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Colorado Basin Outlook Report JANUARY 1, 2002



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

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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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COLORADO WATER SUPPLY OUTLOOK REPORT JANUARY 1, 2002

Summary

The 2002 water year began with a slow start across Colorado. However, since winter finally hit the Colorado mountains, around December 1st, conditions have steadily improved. Snowpack deficits remain across most of the state, which raises concerns for many water users. With last summer's demands on reservoirs, storage volumes remain below average statewide. Above average snowfall will be necessary to produce an average runoff season, and a sustained period of above average snowfall is necessary to refill many of the state's reservoirs. Water users will need to continue closely watching the state's winter weather patterns and plan accordingly.

Snowpack

Data from Colorado's automated SNOTEL sites indicate the state's snowpack is 65% of average on January 1. Below average snowpack readings were recorded in all basins, statewide. October and early November were extremely dry across Colorado's mountains. The only significant snowfall of the 2002 water year occurred during late November and December. While these late storms were intense, they were far from enough to bring conditions back to near average. The lowest snowpack readings, as a percent of average, are in the South Platte, Arkansas and Rio Grande basins. Snowpack percentages in these basins remain less than 60% of average. Meanwhile, those basins which experienced the greatest snowfall this year include the Gunnison, Colorado, and the combined Yampa and White. All of these basins are reporting snowpack levels of 70 to 80% of average. In comparison to last year's snowpack, this year's readings are consistently below those of a year ago, with a statewide total of only 73% of last year on this date. The only basin reporting snowpack levels close to last year is the Gunnison Basin. Readings in this basin range from 95% to 104% of last year. Those basins with the lowest readings, as compared to last year, include the North Platte, South Platte and Rio Grande. The snowpack in these basins is less than 65% of last year.

Precipitation

As expected from the snowpack readings, precipitation across Colorado's mountains is well below average, statewide. Precipitation totals for October were extremely low with most basins reporting less than 70% of average. Southwestern Colorado recorded the lowest percentages, with only 39% of average in the Rio Grande Basin and 42% of average in the San Juan, Animas, Dolores, and San Miguel basins. For the month of October, statewide precipitation was only 58% of average. Totals improved somewhat in November and a few basins received slightly below average monthly totals. Those basins include the Gunnison and combined San Juan, Animas, Dolores, and San Miguel. However, for the second consecutive month, the Rio Grande Basin reported the lowest percent of average monthly total. November ended with statewide precipitation totals of 84% of average. Meager precipitation amounts statewide during December, helped further deteriorate dry conditions especially in the Rio Grande Basin, which once again was dealt the smallest amounts of precipitation during the month. The statewide totals are only 69% of average as a result of the dry month.

Reservoir Storage

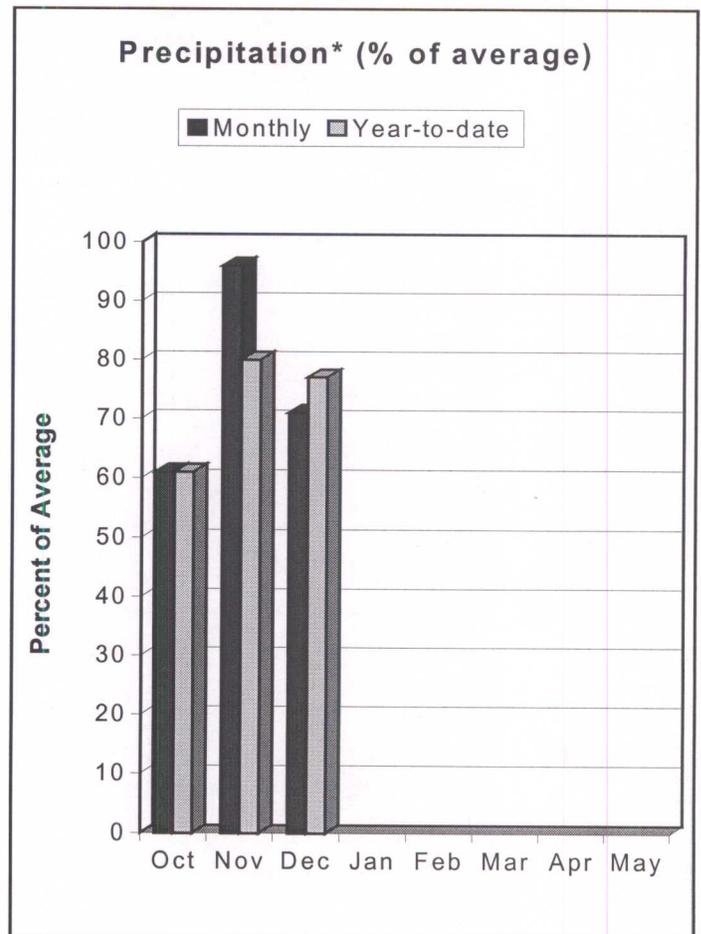
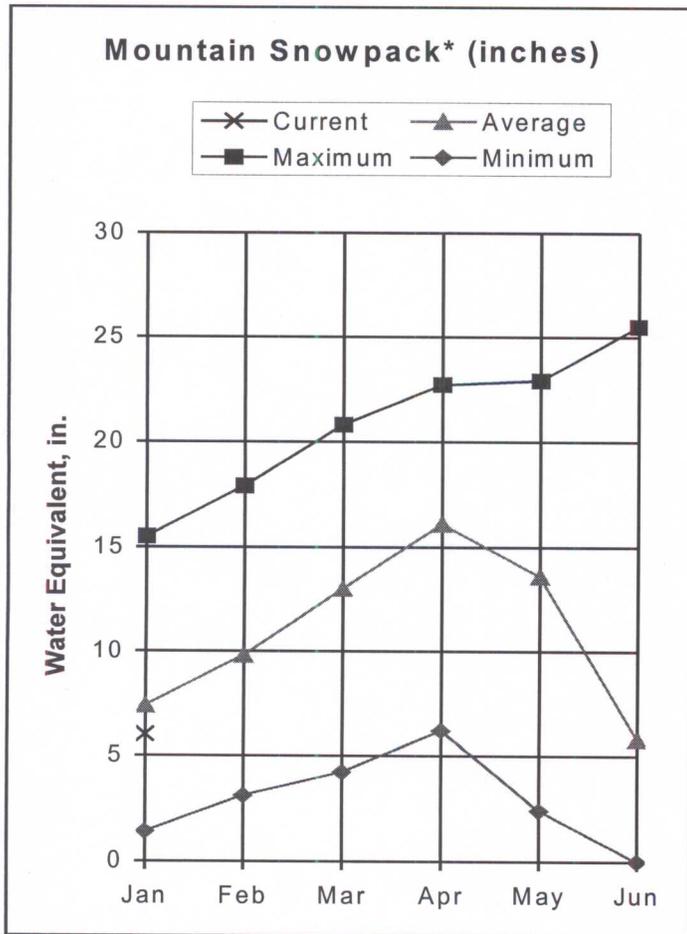
Colorado's statewide reservoir storage dipped to below average levels back on September 1, 2001. Since then, the deficits have continued to increase each month. Reservoir storage, as of January 1, 2002, is now 85% of average, and is only 89% of last year's volumes. The Rio Grande Basin is currently storing the lowest percentage volume, at 71% of average. While volumes remain below average in all basins, the Gunnison Basin continues to report the highest percent of average storage at 99%. Perhaps the most critical aspect of these below normal volumes is the fact that this summer's potential runoff is substantially below average. While in many year's when this occurs, we can rely on surplus reservoir storage to supplement low runoff, this year will be an exception to that.

Streamflow

After a very dry fall, followed by below average snowfall, statewide, Colorado's runoff prospects for 2002 deserve a careful watch for the remainder of the winter season. Streamflow forecasts call for below average runoff across most of the state. These dry conditions have created the lowest forecasts, as a percent of average in the Rio Grande and South Platte basins. Runoff in these basins is projected to be 60% to 73% of average this summer. Meanwhile, conditions improve in the Colorado and Gunnison basins, where runoff forecasts improve to 80% to 90% of average. Only a sustained period of above average snowfall can help improve this outlook. As a reminder though, statistically speaking, most years which begin dry, continue to be dryer than average throughout the snowfall season. The past few years have been perfect examples of this.

GUNNISON RIVER BASIN

as of January 1, 2002



*Based on selected stations

Snowpack measurements taken at 12 SNOTEL installations throughout the Gunnison Basin indicate that the January 1 snowpack is only 77% of average, which is nearly the same as last year at this time. The vast majority of snowfall occurred during late November and early December, but most of the accumulation during the remainder of December has been much below average. Snowpack accumulation ranges from 84% of average in the Uncompahgre Watershed, to only 65% of average in the Surface Creek Watershed. Precipitation was only 71% of average during December, and the water year total is at 77% of average. So far, this water year's precipitation is about 6% less than last year at this time. The combined storage for 8 major reservoirs in the basin is about average for this time of year. There is 5% more storage than last year on January 1. All of the streamflow forecasts are below average at this time. They are highly variable, ranging from only 49% of average on Tomichi Creek at Gunnison, to 90% of average on the Slate River near Gunnison.

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GUNNISON RIVER BASIN
Streamflow Forecasts - January 1, 2002

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Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Taylor River blw Taylor Park Resv	APR-JUL	40	58	75	73	92	115	103
Slate River nr Crested Butte	APR-JUL	57	71	80	90	90	105	89
East River at Almont	APR-JUL	75	107	140	73	173	230	192
Gunnison River nr Gunnison	APR-JUL	129	204	270	69	336	460	390
Tomichi Creek at Sargents	APR-JUL	8.4	15.9	21	66	29	40	32
Cochetopa Creek blw Rock Creek	APR-JUL	5.2	8.6	11.0	64	14.7	20	17.3
Tomichi Creek at Gunnison	APR-JUL	20	24	40	49	60	90	81
Lake Fork at Gateview	APR-JUL	50	72	90	71	108	145	126
Blue Mesa Reservoir Inflow	APR-JUL	238	360	500	69	640	850	720
Paonia Reservoir Inflow	MAR-JUN	29	54	75	71	100	143	105
	APR-JUL	24	51	75	71	104	155	106
N.F. Gunnison River nr Somerset	APR-JUL	64	171	215	71	265	415	305
Surface Creek nr Cedaredge	APR-JUL	4.3	8.7	11.0	64	13.9	25	17.1
Ridgway Reservoir Inflow	APR-JUL	45	69	80	84	93	120	95
Uncompahgre River at Colona	APR-JUL	35	79	95	68	113	165	139
Gunnison River nr Grand Junction	APR-JUL	296	710	990	64	1270	1794	1560

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GUNNISON RIVER BASIN
Reservoir Storage (1000 AF) - End of December

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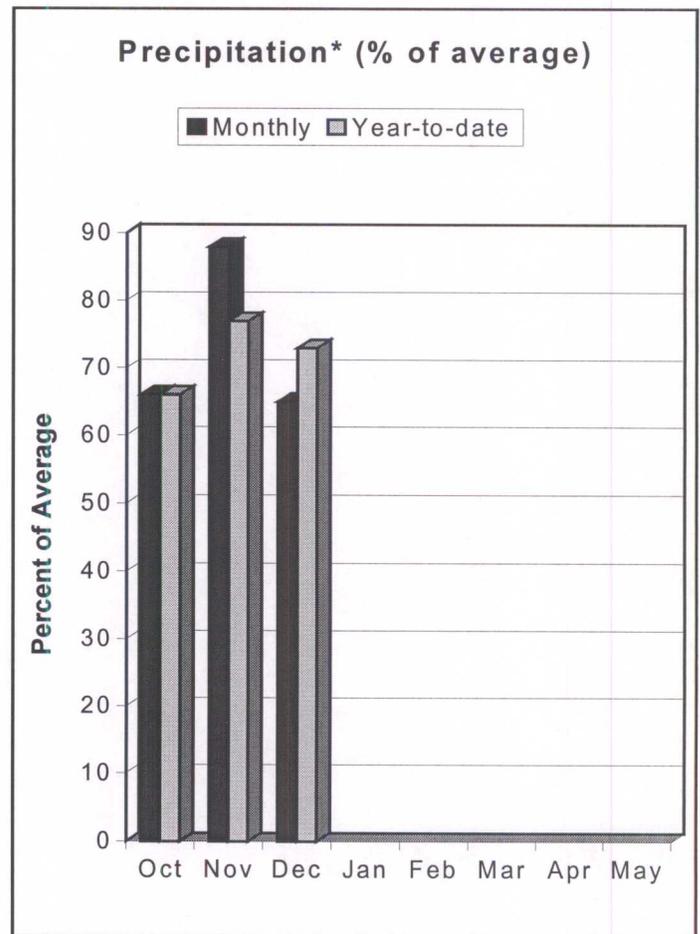
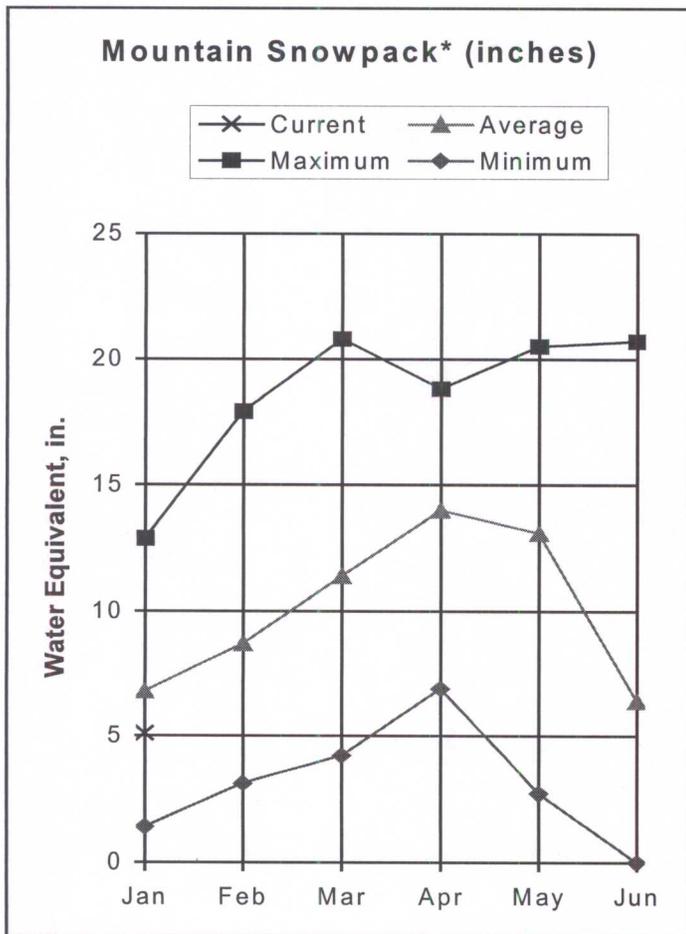
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BLUE MESA	830.0	544.0	504.6	545.8	UPPER GUNNISON BASIN	9	95	74
CRAWFORD	14.3	3.0	3.5	7.5	SURFACE CREEK BASIN	2	104	65
FRUITGROWERS	4.3	0.8	1.6	2.8	UNCOMPAHGRE BASIN	3	104	84
FRUITLAND	9.2	0.7	0.0	1.3	TOTAL GUNNISON RIVER BASIN	12	97	77
MORROW POINT	121.0	109.3	107.7	113.4				
PAONIA		NO REPORT						
RIDGWAY	83.2	66.4	71.0	60.1				
TAYLOR PARK	106.0	64.9	64.1	67.7				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER COLORADO RIVER BASIN as of January 1, 2002



*Based on selected stations

The combined measurements from 24 SNOTEL installations in the Colorado Basin indicate that snowpack accumulation in the Colorado Basin is only 72% of average on January 1, which is only 79% of the snow accumulation last year at this time. Most of the watersheds in the basin have snowpacks between 60% and 70% of average with the exception of the Roaring Fork Watershed, which is at 81 % of average. Precipitation in the basin has been below average since the beginning of the water year and is now only 73% of average for the water year. Precipitation during December was only 65% of average. There has been about 11% less precipitation so far this year compared to last year at this time. The combined storage from 8 major reservoirs in the basin is about 15% below average on January 1, which is only 86% of the storage amount last year at this time. Early streamflow forecasts are below average for all of the forecast points ranging from 68% of average at the inflow to Williams Fork Reservoir, to 81% of average flow on the Roaring Fork at Glenwood Springs.

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UPPER COLORADO RIVER BASIN
Streamflow Forecasts - January 1, 2002

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Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>					30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)		10% (1000AF)
Lake Granby Inflow	APR-JUL	117	146	170	76	198	247	225
Willow Creek Reservoir Inflow	APR-JUL	18.3	28	35	69	43	57	51
Williams Fork Reservoir inflow	APR-JUL	42	55	65	68	76	93	95
Dillon Reservoir Inflow	APR-JUL	77	101	130	78	159	202	167
Green Mountain Reservoir inflow	APR-JUL	172	203	225	80	249	285	280
Muddy Creek blw Wolford Mtn. Resv.	APR-JUL	25	34	42	70	52	71	60
Eagle River blw Gypsum	APR-JUL	172	223	265	79	315	407	335
Colorado River nr Dotsero	APR-JUL	617	905	1100	76	1357	1735	1440
Ruedi Reservoir Inflow	APR-JUL	71	90	105	75	123	155	141
Roaring Fork at Glenwood Springs	APR-JUL	377	490	575	81	667	815	710
Colorado River nr Cameo	APR-JUL	854	1447	1850	76	2253	2846	2420

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UPPER COLORADO RIVER BASIN
Reservoir Storage (1000 AF) - End of December

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UPPER COLORADO RIVER BASIN
Watershed Snowpack Analysis - January 1, 2002

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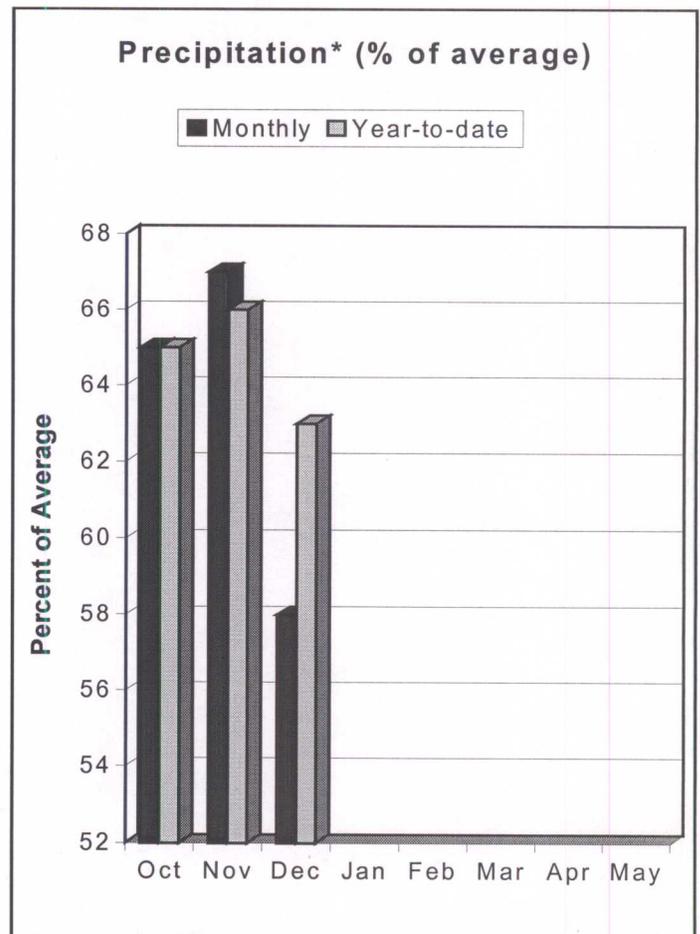
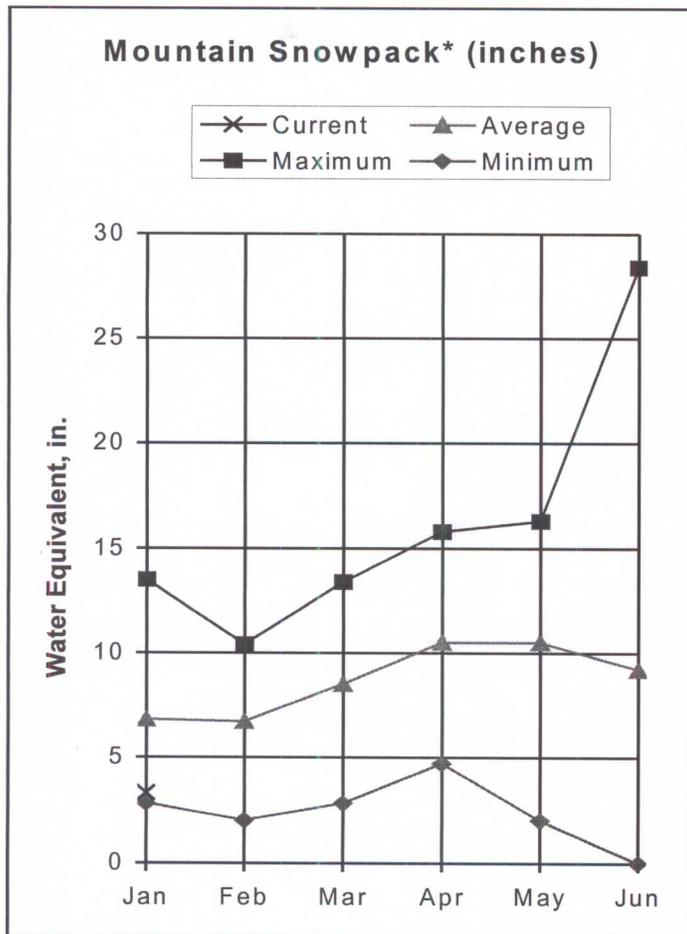
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DILLON	250.8	214.1	235.3	224.8	BLUE RIVER BASIN	5	71	71
LAKE GRANBY	465.6	243.3	339.2	322.1	UPPER COLORADO RIVER BASIN	15	69	69
GREEN MOUNTAIN	139.0	71.8	49.7	90.3	MUDDY CREEK BASIN	2	62	68
HOMESTAKE	43.0	28.5	42.1	28.4	PLATEAU CREEK BASIN	2	104	65
RUEDI	102.0	66.3	73.7	79.7	ROARING FORK BASIN	7	95	81
VEGA	32.0	8.7	8.5	11.0	WILLIAMS FORK BASIN	1	56	61
WILLIAMS FORK	96.8	58.6	59.5	62.9	WILLOW CREEK BASIN	2	53	60
WILLOW CREEK	9.0	6.3	6.5	6.1	TOTAL COLORADO RIVER BASIN	24	79	72

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

SOUTH PLATTE RIVER BASIN as of January 1, 2002



*Based on selected stations

Snowpack measurements taken at 16 SNOTEL installations throughout the South Platte Basin indicate that the snowpack is only 54% of average for January 1, which is only 63% of the snow accumulation last year at this time. All of the basin's watersheds are extremely below average, ranging from only 41% of average in the Upper South Platte Watershed, to only 71% of average in the Clear Creek Watershed. Precipitation in the basin has been much below average so far this entire water year. December precipitation did not help water supplies by providing only 53% of the normal monthly amount, pulling the water year total down to only 59% of average on January 1. The combined reservoir storage for 31 major reservoirs in the basin is only 77% of average, which is about the same amount of storage as last year at this time. All of the streamflow forecasts are below average at this time, but they are highly variable ranging from only 45% of average at the inflow to Antero Reservoir, to 73% of average on the Cache La Poudre River at Canyon Mouth.

SOUTH PLATTE RIVER BASIN
Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====		Chance Of Exceeding *		===== Wetter =====>>		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Antero Reservoir inflow	APR-JUL	2.1	3.9	5.9	45	8.9	16.2	13.0
Spinney Mountain Reservoir inflow	APR-JUL	13.1	20	27	61	36	56	44
Elevenmile Canyon Reservoir inflow	APR-JUL	13.1	21	27	61	36	50	44
Cheesman Lake inflow	APR-JUL	29	44	58	64	76	115	90
South Platte River at South Platte	APR-SEP	63	121	160	70	216	299	230
Bear Creek at Morrison	APR-SEP	9.4	13.3	16.0	52	21	29	31
Clear Creek at Golden	APR-SEP	64	79	90	67	106	129	134
St. Vrain Creek at Lyons	APR-SEP	35	48	57	68	66	80	84
Boulder Creek nr Orodell	APR-SEP	23	32	38	72	44	53	53
South Boulder Creek nr Eldorado Spri	APR-SEP	15.4	25	31	67	40	54	46
Big Thompson River at mouth nr Drake	APR-SEP	55	71	81	69	91	107	117
Cache La Poudre at Canyon Mouth	APR-SEP	59	143	200	73	278	393	275

SOUTH PLATTE RIVER BASIN
Reservoir Storage (1000 AF) - End of December

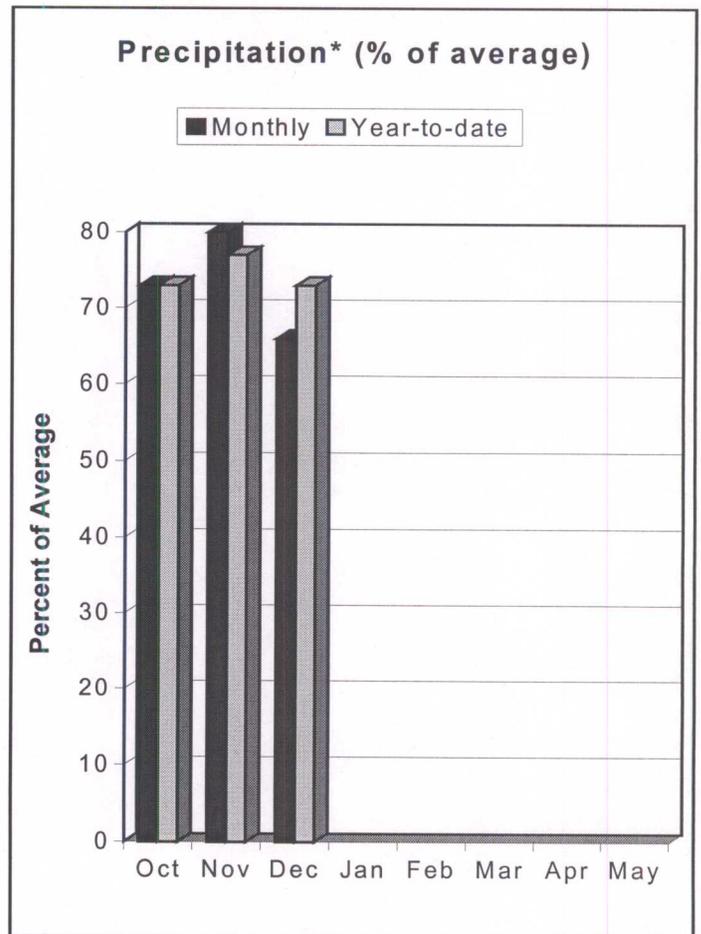
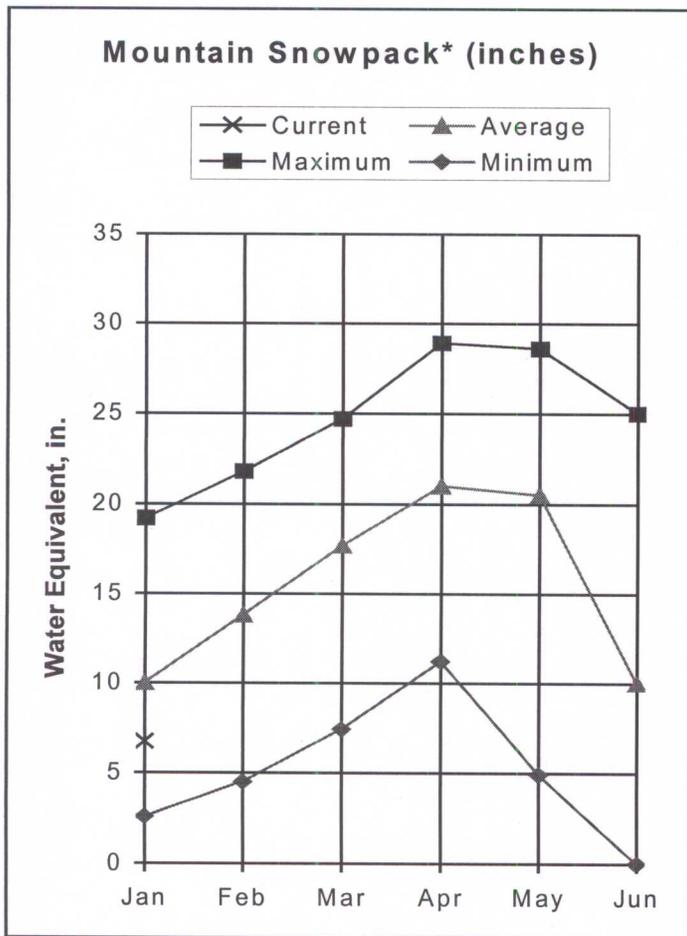
SOUTH PLATTE RIVER BASIN
Watershed Snowpack Analysis - January 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ANTERO	20.0	20.0	19.9	16.5	BIG THOMPSON BASIN	3	63	59
BARR LAKE	32.0	17.1	26.0	22.4	BOULDER CREEK BASIN	3	59	47
BLACK HOLLOW	8.0	2.8	2.6	3.8	CACHE LA POUDE BASIN	2	74	66
BOYD LAKE	49.0	20.4	22.4	31.7	CLEAR CREEK BASIN	2	61	71
CACHE LA POUDE	10.0	0.7	3.3	6.3	SAINT VRAIN BASIN	1	173	100
CARTER	108.9	60.0	68.5	74.7	UPPER SOUTH PLATTE BASIN	6	55	41
CHAMBERS LAKE	9.0	3.8	2.5	2.8	TOTAL SOUTH PLATTE BASIN	16	63	54
CHEESMAN	79.0	58.5	45.8	60.9				
COBB LAKE	34.0	6.8	8.9	13.9				
ELEVEN MILE	97.8	99.5	99.7	95.9				
EMPIRE	38.0	21.0	27.3	22.2				
FOSSIL CREEK	12.0	6.2	7.6	6.3				
GROSS	41.8	29.2	26.0	26.2				
HALLIGAN	6.4	3.3	4.9	3.6				
HORSECREEK	16.0	11.8	11.0	10.9				
HORSETOOTH	149.7	9.2	9.2	87.8				
JACKSON	35.0	0.0	20.0	23.0				
JULESBURG	28.0	15.3	14.6	18.4				
LAKE LOVELAND	14.0	10.3	9.3	8.9				
LONE TREE	9.0	8.2	7.4	6.0				
MARIANO	6.0	0.7	3.7	4.1				
MARSHALL		NO REPORT						
MARSTON	13.0	8.6	1.7	12.7				
MILTON	24.0	17.3	16.2	14.8				
POINT OF ROCKS	70.0	38.9	33.3	51.1				
PREWITT	33.0	11.3	17.8	18.0				
RIVERSIDE	63.1	41.2	39.2	38.1				
SPINNEY MOUNTAIN	48.7	23.0	19.7	35.4				
STANDLEY	42.0	32.1	32.1	32.5				
TERRY LAKE	8.0	5.1	5.3	5.2				
UNION	13.0	9.2	8.4	10.4				
WINDSOR	19.0	5.3	8.5	10.0				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

YAMPA, WHITE, NORTH PLATTE AND LARAMIE RIVER BASINS as of January 1, 2002



*Based on selected stations

The snowpack in these basins is very typical of the rest of the state, being below average all season and losing ground during December. The combined measurements from 5 SNOTEL sites in the North Platte Basin are at only 61% of average on January 1, while measurements from the 12 SNOTEL sites in the Yampa and White basins are only 70% of average accumulation. The distribution of the snow accumulation is somewhat variable ranging from a low of 44% of average in the Laramie Watershed, to 73% of average in the White River Watershed. Precipitation in these basins during December was only 66% of average, and the water year total is only 73% of average. Fortunately, the two major reservoirs in these basins are at 102% of average storage volume for this time of year, which is a switch from most of the rest of the state's reservoirs. Early forecasts are calling for below average volumes at most of the forecasted streamflow points this runoff season. Forecasts range from only 60% of average on the Little Snake River near Lily, to 80% of average at Elkhead Creek near Maynard Gulch.

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Streamflow Forecasts - January 1, 2002

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Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	Chance Of Exceeding * (% AVG.)	30% (1000AF)	10% (1000AF)	
North Platte River nr Northgate	APR-SEP	76	106	165	61	224	311	270
Laramie River nr Woods	APR-SEP	43	70	89	66	117	159	135
Yampa R abv Stagecoach Res	APR-JUL	10.4	14.4	20	69	26	34	29
Yampa River at Steamboat Springs	APR-JUL	102	157	195	70	233	288	280
Elk River nr Milner	APR-JUL	123	183	230	71	283	371	325
Elkhead Creek nr Elkhead	APR-JUL	15.9	22	28	72	35	50	39
ELKHEAD CREEK blw Maynard Gulch	APR-JUL	23	37	47	80	57	71	59
Fortification Ck nr Fortification	MAR-JUN	2.44	4.13	5.90	79	7.67	10.29	7.50
Yampa River nr Maybell	APR-JUL	299	535	695	70	855	1091	990
Little Snake River nr Slater	APR-JUL	46	76	100	63	128	174	159
LITTLE SNAKE R nr Dixon	APR-JUL	83	153	200	61	247	317	330
LITTLE SNAKE R nr Lily	APR-JUL	99	171	220	60	269	341	365
White River nr Meeker	APR-JUL	121	163	200	69	245	330	290

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Reservoir Storage (1000 AF) - End of December

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Watershed Snowpack Analysis - January 1, 2002

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Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
STAGECOACH	33.3	29.0	31.0	26.4	LARAMIE RIVER BASIN	2	56	44
YAMCOLO	9.1	3.5	5.0	5.5	NORTH PLATTE RIVER BASIN	3	68	67
					TOTAL NORTH PLATTE BASIN	5	65	61
					ELK RIVER BASIN	2	66	62
					YAMPA RIVER BASIN	9	70	71
					WHITE RIVER BASIN	4	77	73
					TOTAL YAMPA AND WHITE RIV	12	72	70
					LITTLE SNAKE RIVER BASIN	6	85	77

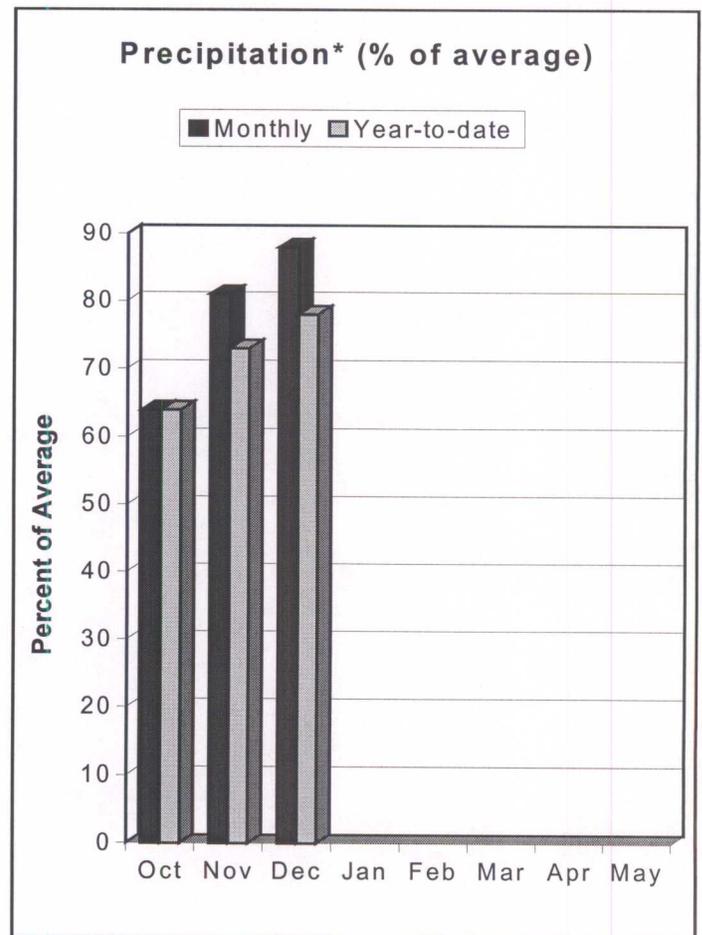
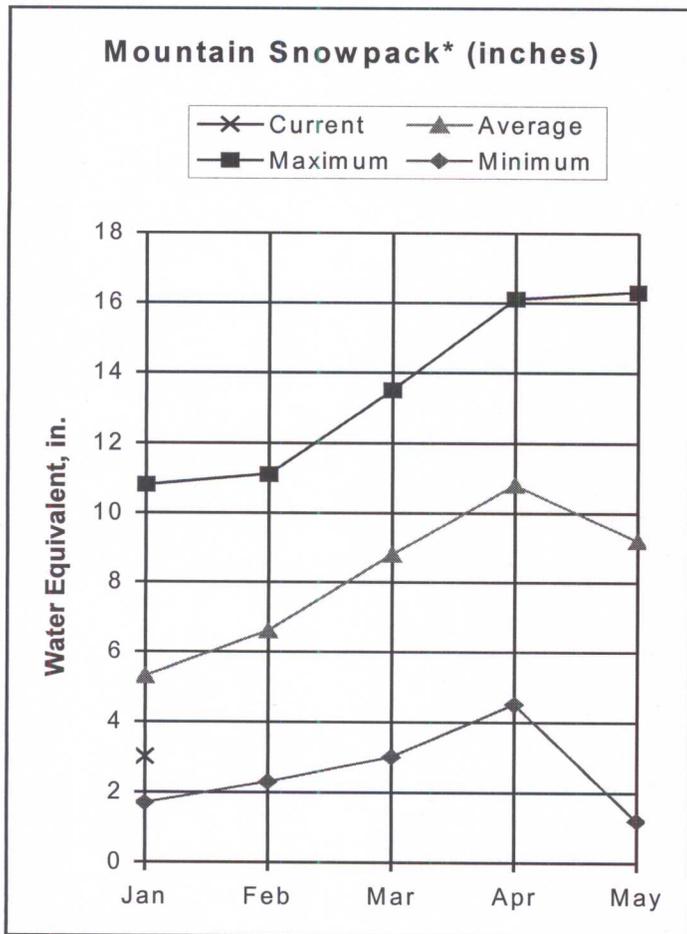
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

ARKANSAS RIVER BASIN

as of January 1, 2002



*Based on selected stations

The combined measurements from all 5 SNOTEL installations in the Arkansas Basin indicate that the snowpack accumulation is only 55% of average on January 1. Snowpack percentages are much higher in the Upper Arkansas Watershed above Salida, which is at 79% of average, while the Purgatoire, Cucharas and Huerfano watersheds are only about 36% of average. Fortunately, the precipitation amounts have been gradually improving over the past three months and December saw 88% of average for the month. The water year total is now 78% of average, which is only 6% less than last year at this time. It has been some time since many reservoirs in this basin have had below average storage levels, but this year's January 1 storage is only 78% of average, which is only 64% of last year's storage. All of the streamflow forecasts are below average at this time. They range from only 57% of average on the Cucharas River near La Veta, to 77% of average at the inflow to Trinidad Lake.

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ARKANSAS RIVER BASIN
Streamflow Forecasts - January 1, 2002

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Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		
		30% (1000AF)	10% (1000AF)					
Chalk Creek nr Nathrop	APR-SEP	6.3	14.5	20	74	28	38	27
Arkansas River at Salida	APR-SEP	114	189	240	77	291	366	310
Grape Creek nr Westcliffe	APR-SEP	5.9	7.0	14.5	74	25	40	19.6
Pueblo Reservoir Inflow	APR-SEP	187	263	315	73	386	490	430
Huerfano River nr Redwing	APR-SEP	4.2	7.3	10.8	70	15.8	23	15.5
Cucharas River nr La Veta	APR-SEP	2.9	3.9	7.4	57	13.5	22	13.0
Trinidad Lake Inflow	APR-SEP	14.8	21	34	77	51	77	44

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ARKANSAS RIVER BASIN
Reservoir Storage (1000 AF) - End of December

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Reservoir	Usable Capacity	*** Usable Storage ***		
		This Year	Last Year	Avg
ADOBE	70.0	17.3	38.0	23.4
CLEAR CREEK	11.0	5.6	4.8	5.9
GREAT PLAINS	150.0	25.8	68.8	32.2
HOLBROOK	7.0	0.0	4.4	3.0
HORSE CREEK	28.0	0.0	0.0	8.4
JOHN MARTIN	335.7	69.0	137.3	108.7
LAKE HENRY	8.0	2.9	3.0	3.7
MEREDITH	42.0	7.6	11.5	13.6
PUEBLO	236.7	113.8	187.5	144.0
TRINIDAD	72.3	16.2	30.5	24.2
TURQUOISE	126.6	88.1	79.2	87.9
TWIN LAKES	86.0	46.5	45.1	46.3

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ARKANSAS RIVER BASIN
Watershed Snowpack Analysis - January 1, 2002

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Watershed	Number of Data Sites	This Year as % of	
		Last Yr	Average
UPPER ARKANSAS BASIN	2	80	79
CUCHARAS & HUERFANO RIVER	2	68	36
PURGATOIRE RIVER BASIN	2	59	37
TOTAL ARKANSAS RIVER BASIN	5	73	55

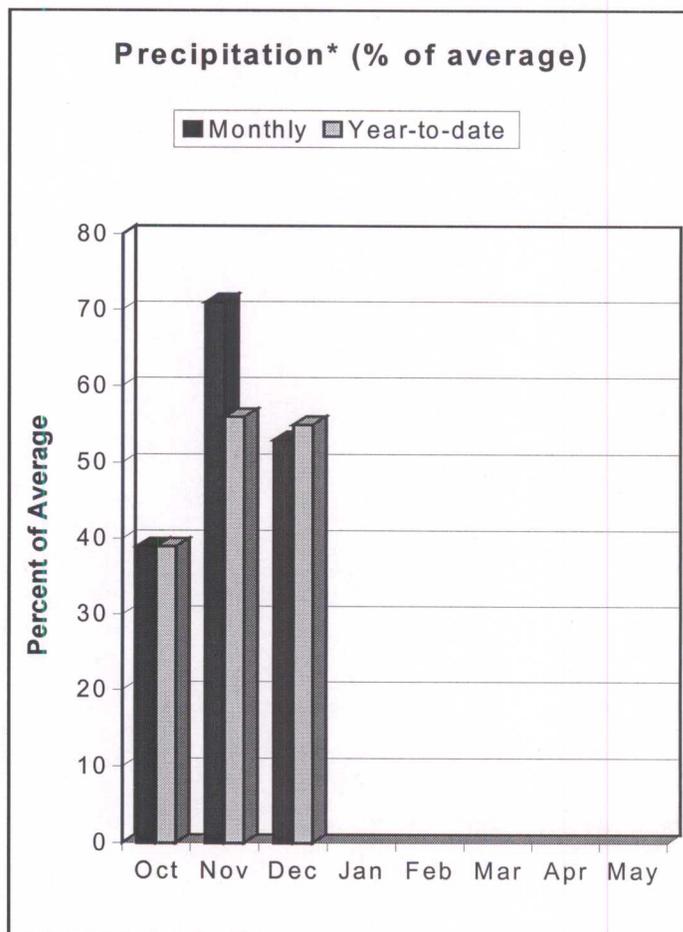
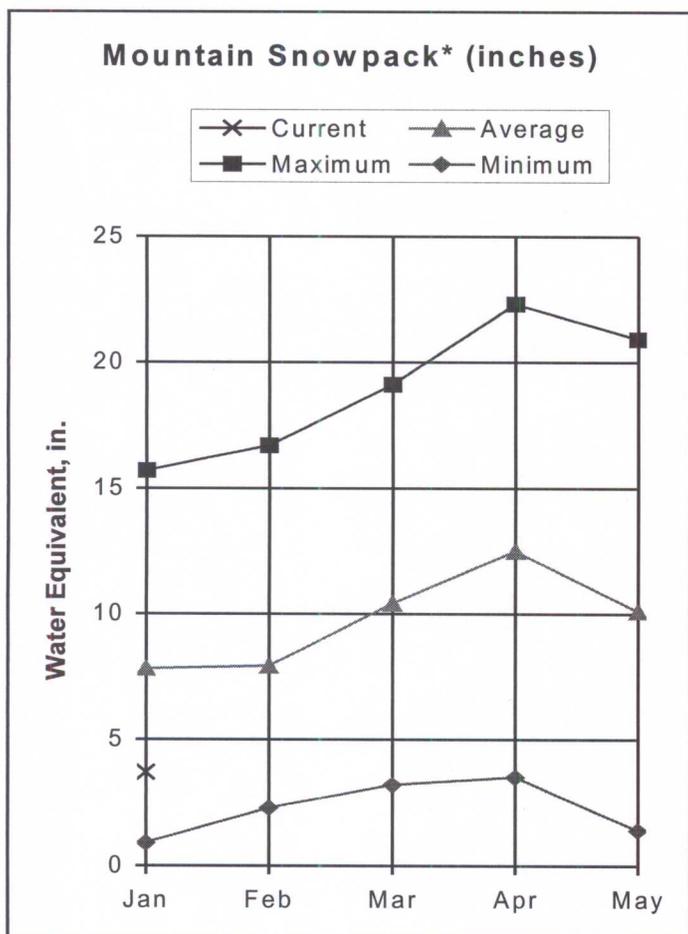
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* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER RIO GRANDE RIVER BASIN as of January 1, 2002



*Based on selected stations

The Rio Grande Basin has the lowest percent of average snowpack in the state on January 1. This is quite dramatic given that nearly all of the snowpack measurements in the state are significantly below average. Measurements at the 9 SNOTEL locations are only 48% of average on January 1, which is only 57 % of the snow accumulation this time last year. Percentages range from only 39% of average in the Upper Rio Grande Watershed, to 60% of average in the Conejos & Rio San Antonio Watersheds. Nearly all of the precipitation that has fallen so far in this basin occurred during late November and early December, shutting down during the remainder of December diminishing the monthly total to only 53% of average. The water year total is now only 55% of average. Reservoir storage is about 71% of average for this time of year, and is only 88% of the storage amount last year at this time. All of the streamflow forecasts are below average at this time. They range from 59% of average on South Fork Rio Grande at South Fork, to 79% of average at the San Antonio River at Ortiz.

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UPPER RIO GRANDE BASIN
Streamflow Forecasts - January 1, 2002

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Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		
		90%	70%	50%	60%	30%	10%	
Rio Grande at Thirty Mile Bridge	APR-SEP	54	69	82	60	97	125	136
Rio Grande Reservoir Inflow	APR-JUL	51	64	75	64	88	111	118
Rio Grande at Wagon Wheel Gap	APR-SEP	114	171	210	61	274	368	345
South Fork Rio Grande at South Fork	APR-SEP	46	65	78	59	100	132	132
Rio Grande nr Del Norte	APR-SEP	169	271	340	64	448	608	531
Saguache Creek nr Saguache	APR-SEP	10.0	16.0	20	61	27	36	33
Alamosa Creek abv Terrace Reservoir	APR-SEP	28	39	46	66	57	74	70
La Jara Creek nr Capulin	MAR-JUL	1.74	3.86	5.30	61	7.66	11.13	8.70
Trinchera Water Supply	APR-SEP	5.5	18.3	27	68	40	59	40
Platoro Reservoir Inflow	APR-JUL	23	36	44	69	53	65	64
	APR-SEP	26	40	49	69	58	72	71
Conejos River nr Mogote	APR-SEP	58	107	140	70	173	222	200
San Antonio River at Ortiz	APR-SEP	3.9	8.7	13.0	79	18.2	28	16.4
Los Pinos River nr Ortiz	APR-SEP	18.3	41	56	76	71	94	74
Culebra Creek at San Luis	APR-SEP	5.4	10.5	14.0	61	19.7	28	23
Costilla Reservoir inflow	MAR-JUL	3.4	5.7	7.2	68	9.4	12.8	10.6
Costilla Creek nr Costilla	MAR-JUL	8.3	13.5	17.0	65	22	30	26

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UPPER RIO GRANDE BASIN
Reservoir Storage (1000 AF) - End of December

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Reservoir	Usable Capacity	*** Usable Storage ***		
		This Year	Last Year	Avg
CONTINENTAL	15.0	2.1	3.9	4.9
PLATORO	53.7	14.1	13.8	24.3
RIO GRANDE	51.0	10.0	10.8	15.1
SANCHEZ	103.0	23.7	25.9	23.9
SANTA MARIA	45.0	7.2	9.5	10.1
TERRACE	13.1	2.7	4.2	5.6

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UPPER RIO GRANDE BASIN
Watershed Snowpack Analysis - January 1, 2002

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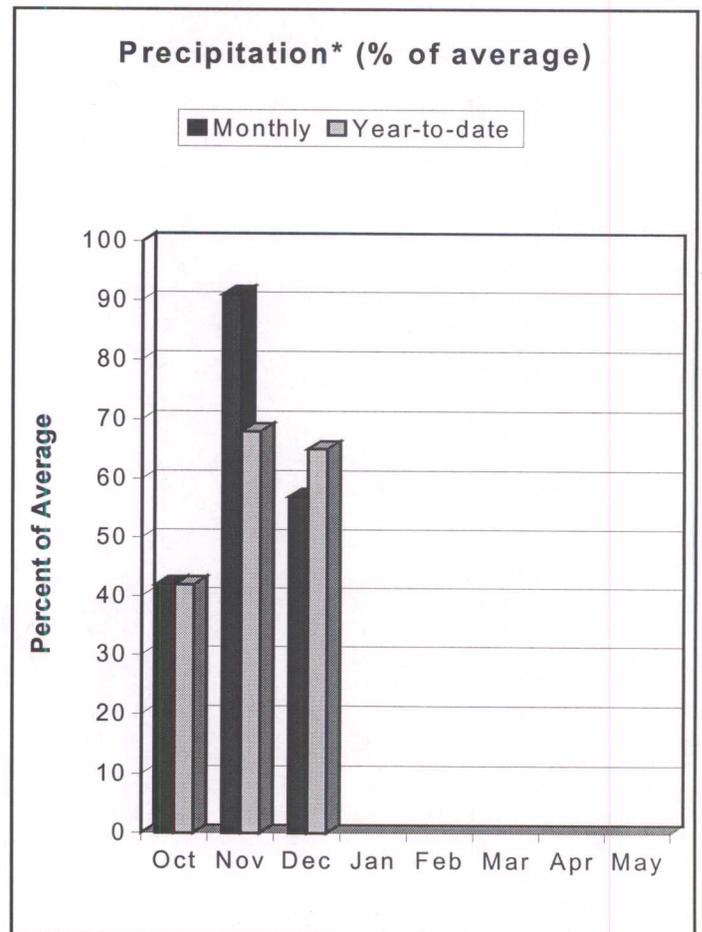
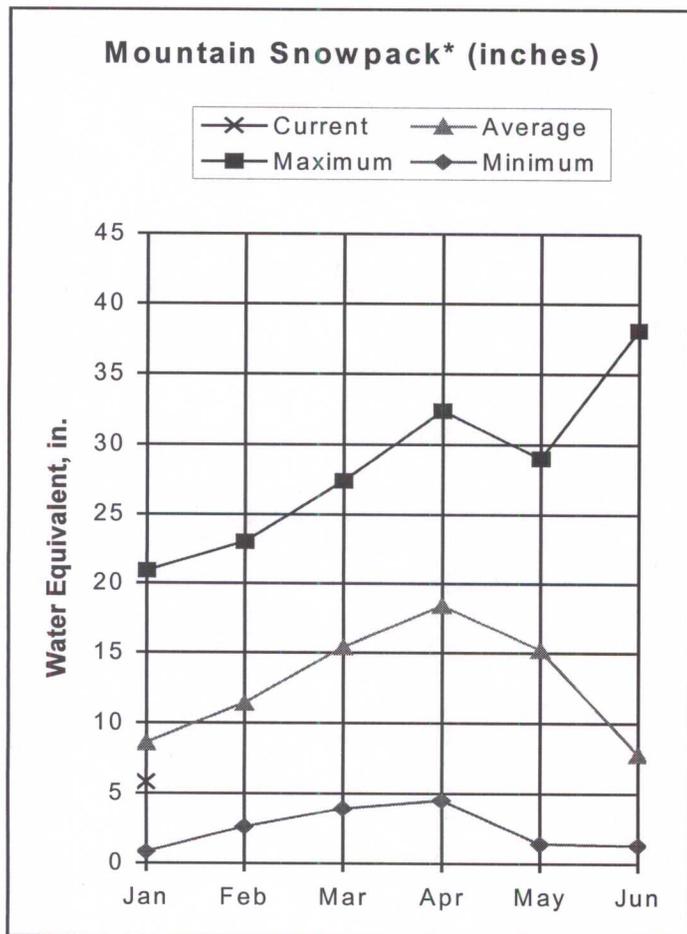
Watershed	Number of Data Sites	This Year as % of	
		Last Yr	Average
ALAMOSA CREEK BASIN	1	65	46
CONEJOS & RIO SAN ANTONIO	2	69	60
CULEBRA & TRINCHERA CREEK	2	81	56
UPPER RIO GRANDE BASIN	3	47	40
TOTAL UPPER RIO GRANDE BA	9	60	48

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS as of January 1, 2002



*Based on selected stations

Snowpack measurements at the 16 automated SNOTEL locations in these basins are at 66% of average on January 1. There is only 73% of the amount of snow in the basins there was last year at this time. The snowpack percentages are extremely variable throughout these basins and range from only 44% of average in the San Juan Basin, to 89% of average in the Dolores Basin. Most of this water year has been very dry, with the exception of late November when near average amounts of precipitation began to fall, only to stop early in December and then only providing 57% of the average precipitation during that month. The water year total is only 66% of average on January 1. The combined reservoir storage level for 6 major reservoirs in these basins is at 92% of average for this time of year, which is 19% above the storage last year at this time. All of the streamflow forecasts for this runoff season are below average at this time. Most forecasts are between 60% and 70% of average. They range from only 61% of average flow at the San Juan River near Carracas, to 78% of average flow on the Mancos River near Mancos.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Dolores River at Dolores	APR-JUL	66	140	180	68	220	299	265
McPhee Reservoir inflow	APR-JUL	70	154	200	63	246	330	320
San Miguel River nr Placerville	APR-JUL	40	76	95	72	114	150	132
Gurley Reservoir Inlet	APR-JUL	4.6	8.7	11.5	70	15.5	21	16.5
	APRIL			1.00	60			1.66
	MAY			7.00	79			8.83
	JUNE			3.00	64			4.67
	JULY			0.50	38			1.32
Cone Reservoir Inlet	APR-JUL	0.95	1.87	2.50	71	3.38	4.68	3.53
	APRIL			0.20	44			0.46
	MAY			1.40	85			1.64
	JUNE			0.70	67			1.04
	JULY			0.20	53			0.38
Lilylands Reservoir Inlet	APR-JUL	0.83	1.41	2.10	73	3.04	4.42	2.86
	APRIL			0.20	50			0.40
	MAY			1.20	91			1.32
	JUNE			0.50	58			0.87
	JULY			0.20	74			0.27
Rio Blanco at Blanco Diversion	APR-JUL	20	27	36	68	45	59	53
Navajo River at Oso Diversion	APR-JUL	23	31	45	65	59	79	69
San Juan River nr Carracus	APR-JUL	134	196	245	61	299	389	405
Piedra River nr Arboles	APR-JUL	39	102	145	63	188	251	230
Vallecito Reservoir Inflow	APR-JUL	81	94	132	64	170	226	205
Navajo Reservoir Inflow	APR-JUL	321	375	515	64	655	862	800
Animas River at Durango	APR-JUL	164	227	310	71	393	516	440
Lemon Reservoir Inflow	APR-JUL	23	26	37	64	48	65	58
La Plata River at Hesperus	APR-JUL	5.6	13.0	18.0	72	23	30	25
Mancos River nr Mancos	APR-JUL	9.2	19.7	31	78	42	59	40
	APRIL			6.00	103			5.80
	MAY			15.0	94			15.9
	JUNE			8.5	62			13.7
	JULY			1.50	33			4.60

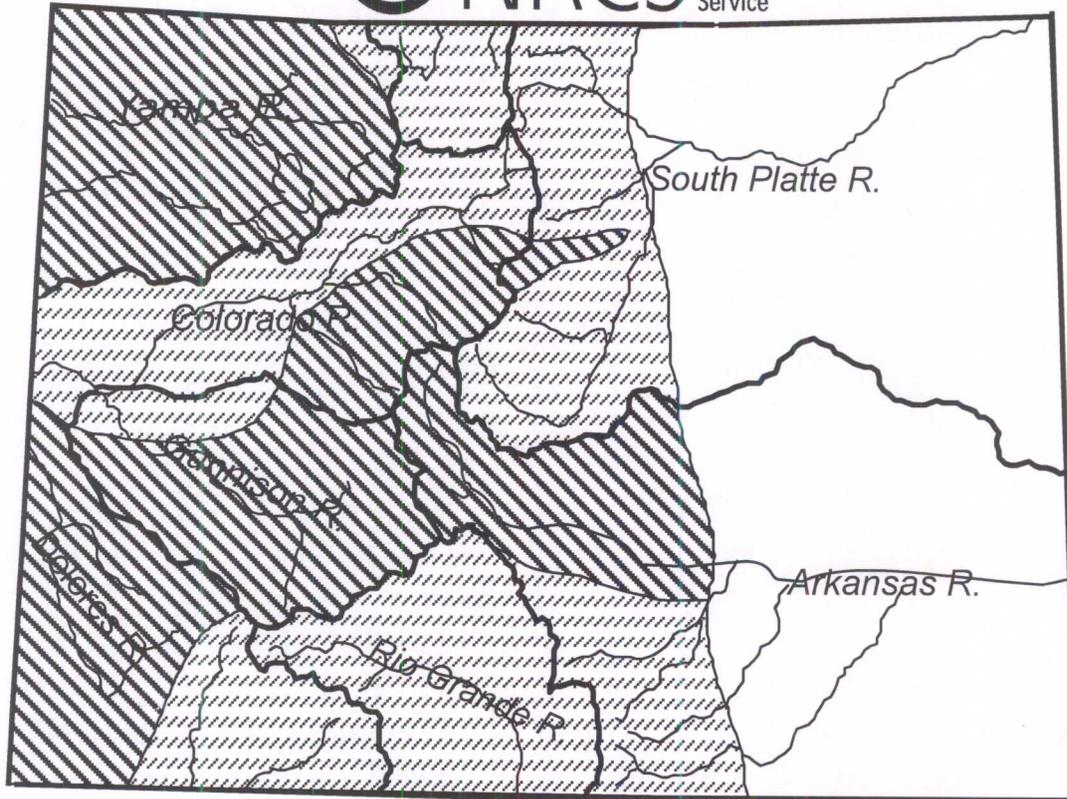
SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Reservoir Storage (1000 AF) - End of December

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Watershed Snowpack Analysis - January 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GROUNDHOG	21.7	11.1	11.3	12.0	ANIMAS RIVER BASIN	7	67	65
JACKSON GULCH	10.0	2.3	2.6	4.6	DOLORES RIVER BASIN	4	98	89
LEMON	40.0	13.0	9.8	20.1	SAN MIGUEL RIVER BASIN	3	113	85
MCPHEE		NO REPORT			SAN JUAN RIVER BASIN	3	51	44
NARRAGUINNEP	19.0	18.0	17.2	12.7	TOTAL SAN MIGUEL, DOLORES	16	73	66
VALLECITO	126.0	54.8	42.5	58.6	AN JUAN RIVER BASINS			

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

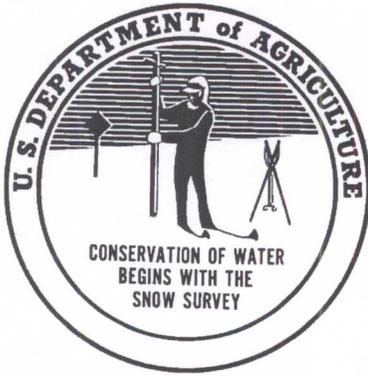
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Snowpack
January 1, 2002

Statewide: 65% of Average
73% of Last Year

-  **Much Above Average > 130%**
-  **Above Average 110% to 130%**
-  **Near Average 90% to 110%**
-  **Below Average 70% to 90%**
-  **Much Below Average < 70%**
-  **Not Measured**



655 Parfet Street, Room E200C
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In addition to the basin outlook reports, water supply forecast information for the Western United States is available from the Natural Resources Conservation Service and the National Weather Service monthly, January through May. The information may be obtained from the National Resources Conservation Service web page at <http://www.wcc.nrcs.usda.gov/water/quantity/westwide.html>.

Issued by

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Colorado
Basin Outlook Report
Natural Resources Conservation Service
Lakewood, CO

