

# COLORADO WATER SUPPLY OUTLOOK REPORT JANUARY 1, 2000

## Summary

In a similar fashion to last year, Colorado's early season snowfall in water year 2000 has been well below average, statewide. All basins are reporting below average January 1 readings, with the lowest observed across southwestern Colorado. As expected, precipitation totals have also been generally below average for the water year. However, after a wet summer, the state's reservoirs continue to report good to excellent storage volumes. Once again, water users find themselves hoping for above average snowfall during the remaining winter and spring months to assure them of adequate summer water supplies.

## Snowpack

Automated SNOTEL sites across the Colorado mountains indicate the state's snowpack is only 45% of average on January 1. These readings are significantly below last year's readings, especially across southwestern Colorado. Overall, the statewide snowpack is only 58% of last year's January 1 readings. The state's highest snowpack readings occur in the North Platte, South Platte, and the Yampa and White River Basins. SNOTEL data indicates that the snowpack in these basins are 64% of average. The Arkansas basin follows closely at 62% of average. Snowpack conditions deteriorate dramatically toward the southwest, with the Colorado Basin at 51% of average, and the Gunnison Basin at 32% of average. Much lower percentages were measured across the remaining southwestern corner of the state. The Rio Grande Basin is reporting only 19% of average, while the combined San Juan, Animas, Dolores, and San Miguel basins are reporting only 17% of average. For the most part, snowfall in these basins has been non-existent thus far during the 2000 water year. These are the lowest snowpack percentages in these basins since 1990, when the snowpack was only 10% of average. Nearly the entire state is reporting a lower snowpack than last year at this time. Only the Yampa and White basins are above last year's snowpack, at 107% of last year.

## Precipitation

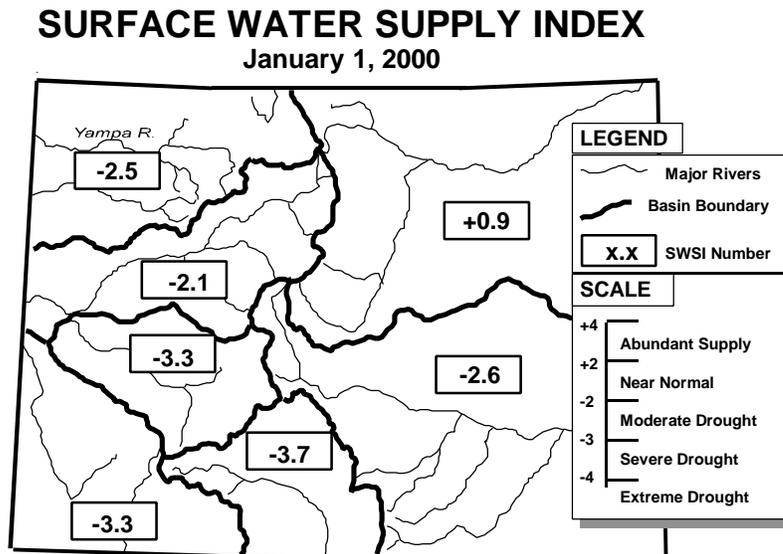
December was another dry month for Colorado, even at lower elevations. It was the third consecutive month with all basins in the state reporting below average precipitation totals. The Rio Grande Basin, at 17% of average, and San Juan, Animas, Dolores and San Miguel basins, at 23% of average, continued to lead the state with the lowest December percentages. Meanwhile, the northwestern Colorado saw improvements in their percentages over the previous two months of the water year. Both the Yampa and White, and the Colorado basins reported the wettest month of the 2000 water year in December. Statewide precipitation in December was only 57% of average. Statewide precipitation for the water year, which began on October 1, 1999, is only 34% of average. The lowest water year totals are reported in both the Rio Grande Basin and the San Juan, Animas, Dolores, and San Miguel basins which are only 11% of average. The highest water year percentages occur in the Yampa and White basins, at 67% of average, followed by the South Platte Basin, at 60% of average.

# Reservoir Storage

Colorado enters the 2000 water year with reservoir storage remaining in good to excellent condition. January 1 statistics show storage volumes that range from above to well above average, in all basins. The statewide storage is now 139% of average. This equates to 78% of the total capacity of the state's reservoirs. The Arkansas basin leads the state's basin statistics, with 272% of the average volume currently in storage. This surplus water should help alleviate shortages that might occur later in the year, should the 2000 snowpack continue to lag below average. In comparison to last year, all basins are reporting higher volumes than a year ago, except the Yampa and White Basins. The Arkansas Basin is reporting the largest increase in volumes over last year, with an increase of more than 190,000 acre-feet over last year at this time.

# Streamflow

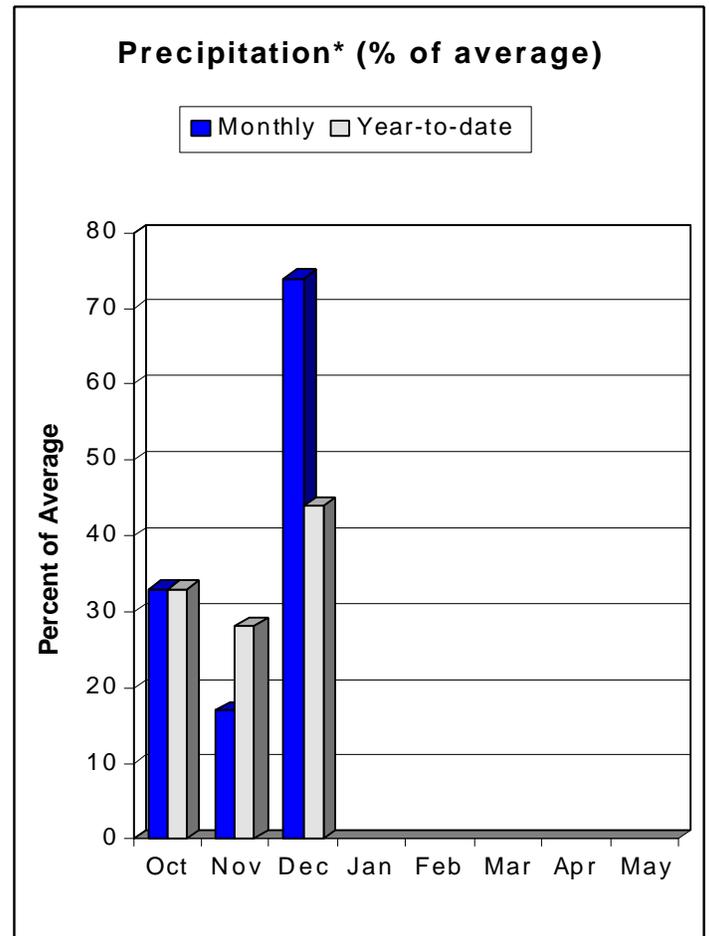
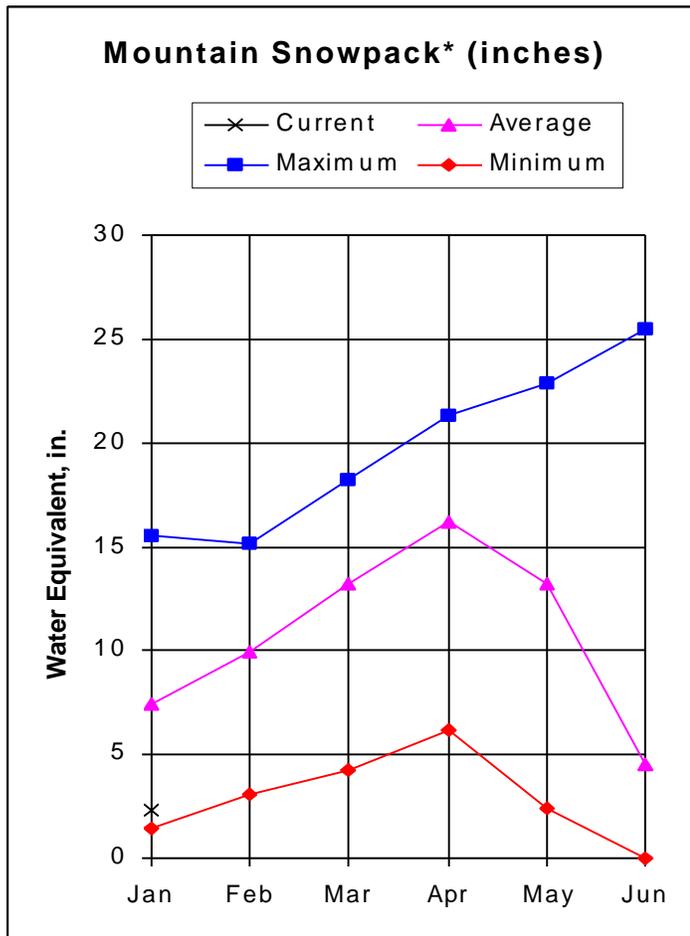
With such dry conditions across the Colorado high country, the latest streamflow forecasts range from below average to well below average, statewide. The lowest forecasts, ranging from only 40% to 50% of average, occur across much of southwestern Colorado and in the South Platte headwaters. The highest forecasts, which range from 70% to 80% of average, are located along the northern Front Range tributaries, the upper Arkansas, and the Yampa and White River basins. For the remainder of the state, forecasts of only 50% to 70% of average are the rule. While conditions of a year ago were quite similar in many locations, the state was able to benefit from a wet spring and summer. The question now for most water users is, "Can we be so lucky to get another wet season two years in a row?"



The Surface Water Supply Index (SWSI) is a weighted value derived for each major basin, which generally expresses the potential availability of the forthcoming season's water supply. The components used in computing the index are reservoir storage, snowpack water equivalent, and precipitation. The SWSI number for each basin ranges from a -4.0 (prospective water supplies extremely poor) to a +4.0 (prospective water supplies plentiful). The SWSI number is only a general indicator of surface water supply condition. Further data analysis may be required in specific situations to more fully understand the impacts of abnormally dry or wet conditions suggested by the SWSI. Development of the SWSI has been a cooperative effort between the Colorado State Engineer's Office and the Natural Resources Conservation Service.

# GUNNISON RIVER BASIN

## as of January 1, 2000



\*Based on selected stations

So far this season the snowpack accumulation in the Gunnison Basin has gotten off to an extremely slow start. Warmer and drier than normal conditions have prevailed for most of the season, and the accumulation on January 1 is only 32% of average; this is near the record low for this time of year. Most of the snow arrived gradually through the month of December during which time the basin benefited from being on the southern fringe of storms that were more beneficial to basins to the north. Precipitation was only 74% of average during December, and the water year total is only 44% of average. The reservoir storage is 15% above average for this time of year, but this could easily become fare average this spring if snowpack conditions do not improve in the coming months. The storage is at 103% of last years amount. Streamflow forecasts for all of the forecast points reflect the low snowpack conditions by predicting much below average flows this runoff season. Forecasted flow volumes range from only 45% of average at the Paonia Reservoir Inflow to 73% of average at Lakefork at Gateview.

GUNNISON RIVER BASIN  
Streamflow Forecasts - January 1, 2000

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)		
		90% (1000AF)		70% (1000AF)		50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF) 10% (1000AF)	
		90%	70%	50%	30%	10%				
Taylor River blw Taylor Park Resv	APR-JUL	25	50	67	68	84	109	99		
East River at Almont	APR-JUL	50	97	130	71	163	210	183		
Gunnison River nr Gunnison	APR-JUL	76	174	240	64	306	404	375		
Tomichi Creek at Gunnison	APR-JUL	6.1	21	35	46	53	88	77		
Lake Fork at Gateview	APR-JUL	45	72	90	73	108	135	123		
Blue Mesa Reservoir Inflow	APR-JUL	128	335	475	68	615	822	699		
Paonia Reservoir Inflow	APR-JUL	19.0	28	47	45	70	113	104		
N.F. Gunnison River nr Somerset	APR-JUL	93	144	185	64	231	309	288		
Surface Creek nr Cedaredge	APR-JUL	5.8	8.1	10.2	64	12.9	18.1	16.0		
Ridgway Reservoir Inflow	APR-JUL	47	58	67	68	78	96	98		
Uncompahgre River at Colona	APR-JUL	45	64	78	62	94	120	126		
Gunnison River nr Grand Junction	APR-JUL	420	575	855	59	1135	1548	1448		

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

GUNNISON RIVER BASIN  
Watershed Snowpack Analysis - January 1, 2000

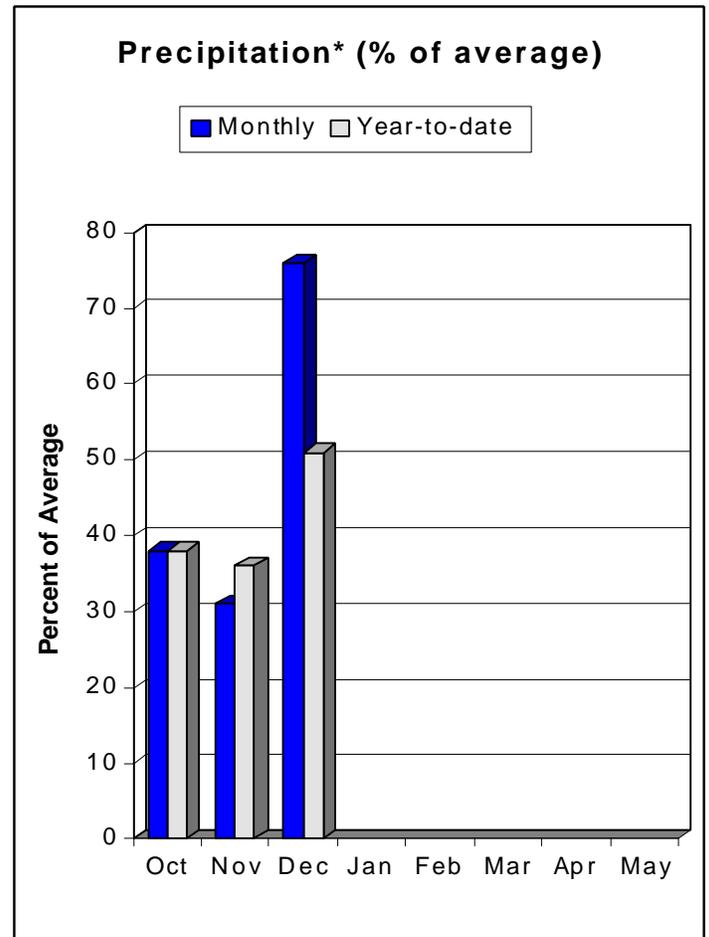
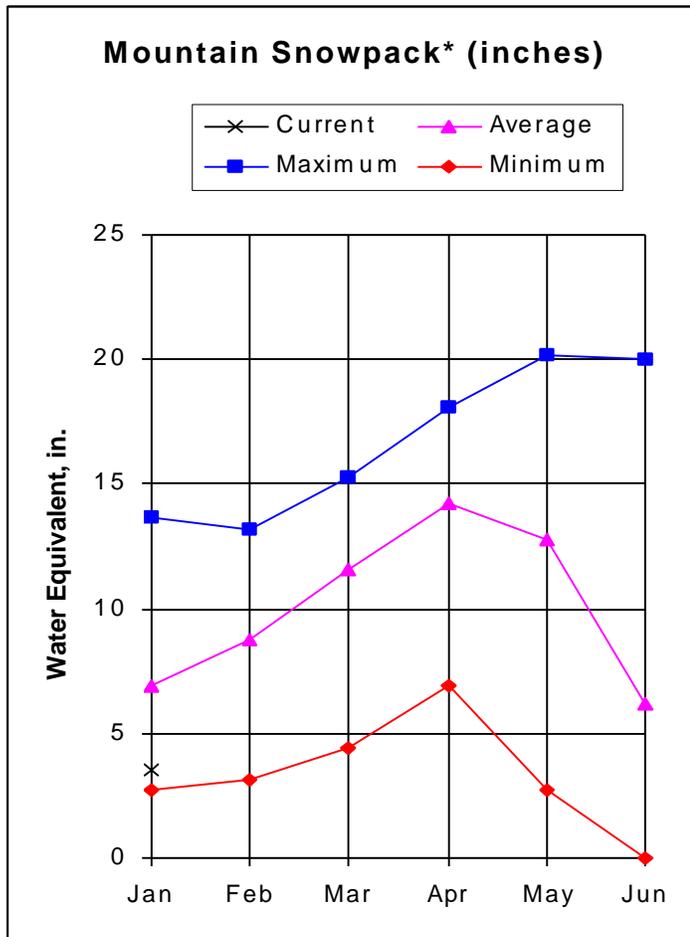
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BLUE MESA	830.0	589.1	577.9	488.0	UPPER GUNNISON BASIN	9	43	28
CRAWFORD	14.3	5.5	6.9	7.2	SURFACE CREEK BASIN	2	45	26
FRUITGROWERS	4.3	2.2	3.6	2.6	UNCOMPAHGRE BASIN	3	49	45
FRUITLAND	9.2	0.2	0.9	1.8	TOTAL GUNNISON RIVER BASIN	12	45	32
MORROW POINT	121.0	112.8	110.7	110.9				
PAONIA	18.0	4.4	3.0	4.6				
RIDGWAY	83.2	66.6	65.4	68.9				
TAYLOR PARK	106.0	76.2	64.1	64.0				

\* 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 1961-1990 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, 2000



\*Based on selected stations

The snowpack accumulation in the Colorado Basin is only 51% of average on January 1, which is only 79% of the amount of snow last year at this time. The distribution of snow throughout the basin reflects the statewide snowfall pattern of less in the southwest and more in the northeast. Percentages range from only 26% of average in the Plateau Creek Watershed to 82% of average in the Muddy Creek Watershed. Muddy Creek has the highest snowpack percentage in the state. Precipitation in the basin was 76% of average during December, and the total precipitation for the water year is now at 51% of average. Reservoir storage remains in good shape due to high runoff last spring and summer. The combined storage volume in the basin is 27% above average for this time, which is about the same as last year's January 1 storage. All of the forecasted stream flows are below average for the upcoming runoff season. Forecasts range from 75% of average at the Inflow to Lake Granby to only 60% of average at the East Fork of Troublesome Creek near Troublesome.

UPPER COLORADO RIVER BASIN  
Streamflow Forecasts - January 1, 2000

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)		
		90% (1000AF)		70% (1000AF)		50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF) 10% (1000AF)	
		Chance Of Exceeding *								
Lake Granby Inflow	APR-JUL	110	137	160	75	186	233	214		
Willow Creek Reservoir Inflow	APR-JUL	17.6	27	34	68	42	56	50		
Williams Fork Reservoir inflow	APR-JUL	42	55	65	74	76	93	88		
E.F. Troublesome Creek nr Troublesom	APR-JUL	2.5	7.6	11.0	60	14.4	19.5	18.5		
Dillon Reservoir Inflow	APR-JUL	33	76	105	70	134	177	151		
Green Mountain Reservoir inflow	APR-JUL	133	160	180	69	201	234	262		
Muddy Creek blw Wolford Mtn. Resv.	APR-JUL	26	36	44	69	55	75	64		
Eagle River blw Gypsum	APR-JUL	127	164	195	63	232	300	310		
Colorado River nr Dotsero	APR-JUL	275	653	910	67	1167	1545	1362		
Ruedi Reservoir Inflow	APR-JUL	64	81	95	70	111	140	136		
Roaring Fork at Glenwood Springs	APR-JUL	269	366	440	66	521	653	671		
Colorado River nr Cameo	APR-JUL	454	1047	1450	63	1853	2446	2287		

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

UPPER COLORADO RIVER BASIN  
Watershed Snowpack Analysis - January 1, 2000

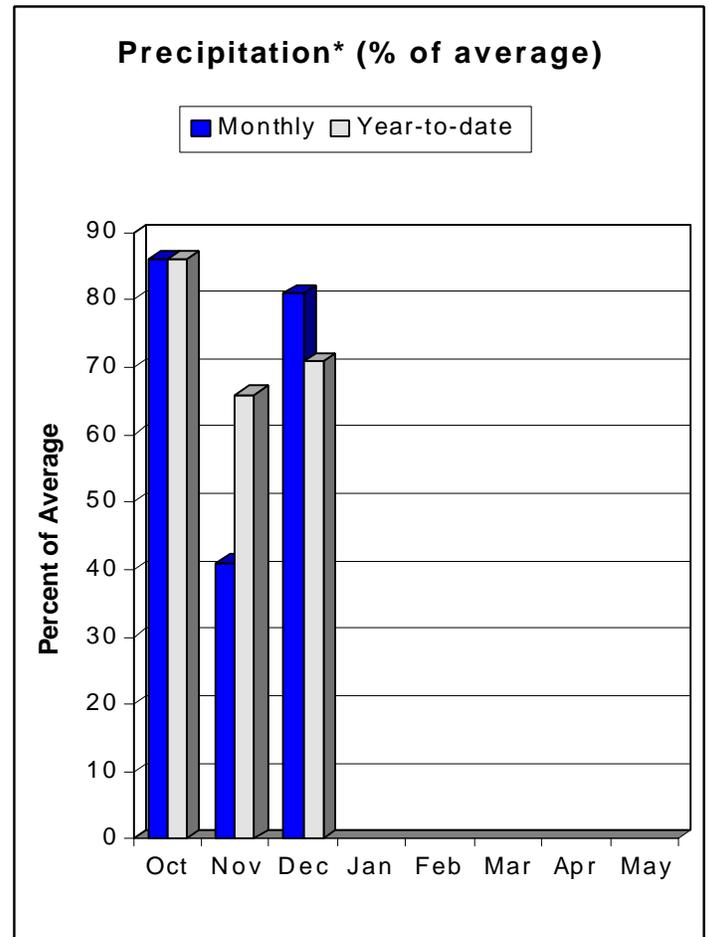
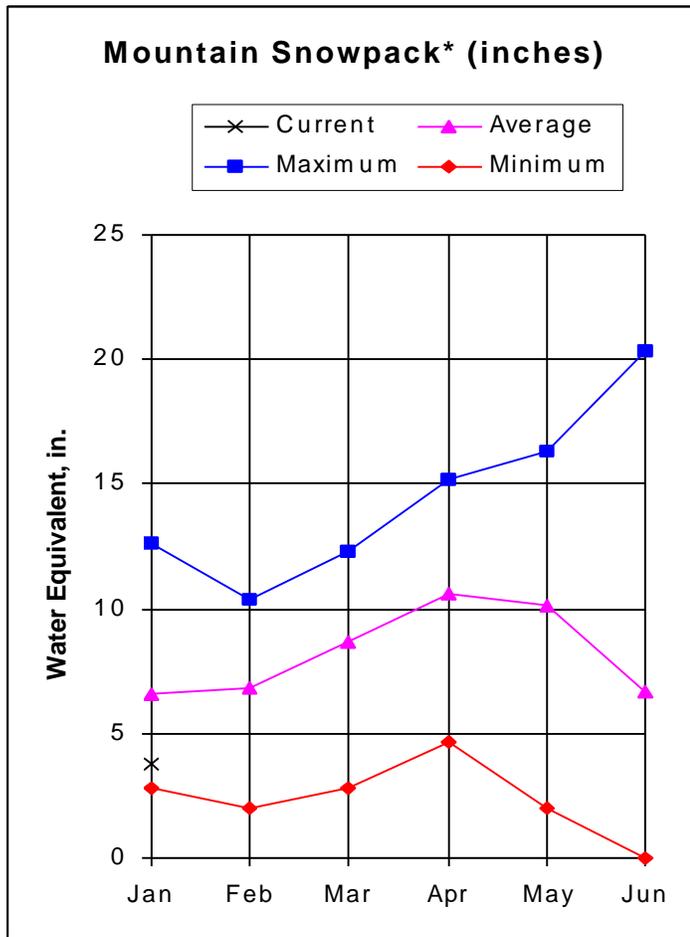
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DILLON	250.8	235.5	240.4	209.7	BLUE RIVER BASIN	5	84	60
LAKE GRANBY	465.6	422.5	416.2	290.4	UPPER COLORADO RIVER BASI	15	87	60
GREEN MOUNTAIN	139.0	90.4	73.6	88.4	MUDDY CREEK BASIN	2	149	82
HOMESTAKE	43.0	42.3	41.6	25.0	PLATEAU CREEK BASIN	2	45	26
RUEDI	102.0	76.0	71.0	79.4	ROARING FORK BASIN	7	74	42
VEGA	32.0	15.7	11.6	10.5	WILLIAMS FORK BASIN	1	133	56
WILLIAMS FORK	96.8	80.9	80.7	52.4	WILLOW CREEK BASIN	2	78	70
WILLOW CREEK	9.0	4.8	6.5	6.0	TOTAL COLORADO RIVER BASI	24	79	51

\* 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 1961-1990 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, 2000



\*Based on selected stations

The snowpack in the South Plate Basin is only at 64% of average for January 1, and yet this is the highest basin wide snowpack percentage in the state. The distribution of snow is relatively uniform throughout the basin, ranging from 56% of average in the Cache la Poudre drainage, to 68% of average in the South Platte above South Platte watershed. There is about 9% less snow in the basin than last year at this time. Precipitation in the basin was 81% of average during the month of December, and the water year total is now 71% of average. Reservoirs are still benefiting from good runoff last spring and summer, with combined storage levels 17% above average for this time of year; this is also 17% more than last year at this time. Although all of the forecasted streamflows are below average, they are highly variable depending upon location. Forecasts range from only 39% of average flow at the Inflow to Antero Reservoir to 79% of average at Boulder Creek near Orodell.

Streamflow Forecasts - January 1, 2000  
SOUTH PLATTE RIVER BASIN

Forecast Point	Forecast Period	<<==== Drier ===== Future Conditions ===== Wetter =====>>					30-Yr Avg. (1000AF)	
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)		10% (1000AF)
Antero Reservoir inflow	APR-JUL	1.6	3.0	4.5	39	6.8	12.4	11.7
Spinney Mountain Reservoir inflow	APR-JUL	8.3	12.8	17.2	45	23	36	38
Elevenmile Canyon Reservoir inflow	APR-JUL	6.1	9.5	15.2	40	24	38	38
Cheesman Lake inflow	APR-JUL	18.7	28	37	44	49	73	84
South Platte River at South Platte	APR-SEP	49	68	124	58	180	263	213
Bear Creek at Morrison	APR-SEP	3.9	11.5	16.6	55	22	29	30
Clear Creek at Golden	APR-SEP	48	71	87	68	103	126	128
St. Vrain Creek at Lyons	APR-SEP	39	52	61	78	70	84	78
Boulder Creek nr Orodell	APR-SEP	26	35	41	79	47	56	52
South Boulder Creek nr Eldorado Spr	APR-SEP	9.7	24	33	73	42	56	45
Big Thompson River at mouth nr Drake	APR-SEP	57	73	83	73	93	109	114
Cache La Poudre at Canyon Mouth	APR-SEP	16.0	131	209	74	287	402	284

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

SOUTH PLATTE RIVER BASIN  
Watershed Snowpack Analysis - January 1, 2000

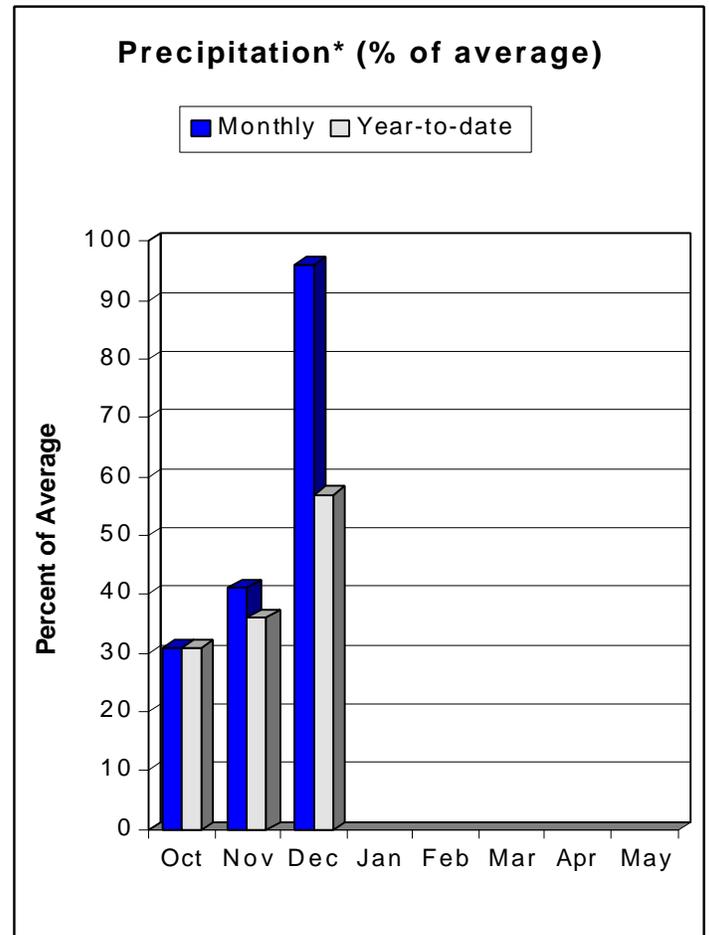
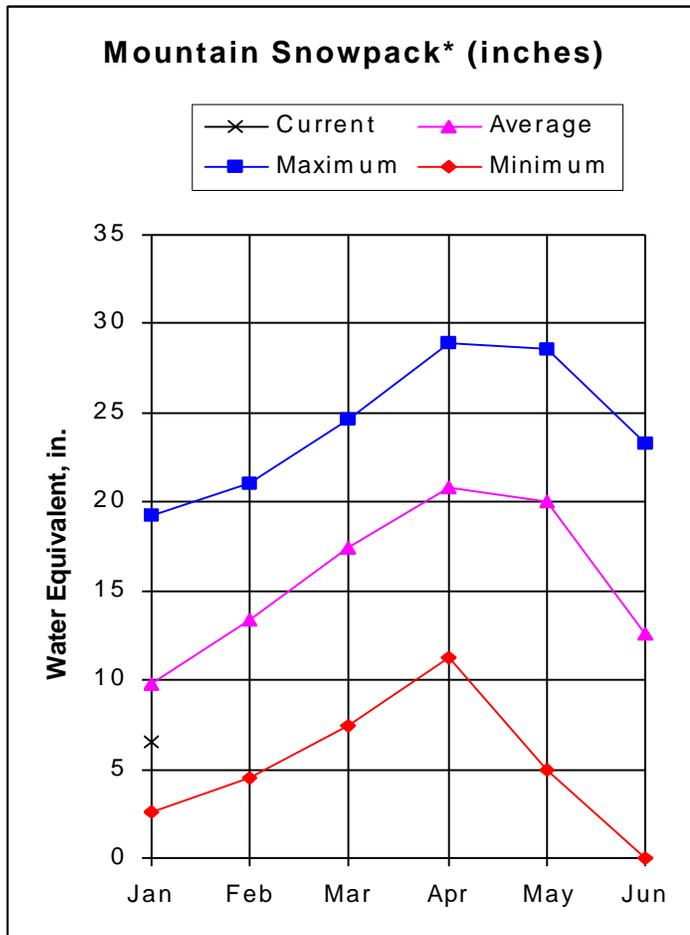
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ANTERO	20.0	20.0	20.0	15.0	BIG THOMPSON BASIN	3	68	63
BARR LAKE	32.0	24.7	23.0	19.5	BOULDER CREEK BASIN	3	113	60
BLACK HOLLOW	8.0	3.0	3.0	4.0	CACHE LA POUFRE BASIN	2	63	56
BOYD LAKE	49.0	43.0	39.1	33.3	CLEAR CREEK BASIN	2	117	69
CACHE LA POUFRE	10.0	7.0	5.5	6.6	SAINTE VRAIN BASIN	1	140	64
CARTER	108.9	61.5	55.5	71.4	UPPER SOUTH PLATTE BASIN	5	108	68
CHAMBERS LAKE	9.0	5.0	5.0	2.8	TOTAL SOUTH PLATTE BASIN	15	91	64
CHEESMAN	79.0	57.5	49.6	56.7				
COBB LAKE	34.0	18.0	15.5	13.8				
ELEVEN MILE	97.8	100.0	99.8	91.0				
EMPIRE	38.0	27.5	25.8	20.3				
FOSSIL CREEK	12.0	9.0	6.5	5.8				
GROSS	41.8	39.5	26.3	26.5				
HALLIGAN	6.4	6.0	6.0	3.2				
HORSECREEK	16.0	13.0	12.6	10.8				
HORSETOOTH	149.7	109.4	72.6	76.9				
JACKSON	35.0	11.4	19.6	25.5				
JULESBURG	28.0	15.1	16.5	19.6				
LAKE LOVELAND	14.0	10.9	11.9	9.2				
LONE TREE	9.0	7.1	8.3	5.9				
MARIANO	6.0	4.6	4.3	4.3				
MARSHALL	10.0	7.0	6.2	4.0				
MARSTON	13.0	10.0	10.5	6.9				
MILTON	24.0	18.6	16.2	13.4				
POINT OF ROCKS	70.0	65.8	32.4	49.7				
PREWITT	33.0	15.4	17.8	16.5				
RIVERSIDE	63.1	33.7	28.6	35.7				
SPINNEY MOUNTAIN	48.7	41.8	26.9	36.5				
STANDLEY	42.0	40.0	38.8	24.0				
TERRY LAKE	8.0	5.5	5.5	4.9				
UNION	13.0	11.8	10.8	10.3				
WINDSOR	19.0	12.0	12.5	9.4				

\* 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 1961-1990 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, 2000



\*Based on selected stations

Nearly every storm that has managed to deliver a significant amount of snow to Colorado so far this season has brought the most snow to these basins, yet the snowpack is only 64% of average on January 1. Surprisingly this snowpack is the highest basin percentage of average in the state. Only the South Platte Basin has as equally high of snowpack percentage. Similar to the South Platte Basin, the snowpack distribution is relatively uniform throughout the basin; it ranges from 53% of average in the Laramie Watershed to 69% of average in the North Platte Basin. Precipitation in these basins during December was 96% of average, but the water year total is only 57% of average. The combined reservoir storage in these basins is at 111% of average, which is about the same as last year at this time. Early forecasts are calling for much below average volumes at all of the forecasted streamflow points this runoff season. Forecasts range from only 58% of average on the North Platte River near Northgate to 81% of average at Elkhead Creek near Elkhead.

YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS  
Streamflow Forecasts - January 1, 2000

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		50% (Most Probable)		Wetter		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
North Platte River nr Northgate	APR-SEP	10.0	97	156	58	215	302	271
Laramie River nr Woods	APR-SEP	10.0	52	80	59	108	150	135
Yampa R abv Stagecoach Res	APR-JUL	10.1	18.4	24	71	30	38	34
Yampa River at Steamboat Springs	APR-JUL	107	162	200	73	238	293	273
Elk River nr Milner	APR-JUL	130	191	240	80	294	384	300
Elkhead Creek nr Elkhead	APR-JUL	16.4	23	29	74	37	51	39
ELKHEAD CREEK blw Maynard Gulch	APR-JUL	24	38	48	81	58	72	59
Fortification Ck nr Fortification	MAR-JUN	1.81	4.43	6.20	73	7.97	10.59	8.50
Yampa River nr Maybell	APR-JUL	289	525	685	72	845	1081	947
Little Snake River nr Slater	APR-JUL	43	71	95	61	122	168	155
LITTLE SNAKE R nr Dixon	APR-JUL	83	153	200	61	247	317	329
LITTLE SNAKE R nr Lily	APR-JUL	99	171	220	62	269	341	358
White River nr Meeker	APR-JUL	121	163	200	72	245	330	279

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

YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS  
Watershed Snowpack Analysis - January 1, 2000

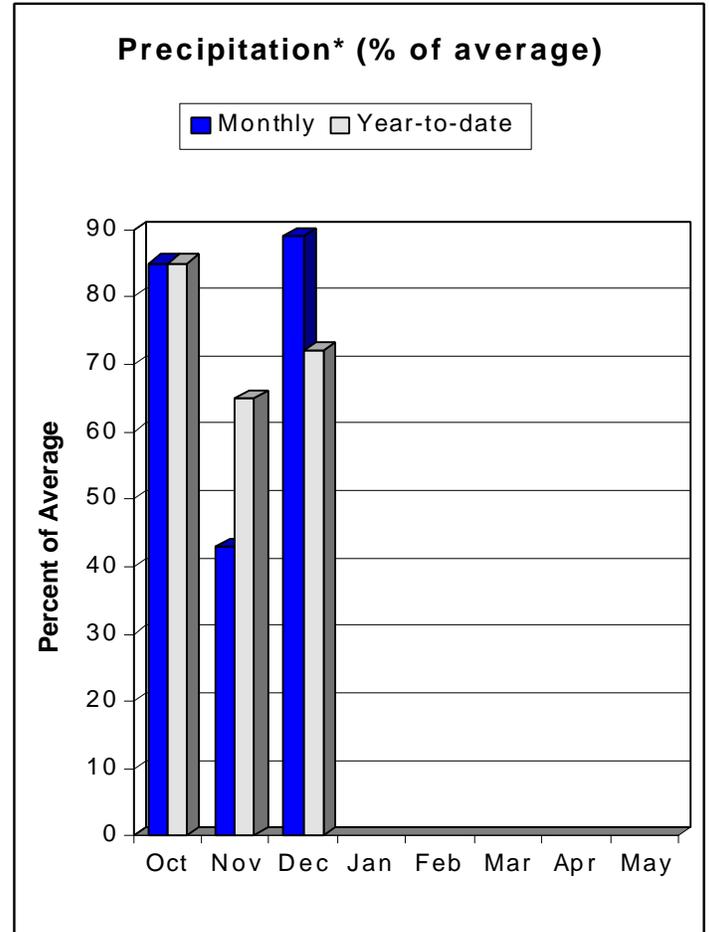
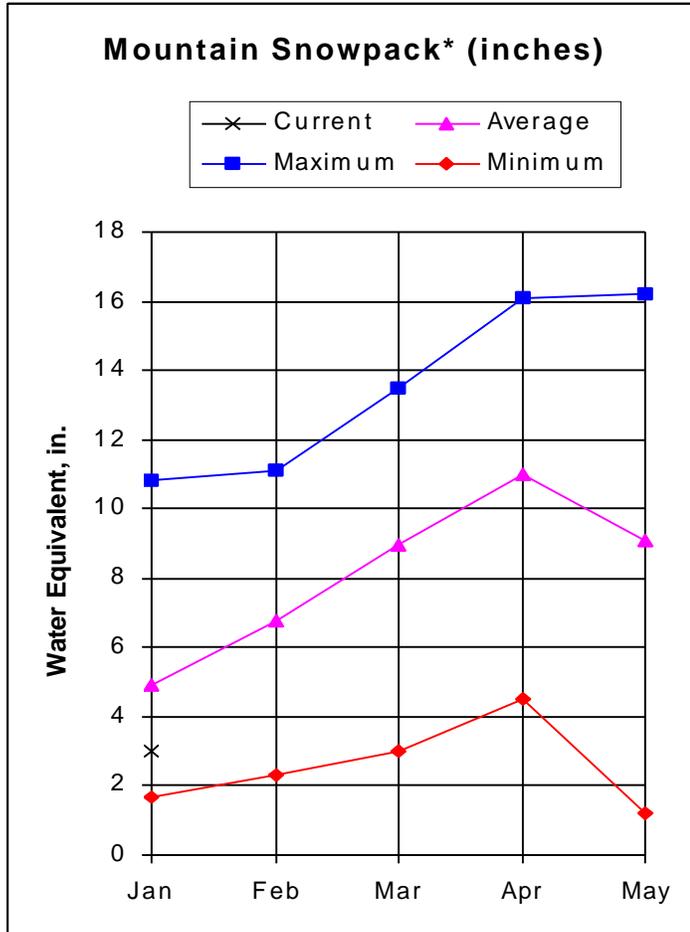
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
STAGECOACH	33.3	29.5	30.0	28.3	LARAMIE RIVER BASIN	2	56	53
YAMCOLO	9.1	7.8	7.6	5.2	NORTH PLATTE RIVER BASIN	3	108	69
					TOTAL NORTH PLATTE BASIN	5	88	64
					ELK RIVER BASIN	2	101	56
					YAMPA RIVER BASIN	9	116	68
					WHITE RIVER BASIN	4	91	59
					TOTAL YAMPA AND WHITE RIV	12	107	64
LITTLE SNAKE RIVER BASIN	6	97	63					

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

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- (2) - The value is natural volume - actual volume may be affected by upstream water management.

# ARKANSAS RIVER BASIN as of January 1, 2000



\*Based on selected stations

The snowpack accumulation in the Arkansas Basin is only 62% of average on January 1. Interestingly, there is a small area draping the Arkansas-Upper Rio Grande basins, at the headwaters of the Purgatory and Cucharis watersheds, where the snowpack measurements are well above average, forming a tiny island (the only spot in the state) of above average snowpack accumulation surrounded by much below average conditions. As a result the Puragatoire Watershed has 80% of average snowpack, while the other watersheds are closer to 65% of average. Precipitation was 89% of average through December, and the water year total is now 72% of average. Due to some extremely high flows last spring, the basin's combined reservoir storage is extremely high now at 272% of average; this is 22% more than last year at this time. All of the streamflow forecasts are below average at this time. They range from 55% of average flow at the Grape Creek near Westcliffe to 74% of average at the Inflow to Trinidad Lake.

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ARKANSAS RIVER BASIN  
Streamflow Forecasts - January 1, 2000

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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	7.3	11.7	19.2	66	27	38	29
Arkansas River at Salida	APR-SEP	83	138	210	71	282	389	297
Grape Creek nr Westcliffe	APR-SEP	4.1	7.1	11.0	55	21	36	20
Pueblo Reservoir Inflow	APR-SEP	108	167	270	69	373	526	394
Huerfano River nr Redwing	APR-SEP	4.2	5.8	10.8	72	15.8	23	15.0
Cucharas River nr La Veta	APR-SEP	4.6	6.5	9.0	69	15.1	24	13.0
Trinidad Lake Inflow	APR-SEP	12.8	18.8	32	74	49	75	43

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

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ARKANSAS RIVER BASIN  
Watershed Snowpack Analysis - January 1, 2000

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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
ADOBE	70.0	50.2	59.1	14.8	UPPER ARKANSAS BASIN	2	91	63
CLEAR CREEK	11.0	4.3	8.3	6.4	CUCHARAS & HUERFANO RIVER	2	77	68
GREAT PLAINS	150.0	114.8	97.8	29.6	PURGATOIRE RIVER BASIN	2	183	80
HOLBROOK	7.0	5.3	5.3	2.9	TOTAL ARKANSAS RIVER BASIN	5	80	62
HORSE CREEK	28.0	23.9	24.0	5.8				
JOHN MARTIN	335.7	332.0	268.5	73.4				
LAKE HENRY	8.0	3.3	3.3	3.3				
MEREDITH	42.0	39.7	39.8	9.5				
PUEBLO	236.7	249.0	172.3	125.8				
TRINIDAD	72.3	65.7	19.0	26.4				
TURQUOISE	126.6	114.9	103.0	56.3				
TWIN LAKES	86.0	57.9	69.7	36.3				

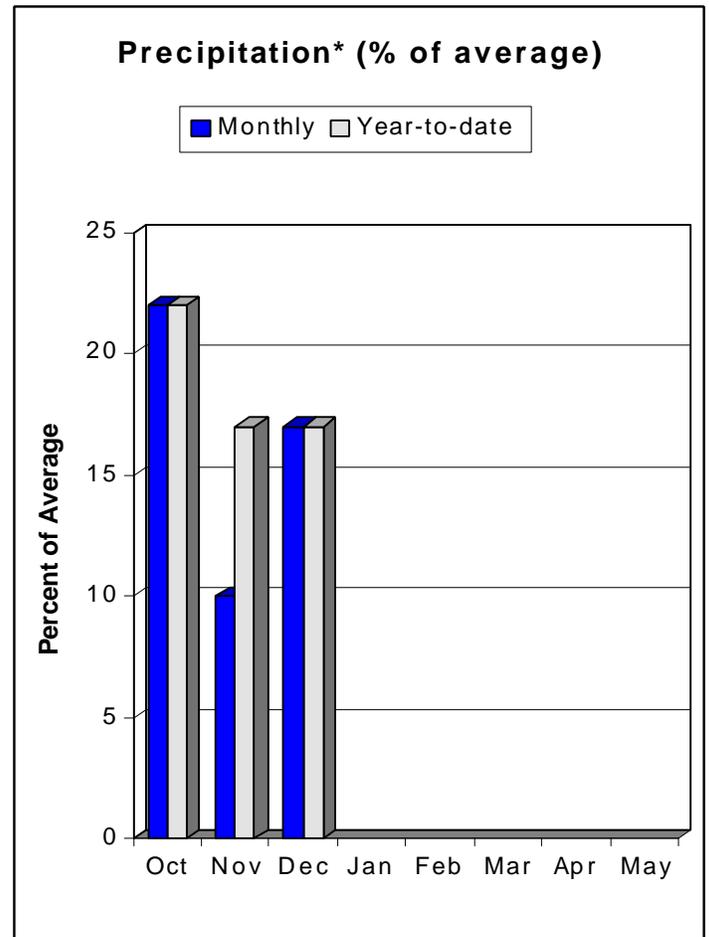
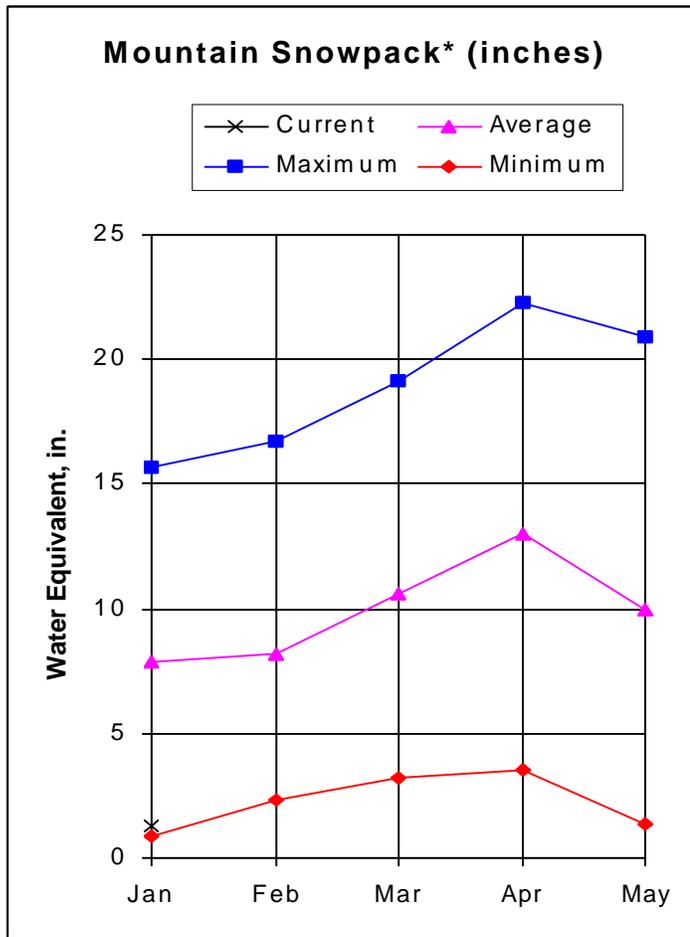
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\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 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, 2000



\*Based on selected stations

The Rio Grande Basin has only 19% of average snow accumulation on January 1, which is only 18% of the amount last year at this time. Snowpack in most of the watersheds is almost negligible, but there is a small area at the headwaters of the Culebra and Trinchera watersheds that has above average accumulation, helping to boost there overall snowpack percentages to 70% of average. This creates quite a striking contrast to the remaining watersheds with some of the lowest snowpack accumulations in the state, as low as only 9% of average. Precipitation in the basin was only 17% of average for December, and the water year total is also only 17% of average. Fortunately the combined reservoir storage in the basin is 62% above average, which is 18% more than last year at this time. Not surprisingly, all of the forecasted streamflows for this runoff season are below average. The forecasts are highly variable depending upon location. They range from only 33% of average at La Jara Creek near Capulin, to 83% of average at Trinchera Water Supply.

UPPER RIO GRANDE BASIN  
Streamflow Forecasts - January 1, 2000

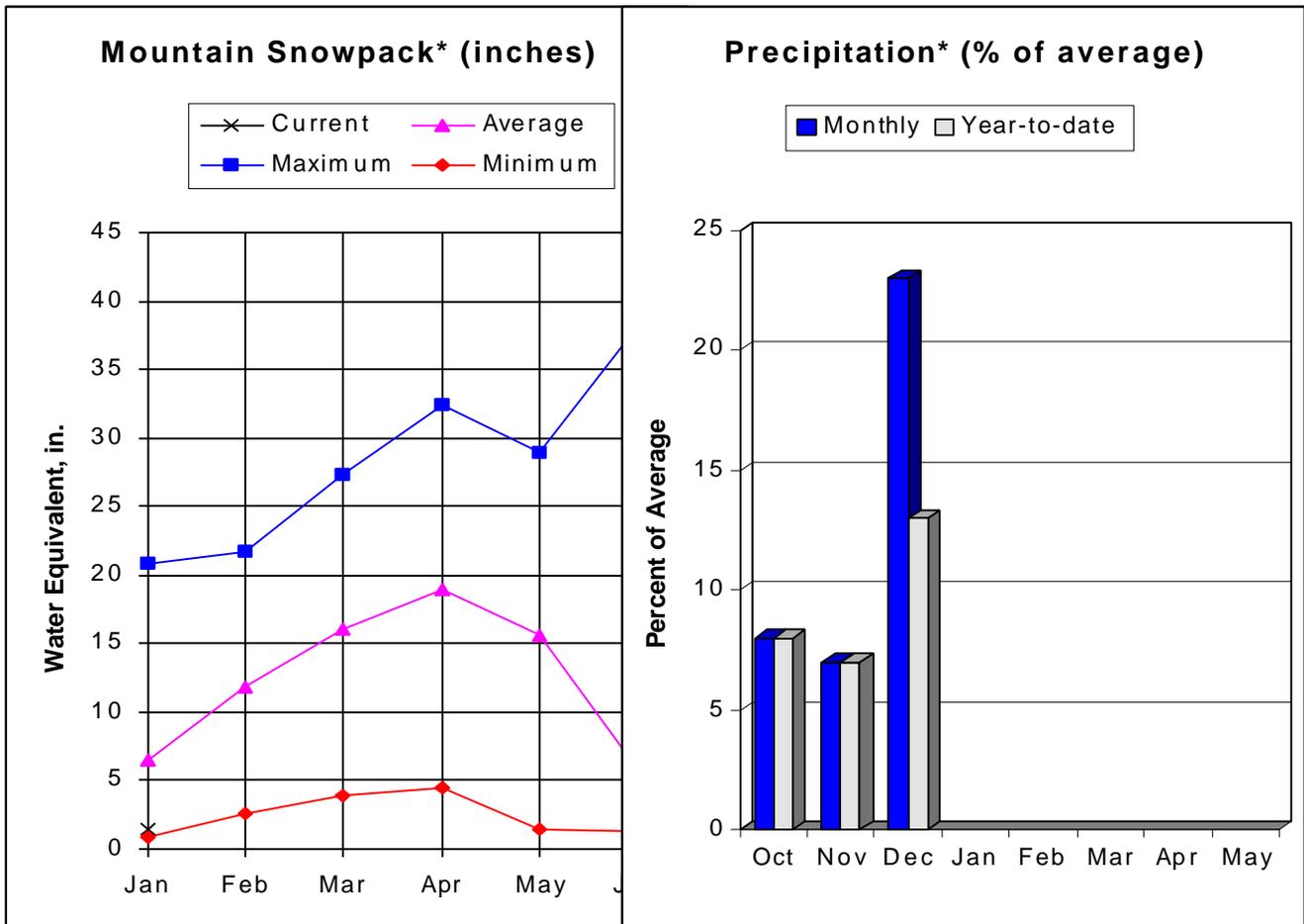
Forecast Point	Forecast Period	<<==== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)				
		90% (1000AF)		70% (1000AF)		50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)		10% (1000AF)	
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *			Chance Of Exceeding *		Chance Of Exceeding *	
Rio Grande at Thirty Mile Bridge	APR-SEP	55	70	83	62	98	126	133				
Rio Grande Reservoir Inflow	APR-JUL	52	66	77	65	90	114	118				
Rio Grande at Wagon Wheel Gap	APR-SEP	43	137	201	61	265	359	330				
South Fork Rio Grande at South Fork	APR-SEP	24	39	61	46	83	116	132				
Rio Grande nr Del Norte	APR-SEP	109	173	281	54	389	549	520				
Saguache Creek nr Saguache	APR-SEP	2.3	12.1	18.7	55	25	35	34				
Alamosa Creek abv Terrace Reservoir	APR-SEP	3.1	19.7	31	45	42	59	69				
La Jara Creek nr Capulin	MAR-JUL	1.12	1.81	2.80	33	5.16	8.63	8.60				
Trinchera Water Supply	APR-SEP	9.9	12.2	25	83	38	57	30				
Platoro Reservoir Inflow	APR-JUL	10.0	23	31	53	40	52	59				
	APR-SEP	11.9	26	35	54	44	58	65				
Conejos River nr Mogote	APR-SEP	29	78	111	55	144	193	201				
San Antonio River at Ortiz	APR-SEP	0.8	3.5	6.4	40	10.2	17.4	16.0				
Los Pinos River nr Ortiz	APR-SEP	15.1	23	38	53	53	76	72				
Culebra Creek at San Luis	APR-SEP	5.8	9.0	14.7	74	20	29	20				
Costilla Reservoir Inflow	MAR-JUL	1.21	3.06	4.80	53	6.93	10.76	9.10				
Costilla Creek nr Costilla	MAR-JUL	4.2	6.6	10.6	48	17.9	29	22				

UPPER RIO GRANDE BASIN Reservoir Storage (1000 AF) - End of December					UPPER RIO GRANDE BASIN Watershed Snowpack Analysis - January 1, 2000			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CONTINENTAL	15.0	2.9	3.1	4.9	ALAMOSA CREEK BASIN	1	8	9
PLATORO	53.7	26.0	18.6	16.6	CONEJOS & RIO SAN ANTONIO	2	10	9
RIO GRANDE	51.0	2.3	18.7	14.0	CULEBRA & TRINCHERA CREEK	2	69	70
SANCHEZ	103.0	46.0	35.8	16.6	UPPER RIO GRANDE BASIN	3	12	13
SANTA MARIA	45.0	21.2	8.6	8.2	TOTAL UPPER RIO GRANDE BA	9	19	19
TERRACE	13.1	8.0	5.7	5.5				

\* 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 1961-1990 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, 2000



\*Based on selected stations

Extremely dry and warm conditions that have plagued most of the southwest have left these basins high and dry so far this season. There is only 17% of average snowpack on January 1, which is only 18% of the amount last year at this time and is the lowest percentage in the state. Overall, each of the basins is in pretty bad shape, but some are worse than others. Percents of average range from only 6% of average in the San Juan Watershed to 31% of average in the San Miguel Watershed. Only 23% of average precipitation fell during December, and the water year total is now only 13% of average. The combined reservoir storage level in these basins is 116% of average for this time of year, but without an improved snowpack this could easily turn to below average storage during the upcoming runoff season. All of the forecasted streamflows for this runoff season are below average, but they are highly variable depending upon location. Forecasts range from only 43% of average on the Mancos River near Mancos to 68% of average on the Dolores River at Dolores.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS  
Streamflow Forecasts - January 1, 2000

Forecast Point	Forecast Period	Future Conditions					30-Yr Avg. (1000AF)	
		<<==== Drier =====>>		===== Wetter =====>				
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Dolores R at Dolores	APR-JUL	66	112	167	68	222	304	246
McPhee Reservoir inflow	APR-JUL	71	117	181	64	245	338	283
San Miguel River nr Placerville	APR-JUL	29	59	80	66	101	131	122
Gurley Reservoir Intake	APR-JUL	1.4	7.2	11.2	62	15.2	21	18.2
	APRIL			1.20	60			2.00
	MAY			6.50	74			8.80
	JUNE			3.00	52			5.76
	JULY			0.50	31			1.64
Cone Reservoir Intake	APR-JUL	0.94	1.43	1.90	59	2.53	3.85	3.23
	APRIL			0.20	53			0.38
	MAY			1.00	58			1.72
	JUNE			0.60	66			0.91
	JULY			0.10	46			0.22
Lilylands Reservoir Intake	APR-JUL	0.73	1.28	1.80	65	3.80	6.74	2.79
	APRIL			0.20	56			0.36
	MAY			0.80	71			1.12
	JUNE			0.70	65			1.07
	JULY			0.10	42			0.24
Rio Blanco at Blanco Diversion	APR-JUL	6.7	21	30	56	39	53	54
Navajo River at Oso Diversion	APR-JUL	17.1	20	34	52	48	68	65
San Juan River nr Carracus	APR-JUL	94	147	190	50	238	319	382
Piedra River nr Arboles	APR-JUL	55	67	110	50	153	216	219
Vallecito Reservoir Inflow	APR-JUL	43	72	110	56	148	204	196
Navajo Reservoir Inflow	APR-JUL	164	210	350	45	490	697	772
Animas River at Durango	APR-JUL	96	157	240	57	323	446	418
Lemon Reservoir Inflow	APR-JUL	13.1	22	33	58	44	61	57
La Plata River at Hesperus	APR-JUL	5.9	7.0	12.0	50	17.0	24	24
Mancos River nr Mancos	APR-JUL	6.8	10.8	17.1	43	28	45	40
	APRIL			3.60	62			5.80
	MAY			8.6	54			15.9
	JUNE			4.2	31			13.7
	JULY			0.70	15			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, 2000

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	16.3	16.4	10.4	ANIMAS RIVER BASIN	7	18	17
JACKSON GULCH	10.0	7.0	5.2	4.5	DOLORES RIVER BASIN	4	30	28
LEMON	40.0	30.0	16.6	19.4	SAN MIGUEL RIVER BASIN	3	40	31
MCPHEE	381.2	320.4	264.7	295.0	SAN JUAN RIVER BASIN	3	5	6
NARRAGUINNEP	19.0	18.6	17.8	11.3	TOTAL SAN MIGUEL, DOLORES	16	18	17
VALLECITO	126.0	65.3	72.4	52.6	AN JUAN RIVER BASINS			

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The average is computed for the 1961-1990 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.