

# New Mexico Basin Outlook Report February 1, 2021



Conditions at the Taos Canyon Manual Snow Course  
Photo courtesy of Aaron Miller, NRCS

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

---

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

**Rick Strait**  
**State Soil Scientist**  
**Service 100 Sun Avenue NE, Suite 602**  
**Albuquerque, NM 87109**  
**(505) 761-4433**

<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.

---

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C., 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

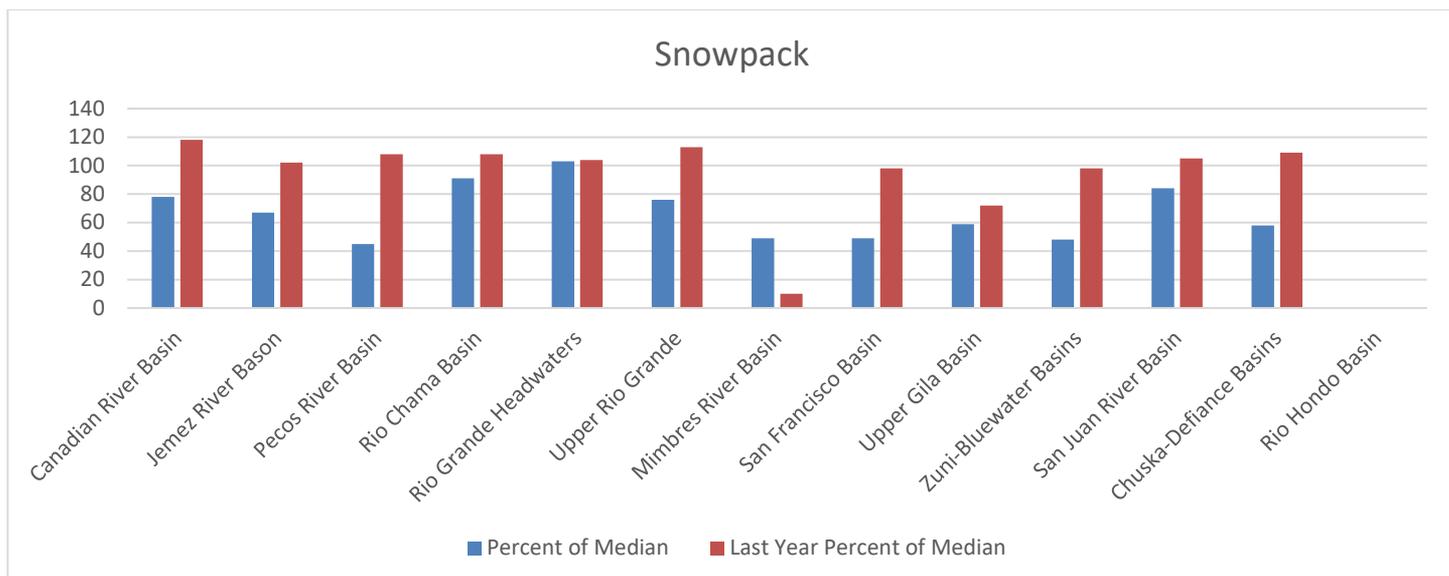
## Summary

Most of the state entered into snow season in drought conditions (D2-D4) following a weak summer monsoon. These conditions persisted through January. Snowfall has also been low, carrying drought conditions into the winter. While conditions are slightly better in the Rio Grande Headwaters, conditions in the rest of New Mexico remain challenging. Due to the poor summer monsoon season, New Mexico began the winter with soil moisture levels well below average. Unless significant snowfall accumulates during the remainder of the season, these soil moisture levels will continue to negatively impact spring runoff. Water users should continue to monitor weather conditions to evaluate their water needs as the winter progresses.

## Snowpack

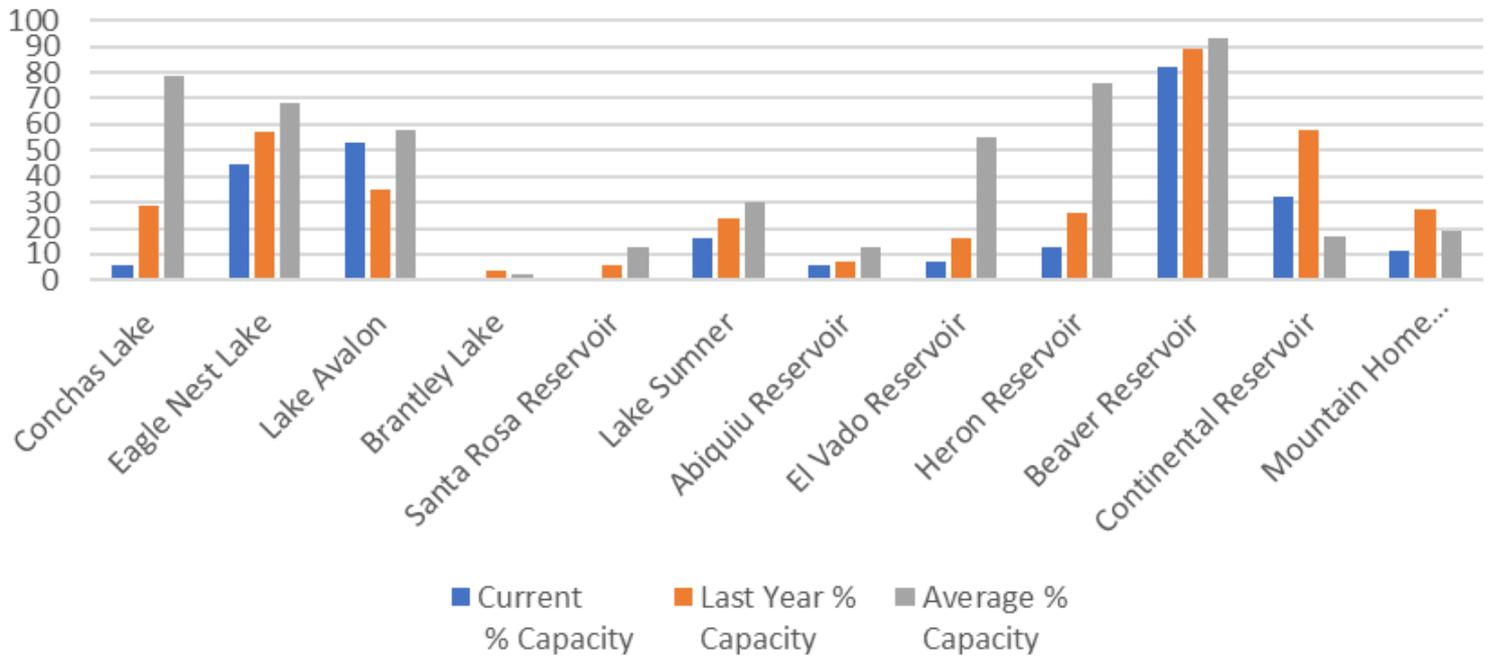
Snowpack levels ranged from a high of 103 percent of median in the Rio Grande Headwaters to a low of 0 percent in the Rio Hondo Basin. Statewide snowpack average is 83 percent of median as compared to 103 percent at this time last year.

New Mexico Statewide Snowpack	Percent of Median	Last Year Percent of Median
Canadian River Basin	78	118
Jemez River Bason	67	102
Pecos River Basin	45	108
Rio Chama Basin	91	108
Rio Grande Headwaters	103	104
Upper Rio Grande	76	113
Mimbres River Basin	49	10
San Francisco Basin	49	98
Upper Gila Basin	59	72
Zuni-Bluewater Basins	48	98
San Juan River Basin	84	105
Chuska-Defiance Basins	58	109
Rio Hondo Basin	0	0
<b>Statewide Snowpack</b>	<b>83</b>	<b>103</b>
<i># of sites</i>	<i>63</i>	<i>63</i>

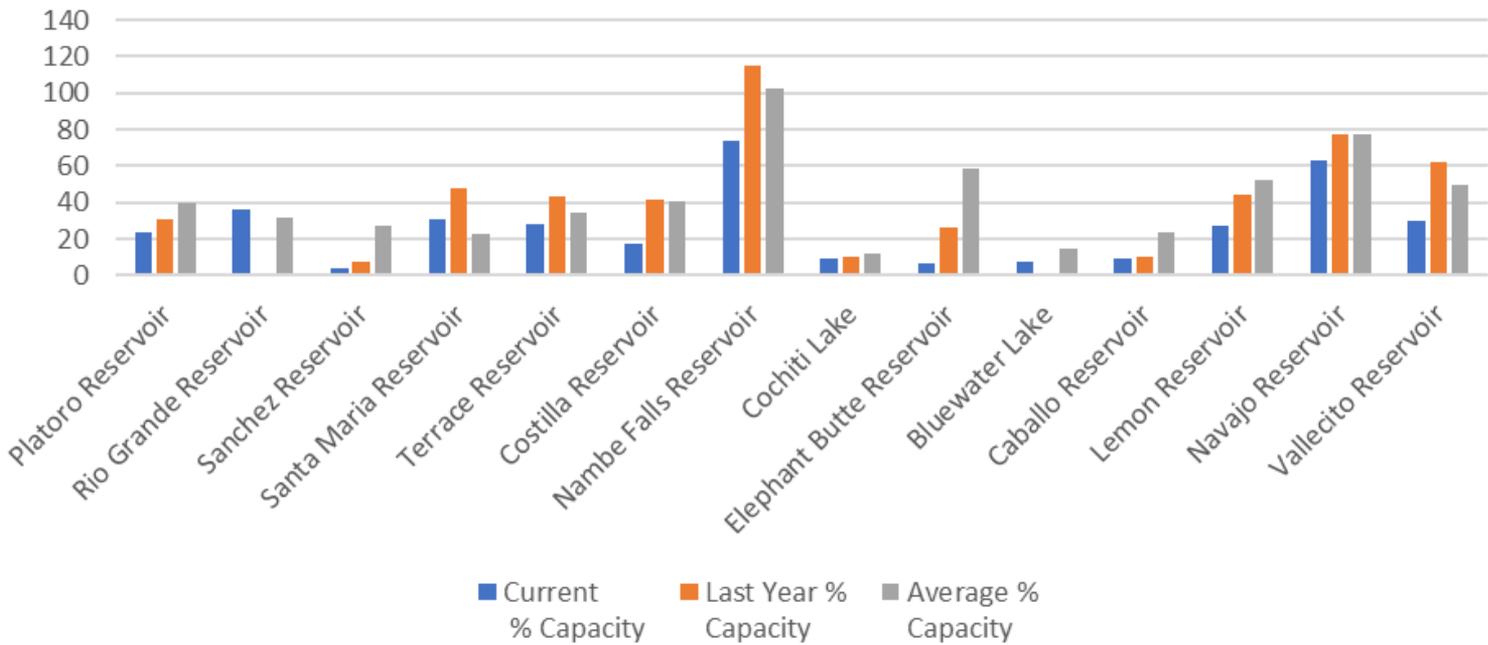




### Reservoir Storage



### Reservoir Storage



## Streamflow

Forecasts across the state are at or below average. This is due in part to a dry summer and fall which have created soil moisture and groundwater deficits. Snowpack levels to date are still not sufficient to overcome this deficit. Situations may improve with above average snowfall later in the water year. Water users and managers should continue to watch the forecasts as water supply conditions evolve across the state.

Basin	Gauge	% Avg
Canadian	Vermejo R nr Dawson	62
	Eagle Nest Reservoir Inflow	61
	Cimarron R nr Cimarron <sup>2</sup>	61
	Ponil Ck nr Cimarron	71
	Rayado Ck nr Cimarron	66
Jemez	Jemez R nr Jemez	38
	Jemez R bl Jemez Canyon Dam	32
Pecos	Pecos R nr Pecos	35
	Gallinas Ck nr Montezuma	31
	Pecos R nr Anton Chico	23
	Pecos R ab Santa Rosa Lk	16
Rio Chama	El Vado Reservoir Inflow <sup>2</sup>	64
Rio Grande Headwaters	Rio Grande nr Del Norte <sup>2</sup>	78
	Platoro Reservoir Inflow	89
	Conejos R nr Mogote <sup>2</sup>	86
	Los Pinos R nr Ortiz	77
	San Antonio R at Ortiz	58
	Culebra Ck at San Luis	96
Upper Rio Grande	Costilla Reservoir Inflow	100
	Costilla Ck nr Costilla <sup>2</sup>	96
	Red R bl Fish Hatchery nr Questa	68
	Rio Hondo nr Valdez	73
	Rio Pueblo de Taos nr Taos	56
	Rio Lucero nr Arroyo Seco	68
	Rio Pueblo de Taos bl Los Cordovas	47
	Embudo Ck at Dixon	48
	Santa Cruz R at Cundiyo	44
	Nambe Falls Reservoir Inflow	42
	Tesuque Ck ab diversions	35
	Rio Grande at Otowi Bridge <sup>2</sup>	59
	Rio Grande at San Marcial <sup>2</sup>	41
Mimbres	Mimbres R at Mimbres	60
San Francisco	San Francisco R at Glenwood <sup>3</sup>	31
	San Francisco R at Clifton <sup>3</sup>	31
Upper Gila	Gila R at Gila <sup>3</sup>	36
	Gila R bl Blue Ck nr Virden <sup>3</sup>	33
Zuni-Bluewater	Rio Nutria nr Ramah <sup>3</sup>	21
	Zuni R ab Black Rock Reservoir <sup>3</sup>	39
San Juan	Animas R at Durango	58
	Lemon Reservoir Inflow	55
	Navajo R bl Oso Diversion <sup>2</sup>	75
	Navajo Reservoir Inflow <sup>2</sup>	59
	Piedra R nr Arboles	57
	Rio Blanco at Blanco Diversion <sup>2</sup>	80
	San Juan R nr Carracas	71
Vallecito Reservoir Inflow	62	
Chuska-Defiance	Bowl Canyon Ck ab Asaayi Lake	42
	Captain Tom Wash nr Two Gray Hills	24
	Wheatfields Ck nr Wheatfields	31
Rio Hondo	Rio Ruidoso at Hollywood	24

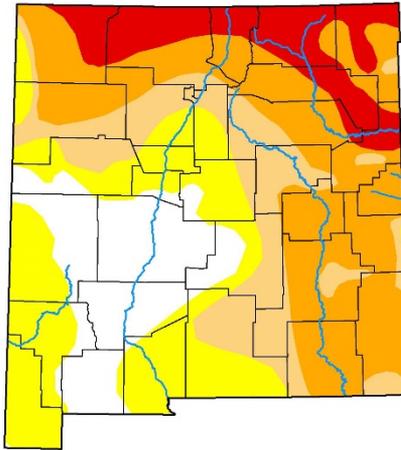
1) 90% and 10% exceedance probabilities are actually 95% and 5%

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 Drought Monitor

## U.S. Drought Monitor New Mexico



**July 7, 2020**  
(Released Thursday, Jul. 9, 2020)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	17.61	82.39	58.16	40.83	11.17	0.00
Last Week (6-30-2020)	24.94	75.06	52.71	41.32	11.35	0.00
3 Months Ago (4-07-2020)	55.52	44.48	26.31	11.75	0.00	0.00
Start of Calendar Year (1-1-2019)	52.86	47.14	28.33	15.26	0.00	0.00
Start of Water Year (10-01-2019)	37.27	62.73	29.62	6.81	0.00	0.00
One Year Ago (6-08-2019)	70.14	29.86	6.74	0.00	0.00	0.00

**Intensity:**  
 None  
 D0 Abnormally Dry  
 D1 Moderate Drought  
 D2 Severe Drought  
 D3 Extreme Drought  
 D4 Exceptional Drought

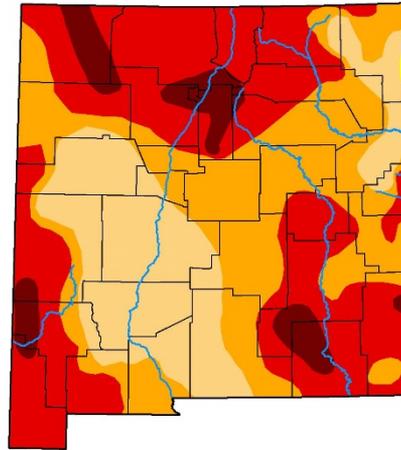
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

**Author:**  
David Miskus  
NOAA/NWS/NCEP/CPC



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

## U.S. Drought Monitor New Mexico



**October 6, 2020**  
(Released Thursday, Oct. 8, 2020)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.94	76.30	45.01	6.82
Last Week (9-29-2020)	0.00	100.00	99.92	73.05	39.88	2.90
3 Months Ago (7-07-2020)	17.61	82.39	58.16	40.83	11.17	0.00
Start of Calendar Year (1-1-2019)	52.86	47.14	28.33	15.26	0.00	0.00
Start of Water Year (10-01-2019)	0.00	100.00	99.92	73.05	39.88	2.90
One Year Ago (10-06-2019)	60.03	39.97	18.07	7.56	0.00	0.00

**Intensity:**  
 None  
 D0 Abnormally Dry  
 D1 Moderate Drought  
 D2 Severe Drought  
 D3 Extreme Drought  
 D4 Exceptional Drought

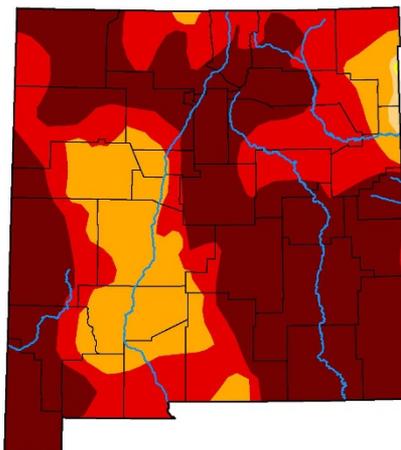
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

**Author:**  
Brian Fuchs  
National Drought Mitigation Center



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

## U.S. Drought Monitor New Mexico



**January 5, 2021**  
(Released Thursday, Jan. 7, 2021)  
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.96	99.59	82.26	53.20
Last Week (12-28-2020)	0.00	100.00	99.97	99.59	82.26	53.20
3 Months Ago (10-07-2020)	0.00	100.00	99.94	76.30	45.01	6.82
Start of Calendar Year (1-1-2020)	0.00	100.00	99.97	99.59	82.26	53.20
Start of Water Year (10-01-2019)	0.00	100.00	99.92	73.05	39.88	2.90
One Year Ago (01-07-2020)	50.16	49.84	28.31	12.75	0.00	0.00

**Intensity:**  
 None  
 D0 Abnormally Dry  
 D1 Moderate Drought  
 D2 Severe Drought  
 D3 Extreme Drought  
 D4 Exceptional Drought

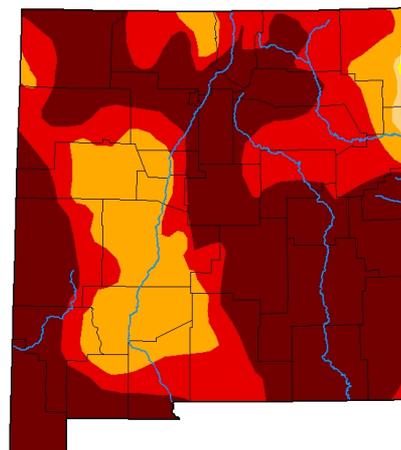
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

**Author:**  
Deborah Bathke  
National Drought Mitigation Center



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

## U.S. Drought Monitor New Mexico



**February 2, 2021**  
(Released Thursday, Feb. 4, 2021)  
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.96	99.57	81.83	54.03
Last Week (1-26-2021)	0.00	100.00	99.96	99.57	82.05	54.25
3 Months Ago (11-03-2020)	0.00	100.00	99.98	84.82	66.18	7.21
Start of Calendar Year (1-1-2021)	0.00	100.00	99.97	99.59	82.26	53.20
Start of Water Year (10-01-2020)	0.00	100.00	99.92	73.05	39.88	2.90
One Year Ago (02-04-2020)	29.53	70.47	31.90	11.80	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>

**Author:**  
Brad Rippey  
U.S. Department of Agriculture



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

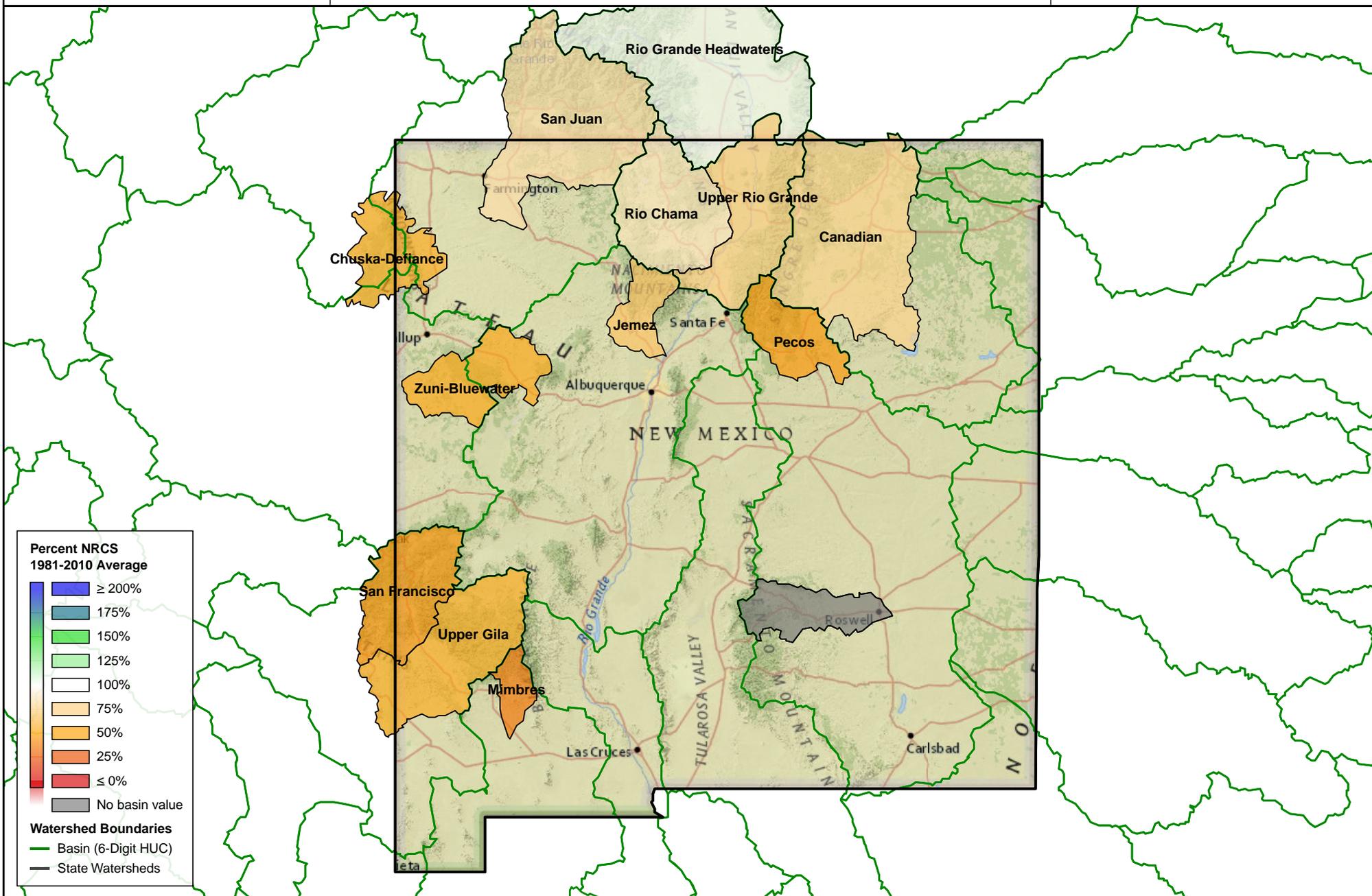
Every week, The U.S. Drought Monitor is produced in partnership between the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. This useful tool uses multiple inputs, including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

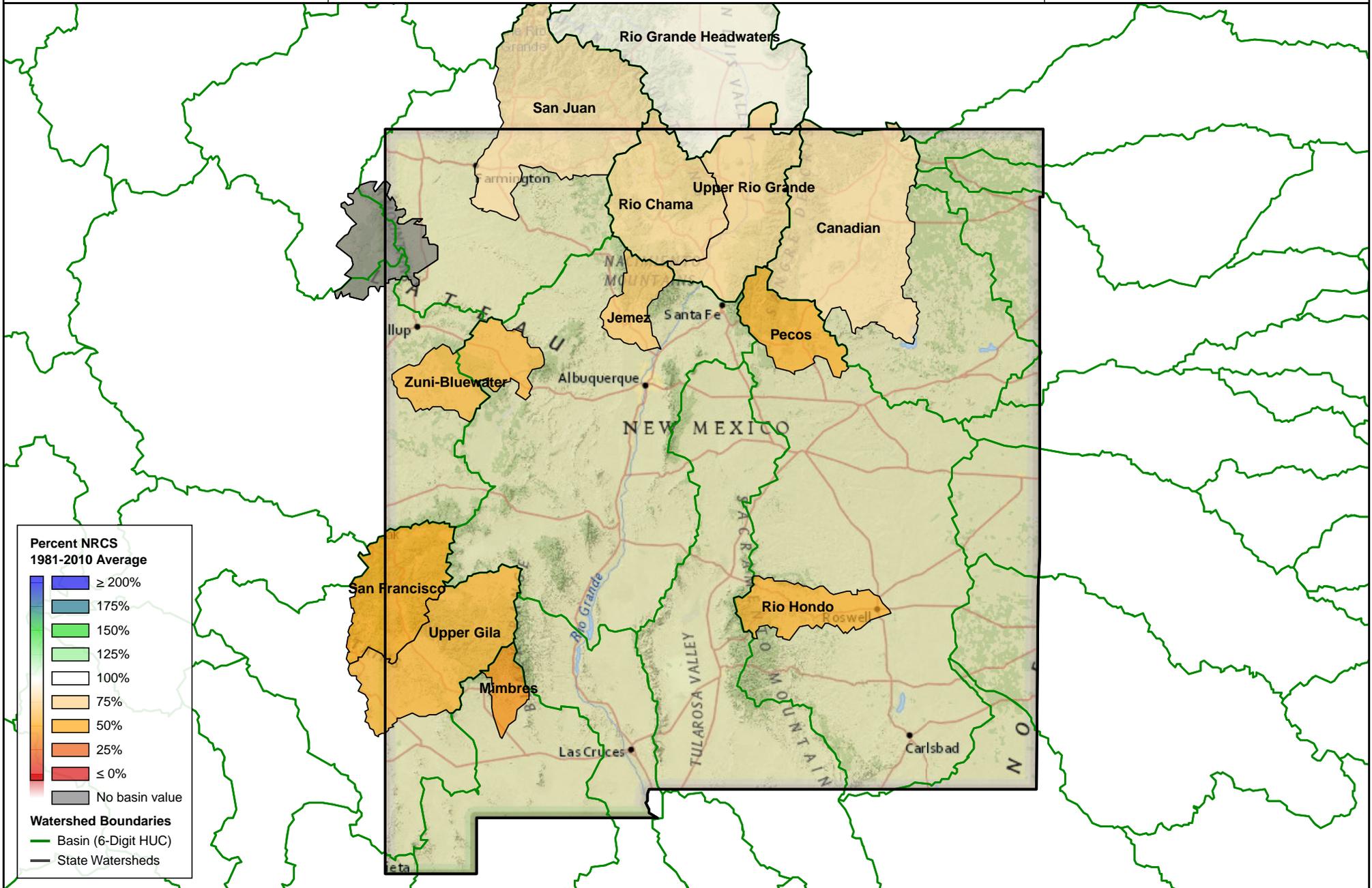
Due to a very limited monsoon season and sparse fall and early winter snows, drought conditions have persisted across New Mexico. While conditions were relatively good in July, conditions for the vast majority of the state are now Severe (D2) to Exceptional (D4). As a result, antecedent soil moisture conditions across the state are low. Without significant increases in snowfall and precipitation through the rest of the winter and into the spring, drought conditions are expected to continue.

Snow Water Equivalent

Percent NRCS 1981-2010 Average

End of January, 2021





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

The month of January received 104 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 77 percent as compared to 96 percent last year at this time. Snowpack in the basin is at 78 percent of the median. This is a significant decrease from 118 percent at this time last year. Forecasts are all below average with the highest being 71 percent of average at Ponil Creek near Cimarron. Reservoirs are currently holding 50,000 acre-feet of storage, which is a decrease of 119,200 acre-feet from last January. This equates to 15 percent of the average capacity and 20 percent of the average stored water for the basin at the end of January.

## Canadian Streamflow Forecasts - February 1, 2021

CANADIAN	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment Chance that actual volume will exceed forecast							30yr Avg (KAF)
		90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)		
Vermejo R nr Dawson	MAR-JUN	1.71	3.3	4.8	62%	6.7	10.3	7.8	
Eagle Nest Reservoir Inflow	MAR-JUN	3.4	5.3	6.8	61%	8.6	11.9	11.2	
Cimarron R nr Cimarron <sup>2</sup>	MAR-JUN	0.2	4.1	9.6	61%	15.1	23	15.8	
Ponil Ck nr Cimarron	MAR-JUN	2	3.6	5.1	71%	6.9	10.3	7.2	
Rayado Ck nr Cimarron	MAR-JUN	1.38	3	4.6	66%	6.7	10.8	7	

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 January, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Conchas Lake	14.8	73.9	199.9	254.4
Eagle Nest Lake nr Eagle Nest, NM	35.2	45.3	53.5	79.0
Basin-wide Total	50.0	119.2	253.4	333.4
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2021	# of Sites	% Median	Last Year % Median
CANADIAN	7	78%	118%

# Jemez River

## Water Supply Outlook

### Report

#### as of February 1, 2021

The month of January received 79 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 74 percent as compared to 83 percent last year at this time. Snowpack in the basin is at 67 percent of the median. This is a significant decrease from 102 percent at this time last year. Forecasts are below average in the watershed.

#### Jemez Streamflow Forecasts - February 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	6.3	11.6	16	38%	21	30	42
Jemez R bl Jemez Canyon Dam	MAR-JUL	2.9	7.1	11	32%	15.7	24	34

- 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 February 1, 2021	# of Sites	% Median	Last Year % Median
JEMEZ	3	67%	102%

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

The month of January received 95 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 101 percent last year at this time. Snowpack in the basin is at 45 percent of the median. This is a significant decrease from 108 percent at this time last year. Forecasts are low with the highest being 35 percent of average at the Pecos River near Pecos and the lowest being 3 percent at Gallinas Creek. Reservoirs are currently holding 34,500 acre-feet of storage, which is a decrease from 94,500 acre-feet last year at this time. This equates to 32 percent of the average capacity for the basin at the end of January.

## Pecos Streamflow Forecasts - February 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	6.9	13.9	20	35%	27	40	57
Pecos R nr Anton Chico	MAR-JUL	0.35	6.2	14.3	23%	26	49	63
Gallinas Ck nr Montezuma	MAR-JUL	0.11	1.36	3	31%	5.3	9.8	9.8
Pecos R ab Santa Rosa Lk	MAR-JUL	0.01	3.3	9	16%	17.5	35	56

- 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 January, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Lake Avalon	2.1	1.4	2.3	4.0
Brantley Lake nr Carlsbad	11.9	42.4	19.8	1008.2
Santa Rosa Reservoir	3.8	26.1	54.7	432.2
Lake Sumner	16.7	24.6	30.8	102.0
Basin-wide Total	34.5	94.5	107.6	1546.4
# of reservoirs	4	4	4	4

Watershed Snowpack Analysis February 1, 2021	# of Sites	% Median	Last Year % Median
PECOS	3	45%	108%

# Rio Chama

## Water Supply Outlook

### Report

#### as of February 1, 2021

The month of January received 85 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 83 percent as compared to 82 percent last year at this time. Snowpack in the basin is at 91 percent of the median. This is a decrease from 108 percent at this time last year. Forecasts are low at El Vado reservoir with 64 percent of average forecast for March through July. Reservoirs are currently holding 135,200 acre-feet of storage, which is a decrease from 218,400 acre-feet last year at this time.

#### Rio Chama Streamflow Forecasts - February 1, 2021

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

RIO CHAMA	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
El Vado Reservoir Inflow <sup>2</sup>	MAR-JUL	66	109	145	64%	186	255	225
	APR-JUL	57	97	130	63%	168	235	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 January, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Abiquiu Reservoir	69.0	84.0	154.6	1198.5
El Vado Reservoir	12.8	28.7	100.9	184.8
Heron Reservoir	53.4	105.7	303.0	400.0
Basin-wide Total	135.2	218.4	558.5	1783.3
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2021	# of Sites	% Median	Last Year % Median
RIO CHAMA	4	91%	108%

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

The month of January received 83 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 89 percent as compared to 82 percent last year at this time. Snowpack in the basin is at 103 percent of the median. This is a decrease from 104 percent at this time last year. Forecasts are at or below average with the highest being 96 percent of average at Culebra Creek and the lowest being 58 percent at San Antonio River. Reservoirs are currently holding 70,400 acre-feet of storage, which is a decrease from 80,500 acre-feet last year at this time.

## Rio Grande Headwaters Streamflow Forecasts - February 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 <sup>2</sup>	APR-SEP	240	330	400	78%	480	605	515
Platoro Reservoir Inflow	APR-JUL	35	44	50	89%	57	67	56
	APR-SEP	37	47	54	87%	62	74	62
Conejos R nr Mogote <sup>2</sup>	APR-SEP	110	142	166	86%	192	235	194
Los Pinos R nr Ortiz	APR-SEP	34	46	56	77%	67	84	73
San Antonio R at Ortiz	APR-SEP	3.7	6.6	9	58%	11.8	16.7	15.6
Culebra Ck at San Luis	APR-SEP	11.5	17.4	22	96%	27	36	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 January, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Beaver Reservoir	3.7	4.0	4.2	4.5
Continental Reservoir	8.7	15.6	4.5	27.0
Mountain Home Reservoir	2.1	4.9	3.4	18.0
Platoro Reservoir	14.3	18.4	24.0	60.0
Rio Grande Reservoir	18.4	0.0	16.3	51.0
Sanchez Reservoir	4.5	8.3	27.6	103.0
Santa Maria Reservoir	13.8	21.6	10.5	45.0
Terrace Reservoir	5.1	7.7	6.2	18.0
Basin-wide Total	70.4	80.5	96.7	326.5
# of reservoirs	8	8	8	8

Watershed Snowpack Analysis February 1, 2021	# of Sites	% Median	Last Year % Median
RIO GRANDE HEADWATERS	18	103%	104%

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

The month of January received 84 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 71 percent as compared to 95 percent last year at this time. Snowpack in the basin is at 76 percent of the median. This is a decrease from 113 percent at this time last year. Forecasts are at or below average with the highest being 100 percent of average at Costilla Reservoir and the lowest being 35 percent at Tesuque Creek. Reservoirs are currently holding 233,300 acre-feet of storage, which is a decrease from 668,300 acre-feet last year at this time.

## Upper Rio Grande Streamflow Forecasts - February 1, 2021

UPPER RIO GRANDE	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)
Costilla Reservoir Inflow	MAR-JUL	6.9	9.3	11.1	100%	13.1	16.3	11.1
Costilla Ck nr Costilla <sup>2</sup>	MAR-JUL	14.2	20	25	96%	30	39	26
Red R bl Fish Hatchery nr Questa	MAR-JUL	13.4	18.8	23	68%	28	35	34
Rio Hondo nr Valdez	MAR-JUL	6.8	10.5	13.5	73%	16.8	22	18.4
Rio Pueblo de Taos nr Taos	MAR-JUL	3.6	6.8	9.5	56%	12.7	18.1	17
Rio Lucero nr Arroyo Seco	MAR-JUL	3.5	5.7	7.4	68%	9.4	12.7	10.9
Rio Pueblo de Taos bl Los Cordovas	MAR-JUL	2.9	9.9	17	47%	26	43	36
Embudo Ck at Dixon	MAR-JUL	6.1	14.9	23	48%	33	51	48
Santa Cruz R at Cundiyo	MAR-JUL	3.8	6.1	8	44%	10.1	13.8	18.3
Nambe Falls Reservoir Inflow	MAR-JUL	1.26	2.1	2.7	42%	3.4	4.7	6.5
Tesuque Ck ab diversions	MAR-JUL	0.11	0.29	0.47	35%	0.69	1.09	1.34
Rio Grande at Otowi Bridge <sup>2</sup>	MAR-JUL	220	335	425	59%	525	695	720
Rio Grande at San Marcial <sup>2</sup>	MAR-JUL	-90	89	210	41%	330	510	510

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 January, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Costilla Reservoir	2.7	6.7	6.5	16.0
Nambe Falls Reservoir	1.2	1.9	1.7	1.7
Cochiti Lake	43.0	48.0	60.9	491.0
Elephant Butte Reservoir	156.2	577.4	1299.0	2195.0
Caballo Reservoir	30.1	34.3	78.1	332.0
Basin-wide Total	233.3	668.3	1446.2	3035.7
# of reservoirs	5	5	5	5

Watershed Snowpack Analysis February 1, 2021	# of Sites	% Median	Last Year % Median
UPPER RIO GRANDE	10	76%	113%



# Mimbres River Basin

## Water Supply Outlook

### Report

#### as of February 1, 2021

The month of January received 53 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 43 percent as compared to 117 percent last year at this time. As of February 1, 2021, snowpack was at 49 percent of median. This is an increase from 10 percent at this time last year. The forecast for the basin is at 60 percent of average.

#### Mimbres River Basin Streamflow Forecasts - February 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	FEB-MAY	0.21	0.63	1.1	60%	1.76	3.2	1.82

- 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 February 1, 2021	# of Sites	% Median	Last Year % Median
MIMBRES RIVER BASIN	2	49%	10%

# San Francisco

## Water Supply Outlook

### Report

#### as of February 1, 2021

The month of January received 57 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 44 percent as compared to 106 percent last year at this time. Snowpack in the basin is at 49 percent of the median. This is a decrease from 98 percent at this time last year. Forecasts are below average at 31 percent of average.

#### San Francisco Streamflow Forecasts - February 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 <sup>3</sup>	FEB-MAY	0.96	3.1	5.6	31%	9.2	16.8	18.2
San Francisco R at Clifton <sup>3</sup>	FEB-MAY	0.88	7.5	15.8	31%	27	49	51

- 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 February 1, 2021	# of Sites	% Median	Last Year % Median
SAN FRANCISCO	6	49%	98%

# Upper Gila Water Supply Outlook Report as of February 1, 2021

The month of January received 80 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 51 percent as compared to 102 percent last year at this time. Snowpack in the basin is at 59 percent of the median. This is a decrease from 72 percent at this time last year. Forecasts are below average with the highest being 36 percent of average at Gila.

## Upper Gila Streamflow Forecasts - February 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 <sup>3</sup>	FEB-MAY	6	12.1	18	36%	26	40	50
Gila R bl Blue Ck nr Virden <sup>3</sup>	FEB-MAY	1.48	10.4	21	33%	35	63	63

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 February 1, 2021	# of Sites	% Median	Last Year % Median
UPPER GILA	3	59%	72%

# Zuni/Bluewater

## Water Supply Outlook

### Report

#### as of February 1, 2021

The month of January received 85 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 96 percent last year at this time. Snowpack in the basin is at 48 percent of the median. This is a decrease from 73 percent at this time last year. Forecasts are below average with the highest being 39 percent of average at Black Rock Reservoir. January reservoir storage was at 3,200 acre feet at Bluewater Lake.

#### Zuni-Bluewater Streamflow Forecasts - February 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 <sup>3</sup>	FEB-MAY	0	0.08	0.3	21%	0.73	1.92	1.4
Zuni R ab Black Rock Reservoir <sup>3</sup>	FEB-MAY	0	0.01	0.15	39%	0.67	2.6	0.38

- 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 January, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Bluewater Lake	3.2		5.9	38.5
Basin-wide Total	0.0		0.0	0.0
# of reservoirs	0	0	0	0

Watershed Snowpack Analysis February 1, 2021	# of Sites	% Median	Last Year % Median
ZUNI-BLUEWATER	4	48%	73%

# San Juan

## Water Supply Outlook

### Report

#### as of February 1, 2021

The month of January received 78 percent of the average amount of precipitation for the month. This puts the water year-to-date average amount of precipitation at 70 percent as compared to 87 percent last year at this time. Snowpack in the basin is at 84 percent of the median. This is a decrease from 105 percent at this time last year. Forecasts are below average with the highest being 80 percent of average at Blanco Diversion. January reservoir storage was at 1,125,800 acre feet. Storage at this time last year was 1,418,800 acre feet.

#### San Juan Streamflow Forecasts - February 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 <sup>2</sup>	APR-JUL	25	35	43	80%	51	65	54
Navajo R bl Oso Diversion <sup>2</sup>	APR-JUL	28	40	49	75%	59	75	65
San Juan R nr Carracas	APR-JUL	150	215	270	71%	330	425	380
Piedra R nr Arboles	APR-JUL	64	95	120	57%	147	193	210
Vallecito Reservoir Inflow	APR-JUL	74	100	120	62%	142	177	194
Navajo Reservoir Inflow <sup>2</sup>	APR-JUL	245	350	435	59%	525	675	735
Animas R at Durango	APR-JUL	145	199	240	58%	285	360	415
Lemon Reservoir Inflow	APR-JUL	16.6	24	30	55%	37	47	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 January, 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Lemon Reservoir	10.7	17.5	20.9	40.0
Navajo Reservoir	1064.6	1307.8	1310.0	1696.0
Vallecito Reservoir	38.4	78.2	63.3	126.0
Basin-wide Total	1113.7	1403.5	1394.2	1862.0
# of reservoirs	3	3	3	3

Watershed Snowpack Analysis February 1, 2021	# of Sites	% Median	Last Year % Median
SAN JUAN	14	84%	105%

# Rio Hondo

## Water Supply Outlook

### Report

#### as of February 1, 2021

The month of January received 85 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 133 percent last year at this time. Snowpack in the basin was not available at the time of publication. Forecasts are below average at 24% of average.

#### Rio Hondo Streamflow Forecasts - February 1, 2021

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

<b>RIO HONDO</b>	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Ruidoso at Hollywood	MAR-JUN	0.13	0.81	1.6	24%	2.7	4.7	6.7

- 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

<b>Watershed Snowpack Analysis</b> <b>February 1, 2021</b>	# of Sites	% Median	Last Year % Median
RIO HONDO	0		

**NEW MEXICO BASIN OUTLOOK REPORT**  
**Natural Resources Conservation Service**  
**Albuquerque, New Mexico**

*Issued by:*

Kevin Norton  
Acting Chief  
Natural Resources Conservation Service  
U.S. Department of Agriculture

*Released by:*

J. Xavier Montoya  
State Conservationist  
Natural Resources Conservation Service  
Albuquerque, New Mexico

*Prepared by:*

Richard Strait  
State Soil Scientist  
Natural Resources Conservation Service  
Albuquerque, New Mexico