



United States
Department of
Agriculture

Natural
Resources
Conservation
Service

New Mexico Basin Outlook Report May 1, 2017



The last week of April delivered substantial snow to the Santa Fe Ski Area. Four skiers get some of the best runs of the year on untracked powder due to the resort being closed. Photo courtesy of: 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

The first half of April saw a continuation of the very active storm track that has persisted throughout most of the winter. With neighboring states having received both record breaking snowfalls and precipitation, New Mexico was in the perfect position to also benefit from this active late winter weather pattern. Located in the northeastern portion of the state, Clayton reported 354 percent of the normal moisture making it the 10th wettest April in a 122 year record. During early April above normal precipitation events occurred over most of the state prompting improvements in drought conditions across eastern New Mexico. However, temperatures throughout April were reported to be 2-4 degrees above normal prompting the early melt out of snowpack located at mid and low elevation sites in the north. It was reported that not only was the snow melting out early, but that crops have been coming out of dormancy earlier than usual due to these above average temperatures. By mid-April these temperatures had significantly degraded top soil quality with 61 percent of the state reporting top soils short of moisture. These temperatures ultimately resulted in expansion of D0 drought conditions across the southern borders of New Mexico. However, April went out with a bang with an intense storm arriving during the final days of the month delivering both precipitation and snow to the north. This weather pattern resulted in a reduction in both moderate drought and abnormally dry conditions in the north. Additionally, late into the water year snow has continued to accumulate in the northern mountains. Water managers should anticipate average to above average flows in many of New Mexico's basins this year and plan accordingly.

Snowpack

The month of April surprised the state by bringing with it winter weather at the beginning and end of the month. These storms brought fresh snow to those northern basins located on the west side of the Sangre De Cristo mountain range. To the east and south precipitation fell mostly in the form of rain. Due to this the snowpack statewide increased from 77 to 94 percent of the median. Additionally, this is an increase of 17 percent from last year at this time. The Rio Grande Basin's snowpack decreased only marginally to 117 percent of median. The Canadian Basin increased by 10 percent to 63 percent of median. This is however 44 percent less than the basin held at this time last year. The San Juan Basin decreased by an additional 17 percent, however still remains above the median at 105 percent. The Pecos River Basin also remained constant at 60 percent of the median. The remaining basins located in the western and southern portions of the state have all experienced melt off as the remaining snow was subjected to above average temperatures. Water users and managers should continue to monitor streamflow conditions throughout May to determine the impacts of spring conditions on New Mexico's water supply.

NEW MEXICO STATEWIDE SNOWPACK	Percent of Median	Last Year Percent of Median
CANADIAN RIVER BASIN	63	107
PECOS RIVER BASIN	60	92
RIO GRANDE BASIN	117	73
MIMBRES RIVER BASIN	0	0
SAN FRANCISCO-UPPER GILA RIVER BASIN	0	0
ZUNI-BLUEWATER BASINS	0	0
SAN JUAN RIVER BASIN	105	77
CHUSKA MOUNTAINS	0	0
RIO HONDO BASIN	0	0
Statewide Snowpack Total	94	77
# of sites	23	23

Precipitation

April was a wet month for most of New Mexico. Having received 114 percent of the average precipitation statewide throughout the month helped elevate water-year totals to 109 percent of the average. With a majority of this moisture falling in the northern basins it comes at the perfect time to help facilitate runoff. The Rio Grande Basin received 128 percent of the average precipitation for April, with the Canadian and Pecos Basins falling just several percent behind. The Zuni-Bluewater Basins fell slightly behind during the month of April at 78 percent of the average, yet are at 137 percent for the water year-to-date. The San Juan Basin received only 66 percent of the monthly precipitation however has remained cool enough to still see moisture in the form of snow. The Rio Hondo Basin also benefitted from April's moisture receiving a much needed 119 percent of the average rainfall. In contrast both the Gila and Mimbres Basins's fell short with totals well below average for the month. Water users and managers should monitor runoff activity as melt out gains momentum into spring.

Reservoirs

Storage levels remain below capacity at all reservoirs across the state. Navajo Reservoir continues to remain the closest to actual reservoir capacity at 94 percent. The average percent of capacity statewide has only increased marginally to 45 percent. The current percent of average storage statewide has increased to 71 percent which is close to storage levels at this time last year. Water-users should continue to monitor streamflow forecasts affecting reservoir levels as runoff continues in the south and begins in the northern mountains.

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	132.3	132.2	162.8	1192.8	11%	11%	14%	81%	81%
Bluewater Lake	11.4	2.0	11.1	38.5	30%	5%	29%	103%	18%
Brantley Lake nr Carlsbad	27.8	24.5	24.9	1008.2	3%	2%	2%	112%	98%
Caballo Reservoir	72.0	63.1	95.1	332.0	22%	19%	29%	76%	66%
Cochiti Lake	47.3	46.7	64.3	491.0	10%	10%	13%	74%	73%
Conchas Lake	68.5	131.1	198.9	254.2	27%	52%	78%	34%	66%
Costilla Reservoir		11.7	8.4	16.0		73%	53%		139%
Eagle Nest Lake nr Eagle Nest, NM	37.8	33.8	58.0	79.0	48%	43%	73%	65%	58%
El Vado Reservoir	69.4	90.7	133.2	190.3	36%	48%	70%	52%	68%
Elephant Butte Reservoir	395.6	334.9	1269.0	2195.0	18%	15%	58%	31%	26%
Heron Reservoir	114.7	82.8	285.4	400.0	29%	21%	71%	40%	29%
Lake Avalon	1.7	2.4	1.4	4.0	43%	60%	35%	121%	170%
Lake Sumner	27.2	39.7	27.1	102.0	27%	39%	27%	100%	146%
Navajo Reservoir	1597.7	1491.0	1361.0	1696.0	94%	88%	80%	117%	110%
Santa Rosa Reservoir	60.6	104.7	56.6	438.3	14%	24%	13%	107%	185%
Basin-wide Total	2664.0	2579.5	3748.8	8421.3	32%	31%	45%	71%	69%
# of reservoirs	14	14	14	14	14	14	14	14	14

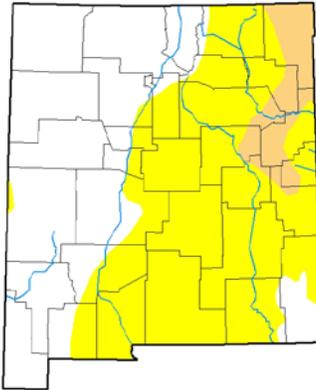
* Due to a gauge malfunction Costilla Reservoir data is unavailable at this time

Streamflow

The month of April provided several good storm systems which deposited healthy amounts of both snow and precipitation throughout many of New Mexico's basins. Above average snowpack in the Rio Grande and San Juan basins is reflected in this month's streamflow forecasts. With most northern forecast points averaging above 100 percent in both basins we can continue to expect higher than average flows this spring. Both the Canadian and Pecos Basins unfortunately eluded most of the recent snowfall however gained enough of a refresh to keep snowpack levels reasonably stable. Forecasts for the Canadian Basin are all close to average and range from 74 to 95 percent of average. The Pecos River Basin forecasts decreased as well and 20 now range from 58-67 percent of the average. Lastly, the Rio Hondo Basin forecast remains the same at 36 percent of the average at the Rio Ruidoso at Hollywood. Please continue to monitor conditions throughout May and June as the remaining upper elevation snowpack begins to melt out.

New Mexico Drought Monitor, real versus perceived conditions?

U.S. Drought Monitor New Mexico



March 21, 2017
(Released Thursday, Mar. 23, 2017)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	44.41	55.59	0.00	0.00	0.00	0.00
Last Week (3-14-2017)	70.02	29.98	0.00	0.00	0.00	0.00
3 Months Ago (12-20-16)	46.05	53.95	0.00	0.00	0.00	0.00
Start of Calendar Year (1-1-17)	66.20	33.80	0.00	0.00	0.00	0.00
Start of Water Year (8-27-16)	53.33	46.67	0.00	0.00	0.00	0.00
One Year Ago (3-23-16)	4.98	95.02	0.00	0.00	0.00	0.00

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

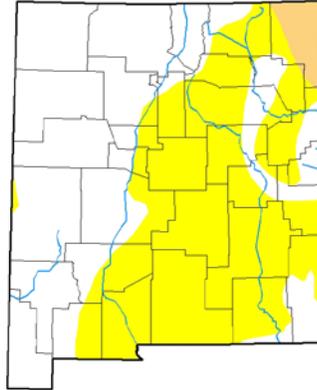
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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U.S. Department of Agriculture



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

U.S. Drought Monitor New Mexico



April 4, 2017
(Released Thursday, Apr. 6, 2017)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	50.58	49.42	0.00	0.00	0.00	0.00
Last Week (3-28-17)	45.34	54.66	0.00	0.00	0.00	0.00
3 Months Ago (12-20-16)	66.20	33.80	0.00	0.00	0.00	0.00
Start of Calendar Year (1-1-17)	66.20	33.80	0.00	0.00	0.00	0.00
Start of Water Year (8-27-16)	53.33	46.67	0.00	0.00	0.00	0.00
One Year Ago (4-10-16)	3.75	96.25	0.00	0.00	0.00	0.00

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

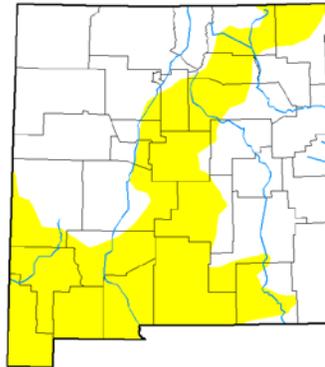
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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

U.S. Drought Monitor New Mexico



April 25, 2017
(Released Thursday, Apr. 27, 2017)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	58.57	41.43	0.00	0.00	0.00	0.00
Last Week (4-18-17)	54.33	45.67	0.00	0.00	0.00	0.00
3 Months Ago (12-20-16)	66.03	33.97	0.00	0.00	0.00	0.00
Start of Calendar Year (1-1-17)	66.20	33.80	0.00	0.00	0.00	0.00
Start of Water Year (8-27-16)	53.33	46.67	0.00	0.00	0.00	0.00
One Year Ago (4-10-16)	3.75	96.25	0.00	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.

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U.S. Department of Agriculture



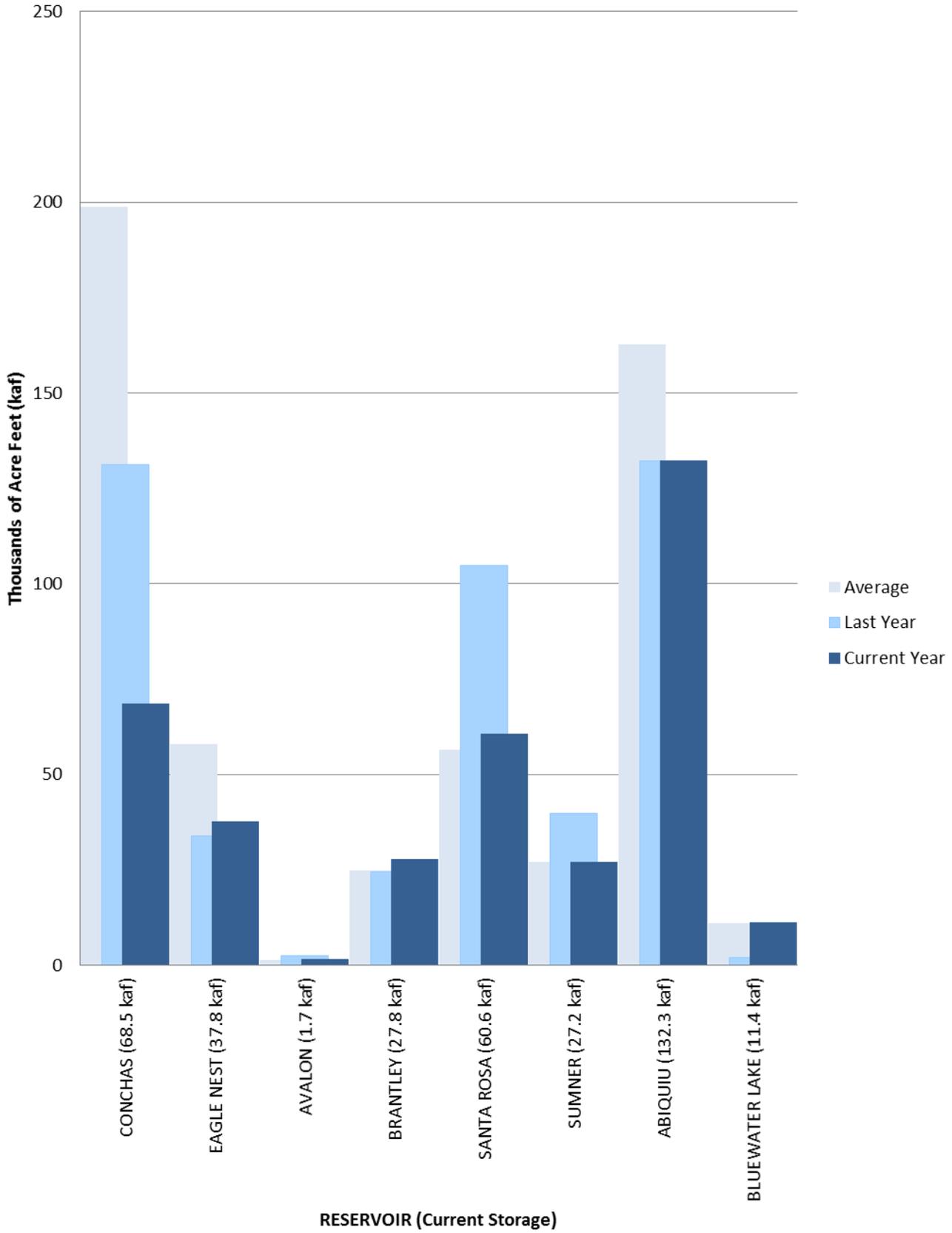
<http://droughtmonitor.unl.edu/>

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.

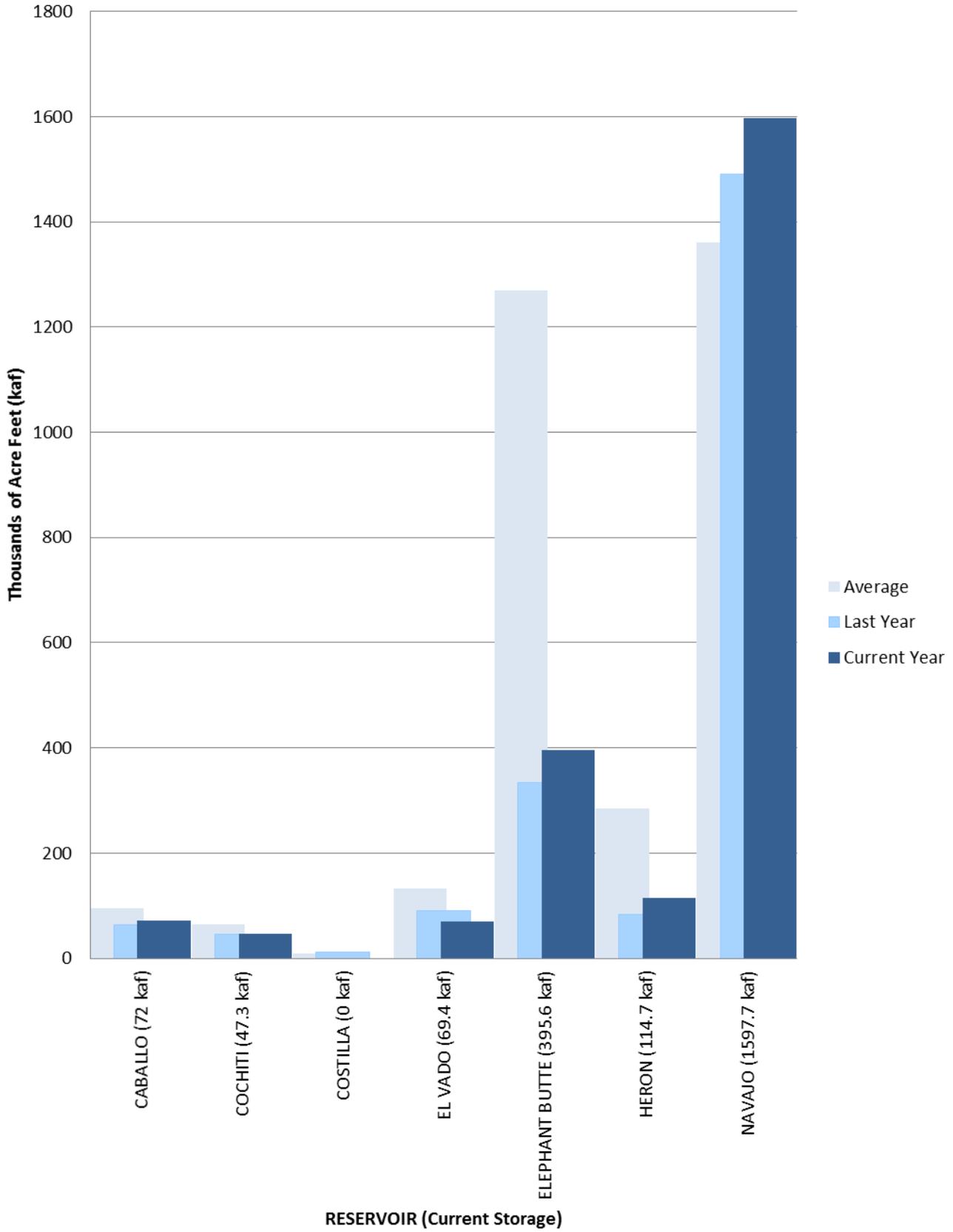
April 2017 saw a return to a wetter pattern for most of New Mexico with several significant systems moving through during the month. This began a trend for most of the state with a gradual reduction of drought conditions especially east of the Central Mountain Chain with some stations reporting well over 200% of normal precipitation for the month. The trend of improving drought conditions is not evident over southwestern New Mexico or along the NM/TX border. Many weather stations along the southern and southwestern tier of the state received less than 20% of normal precipitation with a few locations reporting zero measurable precipitation for the month. In addition, while some parts of northern New Mexico had a slightly cooler than normal April on average, areas in the southern half of the Land of Enchantment had average temperatures 2-3 ° F above normal with some stations in southwestern New Mexico seeing monthly temperature departures of 4-5° F above normal. This, in combination with the lack of precipitation, is expanded drought conditions along the southern tier of the state by the end of April.

Courtesy of Royce Fontenot, Senior Service Hydrologist, NOAA/NWS Albuquerque, NM

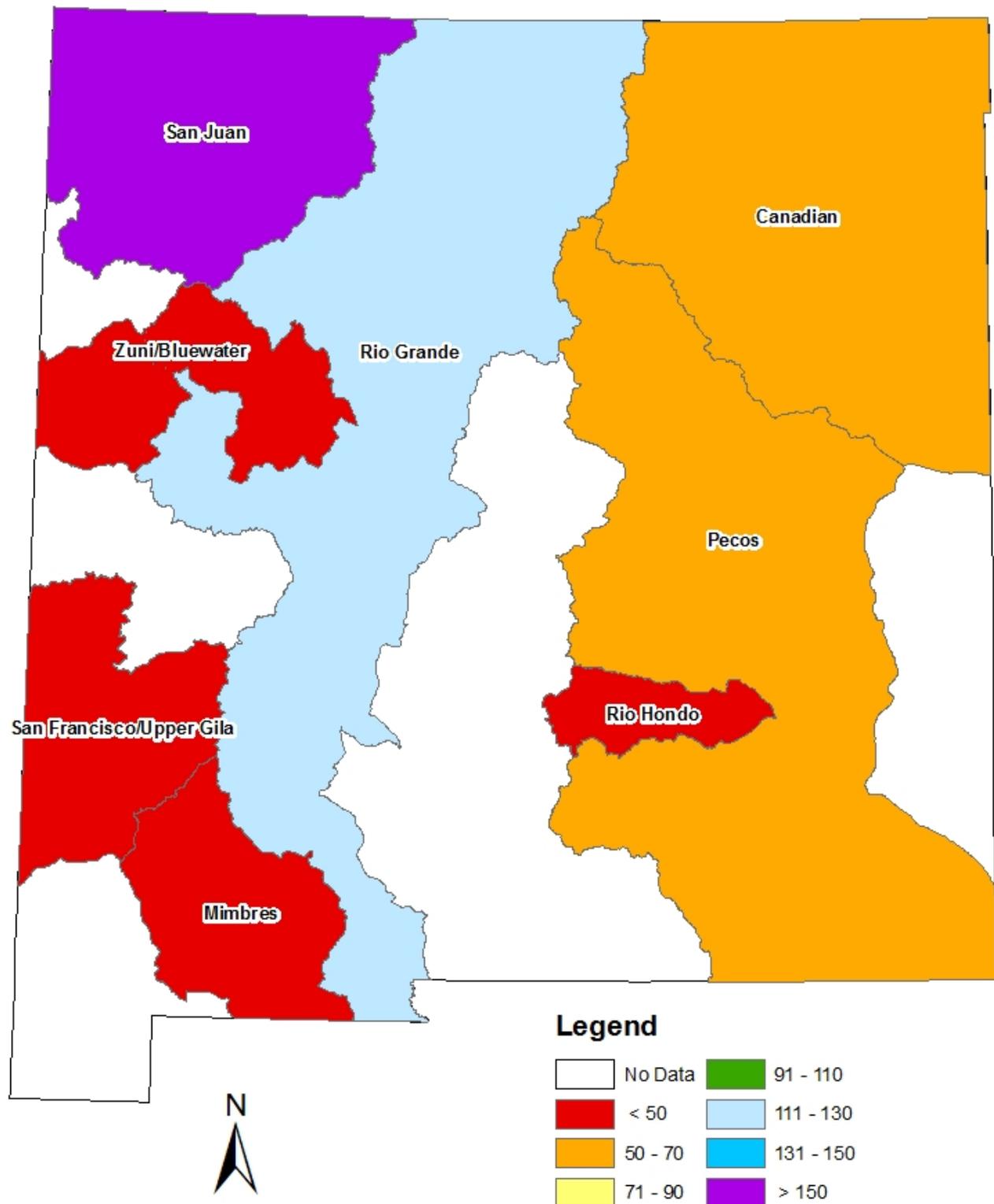
Statewide Reservoir Storage



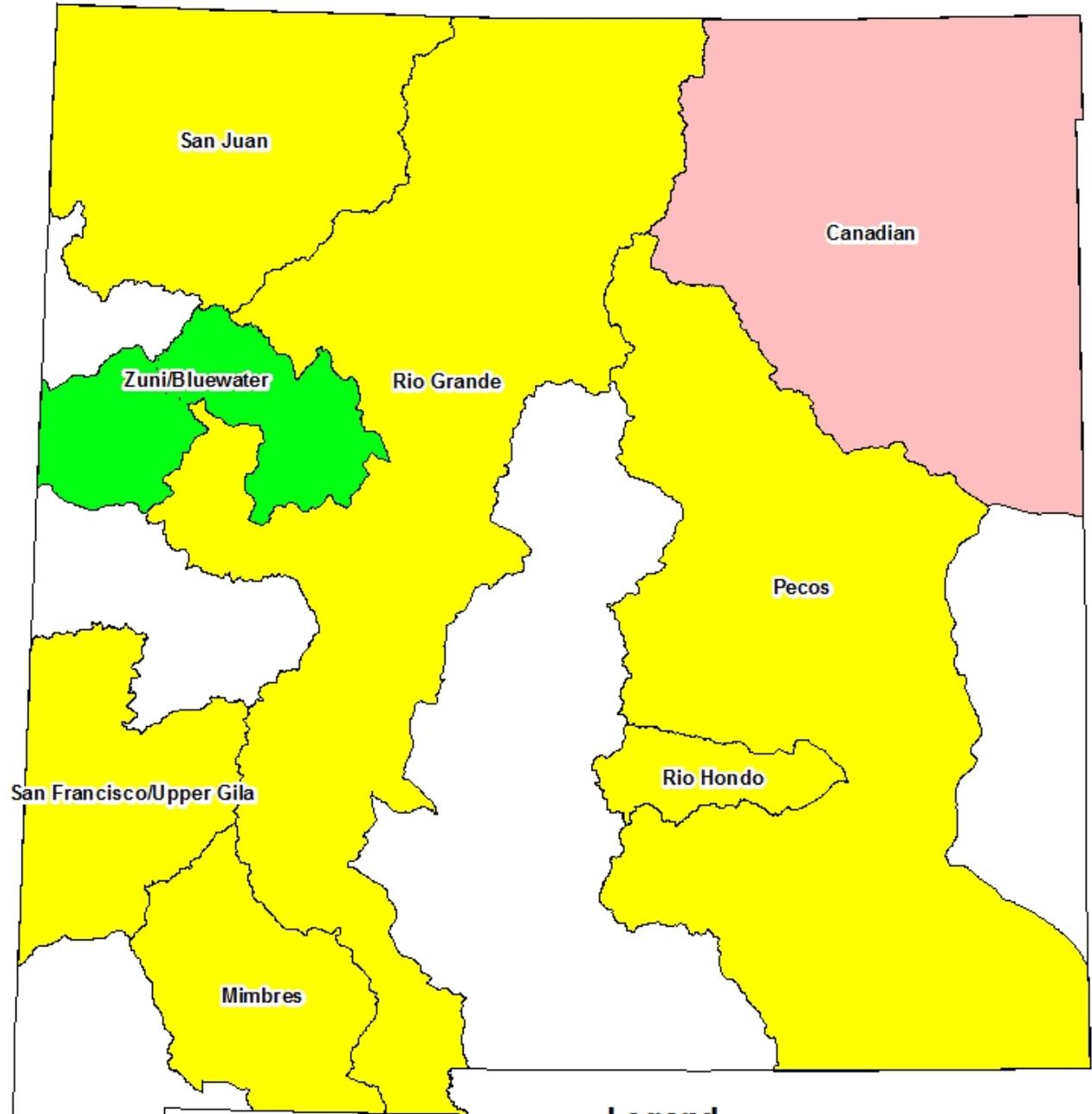
Statewide Reservoir Storage



New Mexico Percent of Median Snowpack as of May 1, 2017



New Mexico Surface Water Supply Index as of May 1, 2017



Legend

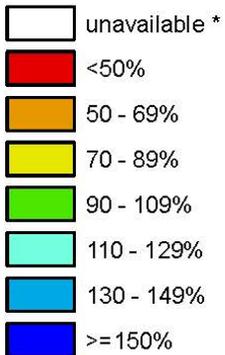


New Mexico

SNOTEL Current Snow Water Equivalent (SWE) % of Normal

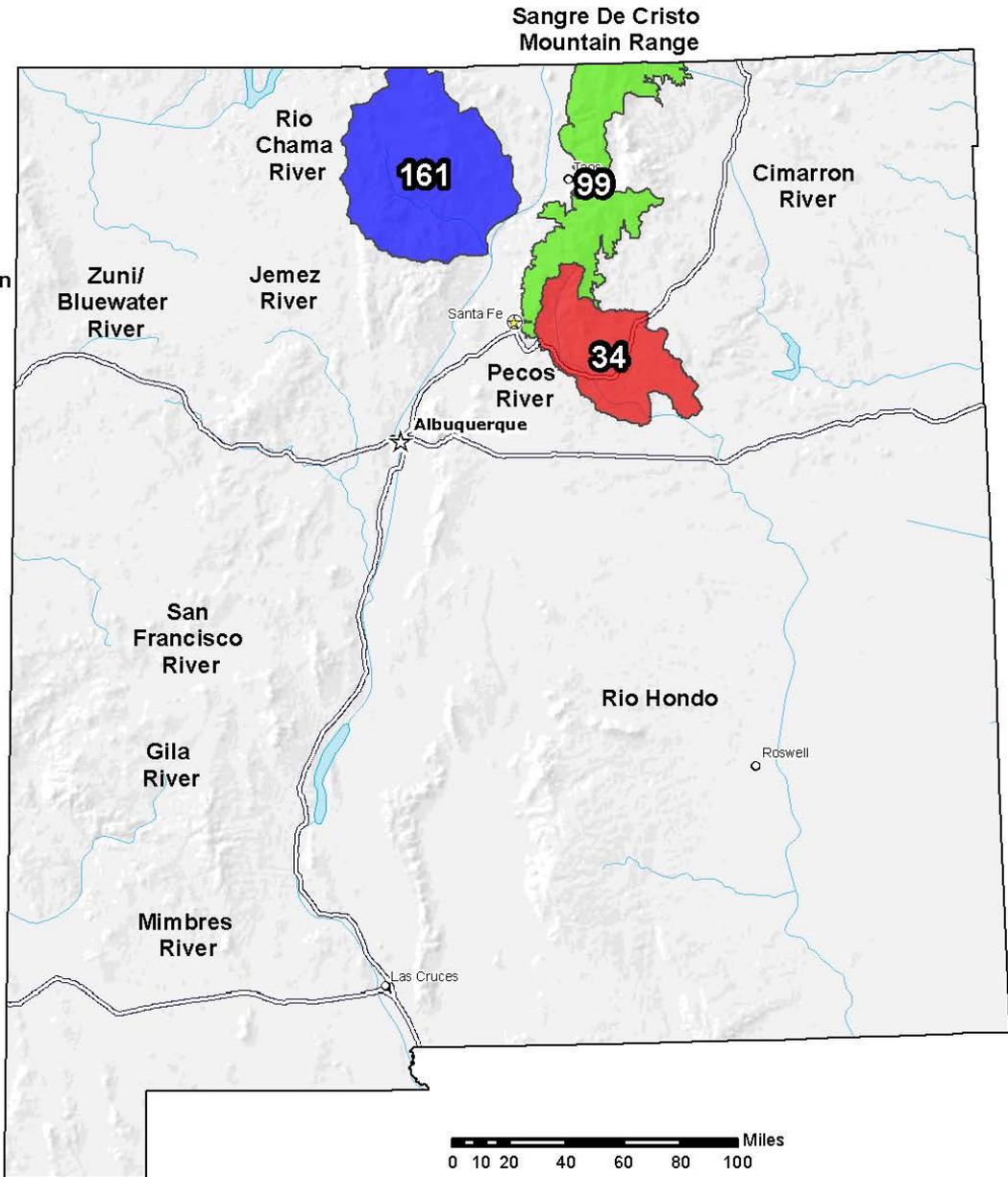
May 05, 2017

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**



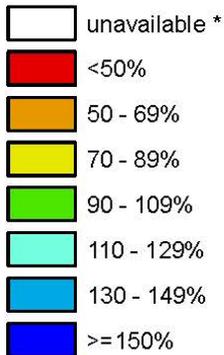
The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

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

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

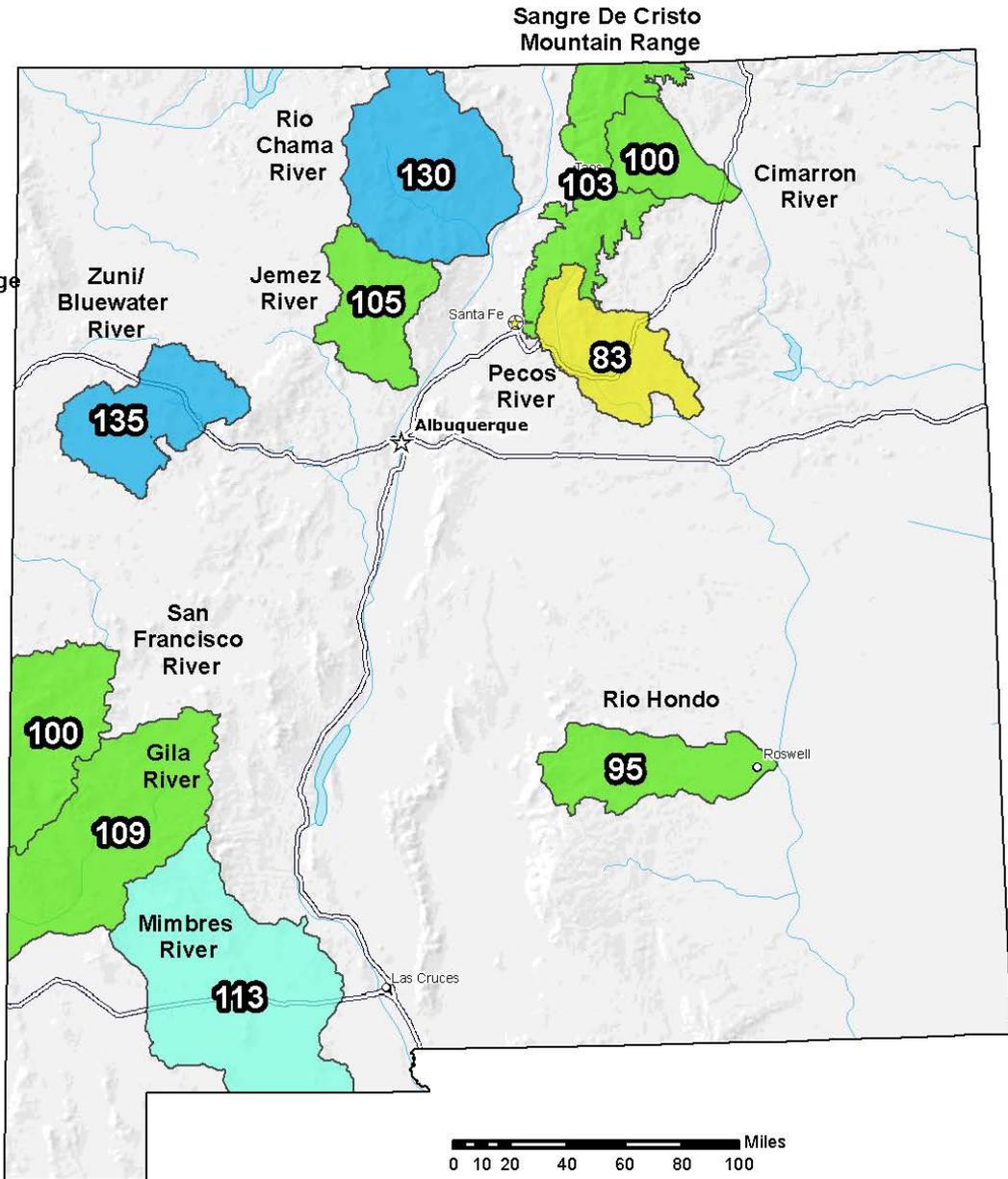
May 04, 2017

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

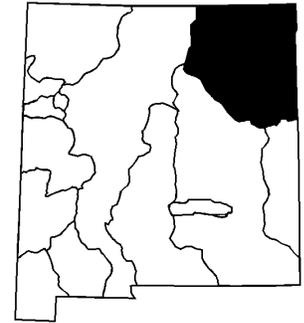
**Provisional Data
Subject to Revision**



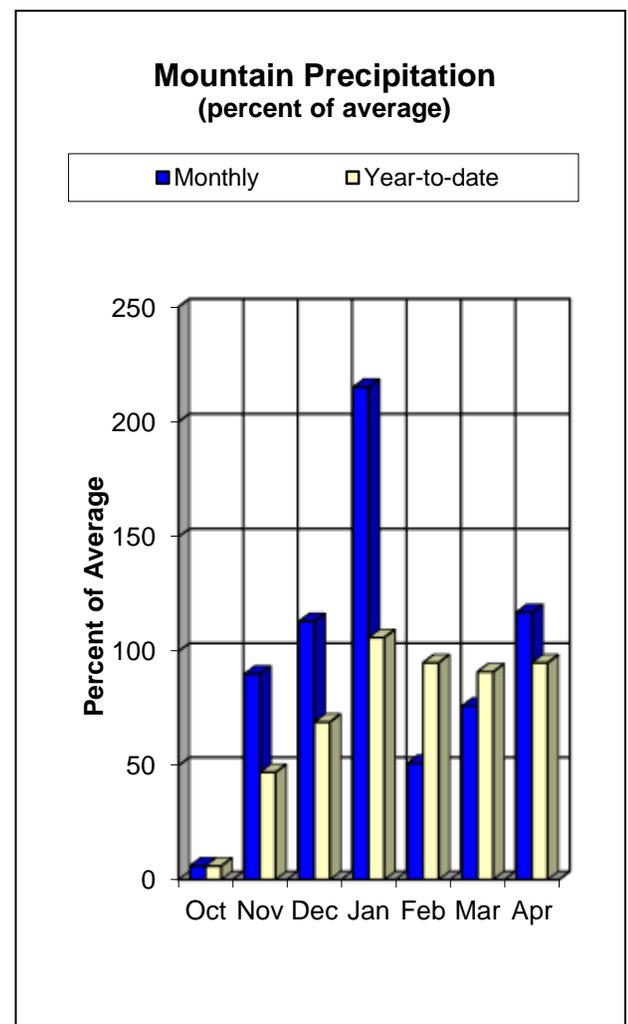
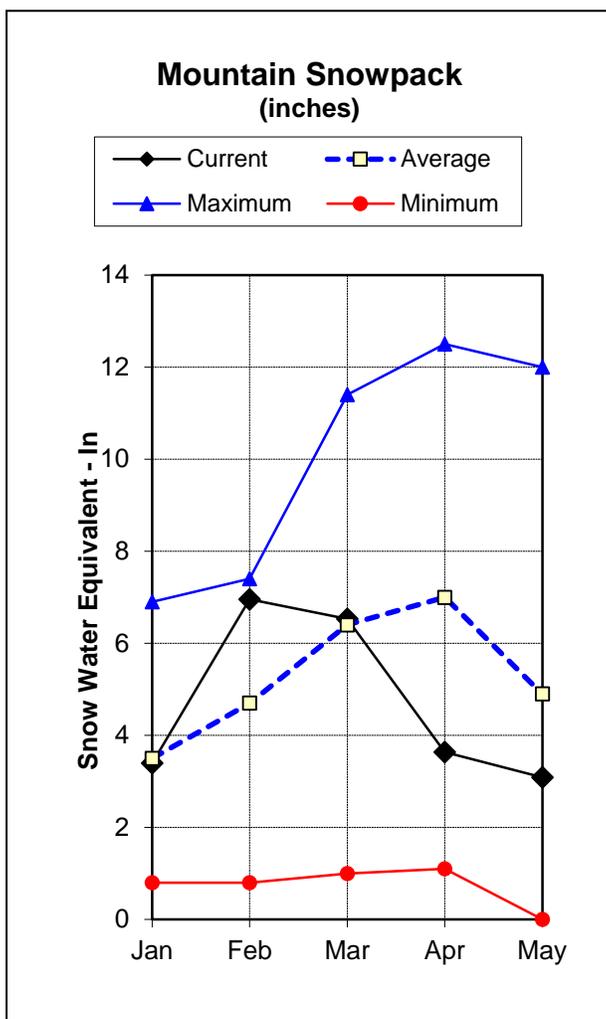
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

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, 2017



The Canadian River Basin forecasts for the May to June time period have remained mostly stable over the past month at almost all points. The forecast for the Vermejo River near Dawson has decreased by an additional 12 percent to 78 percent of the average. The forecast for the Cimarron River near Cimarron remains unchanged at 81 percent of the average. The Eagle Nest Reservoir Inflow has increased by 13 percent to 94 percent of the average. The Conchas Reservoir Inflow is forecast at 95 percent of the average, however this is a challenging forecast point due to the influence of future weather over current conditions. Monthly precipitation for April in the basin was above average at 117 percent. Water year-to-date precipitation in the Canadian River Basin still remains close to average at 95 percent. At 63 percent of median the snowpack in the basin is almost half of what we had received by this time last year. Reservoirs are currently holding 106,300 acre-feet of storage which is a decrease of 58,600 acre feet from last year at this time. Reservoir storage in the Canadian River Basin remains at 32 percent of capacity which is 41 percent of the average storage.



Canadian River Basin Streamflow Forecasts - May 1, 2017

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	3.9	5.2	6.3	81%	7.6	10	7.8
	MAY-JUN	2.1	3.4	4.5	78%	5.8	8.2	5.8
Eagle Nest Reservoir Inflow	MAR-JUN	6.7	8.4	10.9	97%	14.8	24	11.2
	MAY-JUN	0.42	2.1	4.6	94%	8.5	17.7	4.9
Cimarron R nr Cimarron ²	MAR-JUN	0.03	9.2	15.5	98%	22	31	15.8
	MAY-JUN	0.42	2.7	6.7	81%	13	22	8.3
Ponil Ck nr Cimarron	MAR-JUN	4.6	5.5	6.2	86%	7	8.5	7.2
	MAY-JUN	1.78	2.7	3.4	74%	4.2	5.7	4.6
Rayado Ck nr Cimarron	MAR-JUN	5	5.5	5.9	84%	6.4	7.1	7
	MAY-JUN	2.3	2.8	3.2	74%	3.7	4.4	4.3
Conchas Reservoir Inflow ³	MAR-JUN	5.1	12.3	20	67%	30	51	30
	MAY-JUN	3.3	9.5	16.5	95%	26	46	17.3

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

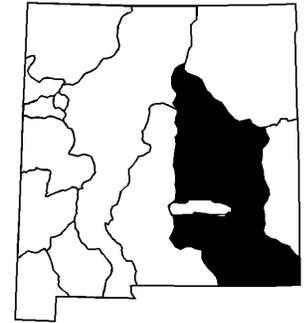
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

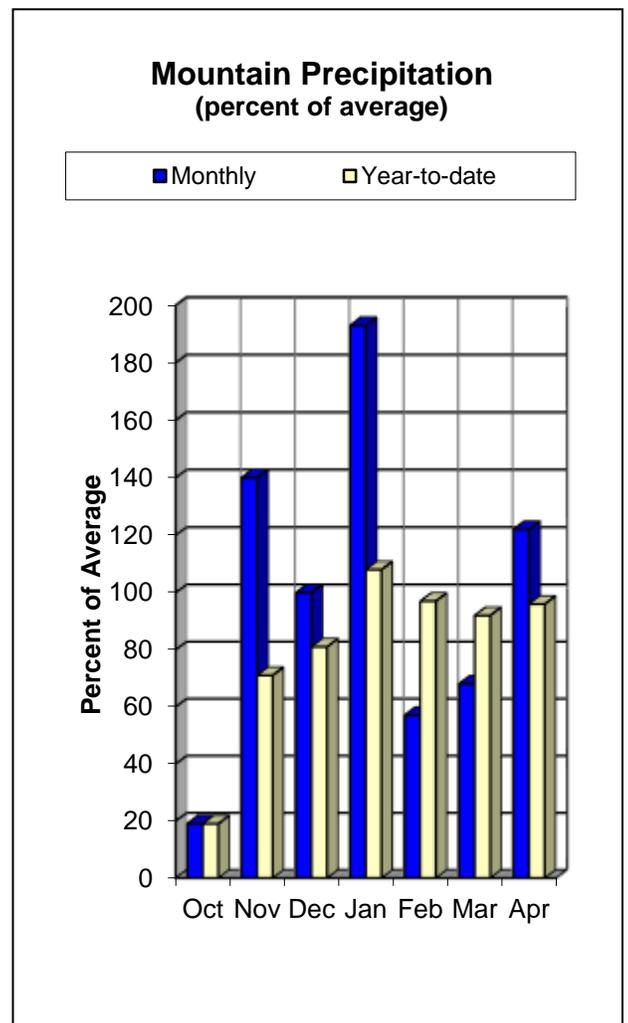
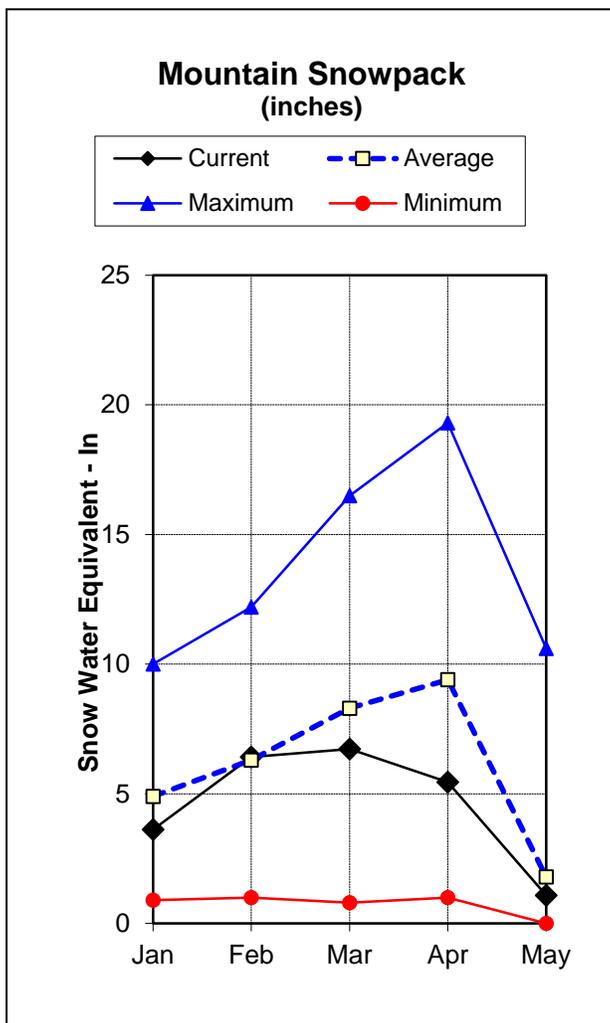
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Conchas Lake	68.5	131.1	198.9	254.2
Eagle Nest Lake nr Eagle Nest, NM	37.8	33.8	58.0	79.0
Basin-wide Total	106.3	164.9	256.9	333.2
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
CANADIAN RIVER BASIN	4	63%	107%

Pecos River Basin Water Supply Outlook Report as of May 1, 2017



Streamflow forecasts for the Pecos River Basin for the May to July timeframe have increased but only slightly throughout April and still remain below average. They now range from 58 percent of average for the Pecos River near Anton Chico to 67 percent of average for Gallinas Creek near Montezuma. The Pecos River above Santa Rosa Lake is now 58 percent of the average. April received 122 percent of the average precipitation for the month which puts the Pecos at 96 percent of average for the water year-to-date. This is a 12 percent decrease from last year's 108 percent. Snowpack levels in the Pecos River Basin have increased slightly to 60 percent of the median. Last year at this time the basin had received 92 percent of the median. As of May 1st reservoir storage in the basin is at 117,300 acre-feet, as compared to 171,300 as this time last year. This equates to 7 percent of the average capacity and 8 percent of the actual capacity. This is 107 percent of the average as compared to 156 percent at this time last year.



Pecos River Basin Streamflow Forecasts - May 1, 2017

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

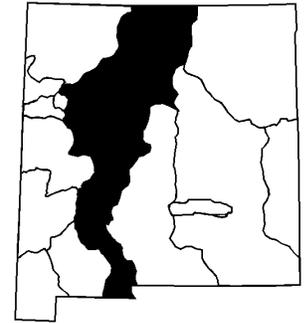
PECOS RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Pecos R nr Pecos	MAR-JUL	36	43	48	84%	54	63	57
	MAY-JUL	16.9	24	29	64%	35	44	45
Pecos R nr Anton Chico	MAR-JUL	30	38	45	71%	53	66	63
	MAY-JUL	11	19.2	26	58%	34	47	45
Gallinas Ck nr Montezuma	MAR-JUL	3.8	5.2	6.4	65%	7.9	10.5	9.8
	MAY-JUL	1.4	2.8	4	67%	5.5	8.1	6
Pecos R ab Santa Rosa Lk	MAR-JUL	25	33	40	71%	48	62	56
	MAY-JUL	9.6	17.7	25	58%	33	47	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

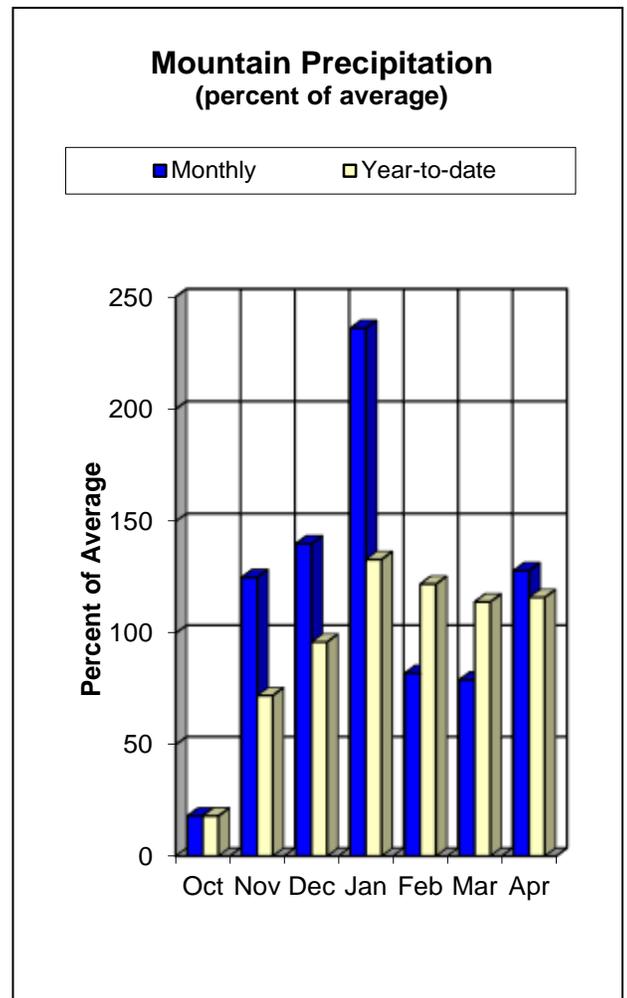
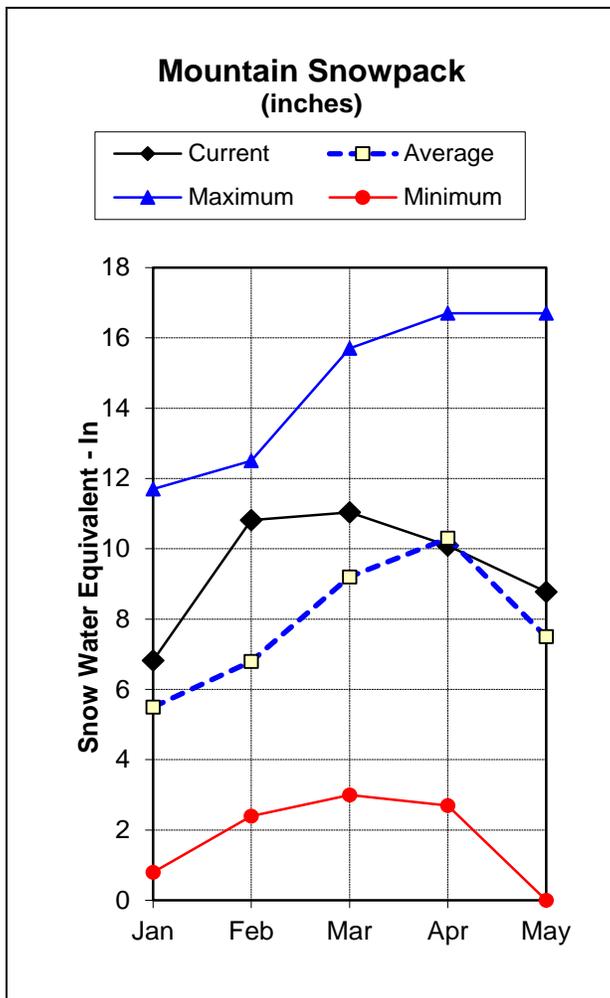
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Lake Avalon	1.7	2.4	1.4	4.0
Brantley Lake nr Carlsbad	27.8	24.5	24.9	1008.2
Santa Rosa Reservoir	60.6	104.7	56.6	438.3
Lake Sumner	27.2	39.7	27.1	102.0
Basin-wide Total	117.3	171.3	110.0	1552.5
# of reservoirs	4	4	4	4

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
PECOS RIVER BASIN	4	60%	92%

Rio Grande Basin Water Supply Outlook Report as of May 1, 2017



The May 1st streamflow forecasts for the Rio Grande Basin continue to point towards above average flows at most forecast points. The headwaters of the Rio Grande range from 87 to 104 percent of the average near Del Norte. The Costilla Reservoir inflow is forecast to be 109 percent of the average for the May to July time frame. The El Vado Reservoir inflow has also increased slightly to 160 percent of the average! Forecasts for the Jemez River are much lower and range from 62 percent near Jemez, to 53 percent below Jemez Canyon Dam. The Rio Grande at San Marcial has decreased by 10 percent and is now 109 percent of the average. April was a better than average month for precipitation receiving 128 percent of the average. Water year-to-date precipitation is now at 116 percent of the average. After recent storm activity the snowpack in the basin is at 117 percent of the median, which is 44 percent above last year's value at this time. Snowpack in southern Colorado affecting the Rio Grande has decreased slightly and is now at 88 percent of median. This is an increase of 11 percent from last year at this time. Current reservoir storage in the basin is 842,800 acre-feet which is an increase of 90,400 acre-feet from last year at this time! This equates to 42 percent of the average water storage. Currently the basin is at 42 percent of the average capacity which is 17 percent of actual reservoir capacity. Costilla Reservoir's totals were not obtainable this month due to gauge issues so please keep that in mind. The last reading of 5300 acre-feet for Costilla Reservoir was at the beginning of January.



Rio Grande Basin Streamflow Forecasts - May 1, 2017

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

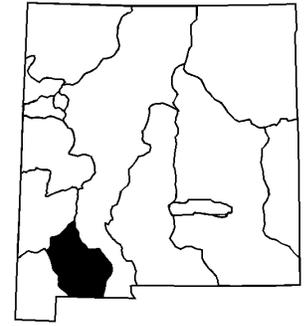
RIO GRANDE BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Grande nr Del Norte ²	APR-SEP	425	470	505	98%	540	595	515
	MAY-SEP	330	375	410	87%	445	500	470
Platoro Reservoir Inflow	APR-JUL	49	54	58	104%	62	68	56
	APR-SEP	52	59	63	102%	68	75	62
	MAY-JUL	42	47	51	96%	55	61	53
	MAY-SEP	45	52	56	95%	61	68	59
Conejos R nr Mogote ²	APR-SEP	183	205	215	111%	230	255	194
	MAY-SEP	150	170	184	104%	199	220	177
Costilla Reservoir Inflow								
Costilla Ck nr Costilla ²	MAY-JUL	6.6	8.4	9.7	109%	11.1	13.4	8.9
	MAY-JUL	13.4	17.9	21	107%	25	31	19.6
Red R bl Fish Hatchery nr Questa	MAR-JUL	25	30	34	100%	38	45	34
	MAY-JUL	12.3	17.2	21	78%	25	32	27
Rio Hondo nr Valdez	MAR-JUL	15.1	18	20	109%	23	27	18.4
	MAY-JUL	9.3	12.2	14.5	94%	16.9	21	15.4
Rio Pueblo de Taos nr Taos	MAR-JUL	13.5	16.2	18.3	108%	21	25	17
	MAY-JUL	5.2	7.9	10	80%	12.4	16.4	12.5
Rio Lucero nr Arroyo Seco								
Rio Pueblo de Taos bl Los Cordovas	MAR-JUL	7.1	9.3	11	101%	13	16.2	10.9
	MAY-JUL	4.1	6.3	8	89%	10	13.2	9
Embudo Ck at Dixon	MAR-JUL	22	28	32	89%	37	47	36
	MAY-JUL	7.7	13.3	18	69%	23	33	26
El Vado Reservoir Inflow ²	MAR-JUL	30	38	44	92%	51	63	48
	MAY-JUL	14.1	22	28	78%	35	47	36
Santa Cruz R at Cundiyo	MAR-JUL	345	370	385	171%	400	425	225
	APR-JUL	295	320	340	166%	355	385	205
	MAY-JUL	205	230	245	160%	260	285	153
Nambe Falls Reservoir Inflow	MAR-JUL	13.9	16.4	18.2	99%	20	23	18.3
	MAY-JUL	7	9.5	11.3	84%	13.3	16.6	13.4
Tesuque Ck ab diversions	MAR-JUL	5	5.8	6.4	98%	7.1	8.2	6.5
	MAY-JUL	2.6	3.4	4	78%	4.7	5.8	5.1
Rio Grande at Otowi Bridge ²	MAR-JUL	0.78	1.04	1.24	93%	1.48	1.88	1.34
	MAY-JUL	0.4	0.66	0.86	96%	1.1	1.5	0.9
Santa Fe R nr Santa Fe ²	MAR-JUL	790	865	920	128%	980	1070	720
	MAY-JUL	415	490	545	112%	605	695	485
Jemez R nr Jemez	MAR-JUL	2.9	3.4	3.7	86%	4.1	4.6	4.3
	MAY-JUL	1.43	1.87	2.2	76%	2.6	3.1	2.9
Jemez R bl Jemez Canyon Dam	MAR-JUL	32	34	36	86%	38	41	42
	MAY-JUL	7.7	10.1	12	62%	14	17.3	19.4
Rio Grande at San Marcial ²	MAR-JUL	24	28	31	91%	35	42	34
	MAY-JUL	2.4	5.8	9	53%	12.9	19.9	17
	MAR-JUL	485	565	625	123%	680	760	510
	MAY-JUL	225	305	365	109%	420	500	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, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Abiquiu Reservoir	132.3	132.2	162.8	1192.8
Bluewater Lake	11.4	2.0	11.1	38.5
Caballo Reservoir	72.0	63.1	95.1	332.0
Cochiti Lake	47.3	46.7	64.3	491.0
Costilla Reservoir		11.7	8.4	16.0
El Vado Reservoir	69.4	90.7	133.2	190.3
Elephant Butte Reservoir	395.6	334.9	1269.0	2195.0
Heron Reservoir	114.7	82.8	285.4	400.0
Basin-wide Total	842.8	752.4	2020.9	4839.6
# of reservoirs	7	7	7	7

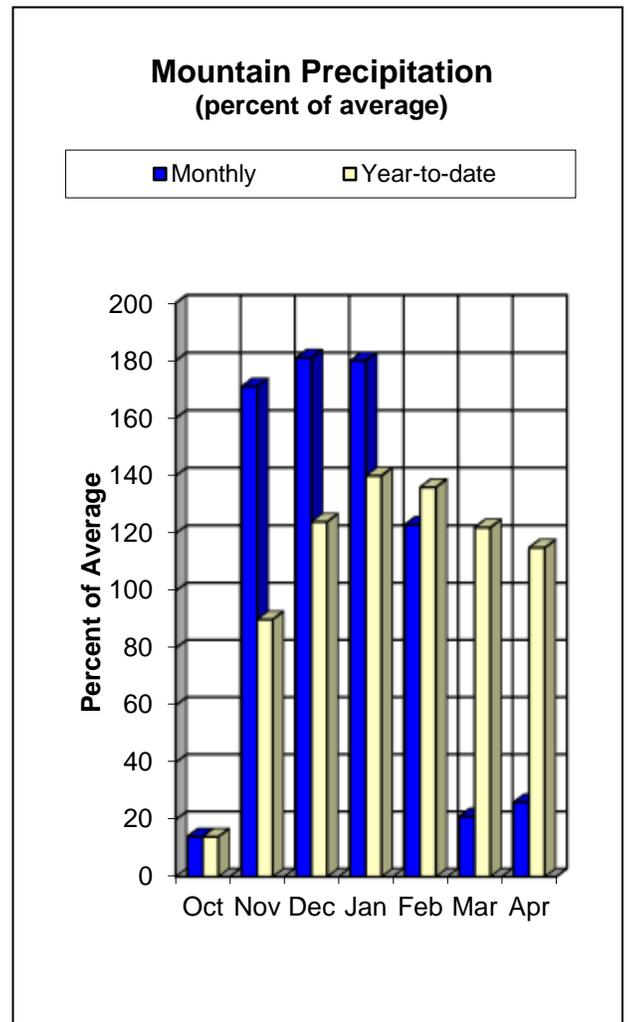
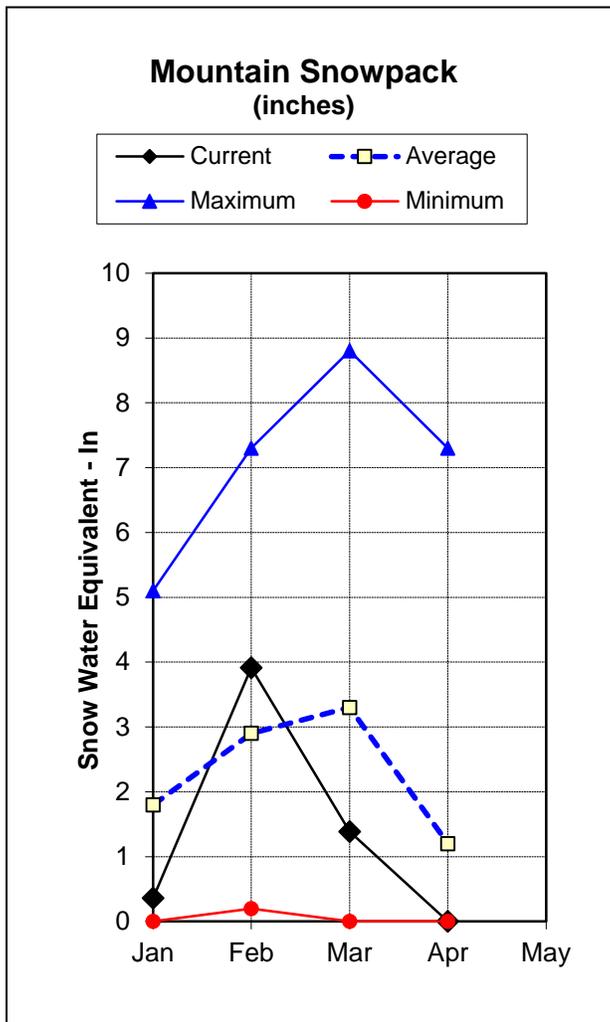
Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
RIO GRANDE BASIN	14	117%	73%

Mimbres River Basin Water Supply Outlook Report as of May 1, 2017



There are no May forecasts for the Mimbres River Basin at this time. Water year-to-date precipitation is still above average at 115 percent, as compared to 91 percent at this time last year. April was another very dry month for the Mimbres Basin which received only 26 percent of the average rainfall for the month. With above average March and April temperatures and little precipitation the snowpack has melted off. Last year at this time there was also bare ground in the Mimbres Basin.

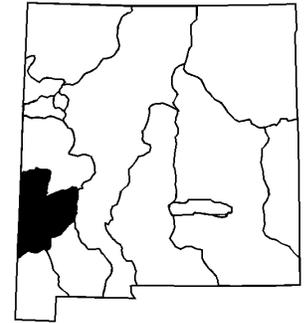
Users of NRCS Snow Survey data should be aware, due to reduced budget allocations; the manual snow courses at McKnight Cabin and Emory Pass #2 have been discontinued. Data is still being recorded at the automated SNOTEL sites in the Basin.



Mimbres River Basin - May 1, 2017

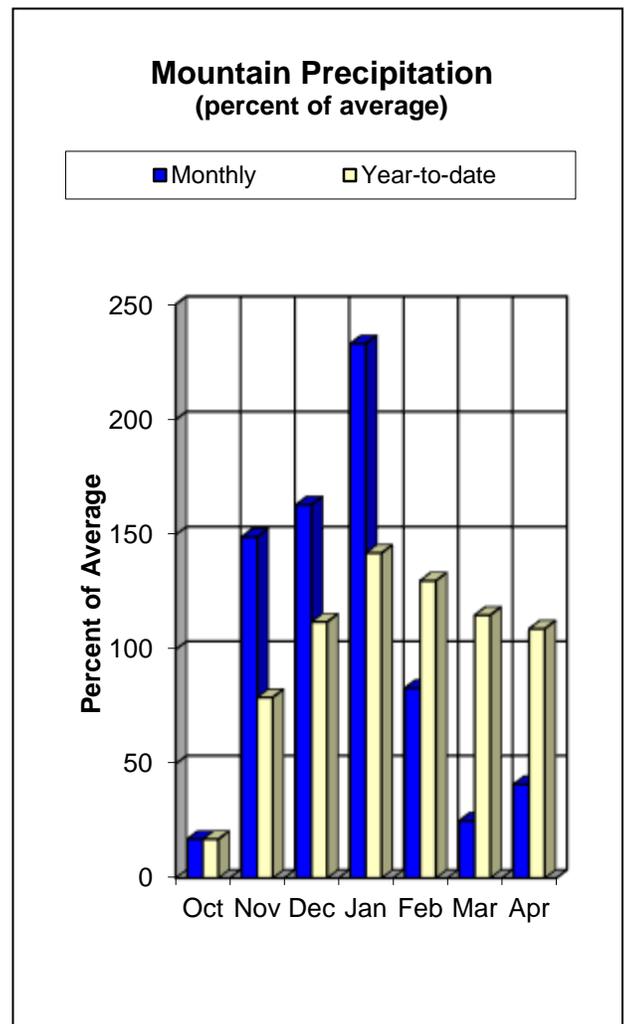
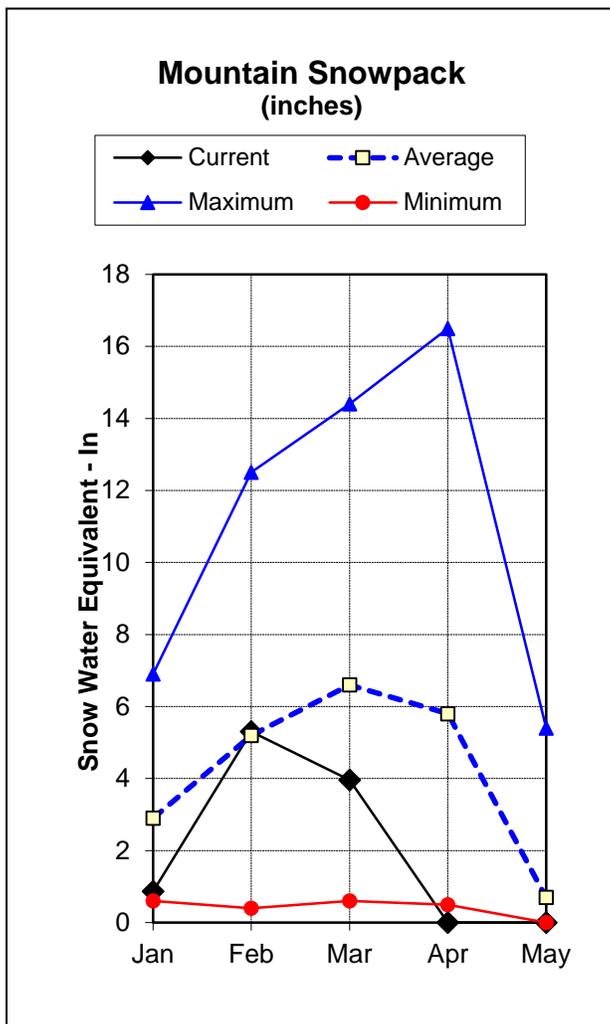
Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
MIMBRES RIVER BASIN	2		

San Francisco / Upper Gila River Basin Water Supply Outlook Report as of May 1, 2017



There are no May forecasts for the San Francisco/Upper Gila River Basin at this time. Water year-to-date precipitation through April is 109 percent of the average. Following on the heels of a dry March the month of April only received 41 percent of the average precipitation. With the continued above average temperatures and the lack of precipitation snowpack in the basin has melted off. Last year at this time the basin also had zero snowpack.

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.

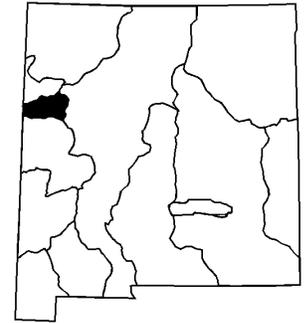


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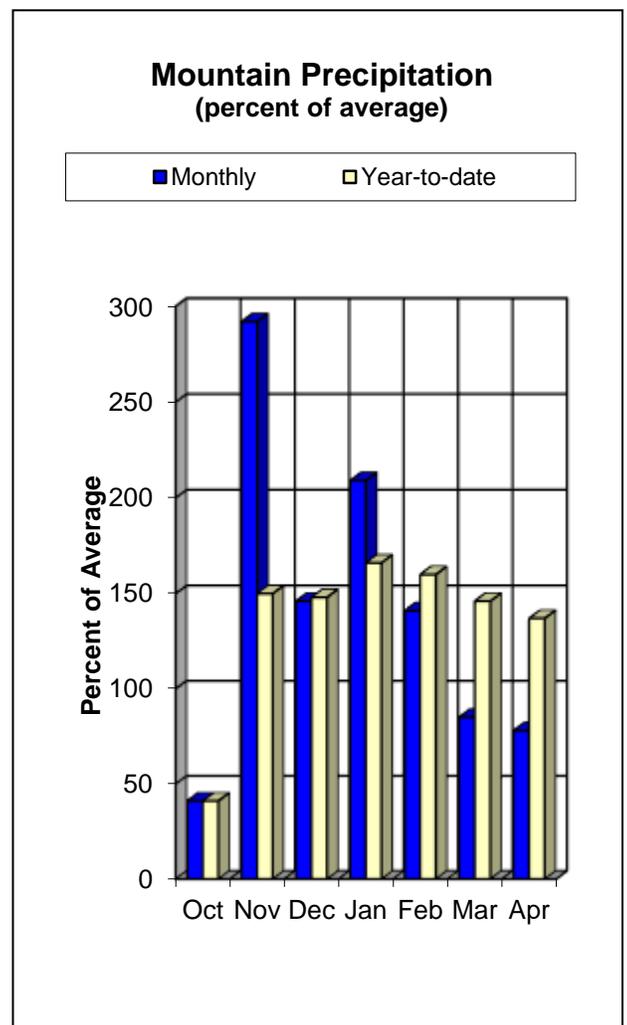
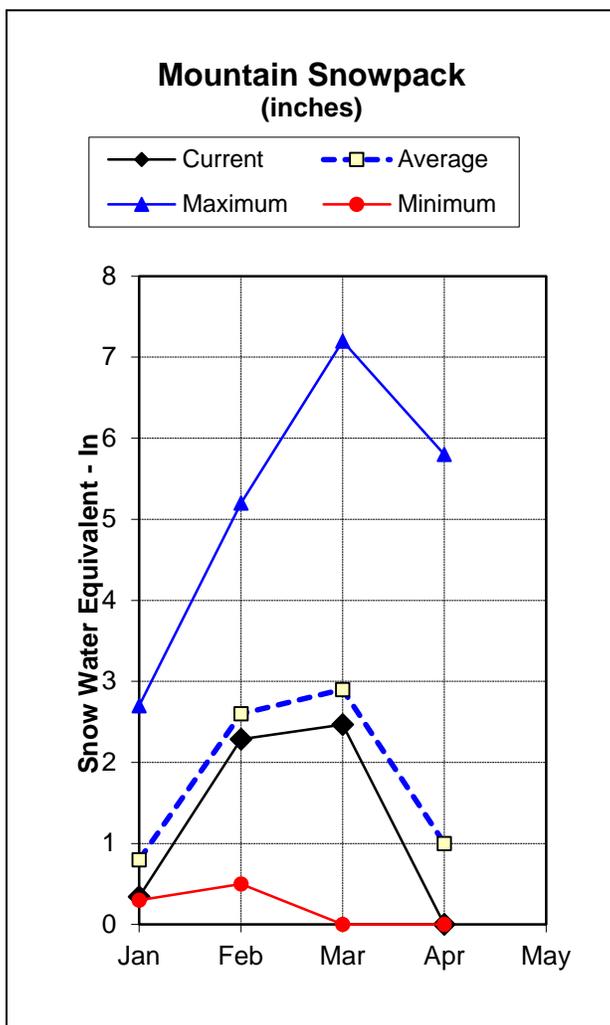
San Francisco-Upper Gila River Basin - May 1, 2017

Watershed Snowpack Analysis			
May 1, 2017	# of Sites	% Median	Last Year % Median
SAN FRANCISCO-UPPER GILA RIVER BASIN	4		

Zuni / Bluewater Basins Water Supply Outlook Report as of May 1, 2017



There are no May forecasts for the Zuni/Bluewater Basins at this time. The Zuni-Bluewater Basins have received 137 percent of the average precipitation for the water year-to-date, and 78 percent of the average for the month of April. Snowpack in the basins has melted off. Bluewater Lake is higher than it has been in years and is now at 11,400 acre feet versus 2,000 at this time last year! This is 103 percent of the average, and 30 percent of the actual capacity.

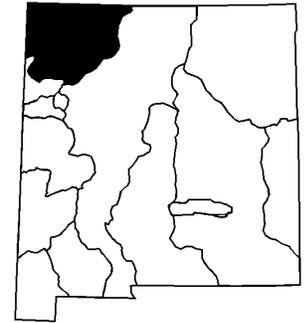


Zuni-Bluewater Basins - May 1, 2017

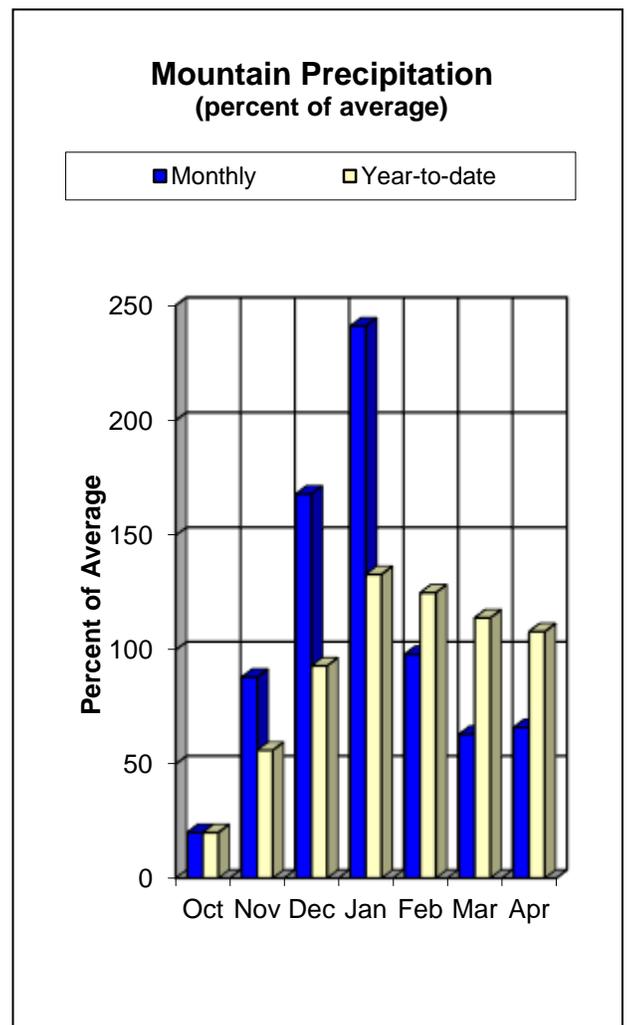
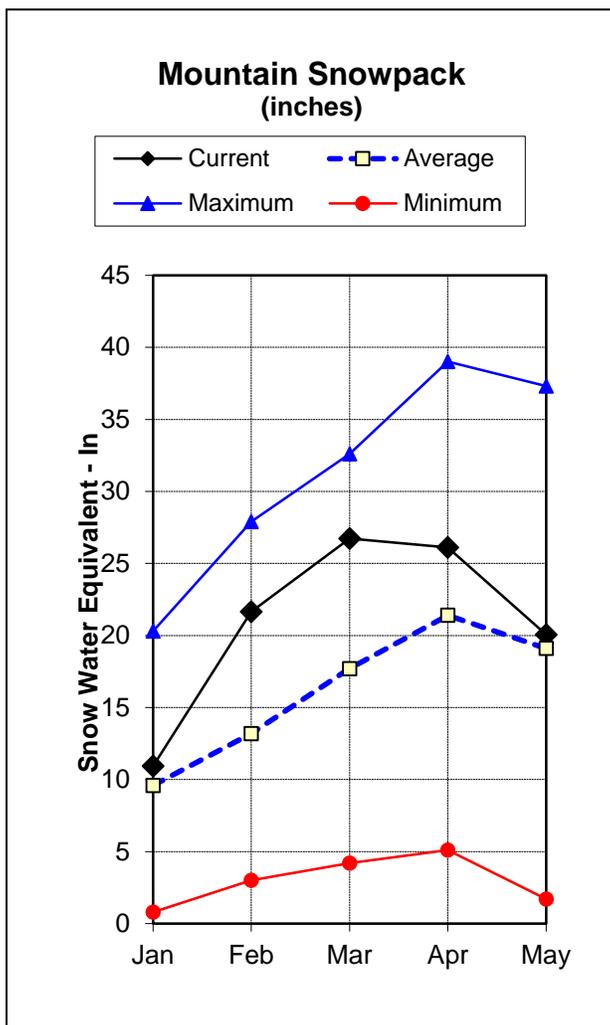
Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Bluewater Lake	11.4	2.0	11.1	38.5
Basin-wide Total	11.4	2.0	11.1	38.5
# of reservoirs	1	1	1	1

Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
ZUNI-BLUEWATER BASINS	1		

San Juan River Basin Water Supply Outlook Report as of May 1, 2017



The May to July forecasts have remained close to last month's values and are almost all above the average. The Rio Blanco is forecast to be 100 percent of the average with the La Plata at Hesperus also above average at 110 percent. Additionally, the Animas River at Durango is at 96 percent of the average. Water year-to-date precipitation is at 108 percent of the average, which remains an increase from last year at this time. April was however a below average month for rainfall after receiving only 66 percent of the average precipitation for the month. Snowpack in the basin remains above the median at 105 percent. This is an increase of 28 percent from last year at this time. Navajo reservoir's storage increased to 1,597,700 acre-feet which equates to 117 percent of the average! This surpasses last year's 1,491,000 acre-feet at the end of April and equates to 94 percent of the average capacity for the reservoir.



San Juan River Basin Streamflow Forecasts - May 1, 2017

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 ²	APR-JUL	50	56	60	111%	64	71	54
	MAY-JUL	35	41	45	100%	49	56	45
Navajo R at Oso Diversion ²	APR-JUL	62	69	74	114%	79	87	65
	MAY-JUL	43	50	55	102%	60	68	54
Navajo Reservoir Inflow ²	APR-JUL	620	680	725	99%	770	840	735
	MAY-JUL	375	435	480	85%	525	595	565
Animas R at Durango	APR-JUL	370	405	430	104%	455	495	415
	MAY-JUL	290	325	350	96%	375	415	365
La Plata R at Hesperus	APR-JUL	23	26	27	117%	28	31	23
	MAY-JUL	16.5	18.6	20	110%	21	24	18.2

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

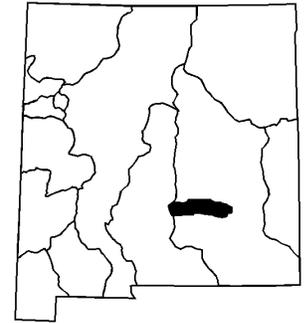
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of April, 2017	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
Navajo Reservoir	1597.7	1491.0	1361.0	1696.0
Basin-wide Total	1597.7	1491.0	1361.0	1696.0
# of reservoirs	1	1	1	1

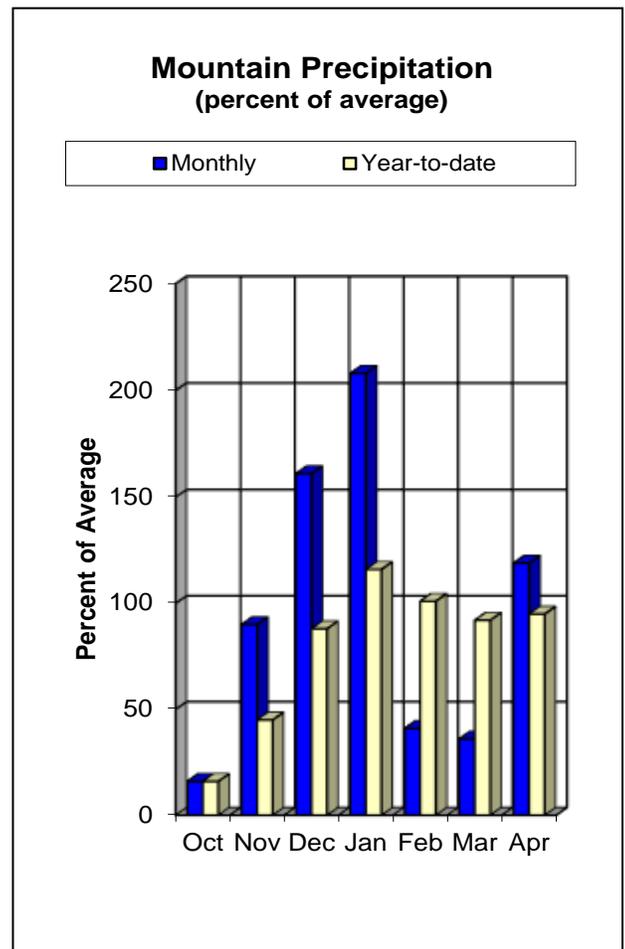
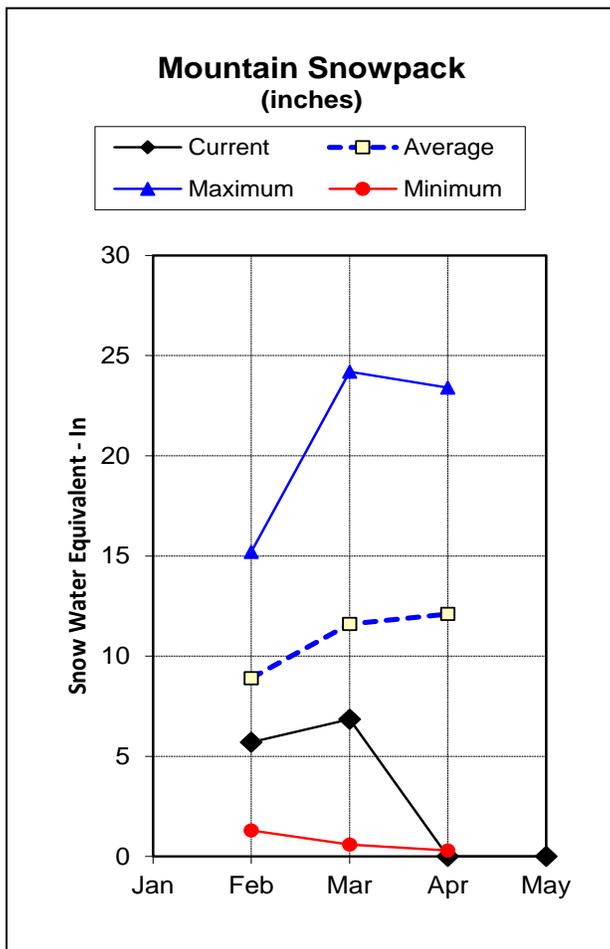
Watershed Snowpack Analysis May 1, 2017	# of Sites	% Median	Last Year % Median
SAN JUAN RIVER BASIN	13	105%	77%

Rio Hondo Basin Water Supply Outlook Report as of May 1, 2017



Streamflow forecasts for the May to June time period in the Rio Hondo Basin have remained constant at 36 percent of average for the Rio Ruidoso at Hollywood. Water year-to-date precipitation is 95 percent of the average. Following a dry March the month of April received 119 percent of the monthly average precipitation. Snowpack in the basin has melted off. This measurement however should be used with caution as the Sierra Blanca SNOTEL site was impacted by the Little Bear Fire three 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.



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Rio Hondo Basin Streamflow Forecasts - May 1, 2017

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	2.4	2.8	3.2	48%	3.6	4.5	6.7
	MAY-JUN	0.22	0.62	1	36%	1.48	2.3	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, 2017	# 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	13	3.1	4.6	67%	0.1	2%
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	4	1.1	0.0		0.0	
Emory Pass #2	SC	7800						
Frisco Divide	SNOTEL	8000	0	0.0	0.0		0.0	
Gallegos Peak	SNOTEL	9800	6	1.3	1.5	87%	0.0	0%
Hematite Park	SC	9500						
Hidden Valley	SC	8480						
Hopewell	SNOTEL	10000	48	19.2	14.0	137%	7.7	55%
Hummingbird - Aerial And Snow Course	SC	10550						
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	
Mcknight Cabin Aerial Marker	SC	9300						
Mcknight Cabin Snow Course	SC	9300						
Missionary Spring	SC	7940						
Navajo Whiskey Ck	SNOTEL	9050	0	0.0			0.1	
North Costilla	SNOTEL	10600	3	1.1	0.5	220%	1.3	260%
Ojo Redondo	SC	8200						
Palo	SNOTEL	9350	5	1.3			0.4	
Palo	SC	9300						
PanchueLa	SC	8400						
Post Office Flats	SC	8400						
Quemazon	SNOTEL	9500	0	0.0	0.0		0.2	
Red River Pass #2	SNOTEL	9850	2	0.8	0.0		0.7	
Rice Park	SNOTEL	8460	0	0.0	0.0		0.1	
Rice Park	SC	8460						
Rio En Medio	SC	10300	5	1.1	4.2	26%	1.4	33%
Rio Santa Barbara	SNOTEL	10664	33	11.1			13.3	
San Antonio Sink	SNOTEL	9100	0	0.0			0.0	
San Antonio Sink	SC	9200	3	1.1	1.2	92%	0.0	0%
Santa Fe	SNOTEL	11445	47	13.7	17.5	78%	18.6	106%
Senorita Divide #2	SNOTEL	8600	0	0.0	0.0		0.0	
Shuree	SNOTEL	10100	1	0.3			0.7	
Shuree	SC	10097						
Sierra Blanca	SNOTEL	10280	4	1.2	0.0		0.0	
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	93	36.3			19.7	
Taos Powderhorn	SC	11250	69	26.8	26.8	100%	21.3	79%
Tolby	SNOTEL	10180	8	1.6	0.0		0.5	
Tolby	SC	10180						
Tres Ritos	SNOTEL	8600	0	0.0			0.0	
Tres Ritos	SC	8600						
Vacas Locas	SNOTEL	9306	2	1.0	0.0		0.3	
Wesner Springs	SNOTEL	11120	17	4.1	11.6	35%	10.5	91%
Whiskey Creek	SC	9050						
Whitewater - Aerial And Snow Course	SC	10750						
Basin Index						94%		77%
# of sites						23		23

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

