NRCS Natural Resources Conservation Service

USDA

New Mexico
Basin Outlook Report
April 1, 2021

Aaron Miller, Soil Scientist, taking measurements at the Shuree Manual Snow Course
Photo courtesy of Logan Peterson and Aaron Miller, NRCS

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

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http://www.nrcs.usda.gov/wps/portal/nrcs/main/nm/snow/

How forecasts are made

Most of the annual streamflow in the western United States 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 SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge 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 others can be interpreted similarly.

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 if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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Summary

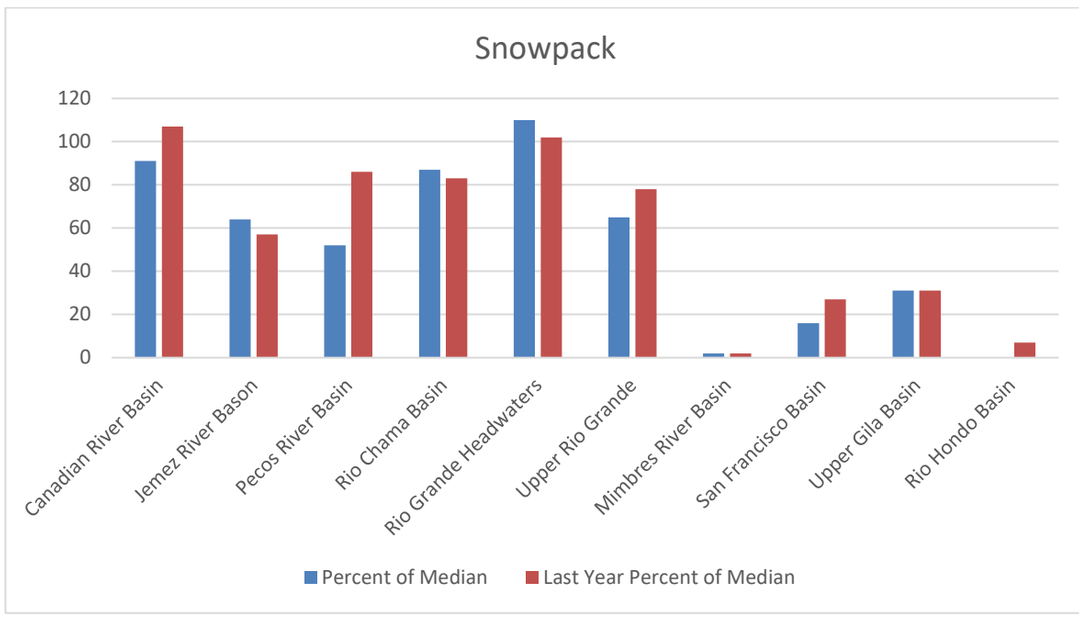
Most of the state remains in drought conditions (D2-D4). Some snowpack increases were seen from the northern Sangre de Cristo basins, the rest of the Rio Grande Basin saw no significant changes from last month. In the Arkansas and Canadian basins, March snowfall brought the April 1 water supply prediction for spring and summer streamflow closer to an average runoff. Dry antecedent conditions in the soil and groundwater from the very dry spring and summer over the last 2 years continue to impact runoff across the state. Water users should continue to monitor weather conditions to evaluate their water needs as the winter progresses.

Snowpack

Snowpack levels ranged from a high of 110 percent of median in the Rio Grande Headwaters to a low of 0 percent in the Rio Hondo Basin. Statewide snowpack average is 88 percent of median as compared to 94 percent at this time last year.

New Mexico Statewide Snowpack	Percent of Median	Last Year Percent of Median
Canadian River Basin	91	107
Jemez River Bason	64	57
Pecos River Basin	52	86
Rio Chama Basin	87	83
Rio Grande Headwaters	110	102
Upper Rio Grande	65	78
Mimbres River Basin	2	2
San Francisco Basin	16	27
Upper Gila Basin	31	31
Zuni-Bluewater Basins	*	*
San Juan River Basin	89	101
Chuska-Defiance Basins	*	*
Rio Hondo Basin	0	7
Statewide Snowpack	**88**	**94**
# of sites	*47*	*47*

**Data unavailable at the time of publication*



Precipitation

Water year precipitation from October 1 to April 1 is currently at 74 percent of average. The Canadian River Basin saw 120 percent of average precipitation in March. The lowest amount of precipitation fell in the Upper Gila at 32 percent. Water users and managers should continue to monitor the evolution of the forecast to help determine their water supply needs as the water-year progresses.

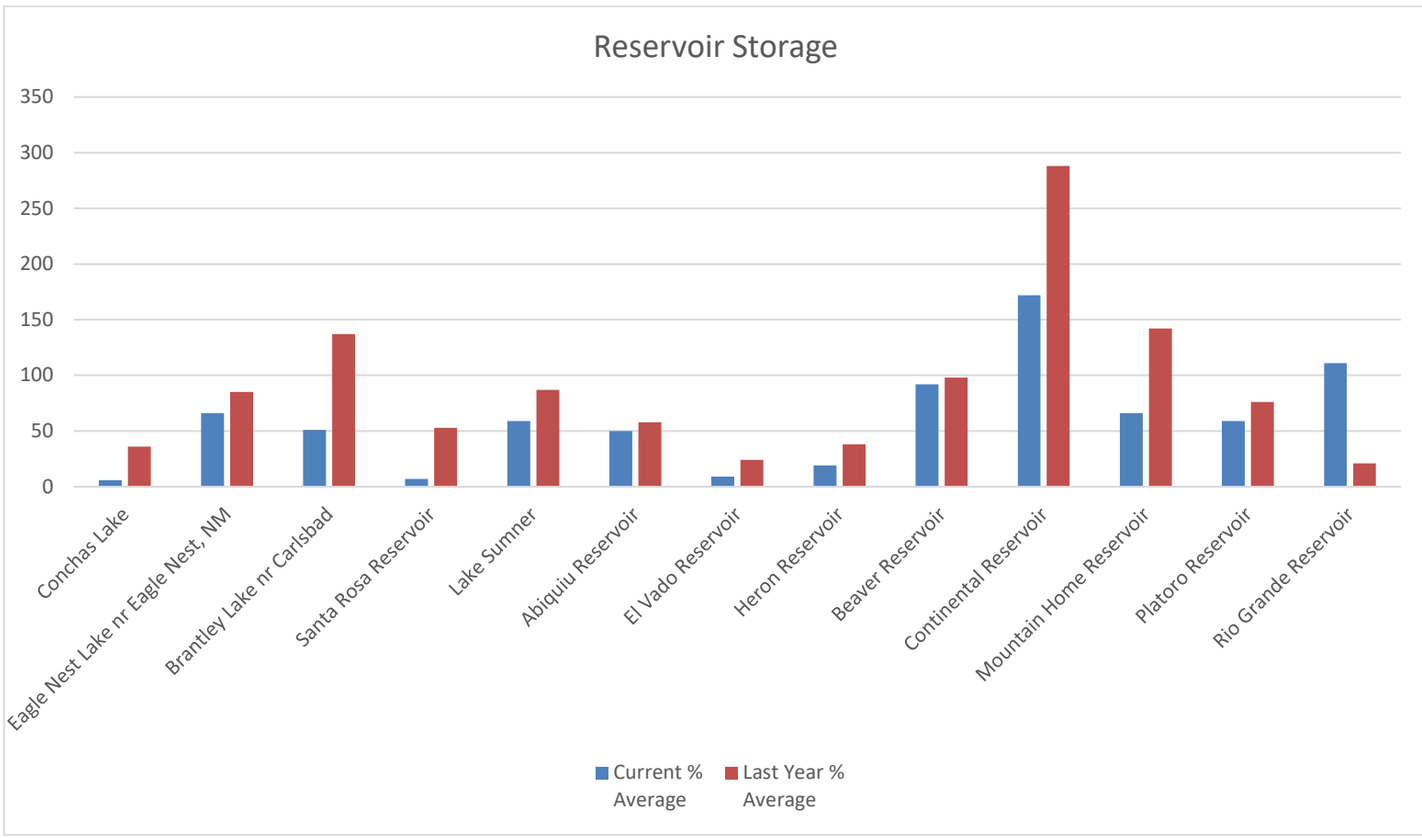
Basin	Monthly Total Precipitation for March 2021		Water Year to Date Precipitation through March 2021	
	% Average	Last Year % Avg	% Average	Last Year % Avg
CANADIAN	120%	71%	89%	89%
JEMEZ	76%	72%	75%	75%
PECOS	86%	74%	60%	94%
RIO CHAMA	101%	85%	81%	75%
RIO GRANDE HEADWATERS	103%	81%	88%	77%
UPPER RIO GRANDE	97%	82%	75%	92%
MIMBRES RIVER BASIN	57%	139%	75%	92%
SAN FRANCISCO	40%	132%	48%	112%
UPPER GILA	32%	107%	55%	107%
ZUNI-BLUEWATER	80%	95%	68%	94%
SAN JUAN	95%	120%	73%	85%
CHUSKA-DEFIANCE	*	*	*	*
RIO HONDO	45%	214%	56%	154%
NEW MEXICO STATEWIDE	**92%**	**101%**	**74%**	**88%**
# of sites	*46*	*46*	*46*	*46*

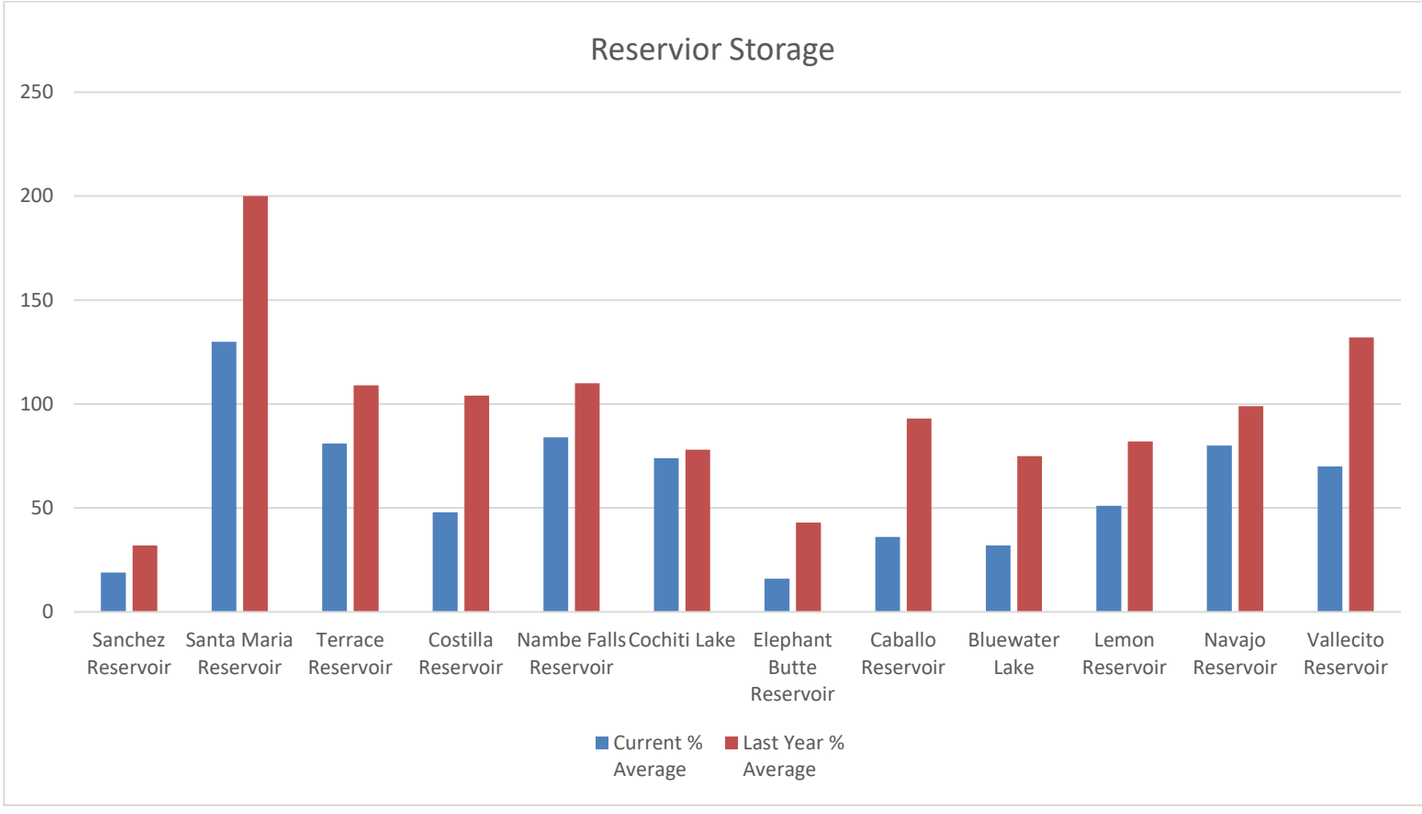
**Data unavailable at the time of publication*

Reservoirs

Total reservoir storage is 1,694,600 acre-feet as compared to 2,615,500 acre-feet last year. This equates to 44 percent of the average capacity. Water-users should continue to monitor weather conditions to evaluate their water needs as the winter progresses.

NEW MEXICO STATEWIDE	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Conchas Lake	12.5	72.1	202.7	254.4	5%	28%	80%	6%	36%
Eagle Nest Lake nr Eagle Nest, NM	36.7	47.4	55.6	79.0	46%	60%	70%	66%	85%
Brantley Lake nr Carlsbad	15.2	41.1	30.1	1008.2	2%	4%	3%	51%	137%
Santa Rosa Reservoir	3.9	27.8	52.4	432.2	1%	6%	12%	7%	53%
Lake Sumner	17.4	25.7	29.7	102.0	17%	25%	29%	59%	87%
Abiquiu Reservoir	76.4	89.9	153.9	1198.5	6%	7%	13%	50%	58%
El Vado Reservoir	10.3	27.0	113.0	184.8	6%	15%	61%	9%	24%
Heron Reservoir	54.8	108.4	287.7	400.0	14%	27%	72%	19%	38%
Beaver Reservoir	4.0	4.2	4.3	4.5	88%	93%	96%	92%	98%
Continental Reservoir	10.0	16.7	5.8	27.0	37%	62%	21%	172%	288%
Mountain Home Reservoir	2.6	5.5	3.9	18.0	14%	31%	22%	66%	142%
Platoro Reservoir	14.3	18.4	24.2	60.0	24%	31%	40%	59%	76%
Rio Grande Reservoir	21.1	4.0	19.1	51.0	41%	8%	37%	111%	21%
Sanchez Reservoir	5.3	9.1	28.1	103.0	5%	9%	27%	19%	32%
Santa Maria Reservoir	14.2	21.8	10.9	45.0	32%	48%	24%	130%	200%
Terrace Reservoir	6.6	9.0	8.2	18.0	37%	50%	46%	81%	109%
Costilla Reservoir	3.5	7.6	7.3	16.0	22%	48%	46%	48%	104%
Nambe Falls Reservoir	1.5	2.0	1.8	1.7	93%	122%	111%	84%	110%
Cochiti Lake	42.7	45.2	58.0	491.0	9%	9%	12%	74%	78%
Elephant Butte Reservoir	210.4	552.9	1283.0	2195.0	10%	25%	58%	16%	43%
Caballo Reservoir	30.3	78.8	84.6	332.0	9%	24%	25%	36%	93%
Bluewater Lake	3.1	7.2	9.7	38.5	8%	19%	25%	32%	75%
Lemon Reservoir	11.1	17.7	21.7	40.0	28%	44%	54%	51%	82%
Navajo Reservoir	1042.2	1292.5	1310.0	1696.0	61%	76%	77%	80%	99%
Vallecito Reservoir	44.3	83.5	63.3	126.0	35%	66%	50%	70%	132%
Statewide Total	**1694.6**	**2615.5**	**3869.0**	**8921.7**	**19%**	**29%**	**43%**	**44%**	**68%**
# of reservoirs	*25*	*25*	*25*	*25*	*25*	*25*	*25*	*25*	*25*


Reservoir Storage
350
300
250
200
150
100
50
0
Conchas Lake
Eagle Nest Lake nr Eagle Nest, NM
Brantley Lake nr Carlsbad
Santa Rosa Reservoir
Lake Sumner
Abiquiu Reservoir
El Vado Reservoir
Heron Reservoir
Beaver Reservoir
Continental Reservoir
Mountain Home Reservoir
Platoro Reservoir
Rio Grande Reservoir
Current % Average
Last Year % Average


Reservior Storage
250
200
150
100
50
0
Sanchez Reservoir
Santa Maria Reservoir
Terrace Reservoir
Costilla Reservoir
Nambe Falls Reservoir
Cochiti Lake
Elephant Butte Reservoir
Caballo Reservoir
Bluewater Lake
Lemon Reservoir
Navajo Reservoir
Vallecito Reservoir
Current % Average
Last Year % Average

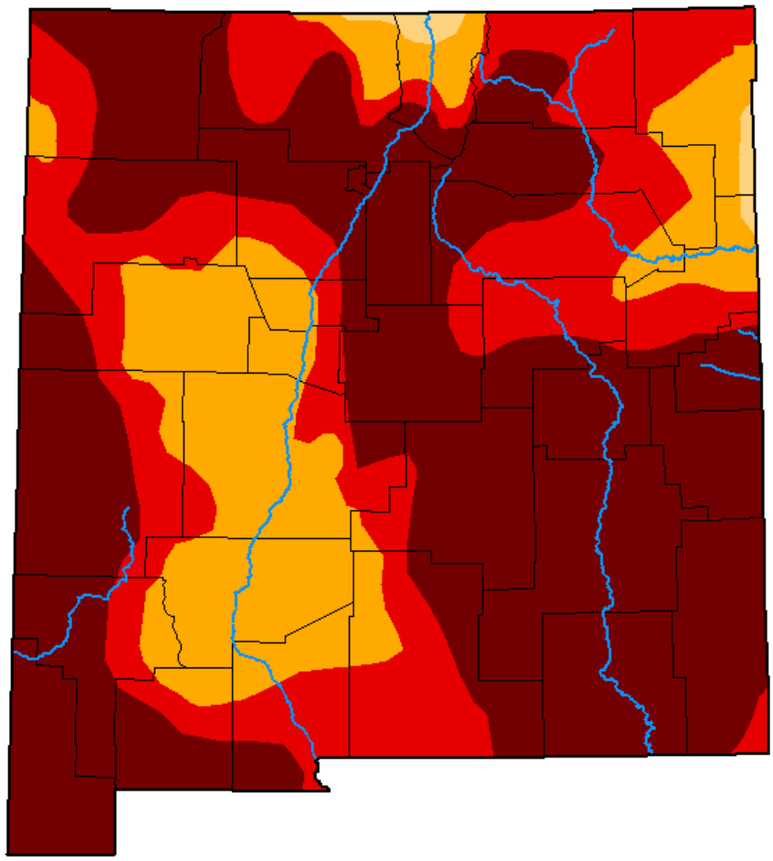
Streamflow

Forecasts are above average at Costilla Reservoir and Costilla Creek. Forecasts are below average for the rest of the state with a low of 15% at Captain Tom Creek. Water users and managers should continue to watch the forecasts as water supply conditions evolve across the state.

Basin	Forecast Point	Forecast Period	% Avg
CANADIAN	Vermejo R nr Dawson	MAR-JUN	87%
		APR-JUN	90%
	Eagle Nest Reservoir Inflow	MAR-JUN	79%
		APR-JUN	83%
	Cimarron R nr Cimarron[2]	MAR-JUN	78%
		APR-JUN	83%
	Ponil Ck nr Cimarron	MAR-JUN	93%
		APR-JUN	97%
	Rayado Ck nr Cimarron	MAR-JUN	91%
		APR-JUN	94%
JEMEZ	Jemez R nr Jemez	MAR-JUL	27%
		APR-JUL	26%
	Jemez R bl Jemez Canyon Dam	MAR-JUL	18%
		APR-JUL	19%
PECOS	Pecos R nr Pecos	MAR-JUL	42%
		APR-JUL	43%
	Pecos R nr Anton Chico	MAR-JUL	28%
		APR-JUL	30%
	Gallinas Ck nr Montezuma	MAR-JUL	33%
		APR-JUL	35%
	Pecos R ab Santa Rosa Lk	MAR-JUL	29%
		APR-JUL	31%
RIO CHAMA	El Vado Reservoir Inflow [2]	MAR-JUL	52%
		APR-JUL	53%
RIO GRANDE HEADWATERS	Rio Grande nr Del Norte [2]	APR-SEP	71%
	Platoro Reservoir Inflow	APR-JUL	84%
		APR-SEP	81%
	Conejos R nr Mogote [2]	APR-SEP	79%
	Los Pinos R nr Ortiz	APR-SEP	66%
	San Antonio R at Ortiz	APR-SEP	42%
	Culebra Ck at San Luis	APR-SEP	96%

Basin	Forecast Point	Forecast Period	% Avg
UPPER RIO GRANDE	Costilla Reservoir Inflow	MAR-JUL	114%
		APR-JUL	117%
	Costilla Ck nr Costilla [2]	APR-JUL	117%
	Red R bl Fish Hatchery nr Questa	MAR-JUL	85%
		APR-JUL	87%
	Rio Hondo nr Valdez	MAR-JUL	89%
		APR-JUL	89%
	Rio Pueblo de Taos nr Taos	MAR-JUL	72%
		APR-JUL	72%
	Rio Lucero nr Arroyo Seco	MAR-JUL	81%
		APR-JUL	83%
	Rio Pueblo de Taos bl Los Cordovas	APR-JUL	61%
	Embudo Ck at Dixon	MAR-JUL	42%
		APR-JUL	43%
	Santa Cruz R at Cundiyo	MAR-JUL	45%
		APR-JUL	46%
	Nambe Falls Reservoir Inflow	MAR-JUL	43%
		APR-JUL	43%
	Tesuque Ck ab diversions	MAR-JUL	37%
		APR-JUL	38%
	Rio Grande at Otowi Bridge [2]	MAR-JUL	58%
		APR-JUL	58%
	Rio Grande at San Marcial [2]	MAR-JUL	40%
		APR-JUL	38%
MIMBRES RIVER BASIN	Mimbres R at Mimbres	APR-MAY	35%
SAN FRANCISCO	San Francisco R at Glenwood[3]	APR-MAY	27%
	San Francisco R at Clifton[3]	APR-MAY	25%
UPPER GILA	Gila R at Gila[3]	APR-MAY	36%
	Gila R bl Blue Ck nr Virden[3]	APR-MAY	30%
ZUNI-BLUEWATER	Rio Nutria nr Ramah[3]	APR-MAY	21%
	Zuni R ab Black Rock Reservoir[3]	APR-MAY	20%
SAN JUAN	Rio Blanco at Blanco Diversion [2]	APR-JUL	74%
	Navajo R bl Oso Diversion [2]	APR-JUL	69%
	San Juan R nr Carracas	APR-JUL	64%
	Piedra R nr Arboles	APR-JUL	48%
	Vallecito Reservoir Inflow	APR-JUL	54%
	Navajo Reservoir Inflow [2]	APR-JUL	50%
	Animas R at Durango	APR-JUL	52%
	Lemon Reservoir Inflow	APR-JUL	45%
CHUSKA-DEFIANCE	Bowl Canyon Ck ab Asaayi Lake	MAR-MAY	23%
	Captain Tom Wash nr Two Gray Hills	MAR-MAY	15%
	Wheatfields Ck nr Wheatfields	MAR-MAY	24%
RIO HONDO	Rio Ruidoso at Hollywood	MAR-JUN	21%
		APR-JUN	24%

U.S. Drought Monitor
New Mexico



March 30, 2021
(Released Thursday, Apr. 1, 2021)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	99.35	79.88	53.28
Last Week *03-23-2021*	0.00	100.00	100.00	99.68	80.21	53.38
3 Months Ago *12-29-2020*	0.00	100.00	99.97	99.59	82.26	53.20
Start of Calendar Year *12-29-2020*	0.00	100.00	99.97	99.59	82.26	53.20
Start of Water Year *09-29-2020*	0.00	100.00	99.92	73.65	39.88	2.90
One Year Ago *03-31-2020*	55.74	44.26	26.25	11.40	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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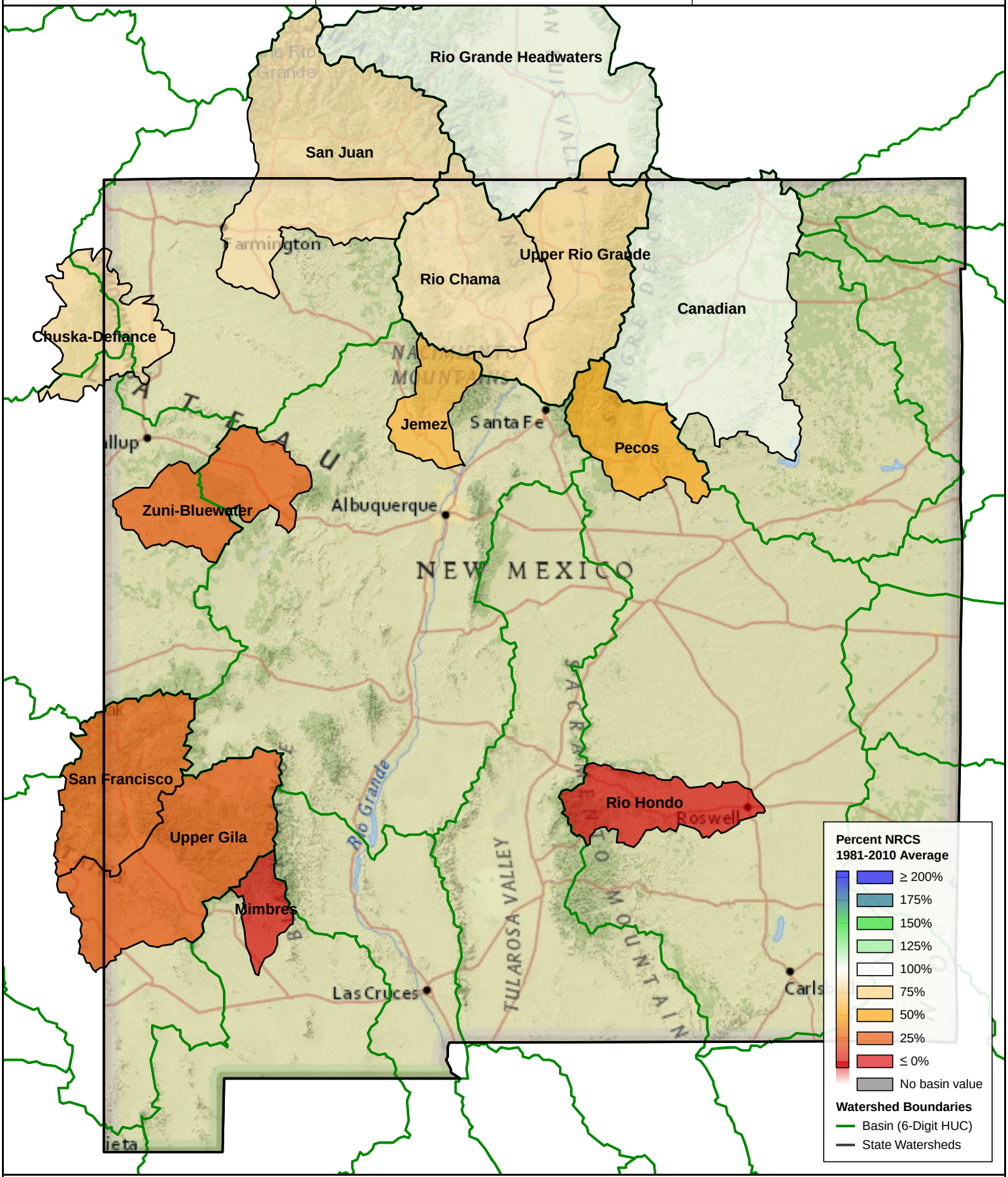
CPC/NOAA

droughtmonitor.unl.edu

Every week**,** The U.S. Drought Monitor is produced in partnership between the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. This useful tool uses multiple inputs, including precipitation received, to give an indication of the extent and severity of drought conditions nationwide.

Due to a very limited monsoon season and sparse fall and winter snows, drought conditions have persisted across New Mexico. Severe (D2) to Exceptional (D4) conditions continue across the majority of the state.

Snow Water Equivalent	Percent NRCS 1981-2010 Average	End of March, 2021



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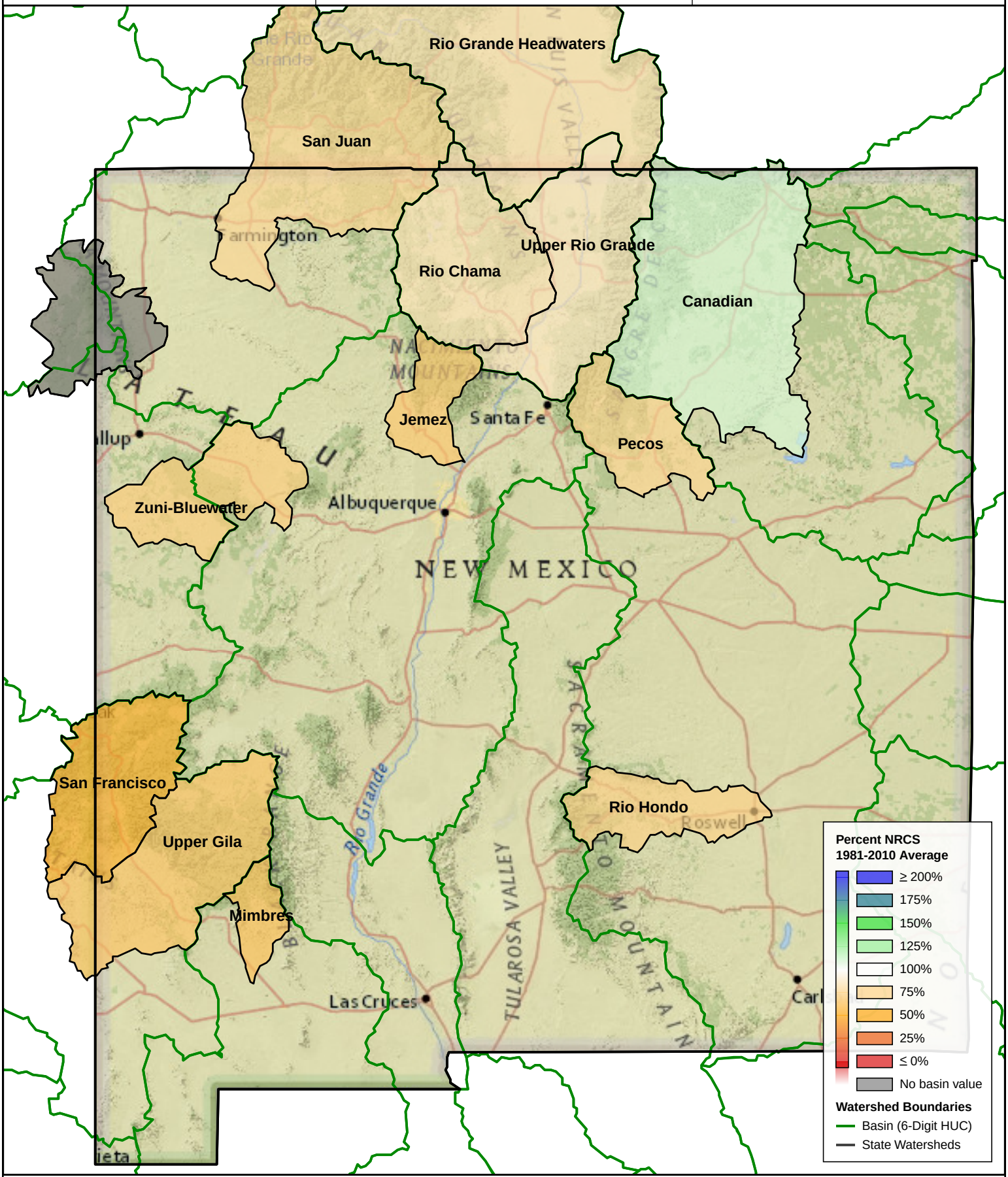
3 month Precipitation	Percent NRCS 1981-2010 Average	January 1, 2021 - March 31, 2021



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United States Department of Agriculture

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0 10 20 40 60 80 100 Miles

Created 4-07-2021

Canadian River Basin
Water Supply Outlook Report
as of April 1, 2021

Snowpack in the basin is at 91 percent of the median. This is a decrease from 107 percent at this time last year. Forecasts are all below average with the highest being 97 percent of average at Ponil Creek. Reservoirs are currently holding 49,200 acre-feet of storage, which is a decrease of 119,500 acre-feet from last year.

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
CANADIAN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Vermejo R nr Dawson								
	MAR-JUN	3.2	5.1	6.8	87%	8.8	12.5	7.8
	APR-JUN	2.9	4.8	6.5	90%	8.5	12.2	7.2
Eagle Nest Reservoir Inflow								
	MAR-JUN	3.8	6.4	8.8	79%	11.7	16.9	11.2
	APR-JUN	2.3	4.9	7.4	83%	10.7	17.2	8.9
Cimarron R nr Cimarron[2]								
	MAR-JUN	0.5	7.2	12.4	78%	17.6	25	15.8
	APR-JUN	0.1	5.9	10.9	83%	15.9	23	13.2
Ponil Ck nr Cimarron								
	MAR-JUN	3.4	5.2	6.7	93%	8.5	11.6	7.2
	APR-JUN	3.2	5	6.5	97%	8.3	11.6	6.7
Rayado Ck nr Cimarron								
	MAR-JUN	2.4	4.5	6.4	91%	8.8	13.4	7
	APR-JUN	1.86	3.9	6	94%	8.7	13.9	6.4

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
3) Median value used in place of average

Reservoir Storage End of March, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Conchas Lake	12.5	72.1	202.7	254.4
Eagle Nest Lake nr Eagle Nest, NM	36.7	47.4	55.6	79.0
Basin-wide Total	49.2	119.5	258.3	333.4
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
CANADIAN	4	91%	107%

Jemez River
Water Supply Outlook Report
as of April 1, 2021

The month of March received 76 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 72 percent as compared to 75 percent last year at this time. Snowpack in the basin is at 64 percent of the median. This is an increase from 57 percent at this time last year. Forecasts are well below average in the watershed.

Jemez
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
JEMEZ	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Jemez R nr Jemez								
	MAR-JUL	5.9	8.8	11.2	27%	14	18.7	42
	APR-JUL	3.7	6.6	9	26%	11.8	16.5	35
Jemez R bl Jemez Canyon Dam								
	MAR-JUL	1.8	4	6.2	18%	9	14.1	34
	APR-JUL	0.99	3.2	5.4	19%	8.2	13.3	29

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
3) Median value used in place of average

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
JEMEZ	3	64%	57%

Pecos River Basin
Water Supply Outlook Report
as of April 1, 2021

The month of March received 86 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 60 percent as compared to 94 percent last year at this time. Snowpack in the basin is at 52 percent of the median. This is a significant decrease from 86 percent at this time last year. Forecasts are low with the highest being 43 percent of average at the Pecos River near Pecos and the lowest being 28 percent at the Pecos River near Anton Chico. Reservoirs are currently holding 36,500 acre-feet of storage, which is a decrease from 94,600 acre-feet last year at this time. This equates to 33 percent of the average capacity for the basin at the end of March.

Pecos
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
PECOS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Pecos R nr Pecos								
	MAR-JUL	9.8	17.7	24	42%	32	46	57
	APR-JUL	8.3	16.2	23	43%	31	45	53
Pecos R nr Anton Chico								
	MAR-JUL	2.1	9.4	17.9	28%	30	51	63
	APR-JUL	1.42	8.7	17.2	30%	29	50	57
Gallinas Ck nr Montezuma								
	MAR-JUL	0.52	1.79	3.2	33%	5.1	8.8	9.8
	APR-JUL	0.29	1.56	3	35%	4.9	8.6	8.6
Pecos R ab Santa Rosa Lk								
	MAR-JUL	1.78	8.6	16.3	29%	26	46	56
	APR-JUL	1.63	8.5	16.2	31%	26	46	52

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
3) Median value used in place of average

Reservoir Storage End of March, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Lake Avalon	*	3.4	1.6	4.0
Brantley Lake nr Carlsbad	15.2	41.1	30.1	1008.2
Santa Rosa Reservoir	3.9	27.8	52.4	432.2
Lake Sumner	17.4	25.7	29.7	102.0
Basin-wide Total	36.5	94.6	112.2	1542.4
# of reservoirs	3	3	3	3

**Current KAF not at the time of publication*

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
PECOS	4	52%	86%

Rio Chama
Water Supply Outlook Report
as of April 1, 2021

The month of March received 101 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 81 percent as compared to 75 percent last year at this time. Snowpack in the basin is at 87 percent of the median. This is an increase from 83 percent at this time last year. Forecasts at El Vado reservoir are 53 percent of average forecast for April through July. Reservoirs are currently holding 141,500 acre-feet of storage, which is a decrease from 225,300 acre-feet last year at this time.

Rio Chama
Streamflow Forecasts - April 1, 2021

RIO CHAMA	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast 90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
El Vado Reservoir Inflow [2]								
	MAR-JUL	72	97	116	52%	137	171	225
	APR-JUL	65	90	109	53%	130	164	205

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
3) Median value used in place of average

Reservoir Storage End of March, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Abiquiu Reservoir	76.4	89.9	153.9	1198.5
El Vado Reservoir	10.3	27.0	113.0	184.8
Heron Reservoir	54.8	108.4	287.7	400.0
Basin-wide Total	141.5	225.3	554.6	1783.3
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
RIO CHAMA	4	87%	83%

Rio Grande Headwaters
Water Supply Outlook Report
as of April 1, 2021

The month of March received 103 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 88 percent as compared to 77 percent last year at this time. Snowpack in the basin is at 110 percent of the median. This is a increase from 102 percent at this time last year. Forecasts are below average with the highest being 96 percent of average at Culebra Creek and the lowest being 42 percent at San Antonio River. Reservoirs are currently holding 78,200 acre-feet of storage, which is a decrease from 88,700 acre-feet last year at this time.

Rio Grande Headwaters
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
RIO GRANDE HEADWATERS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Grande nr Del Norte [2]								
	APR-SEP	240	310	365	71%	425	520	515
Platoro Reservoir Inflow								
	APR-JUL	36	42	47	84%	52	60	56
	APR-SEP	37	44	50	81%	56	65	62
Conejos R nr Mogote [2]								
	APR-SEP	109	134	153	79%	173	205	194
Los Pinos R nr Ortiz								
	APR-SEP	34	42	48	66%	55	65	73
San Antonio R at Ortiz								
	APR-SEP	3.5	5.2	6.5	42%	8	10.5	15.6
Culebra Ck at San Luis								
	APR-SEP	12.7	17.7	22	96%	26	33	23

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
3) Median value used in place of average

Reservoir Storage End of March, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Beaver Reservoir	4.0	4.2	4.3	4.5
Continental Reservoir	10.0	16.7	5.8	27.0
Mountain Home Reservoir	2.6	5.5	3.9	18.0
Platoro Reservoir	14.3	18.4	24.2	60.0
Rio Grande Reservoir	21.1	4.0	19.1	51.0
Sanchez Reservoir	5.3	9.1	28.1	103.0
Santa Maria Reservoir	14.2	21.8	10.9	45.0
Terrace Reservoir	6.6	9.0	8.2	18.0
Basin-wide Total	78.2	88.7	104.5	326.5
# of reservoirs	8	8	8	8

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
RIO GRANDE HEADWATERS	13	110%	102%

Upper Rio Grande
Water Supply Outlook
Report
as of April 1, 2021

The month of March received 97 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 75 percent as compared to 92 percent last year at this time. Snowpack in the basin is at 65 percent of the median. This is a decrease from 78 percent at this time last year. Forecasts are below average for most of the basin. Forecasts range from 117 percent of average at Costilla Reservoir and Costilla to 37 percent at Tesuque Creek. Reservoirs are currently holding 288,500 acre-feet of storage, which is a decrease from 686,500 acre-feet last year at this time.

Upper Rio Grande
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
UPPER RIO GRANDE	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Costilla Reservoir Inflow								
	MAR-JUL	7.8	10.5	12.6	114%	15	18.8	11.1
	APR-JUL	7.2	9.9	12	117%	14.4	18.2	10.3
Costilla Ck nr Costilla [2]								
	APR-JUL	15.3	23	28	117%	35	45	24
Red R bl Fish Hatchery nr Questa								
	MAR-JUL	19.1	25	29	85%	34	42	34
	APR-JUL	16.8	23	27	87%	32	40	31
Rio Hondo nr Valdez								
	MAR-JUL	11.1	14.1	16.3	89%	18.7	23	18.4
	APR-JUL	10.3	13.3	15.5	89%	17.9	22	17.4
Rio Pueblo de Taos nr Taos								
	MAR-JUL	6.8	9.8	12.2	72%	14.9	19.3	17
	APR-JUL	6.1	9.1	11.5	72%	14.2	18.6	15.9
Rio Lucero nr Arroyo Seco								
	MAR-JUL	5.5	7.4	8.8	81%	10.4	12.9	10.9
	APR-JUL	5.2	7.1	8.5	83%	10.1	12.6	10.3
Rio Pueblo de Taos bl Los Cordovas								
	APR-JUL	7.8	14.4	20	61%	27	38	33
Embudo Ck at Dixon								
	MAR-JUL	6.9	14	20	42%	28	42	48
	APR-JUL	5.5	12.6	19	43%	27	41	44
Santa Cruz R at Cundiyo								
	MAR-JUL	3.5	6.1	8.2	45%	10.7	15.1	18.3
	APR-JUL	3	5.6	7.7	46%	10.2	14.6	16.7
Nambe Falls Reservoir Inflow								
	MAR-JUL	1.3	2.1	2.8	43%	3.6	5	6.5
	APR-JUL	1.08	1.9	2.6	43%	3.4	4.8	6.1
Tesuque Ck ab diversions								
	MAR-JUL	0.12	0.31	0.49	37%	0.72	1.15	1.34
	APR-JUL	0.08	0.27	0.45	38%	0.68	1.11	1.19
Rio Grande at Otowi Bridge [2]								
	MAR-JUL	255	345	415	58%	490	620	720
	APR-JUL	210	300	370	58%	445	575	635
Rio Grande at San Marcial [2]								
	MAR-JUL	-10.8	117	205	40%	290	420	510
	APR-JUL	-47	81	168	38%	255	385	440

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
3) Median value used in place of average

Upper Rio Grande
April 1, 2021

Reservoir Storage End of March, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Costilla Reservoir	3.5	7.6	7.3	16.0
Nambe Falls Reservoir	1.5	2.0	1.8	1.7
Cochiti Lake	42.7	45.2	58.0	491.0
Elephant Butte Reservoir	210.4	552.9	1283.0	2195.0
Caballo Reservoir	30.3	78.8	84.6	332.0
Basin-wide Total	288.5	686.5	1434.7	3035.7
# of reservoirs	5	5	5	5

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
UPPER RIO GRANDE	7	65%	78%

Mimbres River Basin
Water Supply Outlook Report
as of April 1, 2021

The month of March received 57 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 52 percent as compared to 122 percent last year at this time. The forecast for the basin is at 35 percent of average.

Mimbres River Basin
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
MIMBRES RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Mimbres R at Mimbres								
	APR-MAY	0.06	0.21	0.38	35%	0.63	1.16	1.09

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
3) Median value used in place of average

San Francisco
Water Supply Outlook Report
as of April 1, 2021

The month of March received 40 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 48 percent as compared to 112 percent last year at this time. Snowpack in the basin is at 16 percent of the median. This is a decrease from 27 percent at this time last year. Streamflow was below average with a high of 27 percent at Glenwood and a low of 25 percent at Clifton.

San Francisco
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
SAN FRANCISCO	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
San Francisco R at Glenwood[3]	APR-MAY	0.51	1.24	2	27%	3	5.1	7.3
San Francisco R at Clifton[3]	APR-MAY	0.39	2.3	4.4	25%	7.3	12.7	17.3

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
3) Median value used in place of average

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
SAN FRANCISCO	5	16%	27%

Upper Gila
Water Supply Outlook Report
as of April 1, 2021

The month of March received 32 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 55 percent as compared to 107 percent last year at this time. Snowpack in the basin is at 31 percent of the median. This represents no change from this time last year. Streamflow forecasts are below average with a high of 36 percent at Gila and 30 percent at Virden.

Upper Gila
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
UPPER GILA	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Gila R at Gila[3]	APR-MAY	2.7	4.5	6	36%	7.8	11.2	16.5
Gila R bl Blue Ck nr Virden[3]	APR-MAY	0.74	3.4	6.3	30%	10.1	17.3	21

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
3) Median value used in place of average

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
UPPER GILA	3	31%	31%

Zuni-Bluewater
Water Supply Outlook Report
as of April 1, 2021

The month of March received 80 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 68 percent as compared to 94 percent last year at this time. Streamflow forecasts were below average with a high of 21 percent at Rama and a low of 20 percent at Black Rock Reservoir. Storage at Bluewater Lake was 3,100 acre feet which is a decrease from 7,200 acre feet last year.

Zuni-Bluewater
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
ZUNI-BLUEWATER	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Nutria nr Ramah[3]	APR-MAY	0	0	0.04	21%	0.13	0.42	0.19
Zuni R ab Black Rock Reservoir[3]	APR-MAY	0	0	0.02	20%	0.27	1.16	0.1

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
3) Median value used in place of average

Reservoir Storage End of March, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Bluewater Lake	3.1	7.2	9.7	38.5
Basin-wide Total	3.1	7.2	9.7	38.5
# of reservoirs	1	1	1	1

Rio Hondo
Water Supply Outlook Report
as of April 1, 2021

The month of March received 45 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 56 percent as compared to 154 percent last year at this time. Snowpack in the basin is at 0 percent of the median. This is a decrease from 7 percent at this time last year. Forecasts are below average 24 percent of average for April through June.

Rio Hondo
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
RIO HONDO	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Ruidoso at Hollywood								
	MAR-JUN	0.41	0.91	1.42	21%	2.1	3.3	6.7
	APR-JUN	0.19	0.69	1.2	24%	1.85	3.1	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
3) Median value used in place of average

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
RIO HONDO	1	0%	7%

San Juan
Water Supply Outlook Report
as of April 1, 2021

The month of March received 95 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 73 percent as compared to 85 percent last year at this time. Snowpack in the basin is at 89 percent of the median. This is a decrease from 101 percent at this time last year. Forecasts are below average with the highest being 74 percent of average at Blanco Diversion. March reservoir storage was at 1,097,600 acre feet. Storage at this time last year was 1,393,700 acre feet.

San Juan
Streamflow Forecasts - April 1, 2021

		Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast						
SAN JUAN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Blanco at Blanco Diversion [2]	APR-JUL	28	35	40	74%	46	55	54
Navajo R bl Oso Diversion [2]	APR-JUL	31	39	45	69%	51	62	65
San Juan R nr Carracas	APR-JUL	163	210	245	64%	285	345	380
Piedra R nr Arboles	APR-JUL	64	84	100	48%	117	144	210
Vallecito Reservoir Inflow	APR-JUL	69	90	105	54%	122	148	194
Navajo Reservoir Inflow [2]	APR-JUL	225	305	365	50%	430	535	735
Animas R at Durango	APR-JUL	144	184	215	52%	250	300	415
Lemon Reservoir Inflow	APR-JUL	15.9	21	25	45%	29	36	55

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
3) Median value used in place of average

Reservoir Storage End of March, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Lemon Reservoir	11.1	17.7	21.7	40.0
Navajo Reservoir	1042.2	1292.5	1310.0	1696.0
Vallecito Reservoir	44.3	83.5	63.3	126.0
Basin-wide Total	1097.6	1393.7	1395.0	1862.0
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis April 1, 2021	# of Sites	% Median	Last Year % Median
SAN JUAN	12	89%	101%

Chuska-Defiance
Water Supply Outlook Report
as of April 1, 2021

Forecasts are below average with the highest being 24 percent of average at Wheatfields Creek. The low was 15 percent at Captain Tom Wash.

Chuska-Defiance
Streamflow Forecasts - April 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)
Bowl Canyon Ck ab Asaayi Lake	MAR-MAY	0.05	0.17	0.3	23%	0.45	0.74	1.3
Captain Tom Wash nr Two Gray Hills	MAR-MAY	0.01	0.13	0.4	15%	0.89	2.2	2.6
Wheatfields Ck nr Wheatfields	MAR-MAY	0.14	0.33	0.5	24%	0.71	1.08	2.1

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
3) Median value used in place of average

NEW MEXICO BASIN OUTLOOK REPORT

Natural Resources Conservation Service

Albuquerque, New Mexico

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