
Dan Valley	SC	7640			0.7		0.4	57%
Fort Apache	SC	9160	15	2.4	3.6	67%	0.6	17%
Fort Valley	SC	7350	10	1.9	0.8	238%	0.2	25%
Fort Valley	SNOTEL	7350	9	2.5	1.0	250%	0.0	0%
Heber	SNOTEL	7640	17	3.7	1.6	231%	0.0	0%
Lake Mary	SC	6930	6	1.2	1.2	100%	0.2	17%
Maverick Fork	SNOTEL	9200	21	4.1	3.9	105%	0.0	0%
Mcgaffey	SC	8120			0.8			

Mormon Mountain	SNOTEL	7500	19	4.9	2.0	245%	0.0	0%
Mormon Mountain Summit #2	SC	8470			4.2		0.4	10%
Mormon Mtn Summit	SNOTEL	8500	24	6.3	4.3	147%	0.0	0%
Nutrioso	SC	8500			0.2			
Nutrioso	SNOTEL	8500	7	1.0	0.8	125%	0.0	0%
Promontory	SNOTEL	7930	20	6.2	3.5	177%	0.3	9%
Snow Bowl #2	SC	11200	36	7.6	7.1	107%		
Snowslide Canyon	SNOTEL	9730	38	12.5	7.8	160%	3.6	46%
Basin Index						**135%**		**14%**
# of sites						15		15

Verde	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Baker Butte	SNOTEL	7300	6	1.8	1.8	100%	0.0	0%
Baker Butte No. 2	SC	7700	12	3.1	2.8	111%		
Baker Butte Smt	SNOTEL	7700	15	5.0	4.9	102%	0.4	8%
Bar M	SNOTEL	6393	4	2.0			0.0	
Chalender	SNOTEL	7100	7	1.8	1.2	150%	0.0	0%
Chalender	SC	7100	5	0.6	0.6	100%		
Fort Valley	SC	7350	10	1.9	0.8	238%	0.2	25%
Fort Valley	SNOTEL	7350	9	2.5	1.0	250%	0.0	0%
Fry	SNOTEL	7200	16	5.0	2.8	179%	0.4	14%
Happy Jack	SC	7630	11	2.6	1.2	217%		
Happy Jack	SNOTEL	7630	12	4.9	2.3	213%	0.8	35%
Mormon Mountain	SNOTEL	7500	19	4.9	2.0	245%	0.0	0%
Mormon Mountain Summit #2	SC	8470			4.2		0.4	10%
Mormon Mtn Summit	SNOTEL	8500	24	6.3	4.3	147%	0.0	0%
Newman Park	SC	6750	9	2.1	0.9	233%	0.2	22%
Snow Bowl #2	SC	11200	36	7.6	7.1	107%		
White Horse Lake	SNOTEL	7180	11	3.4	1.4	243%	0.0	0%
Williams Ski Run	SC	7720			2.7			
Basin Index						**169%**		**9%**
# of sites						11		11

Chuska - Defiance	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Beaver Spring	SC	9220			3.6			
Beaver Spring	SNOTEL	9200	28	6.5	4.2	155%	1.1	26%
Bowl Canyon	SC	8980	19	4.2	3.4	124%	1.0	29%
Fluted Rock	SC	7800	6	1.3	0.9	144%	0.6	67%
Hidden Valley	SC	8480	24	6.2	2.4	258%		
Missionary Spring	SC	7940	14	1.1	1.1	100%	0.0	0%
Navajo Whiskey Ck	SNOTEL	9050	27	6.4	3.9	164%		
Tsaile Canyon #1	SC	8160	16	4.0	2.4	167%		
Tsaile Canyon #3	SC	8920	23	5.8	3.8	153%	5.9	155%
Whiskey Creek	SC	9050	24	7.0	3.4	206%		
Basin Index						**141%**		**64%**
# of sites						5		5

Grand Canyon	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Bright Angel	SC	8400	30	7.0	2.8	250%	0.7	25%
Grand Canyon	SC	7500			0.5			
Basin Index						**250%**		**25%**

	# of sites				1			1

Virgin	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Gardner Peak	SNOTEL	8322	43	8.0	4.8	167%	2.0	42%
Gutz Peak	SNOTEL	6763	36	10.9	3.6	303%	0.7	19%
Harris Flat	SNOTEL	7792	38	8.0	2.4	333%	1.0	42%
Kolob	SNOTEL	9263	60	13.3	7.4	180%	4.4	59%
Little Grassy	SNOTEL	6065	17	5.1	1.3	392%	0.8	62%
Long Flat	SNOTEL	7982	32	6.6	2.6	254%	0.7	27%
Long Valley Jct	SNOTEL	7465	34	6.7	2.2	305%	0.5	23%
Midway Valley	SNOTEL	9827	60	11.2	8.0	140%	4.5	56%
Webster Flat	SNOTEL	9203	43	9.0	3.8	237%	2.2	58%
Basin Index						**218%**		**47%**
# of sites						9		9

Report Created:
1/7/2022 1:12:03 PM

Streamflow Forecast Summary: January 1, 2022
(Medians based On 1991-2020 reference period)

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
San Francisco - Upper Gila	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Gila R nr Solomon								
	JAN	5.7	12.9	19.5	122%	27	41	16
	JAN-MAY	15.2	55	97	92%	150	250	106
Gila R bl Blue Ck nr Virden								
	JAN-MAY	3.5	16.9	32	50%	51	89	64
Gila R at Gila								
	JAN-MAY	9.2	18.3	27	52%	38	60	52
San Carlos Reservoir Inflow								
	JAN-MAY	2.6	29	62	85%	109	200	73
San Francisco R at Glenwood								
	JAN-MAY	4.5	10.5	16.7	90%	25	42	18.5
San Francisco R at Clifton								
	JAN-MAY	6.6	23	40	91%	61	101	44

1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Salt	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Salt R nr Roosevelt								
	JAN	7.2	22	40	182%	65	117	22
	JAN-MAY	99	187	270	108%	375	570	250
	MAR-MAY	83	144	200	112%	270	395	179
Tonto Ck ab Gun Ck nr Roosevelt								
	JAN	0.98	2.7	5.5	145%	11.1	31	3.8
	JAN-MAY	6.7	24	45	115%	76	143	39

1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Little Colorado	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Little Colorado R ab Lyman Lake								
	JAN-JUN	2.9	5.2	7.3	124%	9.9	14.9	5.9
Blue Ridge Reservoir Inflow								
	JAN-MAY	5	12.2	19.8	157%	30	51	12.6
Rio Nutria nr Ramah								
	JAN-MAY	0.05	0.47	1.16	159%	2.3	5.2	0.73
Zuni R ab Black Rock Reservoir								
	JAN-MAY	0	0.04	0.35	269%	1.2	4	0.13
Lake Mary Reservoir Inflow								
	JAN-MAY	3.1	5.7	8.1	180%	11.1	16.7	4.5

1) 90% And 10% exceedance probabilities are actually 95% And 5%

2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Verde	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Verde R bl Tangle Ck ab Horseshoe Dam								
	JAN	15.5	27	40	167%	59	103	24
	JAN-MAY	90	153	220	142%	315	540	155

1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Chuska - Defiance	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Wheatfields Ck nr Wheatfields								
	MAR-MAY	0.37	1.41	2.5	301%	3.9	6.5	0.83
Bowl Canyon Ck ab Asaayi Lake								
	MAR-MAY	0.36	0.99	1.6	195%	2.4	3.7	0.82
Captain Tom Wash nr Two Gray Hills								
	MAR-MAY	0	0.49	1.92	310%	4.9	13.2	0.62

1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Grand Canyon	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Lake Powell Inflow [2]								
	APR-JUL	3890	5750	7230	118%	8880	11600	6130

1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions

		Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast						
Virgin	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Virgin R nr Hurricane								
	APR-JUL	38	75	100	323%	126	162	31
Virgin R at Littlefield								
	APR-JUL	43	85	113	342%	142	184	33
Virgin R at Virgin								
	APR-JUL	50	76	96	267%	119	157	36
Santa Clara R nr Pine Valley								
	APR-JUL	4.2	7	9.4	294%	12.1	16.7	3.2

1) 90% And 10% exceedance probabilities are actually 95% And 5%
2) Forecasts are For unimpaired flows. Actual flow will be dependent On management of upstream reservoirs And diversions