



United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

# New Mexico

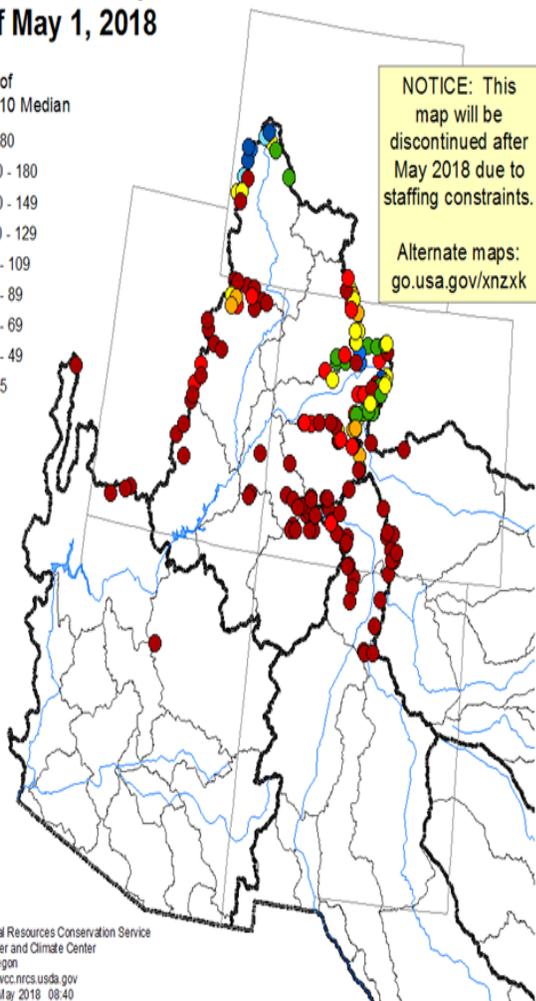
# Basin Outlook Report

# May 1, 2018

### Colorado, Rio Grande, and Arkansas River Basins Mountain Snowpack as of May 1, 2018

Percent of  
1981-2010 Median

- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25

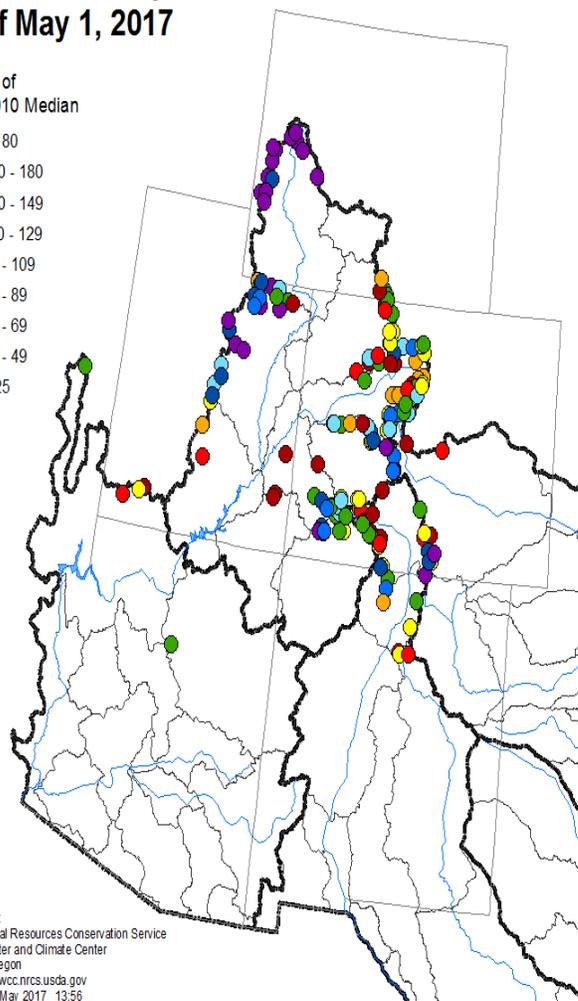


Prepared by:  
USDA Natural Resources Conservation Service  
National Water and Climate Center  
Portland, Oregon  
<https://www.wcc.nrcs.usda.gov>  
Created: 3 May 2018 08:40

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Created: 3 May 2017 13:56

Statewide snowpack is at just 5 percent of the median compared to 95 percent last water year. Record low snowpack is evident in the difference between WY2017 and 2018! On the left is 2018's snowpack versus a marginal water year in 2017.

# 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/>

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## *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

Warm and dry weather continued to plague the region throughout April leading to further deterioration of drought conditions across the state. As another month dropped water year-to-date basin average precipitation to 50, 43, and 19-27% of normal, respectively, while the mountain snows have completely melted in eastern Arizona and most of New Mexico (0% SWE). Southwestern snowpack remains abysmal or has already melted leaving little hope for even average spring and summer runoff. In northeastern New Mexico, D4 was extended into Union and Colfax counties as near or record dry 6-month precipitation, above-normal temperatures, low humidity, and strong winds combined to produce very poor irrigated crops, along with bare, dead, or very poor pasture and range conditions. Moving further into April the temperatures remained above average and the winds intensified making fire danger a major concern in early spring. The end of April brought with it exceptional drought to the Four Corners region and Extreme Drought was expanded into Southern Colorado affecting streamflow forecasts for the San Juan Basin. Water users and managers should continue to monitor conditions to determine the extent of drought impacts across the state.

## Snowpack

The continued trend of New Mexico missing out on significant precipitation during the winter persisted throughout April and the start of spring. May 1<sup>st</sup> snowpack ranged from a high of just 12 percent in the San Juan Basin to 4 percent in the Rio Grande Basin. The remainder of New Mexico's basins have melted out having been continuously exposed to exceptionally dry and warm conditions throughout the water year. This trend throughout the water year leaves both southern Colorado and all of northern New Mexico in severe drought as we move into the summer months. Historically we are passed the snow accumulation season and as spring continues temperatures will rise and we can expect a decrease in precipitation. The short-term outlook is not extremely favorable based on the climatology of the region. Please continue to monitor conditions over the next months to determine the severity of drought conditions.

<b>NEW MEXICO STATEWIDE SNOWPACK</b>	<b>Percent of Median</b>	<b>Last Year Percent of Median</b>
CANADIAN RIVER BASIN	0	63
PECOS RIVER BASIN	0	60
RIO GRANDE BASIN	4	117
MIMBRES RIVER BASIN	0	0
SAN FRANCISCO-UPPER GILA RIVER BASIN	0	0
ZUNI-BLUEWATER BASINS	0	0
SAN JUAN RIVER BASIN	12	105
CHUSKA MOUNTAINS	0	0
RIO HONDO BASIN	0	0
<b>Statewide Snowpack Total</b>	<b>5</b>	<b>94</b>
# of sites	23	23

## Precipitation

April did little to help pull New Mexico out of what has turned out to be both a dry and snow free water year. As a result statewide monthly precipitation is just 22 percent of the average which now brings the total to 40 percent for the water year-to-date. The deterioration of conditions throughout the water year has led to a southward extension of D4 and D3 drought conditions into west-central and east-central New Mexico. Abnormal dryness has encompassed the entire state affecting 100% of the 2,000,000+ people who reside here. Above average temperatures continue to dominate the state creating a high evaporative demand situation and degrading soil moisture quality even further. This scenario of warm temperatures, a lack of moisture, and little to no snowpack throughout the winter has left New Mexico in a precarious position as temperatures have reached record levels in early May. Our states reservoirs which have been storing moisture from this past fall and early snowmelt this winter will quickly become depleted without timely major spring precipitation events. Based on the current long-range forecasts water users and managers should expect shortfalls in water supply this spring and summer.

## Reservoirs

Early low and mid-elevation snowmelt in some regions continues to provide many of New Mexico's reservoirs with near to above average storage for May 1<sup>st</sup>. Statewide reservoir storage has remained fairly constant over the past several months at 66 percent of the average as compared to 71 percent last water year. This is 45 percent of the average capacity as compared to 32 percent at this time last year. Water-users should continue to monitor reservoir conditions as temperatures rise and the high-elevation snowpack begins to melt off. Shortfalls in reservoir water supply can be expected this spring and summer.

NEW MEXICO STATEWIDE	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Abiquiu Reservoir	118.0	135.1	162.8	1192.8	10%	11%	14%	72%	83%
Bluewater Lake	5.7	11.4	11.1	38.5	15%	30%	29%	51%	103%
Brantley Lake nr Carlsbad	30.2	27.7	24.9	1008.2	3%	3%	2%	121%	111%
Caballo Reservoir	46.1	72.0	95.1	332.0	14%	22%	29%	48%	76%
Cochiti Lake	47.3	47.3	64.3	491.0	10%	10%	13%	74%	74%
Conchas Lake	200.4	68.5	198.9	254.2	79%	27%	78%	101%	34%
Costilla Reservoir	12.5	8.4	8.4	16.0	78%	53%	53%	148%	100%
Eagle Nest Lake nr Eagle Nest, NM	42.3	37.8	58.0	79.0	54%	48%	73%	73%	65%
El Vado Reservoir	81.8	61.2	133.2	190.3	43%	32%	70%	61%	46%
Elephant Butte Reservoir	394.3	395.6	1269.0	2195.0	18%	18%	58%	31%	31%
Heron Reservoir	152.3	119.2	285.4	400.0	38%	30%	71%	53%	42%
Lake Avalon	2.6	1.7	1.4	4.0	65%	43%	35%	186%	121%
Lake Sumner	28.1	27.7	27.1	102.0	28%	27%	27%	104%	102%
Navajo Reservoir	1222.4	1597.7	1361.0	1696.0	72%	94%	80%	90%	117%
Santa Rosa Reservoir	91.6	60.6	56.6	438.3	21%	14%	13%	162%	107%
Basin-wide Total	2475.5	2672.0	3757.2	8437.3	29%	32%	45%	66%	71%
# of reservoirs	15	15	15	15	15	15	15	15	15

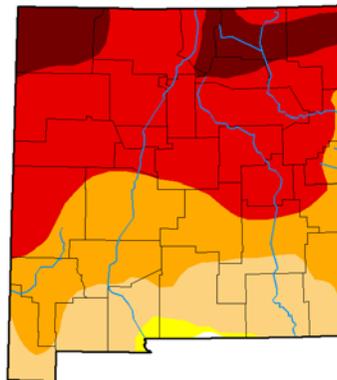
## Streamflow

The May 1<sup>st</sup>, 2018 forecast numbers from the NRCS show that all of New Mexico is well below average for all forecast points across the state. In the Rio Grande Basin snowpack and precipitation continues to be at or near record lows for the SNOTEL network period of record. In southern Colorado and the San Juan Basin all forecast points affecting New Mexico are well below normal. The headwaters of the Rio Grande has the highest forecast streamflow volumes ranging between just 25 and 45 percent of the average! All forecast points moving south decrease in value exponentially as we move into portions of the state most exposed to the warm and dry conditions throughout winter. Please continue to monitor conditions and read follow-up water supply reports as we move into spring.

# New Mexico Drought Monitor, real versus perceived conditions?

## U.S. Drought Monitor New Mexico

May 8, 2018  
(Released Thursday, May 10, 2018)  
Valid 8 a.m. EDT



**Intensity:**  
 D0 Abnormally Dry  
 D1 Moderate Drought  
 D2 Severe Drought  
 D3 Extreme Drought  
 D4 Exceptional Drought

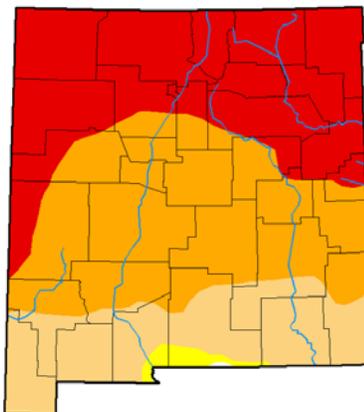
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
David Simeral  
Western Regional Climate Center

USDA NWS NCEP  
<http://droughtmonitor.unl.edu/>

## U.S. Drought Monitor New Mexico

April 3, 2018  
(Released Thursday, Apr. 5, 2018)  
Valid 8 a.m. EDT



	Drought Conditions (Percent Area)					
	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	0.08	99.92	98.57	78.12	38.87	0.00
Last Week (02/27/2018)	0.08	99.92	98.64	77.89	34.05	0.00
3 Months Ago (12/02/2017)	7.01	92.99	45.97	4.76	0.00	0.00
Start of Calendar Year (01/01/2018)	7.01	92.99	45.97	4.76	0.00	0.00
Start of Water Year (09/26/2017)	85.19	14.84	0.00	0.00	0.00	0.00
One Year Ago (04/04/2017)	40.58	49.42	2.52	0.00	0.00	0.00

**Intensity:**  
 D0 Abnormally Dry D3 Extreme Drought  
 D1 Moderate Drought D4 Exceptional Drought  
 D2 Severe Drought

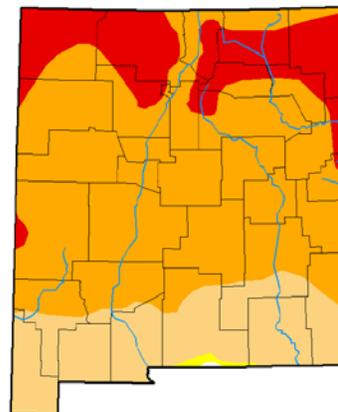
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
David Miskus  
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USDA NWS NCEP  
<http://droughtmonitor.unl.edu/>

## U.S. Drought Monitor New Mexico

March 6, 2018  
(Released Thursday, Mar. 8, 2018)  
Valid 7 a.m. EST



	Drought Conditions (Percent Area)					
	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	0.08	99.92	99.51	77.99	17.08	0.00
Last Week (02/27/2018)	0.08	99.92	99.51	77.99	5.23	0.00
3 Months Ago (12/02/2017)	46.39	53.01	19.23	0.00	0.00	0.00
Start of Calendar Year (01/01/2018)	7.01	92.99	45.97	4.76	0.00	0.00
Start of Water Year (09/26/2017)	85.19	14.84	0.00	0.00	0.00	0.00
One Year Ago (04/04/2017)	78.52	21.48	2.58	0.00	0.00	0.00

**Intensity:**  
 D0 Abnormally Dry D3 Extreme Drought  
 D1 Moderate Drought D4 Exceptional Drought  
 D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

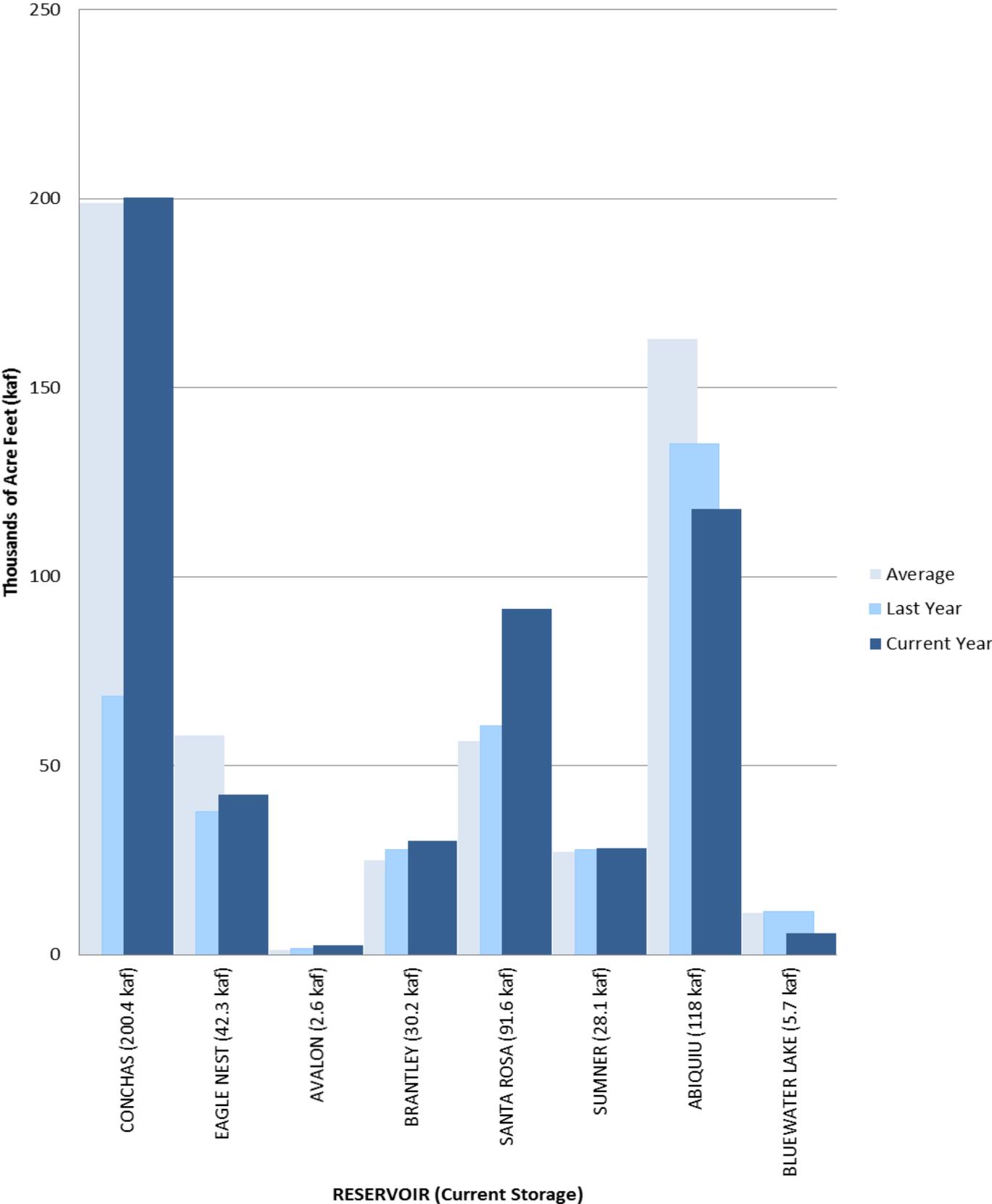
**Author:**  
Richard Tinker  
CPC/NWS/NCEP

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<http://droughtmonitor.unl.edu/>

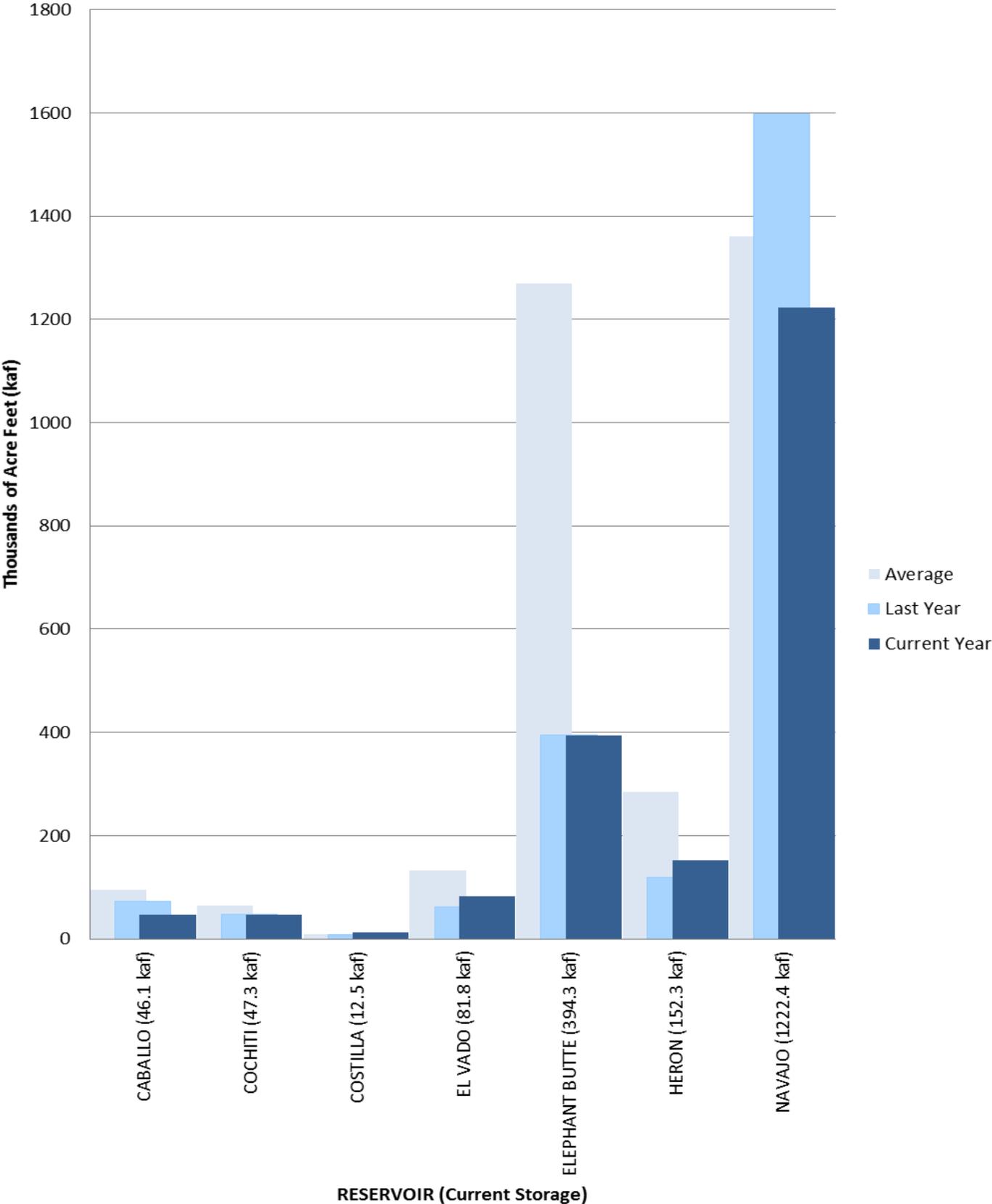
Every week, The U.S. Drought Monitor is produced in partnership between the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. This useful tool uses multiple inputs, including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

The May 8<sup>th</sup> drought map shows expanded areas of Extreme Drought (D3) across central New Mexico. This April marked the 10<sup>th</sup> driest period on record for the state. In north-central New Mexico and south-central Colorado an area of Exceptional Drought (D4) was expanded covering the Sangre de Cristo Range to reflect record-to-near-record snowpack levels since the beginning of the Water Year. Elsewhere in the region areas of Exceptional Drought (D4) have expanded across southwestern Colorado where precipitation totals for the current Water Year at a number of NRCS SNOTEL stations are at record low levels with well below normal runoff forecasted. According to the May 1st USDA Weekly Weather and Crop Weather Bulletin, topsoil moisture in New Mexico was rated 90% short to very short while subsoil moisture was rated 89% short to very short. During the past week, average temperatures were near normal in the Far West and above normal (5-to-15 degrees) across the remainder of the West.

# Statewide Reservoir Storage



# Statewide Reservoir Storage



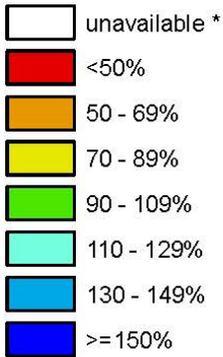
# New Mexico

## SNOTEL Current Snow Water Equivalent (SWE) % of Normal

**May 09, 2018**

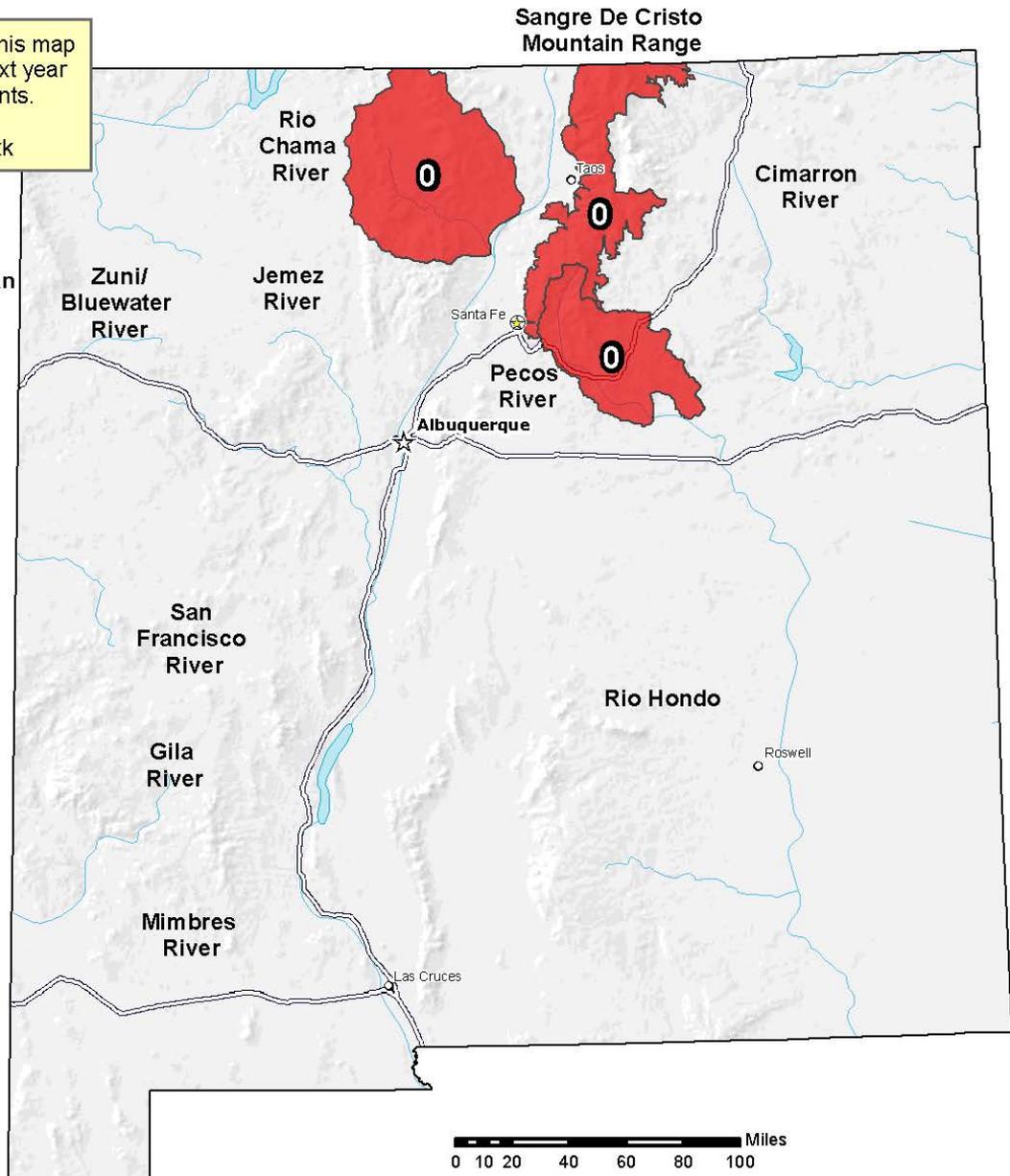
Notice: We anticipate this map will not be available next year due to staffing constraints.  
 Alternate maps:  
<https://go.usa.gov/xnzxk>

**Current Snow Water Equivalent (SWE) Basin-wide Percent % of 1981-2010 Median**



\* Data unavailable at time of posting or measurement is not representative at this time of year

**Provisional Data  
Subject to Revision**



The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by:  
 USDA/NRCS National Water and Climate Center  
 Portland, Oregon  
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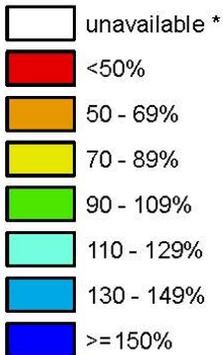
# New Mexico

## SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

**May 09, 2018**

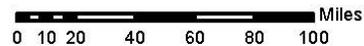
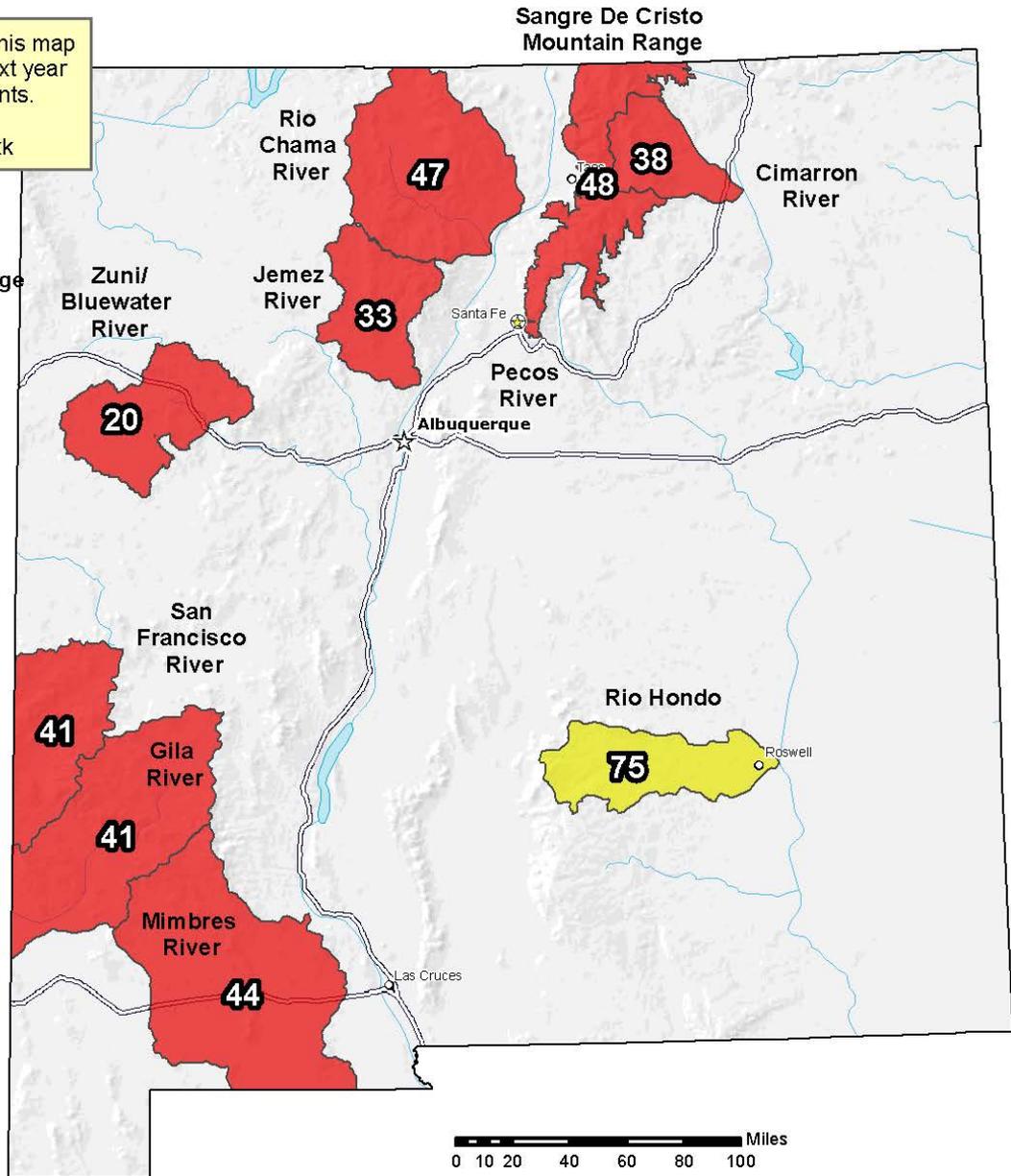
Notice: We anticipate this map will not be available next year due to staffing constraints.  
 Alternate maps:  
<https://go.usa.gov/xnzxk>

Water Year (Oct 1) to Date Precipitation Basin-wide Percent % of 1981-2010 Average



\* Data unavailable at time of posting or measurement is not representative at this time of year

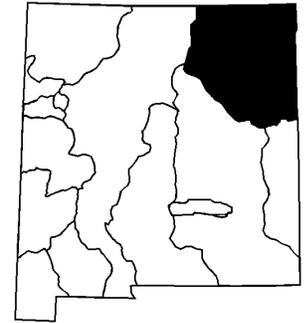
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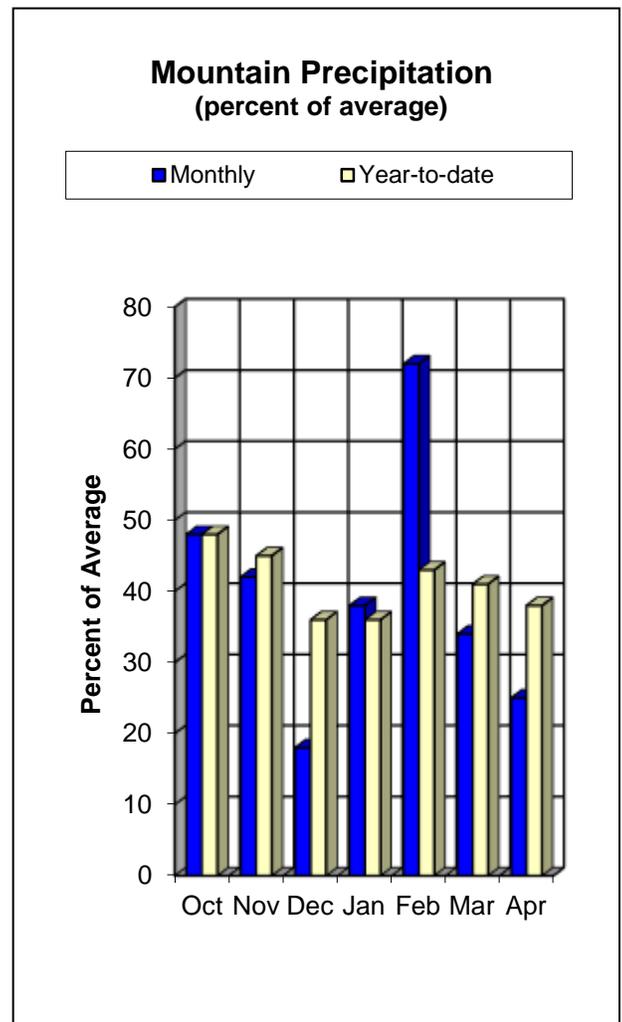
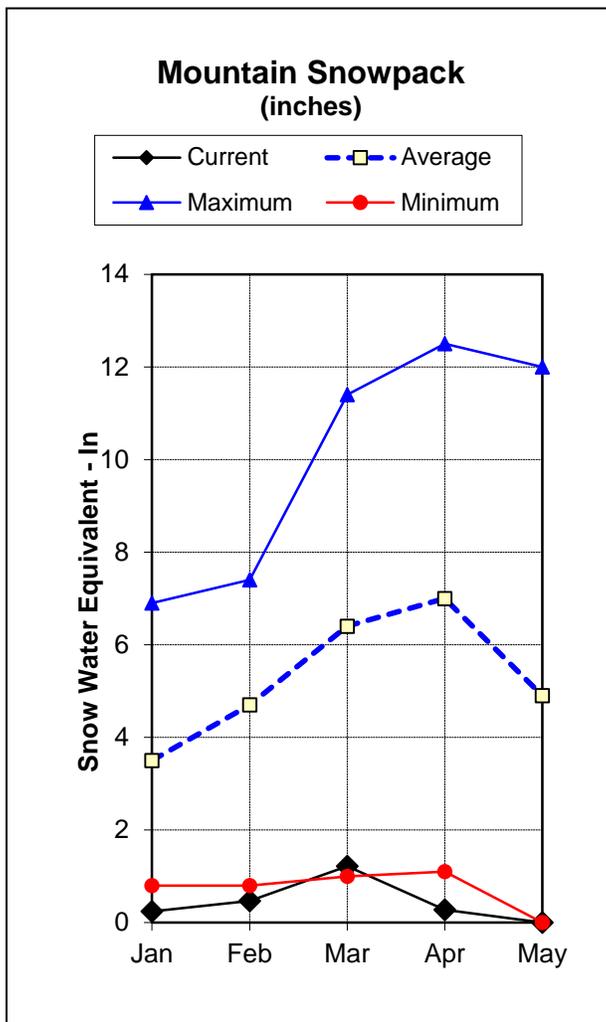
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by:  
 USDA/NRCS National Water and Climate Center  
 Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

# Canadian River Basin Water Supply Outlook Report as of May 1, 2018



The Canadian River Basin forecasts for the May to June time period remain well below average for this time of year. Currently the Canadian is forecast at 5 percent of the average for the Vermejo River near Dawson, to 15 percent of average at the Conchas Reservoir inflow. The month of April saw well below the average amount of precipitation having only received 25 percent of the average. Water year-to-date precipitation in the Canadian River Basin has decreased slightly and remains well below the average at 38 percent, as compared to 95 percent last year at this time. Snowpack in the basin has melted out and is at 0 percent of the median. This is a big decrease from 63 percent at this time last year. Reservoirs are currently holding 242,700 acre-feet of storage, which is an increase of 136,400 acre feet from last year at this time. Reservoir storage in the Canadian River Basin is currently at 73 percent of capacity. This equates to 94 percent of the average stored water for the basin as of the end of April.



## Canadian River Basin Streamflow Forecasts - May 1, 2018

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

CANADIAN RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Vermejo R nr Dawson	MAR-JUN	1.05	1.16	1.32	17%	1.57	2.1	7.8
	MAY-JUN	0.03	0.14	0.3	5%	0.55	1.08	5.8
Eagle Nest Reservoir Inflow	MAR-JUN	-0.94	-0.24	0.5	4%	1.24	4	11.2
	MAY-JUN	-1.2	-0.5	0.24	5%	0.98	3.7	4.9
Cimarron R nr Cimarron <sup>2</sup>	MAR-JUN	-1.2	0.4	0.87	6%	7.1	16.3	15.8
	MAY-JUN	-1	-0.4	0.24	3%	6.5	15.8	8.3
Ponil Ck nr Cimarron	MAR-JUN	0.38	0.48	0.6	8%	0.77	1.14	7.2
	MAY-JUN	0.05	0.15	0.27	6%	0.44	0.81	4.6
Rayado Ck nr Cimarron	MAR-JUN	0.77	0.86	0.98	14%	1.21	2.9	7
	MAY-JUN	0.01	0.1	0.22	5%	0.45	2.1	4.3
Conchas Reservoir Inflow <sup>3</sup>	MAR-JUN	0.76	3.4	7	23%	12.4	25	30
	MAY-JUN	0.04	0.87	2.6	15%	5.9	14.4	17.3

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

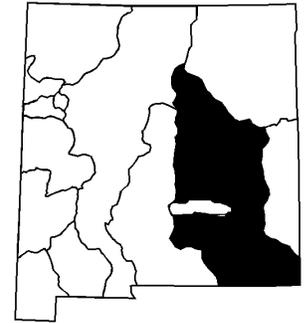
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

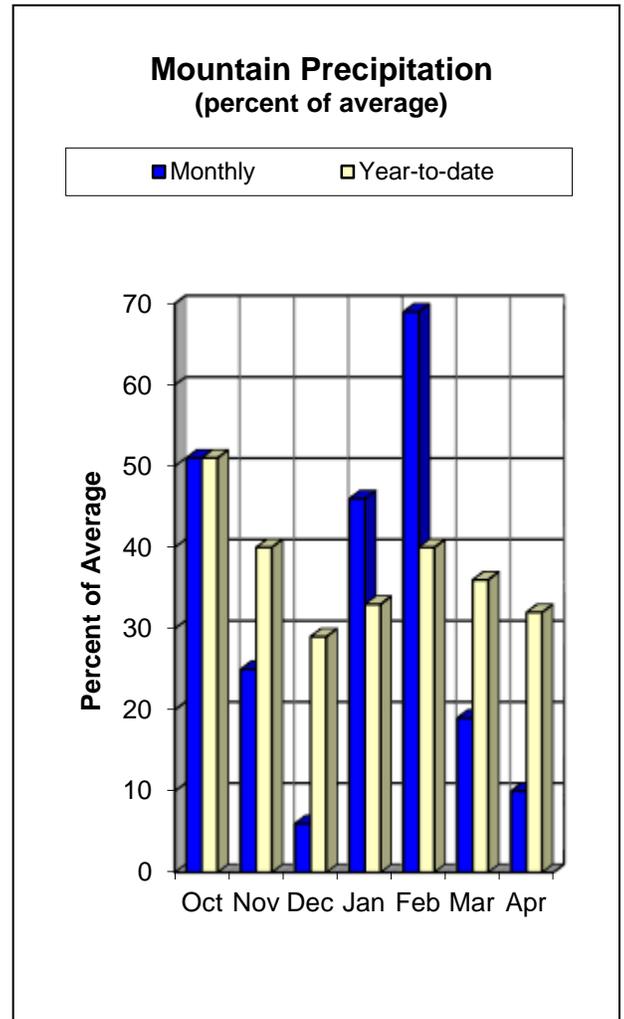
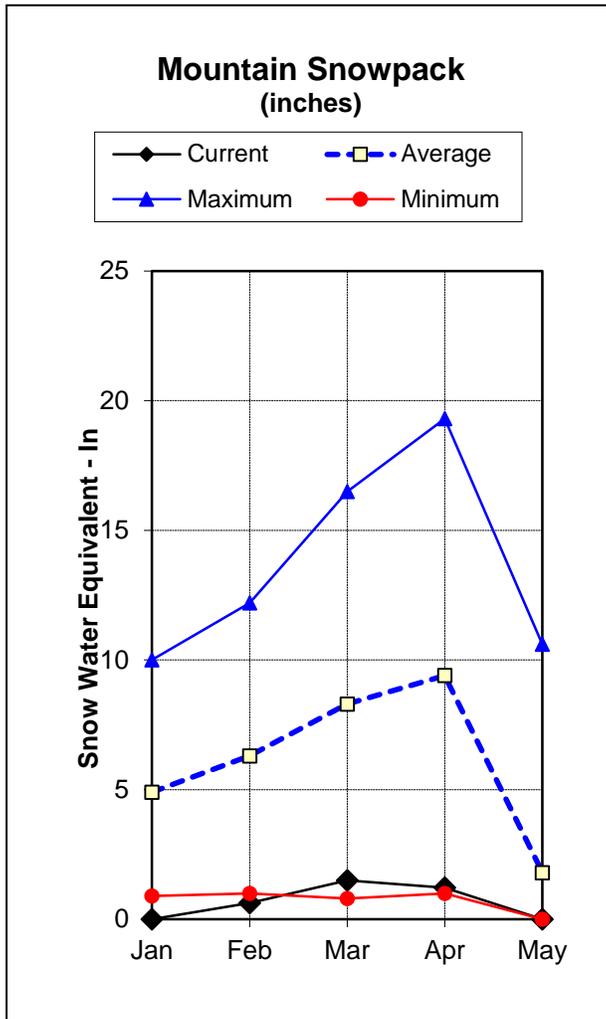
Reservoir Storage End of April, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Conchas Lake	200.4	68.5	198.9	254.4
Eagle Nest Lake nr Eagle Nest, NM	42.3	37.8	58.0	79.0
Basin-wide Total	242.7	106.3	256.9	333.4
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis May 1, 2018	# of Sites	% Median	Last Year % Median
CANADIAN RIVER BASIN	4	0%	63%

# Pecos River Basin Water Supply Outlook Report as of May 1, 2018



Streamflow forecasts in the Pecos River Basin for the May to July timeframe have decreased roughly half from the previous month. They range from 11 percent of average for the Pecos River near Pecos, to 3 percent of average for the Pecos River above Santa Rosa Lake. April received only 10 percent of the average precipitation for the month, putting the basin at 32 percent of average for the water year-to-date. This is now 64 percent below last year's average of 96 percent. Snowpack in the Pecos River Basin has melted out and is at 0 percent of median. Last year at this time the basin had received 60 percent of the median snowpack. As of May 1<sup>st</sup> reservoir storage in the basin is at 152,600 acre-feet. This remains 7 percent of the average capacity and 139 percent of the average stored water. Last year reservoir storage was 107 percent of the average at this time.



## Pecos River Basin Streamflow Forecasts - May 1, 2018

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

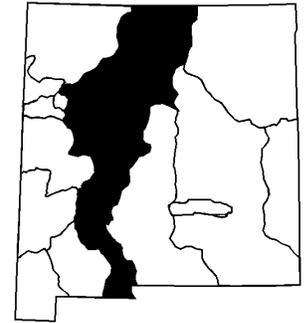
PECOS RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Pecos R nr Pecos	MAR-JUL	4.2	6.2	8.3	15%	10.8	15.6	57
	MAY-JUL	0.92	2.9	5	11%	7.5	12.3	45
Pecos R nr Anton Chico	MAR-JUL	0.1	0.58	2.1	3%	4.7	10.3	63
	MAY-JUL	0	0.48	2	4%	4.6	10.2	45
Gallinas Ck nr Montezuma	MAR-JUL	0.4	0.49	0.81	8%	1.35	2.6	9.8
	MAY-JUL	0	0.09	0.41	7%	0.95	2.2	6
Pecos R ab Santa Rosa Lk	MAR-JUL	0.7	0.86	2	4%	4.3	9.8	56
	MAY-JUL	0	0.16	1.32	3%	3.6	9.1	43

- 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

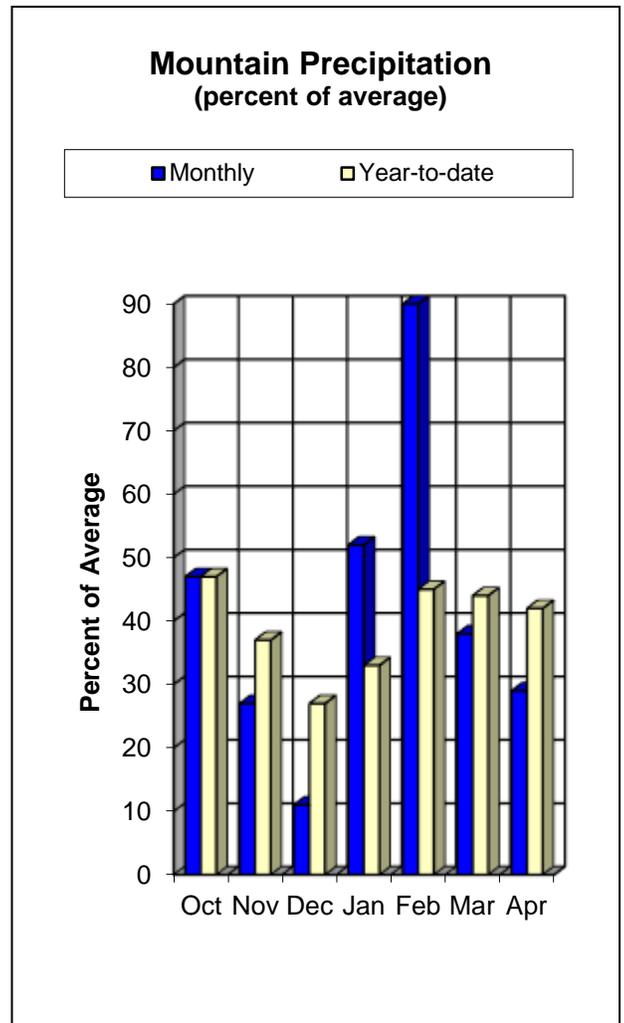
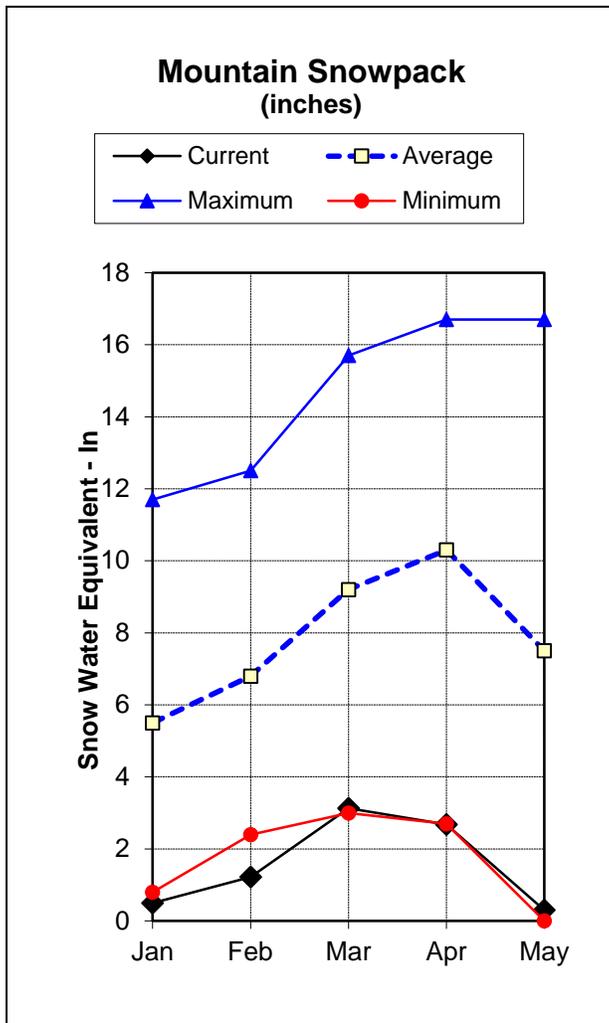
Reservoir Storage End of April, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Lake Avalon	2.6	1.7	1.4	4.0
Brantley Lake nr Carlsbad	30.2	27.7	24.9	1008.2
Santa Rosa Reservoir	91.6	60.6	56.6	432.2
Lake Sumner	28.1	27.7	27.1	102.0
Basin-wide Total	152.6	117.7	110.0	1546.4
# of reservoirs	4	4	4	4

Watershed Snowpack Analysis May 1, 2018	# of Sites	% Median	Last Year % Median
PECOS RIVER BASIN	4	0%	60%

# Rio Grande Basin Water Supply Outlook Report as of May 1, 2018



The May to July and September streamflow forecasts for the Rio Grande Basin have decreased once again in the northern mountains near the headwaters and even more so further to the south. For the May to September forecasts, the Rio Grande near Del Norte is 25 percent of the average. Further south at Costilla Creek near Costilla the May to July forecast is at 14 percent of average. Additionally, for the May to July time period the Jemez River near Jemez remains at just 15 percent of the average. The Rio Grande at Otowi Bridge forecast has also decreased to just 8 percent of the average. April was another below average month for precipitation having only received 29 percent of the average therefore leaving the water year-to-date precipitation at 42 percent of the average. Snowpack in the basin remains extremely low at just 4 percent of the median! This is 113 percent below last year's median! Snowpack in southern Colorado near the headwaters of the Rio Grande has also decreased from 48 to just 12 percent of the median. Current reservoir storage in the basin is 857,900 acre-feet which is an increase of 7,600 acre feet from last year at this time.



## Rio Grande Basin Streamflow Forecasts - May 1, 2018

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

RIO GRANDE BASIN	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	127	150	168	33%	187	220	515
	MAY-SEP	77	100	118	25%	137	168	470
Platoro Reservoir Inflow	APR-JUL	19.4	23	25	45%	27	31	56
	APR-SEP	20	24	27	44%	30	34	62
	MAY-JUL	13.5	16.6	18.9	36%	21	25	53
	MAY-SEP	14.3	17.9	21	36%	24	28	59
Conejos R nr Mogote <sup>2</sup>	APR-SEP	61	71	78	40%	87	100	194
	MAY-SEP	37	47	54	31%	63	76	177
Costilla Reservoir Inflow	MAR-JUL	1.55	2.1	2.6	23%	3.2	4.2	11.1
	MAY-JUL	0.46	1.01	1.5	17%	2.1	3.1	8.9
Costilla Ck nr Costilla <sup>2</sup>	MAR-JUL	3.5	4.6	5.7	22%	7.1	9.8	26
	MAY-JUL	0.47	1.58	2.7	14%	4.1	6.8	19.6
Red R bl Fish Hatchery nr Questa	MAR-JUL	7.7	9.9	11.8	35%	14.1	18.2	34
	MAY-JUL	1.91	4.1	6	22%	8.3	12.4	27
Rio Hondo nr Valdez	MAR-JUL	2	2.8	3.6	20%	4.6	6.3	18.4
	MAY-JUL	0.43	1.23	2	13%	3	4.7	15.4
Rio Pueblo de Taos nr Taos	MAR-JUL	1.3	1.5	1.96	12%	2.7	4.2	17
	MAY-JUL	0	0.2	0.66	5%	1.37	2.9	12.5
Rio Lucero nr Arroyo Seco	MAR-JUL	0.97	1.56	2.2	20%	3.1	4.8	10.9
	MAY-JUL	0.14	0.73	1.4	16%	2.3	4	9
Rio Pueblo de Taos bl Los Cordovas	MAR-JUL	2.4	2.6	3.4	9%	4.9	8.5	36
	MAY-JUL	0	0.16	1	4%	2.5	6.1	26
Embudo Ck at Dixon	MAR-JUL	2.6	2.6	3.2	7%	4.5	8	48
	MAY-JUL	0	0.03	0.61	2%	1.97	5.4	36
El Vado Reservoir Inflow <sup>2</sup>	MAR-JUL	47	52	56	25%	60	67	225
	APR-JUL	34	44	51	25%	59	71	205
	MAY-JUL	6.5	11	14.8	10%	19.1	26	153
Santa Cruz R at Cundiyo	MAR-JUL	1.65	2.3	3	16%	3.8	5.3	18.3
	MAY-JUL	0.35	1.02	1.69	13%	2.5	4	13.4
Nambe Falls Reservoir Inflow	MAR-JUL	0.69	0.93	1.15	18%	1.42	1.92	6.5
	MAY-JUL	0.15	0.39	0.61	12%	0.88	1.38	5.1
Tesuque Ck ab diversions	MAR-JUL	0.1	0.11	0.14	10%	0.21	0.35	1.34
	MAY-JUL	0	0.01	0.04	4%	0.11	0.25	0.9
Rio Grande at Otowi Bridge <sup>2</sup>	MAR-JUL	103	118	132	18%	149	179	720
	MAY-JUL	11.1	26	40	8%	57	87	485
Santa Fe R nr Santa Fe <sup>2</sup>	MAR-JUL	0.21	0.26	0.34	8%	0.44	0.63	4.3
	MAY-JUL	0.01	0.06	0.14	5%	0.24	0.43	2.9
Jemez R nr Jemez	MAR-JUL	4.5	5.5	6.4	15%	7.4	9.3	42
	MAY-JUL	1.08	2.1	3	15%	4	5.9	19.4
Jemez R bl Jemez Canyon Dam	MAR-JUL	1.36	1.53	2.4	7%	3.9	7.5	34
	MAY-JUL	0	0.17	1	6%	2.5	6.1	17
Rio Grande at San Marcial <sup>2</sup>	MAR-JUL	-199	-116	-60	-12%	-4.4	79	510
	MAY-JUL	-230	-147	-91	-27%	-35	48	335

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

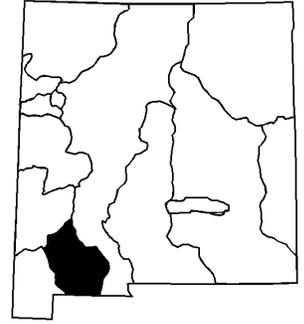
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of April, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Abiquiu Reservoir	118.0	135.1	162.8	1198.5
Bluewater Lake	5.7	11.4	11.1	38.5
Caballo Reservoir	46.1	72.0	95.1	332.0
Cochiti Lake	47.3	47.3	64.3	491.0
Costilla Reservoir	12.5	8.4	8.4	16.0
El Vado Reservoir	81.8	61.2	133.2	184.8
Elephant Butte Reservoir	394.3	395.6	1269.0	2195.0
Heron Reservoir	152.3	119.2	285.4	400.0
Basin-wide Total	857.9	850.3	2029.3	4855.8
# of reservoirs	8	8	8	8

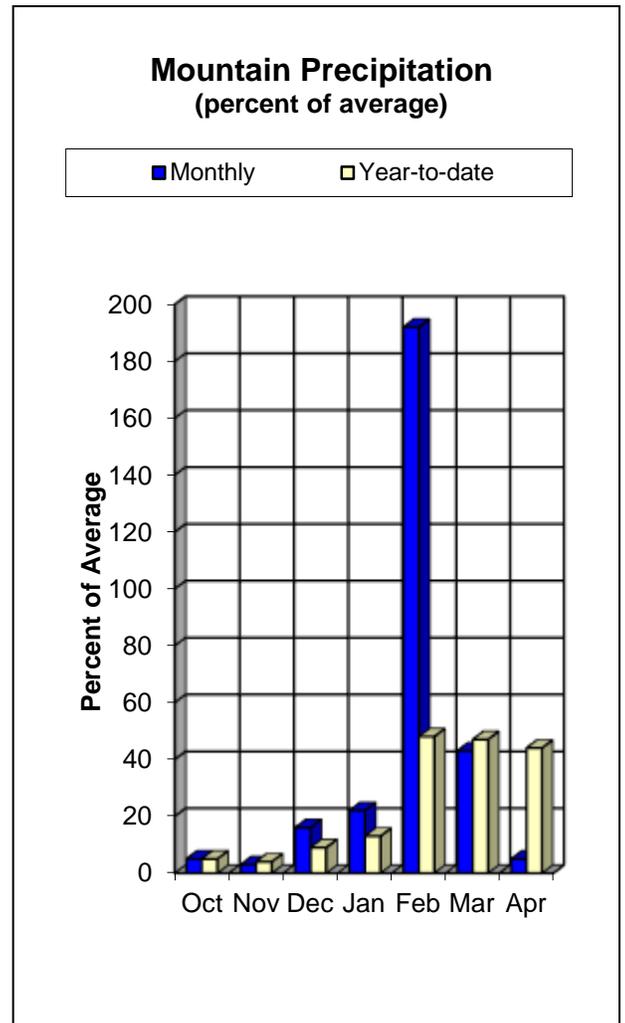
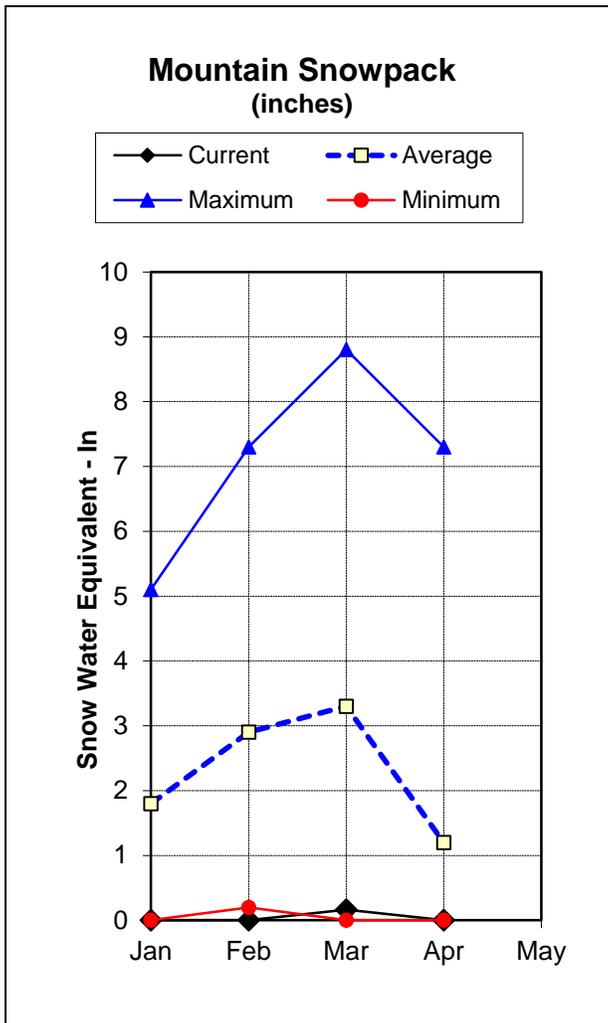
Watershed Snowpack Analysis May 1, 2018	# of Sites	% Median	Last Year % Median
RIO GRANDE BASIN	14	4%	117%

# Mimbres River Basin Water Supply Outlook Report as of May 1, 2018



There are no May forecasts for the Mimbres River Basin at this time. April received just 5 percent of the average monthly precipitation bringing the water year-to-date total to 44 percent of the average. Snowpack in the basin has melted out.

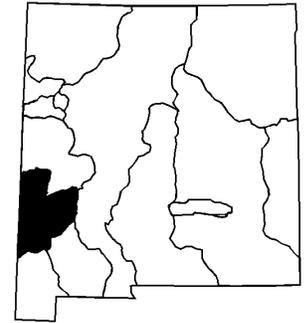
Users of NRCS Snow Survey data should be aware, due to reduced budget allocations; the manual snow courses at McKnight Cabin and Emory Pass #2 have been discontinued. Data is still being recorded at the automated SNOTEL sites in the Basin.



## Mimbres River Basin - May 1, 2018

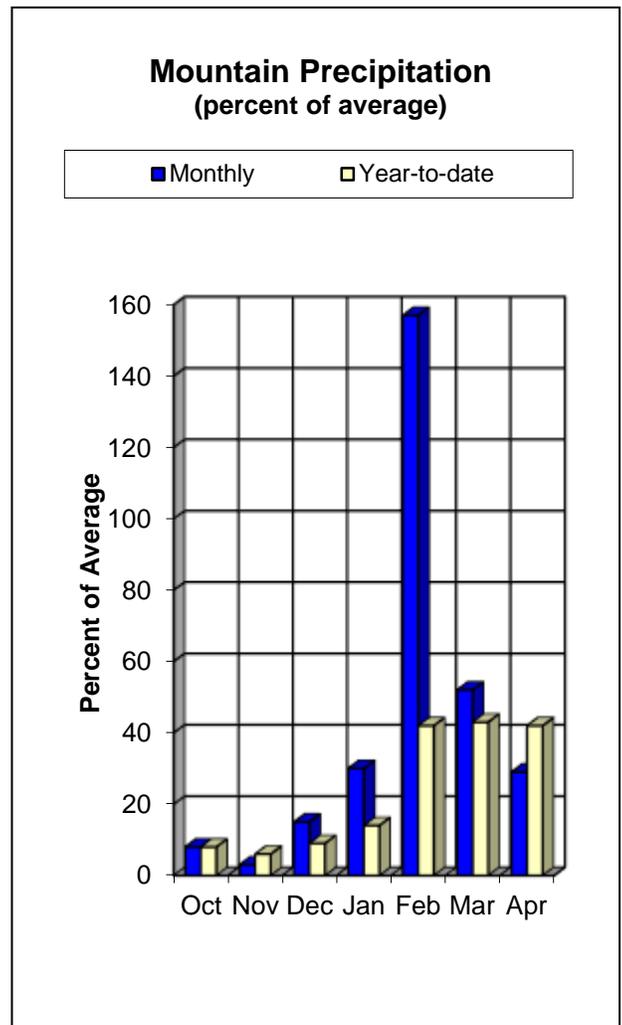
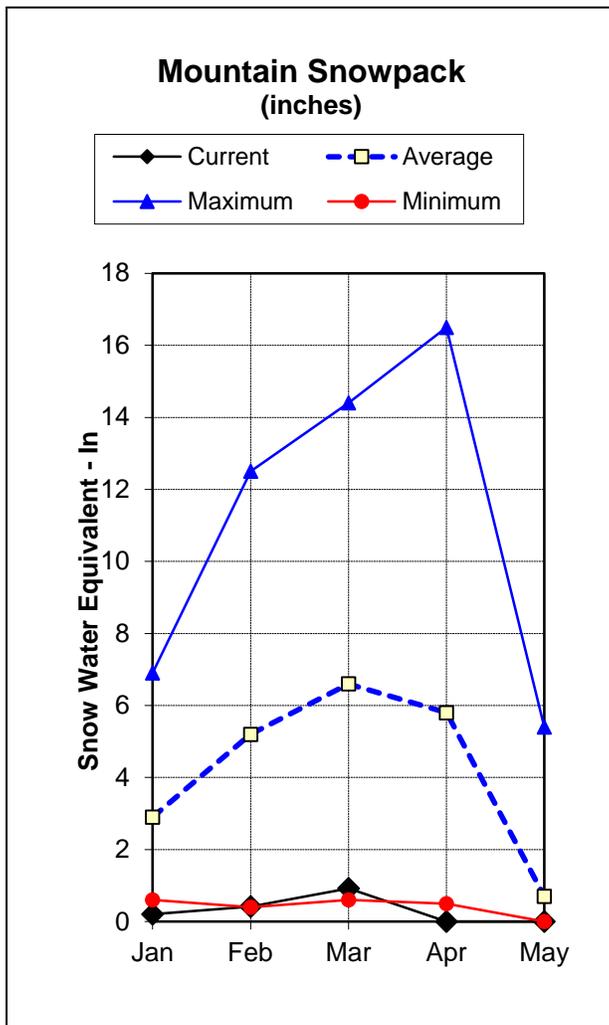
<b>Watershed Snowpack Analysis</b> <b>May 1, 2018</b>	# of Sites	% Median	Last Year % Median
MIMBRES RIVER BASIN	2		

# San Francisco / Upper Gila River Basin Water Supply Outlook Report as of May 1, 2018



There are no May forecasts for the San Francisco/Upper Gila River Basin at this time. Water year-to-date precipitation has remained constant at 42 percent of the average with April receiving just 29 percent of the average monthly precipitation. Snowpack in the basin has melted out and is currently at zero percent.

Due to budget and contracting issues, the aerial markers at Hummingbird Saddle and Whitewater Baldy are not currently being measured. Plans are in effect to automate these sites with depth sensors which will transmit out data daily as soon as possible.

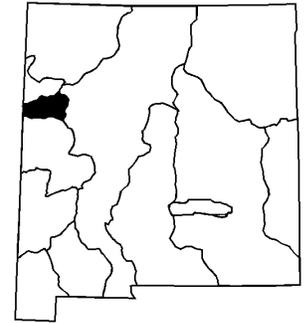


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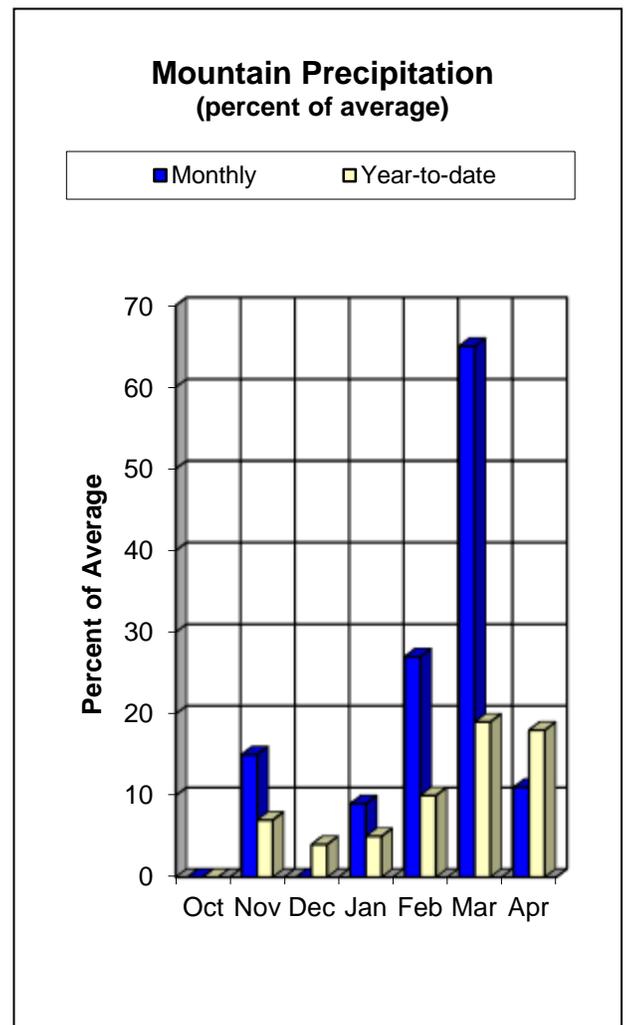
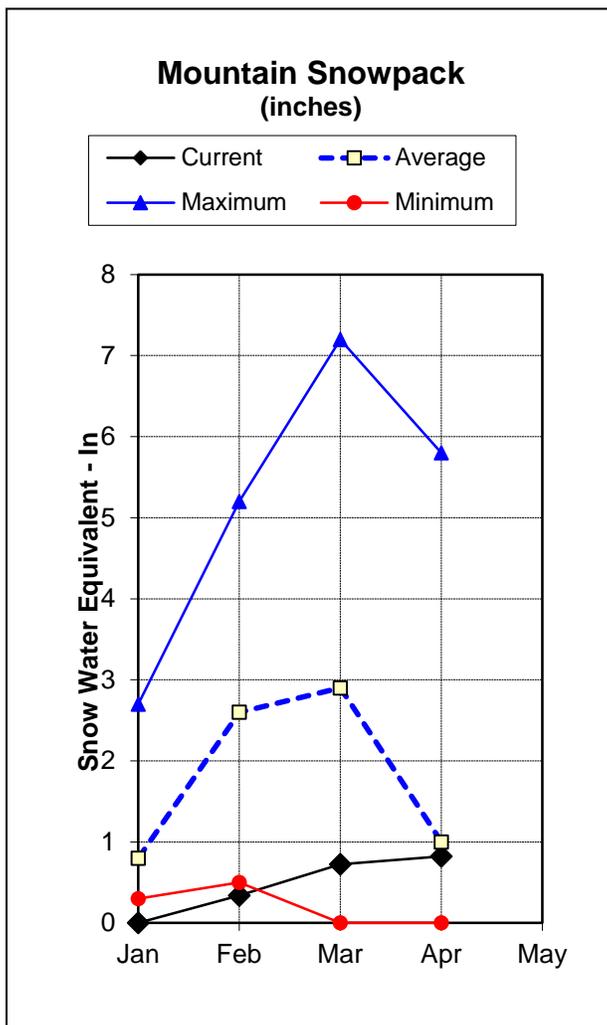
## San Francisco-Upper Gila River Basin - May 1, 2018

<b>Watershed Snowpack Analysis</b>			
<b>May 1, 2018</b>	# of Sites	% Median	Last Year % Median
SAN FRANCISCO-UPPER GILA RIVER BASIN	4		

# Zuni / Bluewater Basins Water Supply Outlook Report as of May 1, 2018



There are no May forecasts for the Zuni/Bluewater Basins at this time. Snowpack in the basins has melted off. April saw little gains in precipitation having received just 11 percent of the average, with water year-to-date totals at a very low 18 percent of the average. Bluewater Lake currently holds 5,700 acre feet of water versus 11,400 last year at this time. This is 51 percent of the average as compared to 103 percent last year at this time.

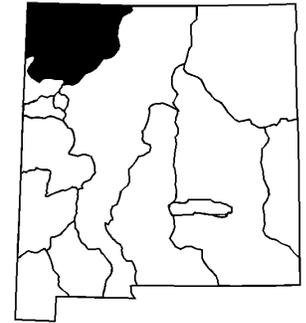


## Zuni-Bluewater Basins - May 1, 2018

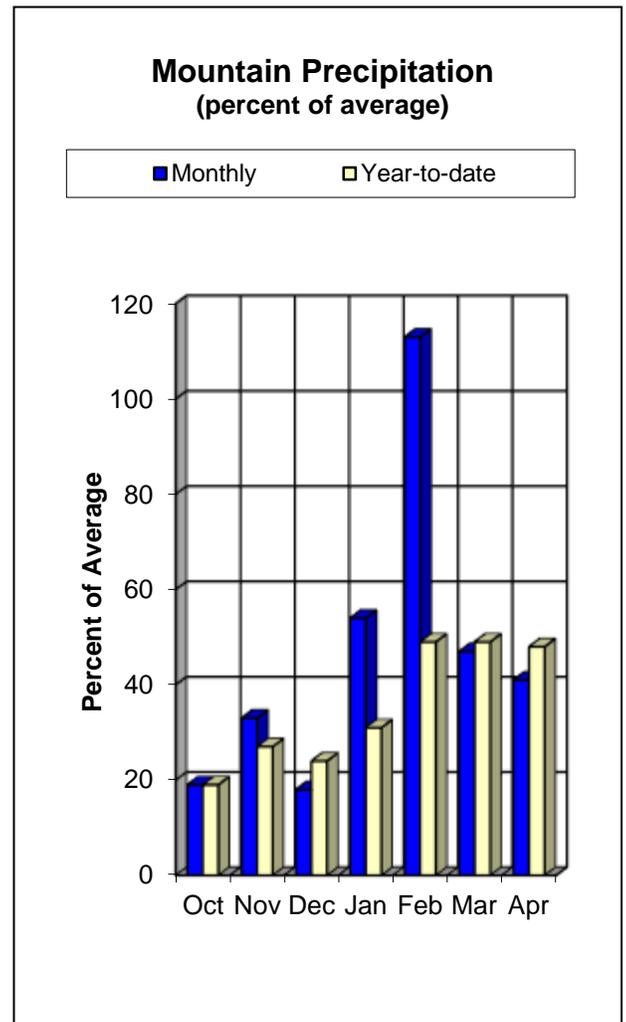
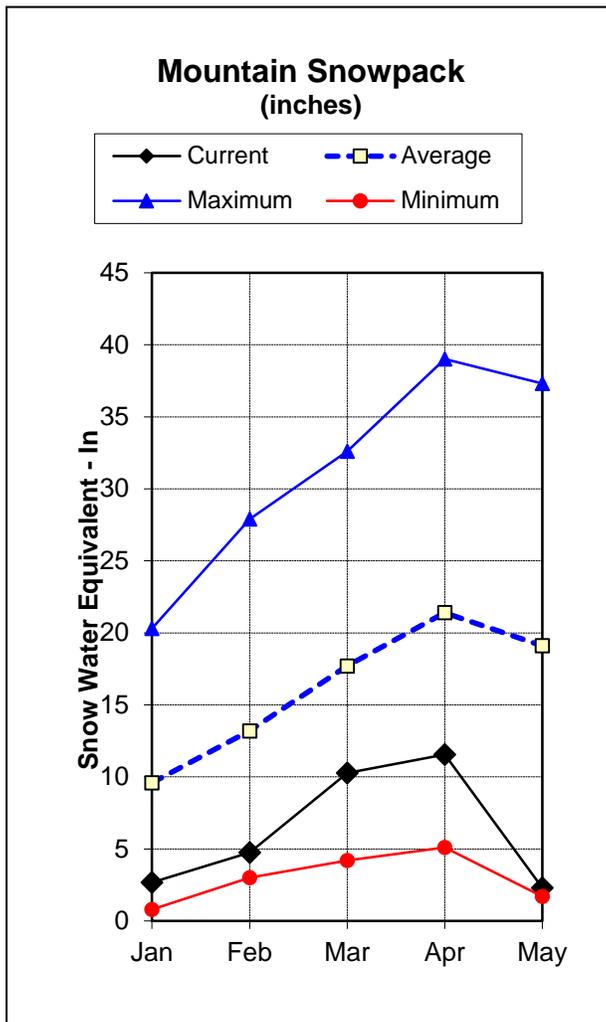
Reservoir Storage End of April, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Bluewater Lake	5.7	11.4	11.1	38.5
Basin-wide Total	5.7	11.4	11.1	38.5
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2018	# of Sites	% Median	Last Year % Median
ZUNI-BLUEWATER BASINS	1		

# San Juan River Basin Water Supply Outlook Report as of May 1, 2018



The May to July forecasts have decreased substantially from last month and still remain well below average for this time of year. Ranging from 28 percent of average for the Rio Blanco at Blanco Diversion to 16 percent for the La Plata River at Hesperus. Additionally, the Animas River at Durango has also decreased from 33 to 22 percent of average. April received 41 percent of the average monthly precipitation bringing the water year-to-date total to 48 percent of the average. Snowpack in the basin remains well below the median at just 12 percent. This is a decrease of 79 percent from last year at this time! Navajo reservoir storage contains 1,222,400 acre-feet or 90 percent of the average water stored at the end of April. This equates to 72 percent of the average capacity for the reservoir.



## San Juan River Basin Streamflow Forecasts - May 1, 2018

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

SAN JUAN RIVER BASIN	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	15.9	18.6	21	39%	23	27	54
	MAY-JUL	7.9	10.6	12.7	28%	15	18.6	45
Navajo R at Oso Diversion <sup>2</sup>	APR-JUL	17.8	21	24	37%	27	31	65
	MAY-JUL	10	13.4	15.9	29%	18.7	23	54
Navajo Reservoir Inflow <sup>2</sup>	APR-JUL	99	117	132	18%	149	178	735
	MAY-JUL	29	47	62	11%	79	108	565
Animas R at Durango	APR-JUL	69	84	95	23%	107	126	415
	MAY-JUL	53	68	79	22%	91	110	365
La Plata R at Hesperus	APR-JUL	2.8	3.5	4.1	18%	4.7	5.6	23
	MAY-JUL	1.73	2.4	3	16%	3.6	4.5	18.2

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

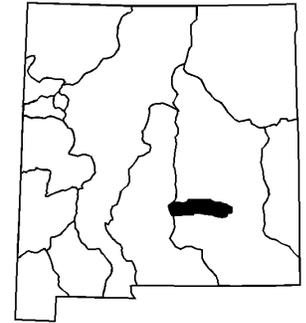
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of April, 2018	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Navajo Reservoir	1222.4	1597.7	1361.0	1696.0
Basin-wide Total	1222.4	1597.7	1361.0	1696.0
# of reservoirs	1	1	1	1

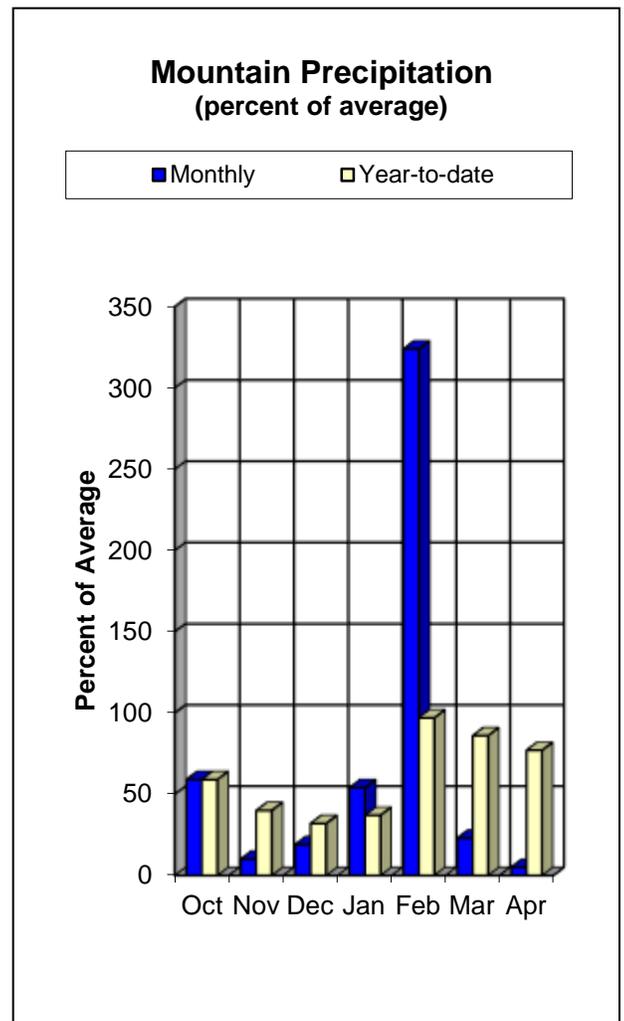
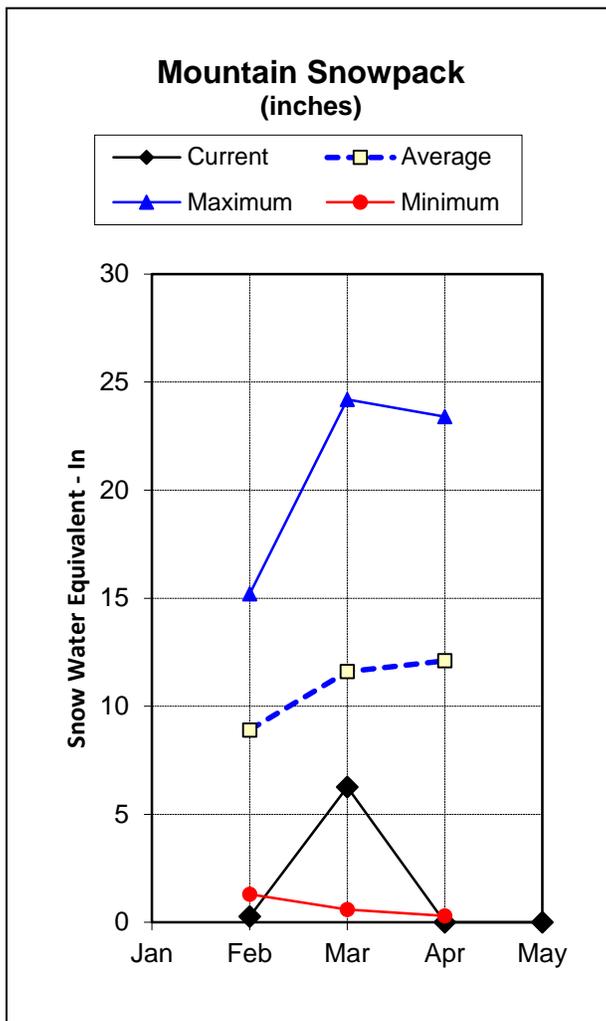
Watershed Snowpack Analysis May 1, 2018	# of Sites	% Median	Last Year % Median
SAN JUAN RIVER BASIN	12	12%	105%

# Rio Hondo Basin Water Supply Outlook Report as of May 1, 2018



The streamflow forecast for the May to June time period has decreased to just 18 percent of average for the Rio Ruidoso at Hollywood. Water year-to-date precipitation has dropped slightly from 86 to 77 percent of the average due to April only receiving 5 percent of the average rainfall for the month. Snowpack in the basin has currently melted out and is at zero percent. This measurement however should be used with caution as the Sierra Blanca SNOTEL site was impacted by the Little Bear Fire four years ago.

It should be noted that the switch to using median snowpack values three years ago has had a significant influence on the “average” calculations for the Rio Hondo Basin. Using the old system of computing averages based on the 1971-2000 period, 6.7 inches of SWE was considered normal for January 1. Using the new median calculations based on the 1981-2010 period, 3.2 inches of SWE is now normal. For this reason, comparisons of “percent of average” from year to year will be limited in this basin to minimize confusion.



## Rio Hondo Basin Streamflow Forecasts - May 1, 2018

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

RIO HONDO BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Ruidoso at Hollywood	MAR-JUN	1.42	1.63	1.89	28%	2.2	2.9	6.7
	MAY-JUN	0.03	0.24	0.5	18%	0.85	1.53	2.8

- 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 May 1, 2018	# of Sites	% Median	Last Year % Median
RIO HONDO BASIN	1		

NEW MEXICO STATEWIDE	Network	Elevation (ft)	Depth (in)	SWE (in)	Median (in)	% Median	Last Year SWE (in)	Last Year % Median
Alamitos	SC	9320						
Aztec #2	SC	9880						
Bateman	SNOTEL	9300	0	0.0	4.6	0%	3.1	67%
Boon	SC	8140						
Bowl Canyon	SC	8980						
Chamita	SNOTEL	8400	0	0.0	0.0		0.0	
Dan Valley	SC	7640						
Elk Cabin	SNOTEL	8210	0	0.0	0.0		1.1	
Frisco Divide	SNOTEL	8000	0	0.0	0.0		0.0	
Gallegos Peak	SNOTEL	9800	0	0.0	1.5	0%	1.3	87%
Hematite Park	SC	9500						
Hidden Valley	SC	8480						
Hopewell	SNOTEL	10000	0	0.0	14.0	0%	19.2	137%
Lookout Mountain	SNOTEL	8500	0	0.0	0.0		0.0	
Mcgaffey	SC	8120						
Mcknight Cabin	SNOTEL	9240	0	0.0	0.0		0.0	
Missionary Spring	SC	7940						
Navajo Whiskey Ck	SNOTEL	9050	0	0.0			0.0	
North Costilla	SNOTEL	10600	0	0.0	0.5	0%	1.1	220%
Ojo Redondo	SC	8200						
Palo	SNOTEL	9350	0	0.0			1.3	
Palo	SC	9300						
PanchueLa	SC	8400						
Quemazon	SNOTEL	9500	0	0.0	0.0		0.0	
Red River Pass #2	SNOTEL	9850	0	0.0	0.0		0.8	
Rice Park	SNOTEL	8460	0	0.0	0.0		0.0	
Rio En Medio	SC	10300	0	0.0	4.2	0%	1.1	26%
Rio Santa Barbara	SNOTEL	10664	0	0.0			11.1	
San Antonio Sink	SNOTEL	9100	0	0.0			0.0	
San Antonio Sink	SC	9200	0	0.0	1.2	0%	1.1	92%
Santa Fe	SNOTEL	11445	0	0.0	17.5	0%	13.7	78%
Senorita Divide #2	SNOTEL	8600	0	0.0	0.0		0.0	
Shuree	SNOTEL	10100	0	0.0			0.3	
Shuree	SC	10097						
Sierra Blanca	SNOTEL	10280	0	0.0	0.0		1.2	
Signal Peak	SNOTEL	8360	0	0.0	0.0		0.0	
Silver Creek Divide	SNOTEL	9000	0	0.0	0.0		0.0	
State Line	SC	8000						
Taos Canyon	SC	9100						
Taos Powderhorn	SNOTEL	11057	15	5.3			36.3	
Taos Powderhorn	SC	11250	10	3.7	26.8	14%	26.8	100%
Tolby	SNOTEL	10180	0	0.0	0.0		1.6	
Tres Ritos	SNOTEL	8600	0	0.0			0.0	
Tres Ritos	SC	8600						
Vacas Locas	SNOTEL	9306	0	0.0	0.0		1.0	
Wesner Springs	SNOTEL	11120	0	0.0	11.6	0%	4.1	35%
Whiskey Creek	SC	9050						

Basin Index  
# of sites

5%  
23

94%  
23

*Issued by*

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**New Mexico**  
**Basin Outlook Report**  
Natural Resources Conservation Service  
Albuquerque, New Mexico

