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Department of  
Agriculture

**Natural  
Resources  
Conservation  
Service**

# Colorado Basin Outlook Report February 1, 2006



# 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

### FEBRUARY 1, 2006

#### Summary

This winter's trend of good snowfall across northern Colorado, with extremely dry conditions across the southern basins, persisted throughout January. The state continues to exhibit extremes of high and low snowpack totals which vary from north to south. Dry conditions across the eastern plains encroached into the foothills to further reduce snowpack totals east of the Continental Divide during January. Water users across southern Colorado should begin now to prepare for shortages. In some locations there is the potential for near record low runoff and water supplies. Reservoir storage is in good condition in some basins which may help to alleviate shortages, but those areas are limited.

#### Snowpack

Snowpack accumulations are highly variable across Colorado. This winter's storm track has brought a steady flow of storms to those regions north of I-70, but storm frequency diminishes towards southern Colorado. The result is an above, to well above average snowpack, in the Yampa, White, Colorado and North and South Platte basins. Further south, in the Gunnison basin, snowpack totals decrease to near average. In the Arkansas drainage, basinwide snowpack totals are also at average, while only reflecting the extremely high and extremely low readings within that basin. Colorado's southern basins are reporting the lowest snowpack percentages. In many locations across southern Colorado this year's meager snowpack is on par with some of the lowest snowpack years on record. Some of the lowest percentages occur along the Sangre de Cristo Range, and especially along the eastern slopes, where record low snowpack readings have been measured at a number of locations. While January brought good snowfall to northern Colorado, the month's snowfall didn't keep pace with the average for the state as a whole. Statewide snowpack percentages decreased slightly from the 104% of average recorded on January 1, and are now at 99% of average. These statewide statistics remain at only 86% of last year's readings. Another characteristic of this year's snowfall patterns are how they differ from those of last year. While this year's snowpack is above average in the north and below average in the south, last year's pattern was completely different. For example, this year's snowpack is 134% of last year's in the North Platte basin, and is only 28% of last year's in the Rio Grande basin. With essentially two months remaining in the typical snow accumulation season, the prospects of reaching average totals across southern Colorado remain extremely remote, at less than a 10% chance at many locations.

#### Precipitation

Precipitation recorded at SNOTEL sites across Colorado was just slightly below average during January. Statewide totals were 97% of average for the month, and ranged from a low of only 73% of average in the Arkansas basin to a high of 110% of average in the Yampa and White basins. For the water year, which began on October 1, 2005, statewide totals are 111% of average. October was a good month for moisture across the state, and since that time precipitation patterns have shifted to favor only northern Colorado. The highest water year totals have been measured in the Colorado, Yampa and White basins which exceed 130% of average. Meanwhile, the Rio Grande basin is reporting the lowest water year total, at only 66% of average. Without the moisture received during October, totals for southern Colorado would be much lower than the current values.

#### Reservoir Storage

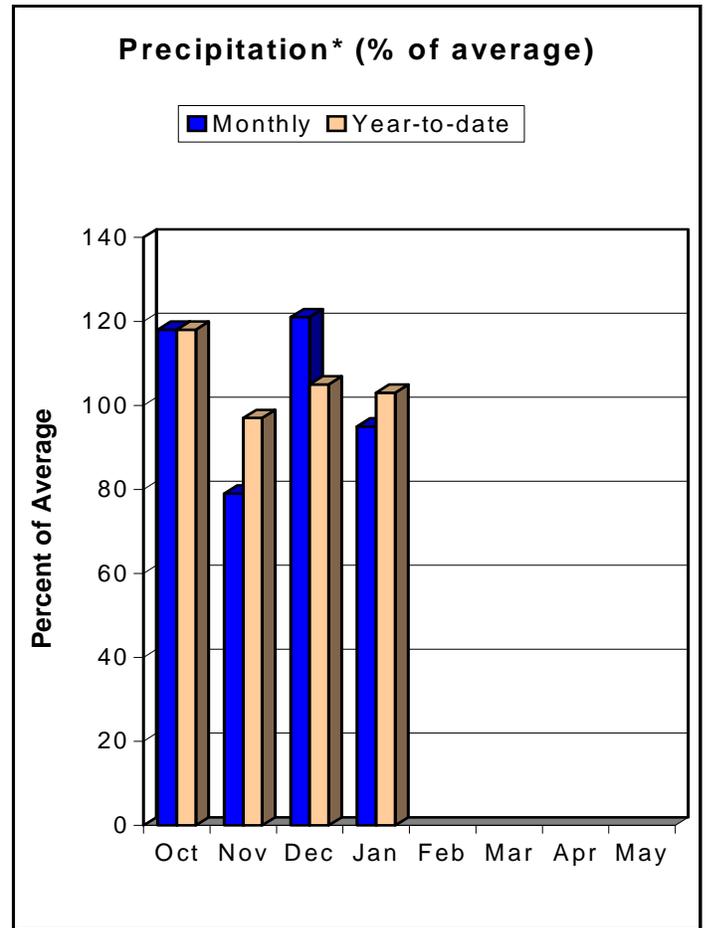
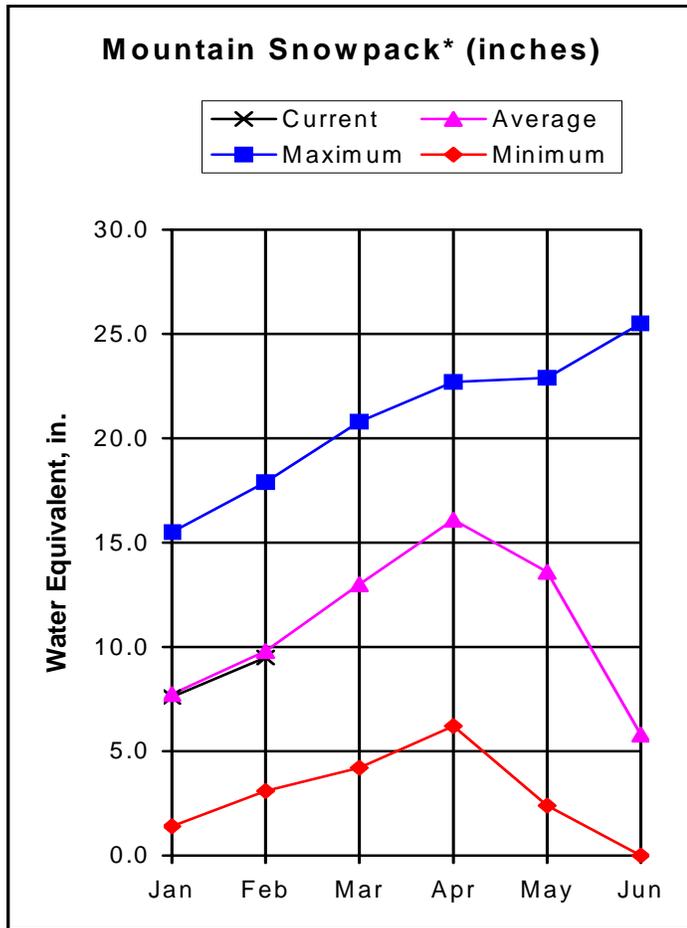
Colorado's reservoir storage continues to track at near average volumes. The latest survey of 75 reservoirs around the state shows storage volumes are 97% of average and are 113% of last year's storage. Volumes are above average in the Gunnison, Colorado, and combined San Juan, Animas, Dolores, and San Miguel basins. The lowest volumes, in terms of percent of average, are in the Arkansas basin at only 65% of average, which is closely followed by the Rio Grande at 70% of average storage. Statewide storage continues to improve each month and is now 121,000 acre-feet below the average mark for this date. This year's storage is greater than last year's in all basins except the South Platte, which has dipped to 94% of last year's totals. Those basins with volumes greater than 130% of last year's volumes include the Colorado, Rio Grande and combined San Juan, Animas, Dolores, and San Miguel. For the most part, some of this year's drier locations benefited from a good snowpack and runoff season last year. This additional storage might help alleviate runoff shortages during the later summer months.

## Streamflow

The 2006 water year is shaping up to be one of drought recovery for northern Colorado. Runoff volumes throughout the Yampa, White, Colorado, and North and South Platte basins are consistently above average. In addition, the headwaters of the Arkansas and Gunnison basins can expect above average runoff as good moisture spills over the top of the basin divides. At the other end of the spectrum, southern Colorado's rivers will fall far below the average volumes this year. Volumes of less than 70% of average are expected in the Dolores, Animas, San Juan and Rio Grande basins. Some of the lowest volumes in the state, ranging from only 40% to 55% of average are forecast along the smaller tributaries of the Rio Grande and Arkansas Rivers which originate from the Sangre de Cristo Mountains. It's not too soon for water users in these southern Colorado basins to begin preparing for shortages. Although 40% of the winter snow accumulation season remains ahead, the accumulated deficits in moisture thus far nearly assures at least below average runoff at most locations.

# GUNNISON RIVER BASIN

## as of February 1, 2006



\*Based on selected stations

The Gunnison River Basin saw near normal snowpack accumulation during January resulting in very little change in terms of percent of average when compared to figures from last month. February 1 snow survey data indicate the basin snowpacks are 97 percent of average, overall. This year's snowpacks are considerably lower when compared to snowpacks of a year ago (68 percent of last year). Still, this year's snowpacks are the second best since 1997. Snowpack conditions range from 81 percent of average in the Uncompahgre Basin to 102 percent of average in the Upper Gunnison Basin. Mountain precipitation in January was 95 percent of average. This was only 45 percent of the precipitation measured last January. The slightly below normal monthly precipitation brought water year totals (since October 1) down slightly to 103 percent of average. This year's water year precipitation totals are 74 percent of the totals measured last year at this same time. Reservoir storage in the basin is above average at 112 percent of average. This year's storage is 12 percent above the storage reported a year ago. Spring and summer runoff is expected to be near average to below average for most of the forecast points in the basin. Runoff volumes range from 81 percent of average for Cochetopa Creek below Rock Creek near Parlin to 114 percent of average for the Slate River near Crested Butte and the Gunnison River near Gunnison.

GUNNISON RIVER BASIN  
Streamflow Forecasts - February 1, 2006

Forecast Point	Forecast Period	<<==== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90%		50%		10%		
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Taylor Park blw Taylor Park Res (2)	APR-JUL	88	104	115	112	127	146	103
Slate River nr Crested Butte	APR-JUL	67	86	101	114	117	142	89
East River at Almont	APR-JUL	157	190	215	112	241	282	192
Gunnison River near Gunnison (2)	APR-JUL	320	392	445	114	501	590	390
Tomichi Creek at Sargents	APR-JUL	14.7	22	28	88	35	46	32
Cochetopa Creek Blw Rock Ck Nr Parli	APR-JUL	5.7	10.1	14.0	81	18.8	28	17.3
Tomichi Creek at Gunnison	APR-JUL	35	54	70	86	89	123	81
Lake Fork at Gateview	APR-JUL	75	95	110	87	126	152	126
Blue Mesa Reservoir Inflow (2)	APR-JUL	503	647	760	106	885	1093	720
Paonia Reservoir Inflow	MAR-JUN APR-JUL	54 53	75 76	92 94	92 92	111 115	145 152	100 102
North Fork Gunnison R Nr Somerset (2)	APR-JUL	190	246	290	95	339	420	305
Surface Creek at Cedaredge	APR-JUL	8.9	11.7	14.0	82	16.5	21	17.1
Ridgway Reservoir Inflow	APR-JUL	59	76	90	88	105	130	102
Uncompahgre River At Colona (2)	APR-JUL	66	93	115	83	140	183	139
Gunnison River Nr Grand Junction (2)	APR-JUL	730	1220	1550	99	1880	2370	1560

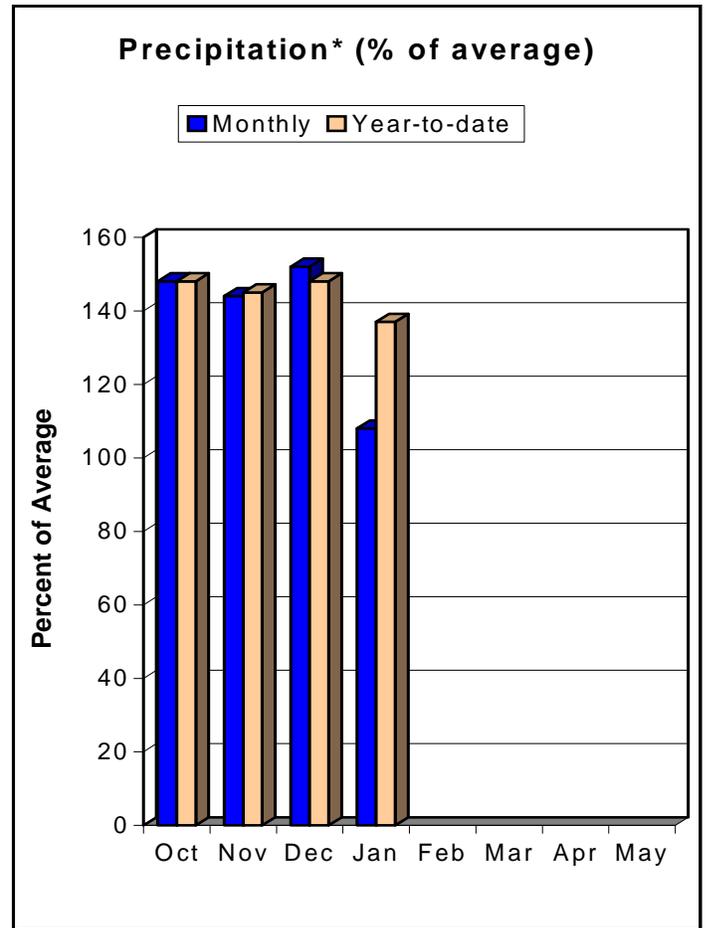
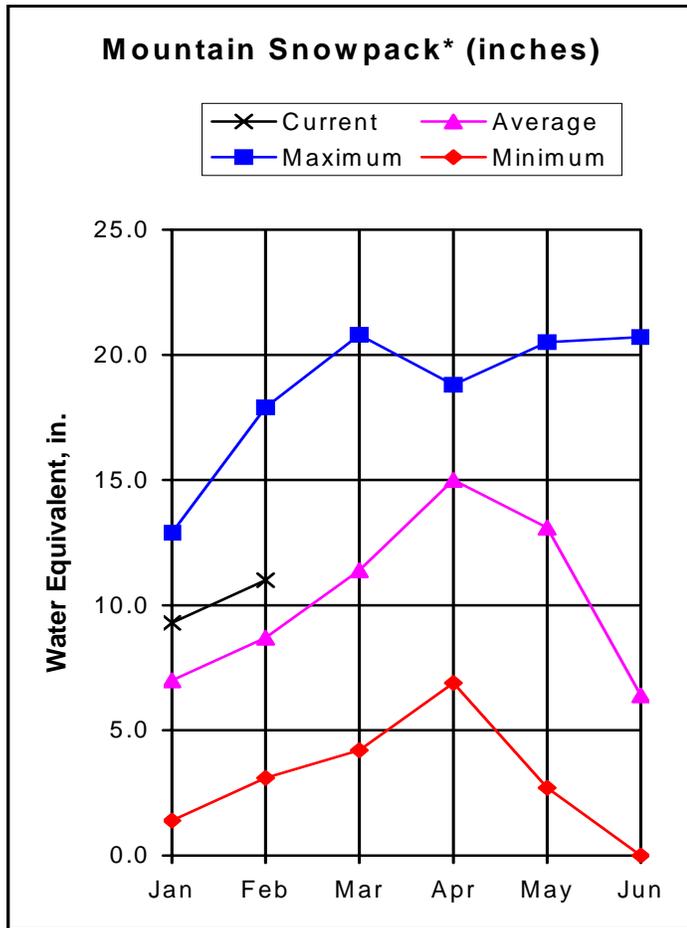
GUNNISON RIVER BASIN Reservoir Storage (1000 AF) - End of January					GUNNISON RIVER BASIN Watershed Snowpack Analysis - February 1, 2006			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BLUE MESA	830.0	573.4	485.4	493.3	UPPER GUNNISON BASIN	15	69	102
CRAWFORD	14.3	8.0	3.2	8.2	SURFACE CREEK BASIN	3	50	90
FRUITGROWERS	4.3	4.5	4.4	3.4	UNCOMPAHGRE BASIN	4	63	81
FRUITLAND	9.2	0.8	0.2	1.8	TOTAL GUNNISON RIVER BASIN	19	68	97
MORROW POINT	121.0	110.5	108.2	113.4				
PAONIA	18.0	1.9	3.6	4.7				
RIDGWAY	83.2	69.4	76.4	60.2				
TAYLOR PARK	106.0	72.0	67.9	66.7				

\* 90%, 70%, 50%, 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 February 1, 2006



\*Based on selected stations

Snowpacks in the Upper Colorado River Basin are above average according to the February 1 snowpack measurements. The overall basin snowpack is 127 percent of average and 125 percent of the snowpack measured last year at this time. This is the highest February 1 snowpack percentage reported in the basin since 1997. Snowpacks in the sub-basins range from 106 percent of average in the Willow Creek Basin to 158 percent of average in the Blue River Basin (which was almost twice the snow measured last year). January precipitation, despite being lower than last January's totals, was still 108 percent of average. Benefiting from this year's storm patterns, total precipitation in the basin (since October 1) is well above normal at 137 percent of average. This year's total precipitation is 33 percent higher than the totals reported a year ago. Reservoir storage is much improved over last year also. End of January reservoir storage was 36 percent higher than last year. Current storage is 106 percent of normal. Indicative of the conditions, streamflows are expected to be above average to well above average throughout the basin. Forecasts range from 113 percent of average for Lake Granby Inflow to 134 percent of average for the Eagle River below Gypsum.

UPPER COLORADO RIVER BASIN  
Streamflow Forecasts - February 1, 2006

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====		====		==== Wetter =====>>		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Lake Granby Inflow (2)	APR-JUL	201	232	255	113	279	315	225
Willow Creek Reservoir Inflow	APR-JUL	42	51	58	114	65	77	51
Williams Fork Reservoir Inflow (2)	APR-JUL	89	104	115	121	127	146	95
Dillon Reservoir Inflow (2)	APR-JUL	168	198	220	132	244	281	167
Green Mountain Reservoir Inflow (2)	APR-JUL	279	331	370	132	412	479	280
Muddy Creek blw Wolford Mtn Resv (2)	APR-JUL	53	67	78	130	90	111	60
Eagle River below Gypsum (2)	APR-JUL	337	402	450	134	500	579	335
Colorado River Near Dotsero (2)	APR-JUL	1421	1675	1860	129	2055	2359	1440
Ruedi Reservoir Inflow (2)	APR-JUL	133	157	175	124	193	222	141
Roaring Fork At Glenwood Springs (2)	APR-JUL	617	737	825	116	918	1063	710
Colorado River Near Cameo (2)	APR-JUL	2130	2680	3050	126	3420	3970	2420

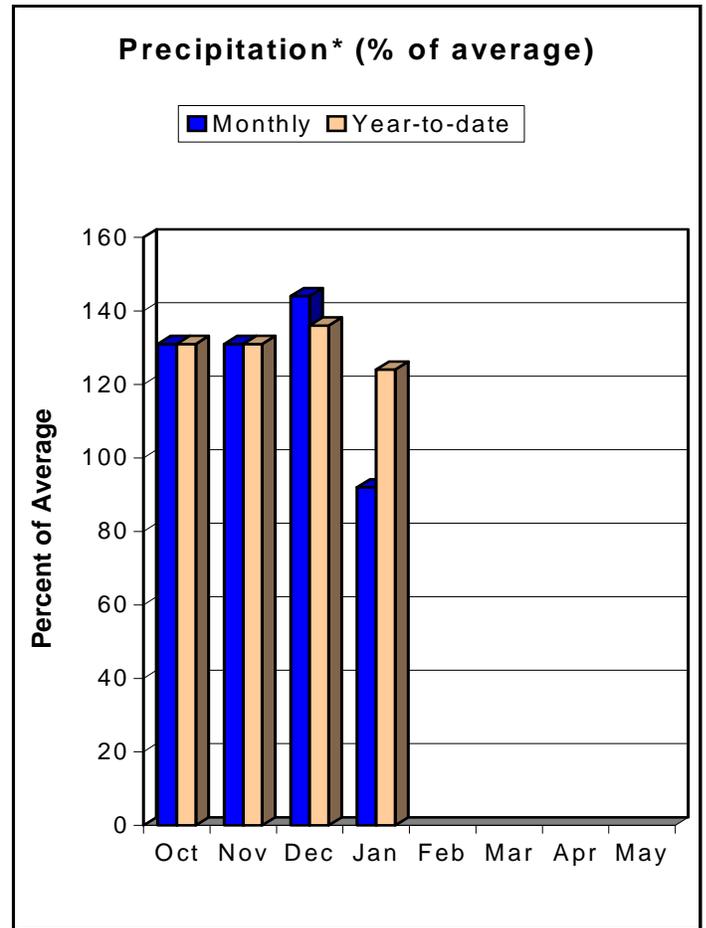
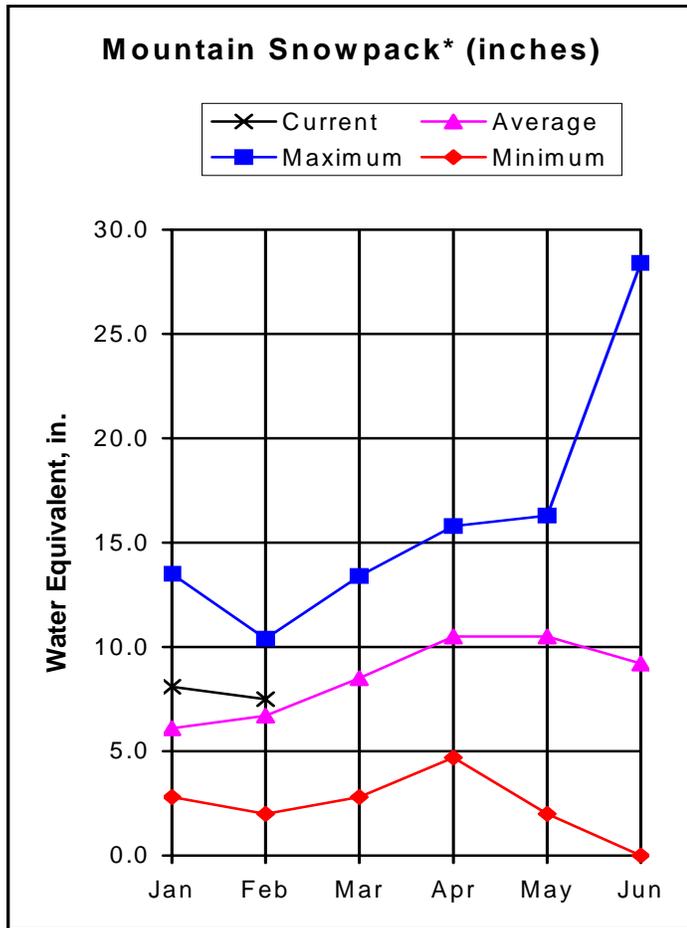
UPPER COLORADO RIVER BASIN Reservoir Storage (1000 AF) - End of January					UPPER COLORADO RIVER BASIN Watershed Snowpack Analysis - February 1, 2006			
Reservoir	Usable Capacity	*** This Year	Usable Last Year	Storage *** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	% of Average
DILLON	250.8	228.9	204.6	221.3	BLUE RIVER BASIN	9	201	158
LAKE GRANBY	465.6	304.0	158.1	300.7	UPPER COLORADO RIVER BASI	36	151	133
GREEN MOUNTAIN	139.0	77.5	68.3	80.3	MUDDY CREEK BASIN	4	142	126
HOMESTAKE	43.0	39.6	34.9	27.7	PLATEAU CREEK BASIN	3	50	90
RUEDI	102.0	76.5	69.6	73.7	ROARING FORK BASIN	8	102	122
VEGA	32.0	19.5	15.1	11.6	WILLIAMS FORK BASIN	4	178	144
WILLIAMS FORK	96.8	73.7	51.2	59.5	WILLOW CREEK BASIN	4	91	106
WILLOW CREEK	9.0	6.8	7.8	6.4	TOTAL COLORADO RIVER BASI	47	125	127

\* 90%, 70%, 50%, 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 February 1, 2006



\*Based on selected stations

Precipitation rates slowed on the South Platte during January. While precipitation during November and December was well above average, January saw 92% of its average precipitation, bringing year to date precipitation down from 136% of average on January 1 to 124% of average on February 1. The lower precipitation rate for the month of January took its toll on the snowpack, dropping snow levels from 132% of average on January 1 down to 112% of average on February 1. Snow levels are 133% of those measured this time last year. A northwesterly storm track has favored the Clear Creek drainage, as snow levels there are the highest in the South Platte basin at 148% of average based on data from four measuring sites, compared to the Upper South Platte whose snow levels are the lowest at 105% of average. Boulder Creek and the Cache la Poudre are also fairing well, with snowpacks at 119% and 110% of average, respectively. Based on reports from 33 reservoirs, storage is at 91% of average and 94% of storage this time last year. All streams in the South Platte basin are forecast to run above average at this time. Streamflow forecasts range from 102% of average April through July volume on the Big Thompson to 137% of average for Antero Reservoir inflow.

SOUTH PLATTE RIVER BASIN  
Streamflow Forecasts - February 1, 2006

Forecast Point	Forecast Period	Future Conditions					30-Yr Avg. (1000AF)	
		Drier		Wetter		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)			10% (1000AF)
Antero Reservoir inflow	APR-JUL	11.5	17.4	23	137	31	46	16.8
	APR-SEP	13.5	21	28	136	38	58	21
Spinney Mountain Reservoir inflow	APR-JUL	35	53	71	127	94	143	56
	APR-SEP	44	68	92	133	124	192	69
Elevenmile Canyon Reservoir inflow	APR-JUL	35	54	73	126	98	153	58
	APR-SEP	43	68	94	131	129	207	72
Cheesman Lake inflow	APR-JUL	69	108	147	128	200	315	115
	APR-SEP	85	134	184	130	252	400	142
South Platte River at South Platte	APR-JUL	106	175	245	120	344	566	205
	APR-SEP	134	221	310	122	435	717	255
Bear Creek abv Evergreen	APR-JUL	10.8	17.8	25	130	35	58	19.3
	APR-SEP	15.0	24	33	132	45	72	25
Bear Creek at Morrison	APR-JUL	11.5	21	31	124	46	84	25
	APR-SEP	15.5	27	40	129	59	104	31
Clear Creek at Golden	APR-JUL	84	110	127	116	144	171	110
	APR-SEP	102	133	154	115	176	205	134
St. Vrain Creek at Lyons	APR-JUL	47	75	102	111	140	225	92
	APR-SEP	56	88	119	111	162	255	107
Boulder Creek nr Orodell	APR-JUL	40	48	55	120	63	76	46
	APR-SEP	46	55	63	119	72	87	53
South Boulder nr Eldorado Spgs	APR-JUL	28	36	43	104	51	66	41
	APR-SEP	31	40	48	105	56	73	46
Big Thompson River at mouth nr Drake	APR-JUL	56	79	100	102	126	179	98
	APR-SEP	71	97	121	103	150	205	117
CACHE LAPOUDRE at Canyon Mouth	APR-JUL	162	215	260	106	315	420	245
	APR-SEP	182	240	290	106	350	465	275

SOUTH PLATTE RIVER BASIN Reservoir Storage (1000 AF) - End of January					SOUTH PLATTE RIVER BASIN Watershed Snowpack Analysis - February 1, 2006			
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	6.9	0.5	16.4	BIG THOMPSON BASIN	7	122	104
BARR LAKE	32.0	22.4	22.4	24.0	BOULDER CREEK BASIN	5	143	119
BLACK HOLLOW	8.0	1.5	1.8	3.9	CACHE LA POUDE BASIN	8	135	110
BOYD LAKE	49.0	30.5	42.3	32.1	CLEAR CREEK BASIN	4	159	148
BUTTON ROCK/RALPH PRICE	16.2	14.3	15.4	13.0	SAINT VRAIN BASIN	4	134	103
CACHE LA POUDE	10.0	5.6	9.0	7.2	UPPER SOUTH PLATTE BASIN	15	124	105
CARTER	108.9	54.2	66.9	84.6	TOTAL SOUTH PLATTE BASIN	43	133	112
CHAMBERS LAKE	9.0	4.5	6.0	3.0				
CHEESMAN	79.0	73.2	68.8	59.7				
COBB LAKE	34.0	9.1	3.5	13.9				
ELEVEN MILE	97.8	99.0	98.4	95.9				
EMPIRE	38.0	20.8	14.9	22.8				
FOSSIL CREEK	12.0	8.4	9.6	6.8				
GROSS	41.8	26.8	32.4	26.0				
HALLIGAN	6.4	4.1	6.1	4.3				
HORSECREEK	16.0	12.5	13.7	11.6				
HORSETOOTH	149.7	73.9	108.1	99.0				
JACKSON	35.0	22.4	21.7	26.1				
JULESBURG	28.0	15.9	14.3	18.8				
LAKE LOVELAND	14.0	11.5	11.8	8.7				
LONE TREE	9.0	6.9	7.6	6.4				
MARIANO	6.0	3.4	4.9	4.2				
MARSHALL	10.0	5.0	9.4	5.1				
MARSTON	13.0	0.8	6.8	12.8				
MILTON	24.0	18.7	18.7	15.5				
POINT OF ROCKS	70.0	50.0	49.1	57.0				
PREWITT	28.2	21.6	21.9	19.3				
RIVERSIDE	63.1	42.9	43.6	41.7				
SPINNEY MOUNTAIN	48.7	36.3	16.1	33.3				
STANDLEY	42.0	35.6	38.8	33.1				
TERRY LAKE	8.0	5.4	3.6	5.3				
UNION	13.0	10.4	12.6	10.6				
WINDSOR	19.0	6.4	10.7	10.8				

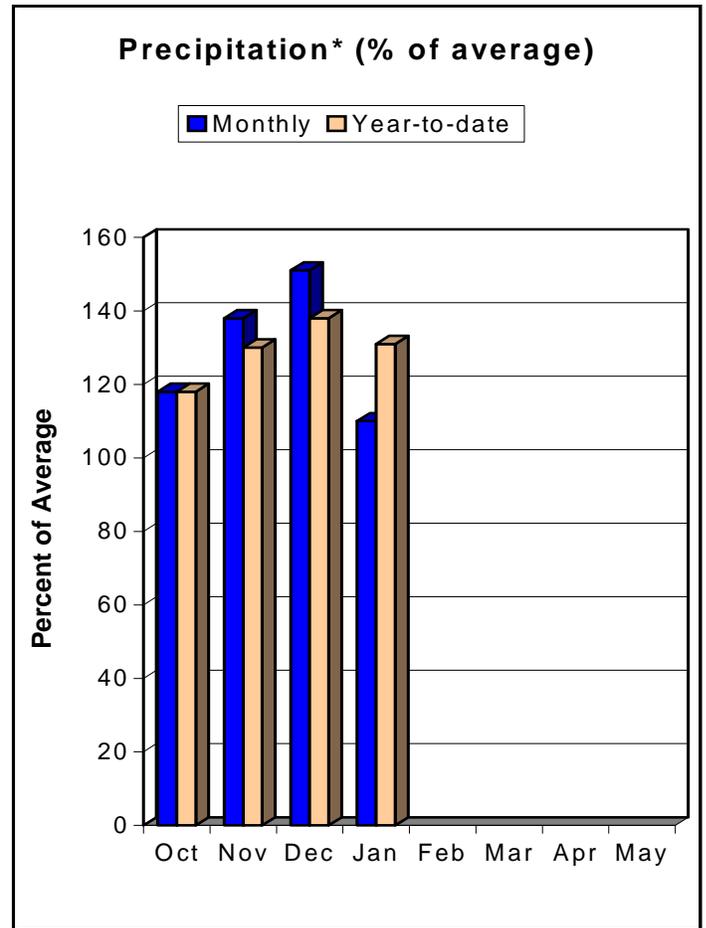
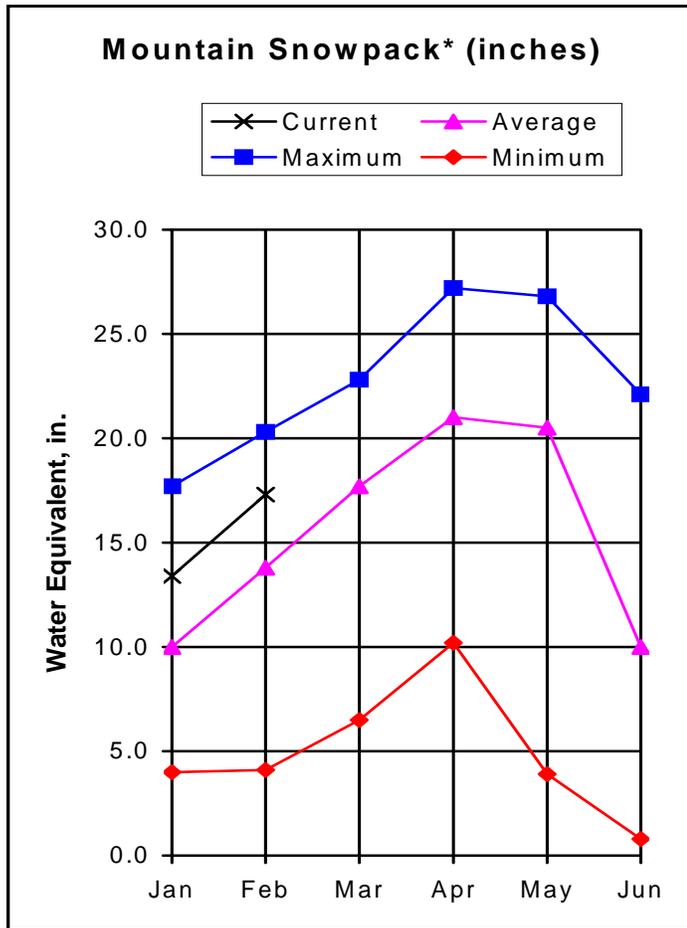
\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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 February 1, 2006



\*Based on selected stations

Despite slightly below normal snowpack accumulation during January, the combined Yampa, White, North Platte and Laramie River basin snowpack remains above average. February 1 measurements indicate overall snowpacks are 124 percent of average and are 34 percent higher this year than last. This is the first above average snowpack the combined basins has seen since 1997. Snowpack conditions within the basin range from 107 percent of average in the Laramie River Basin to 131 percent of average in the Yampa River Basin. Precipitation during January was 110 percent of average. The slightly above normal monthly precipitation helped keep the total precipitation for the water year (beginning Oct 1) at well above average levels. This year's total precipitation is 131 percent of average and 139 percent of the totals measured last year at this time. Overall, reservoir storage in the basin is near normal and just slightly above where the basin was at this same time last year. Stagecoach reported storage of 103 percent of average and Yamcolo was measured at 80 percent of average. Above average to much above average runoff is expected throughout the basin this spring and summer. Streamflow volumes are forecast to range from 120 percent of average for the Laramie River near Woods to 155 percent of average for the Yampa River above Stagecoach Reservoir (which, believe it or not, had the lowest forecast in terms of percent of average in the basin last year at this time).

YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS  
Streamflow Forecasts - February 1, 2006

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)				
		90% (1000AF)		70% (1000AF)		50% (1000AF) (% AVG.)			30% (1000AF)		10% (1000AF)	
		Chance Of Exceeding *										
NORTH PLATTE RIVER nr Northgate	APR-JUL	219	279	325	133	374	452	245				
	APR-SEP	250	315	360	133	405	470	270				
LARAMIE RIVER nr Woods	APR-JUL	87	123	147	120	171	209	123				
	APR-SEP	95	134	161	119	188	228	135				
Yampa R ab Stagecoach Reservoir (2)	APR-JUL	29	38	45	155	53	66	29				
Yampa River at Steamboat Springs (2)	APR-JUL	290	339	375	134	412	471	280				
Elk River nr Milner	APR-JUL	324	385	430	132	477	551	325				
Elkhead Creek nr Elkhead	APR-JUL	32	41	48	123	55	67	39				
Elkhead Creek blw Maynard Gulch (2)	APR-JUL	48	65	77	131	89	106	59				
Fortification Ck nr Fortification	MAR-JUN	4.48	7.17	9.50	127	12.29	17.31	7.50				
Yampa River Near Maybell (2)	APR-JUL	1031	1216	1350	136	1491	1712	990				
Little Snake River nr Slater	APR-JUL	157	188	210	132	234	271	159				
Little Snake River nr Dixon	APR-JUL	301	375	430	127	489	582	340				
Little Snake River nr Lily	APR-JUL	315	404	470	127	541	655	370				
White River nr Meeker	APR-JUL	254	309	350	121	393	461	290				

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

YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS  
Watershed Snowpack Analysis - February 1, 2006

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	25.9	27.0	25.1	LARAMIE RIVER BASIN	3	127	107
YAMCOLO	9.1	5.0	3.0	6.2	NORTH PLATTE RIVER BASIN	12	138	126
					TOTAL NORTH PLATTE BASIN	14	134	123
					ELK RIVER BASIN	2	115	117
					YAMPA RIVER BASIN	12	158	133
					WHITE RIVER BASIN	6	133	120
					TOTAL YAMPA AND WHITE RIV	17	149	128
					LITTLE SNAKE RIVER BASIN	8	120	125
TOTAL YAMPA, WHITE AND NO	36	135	125					

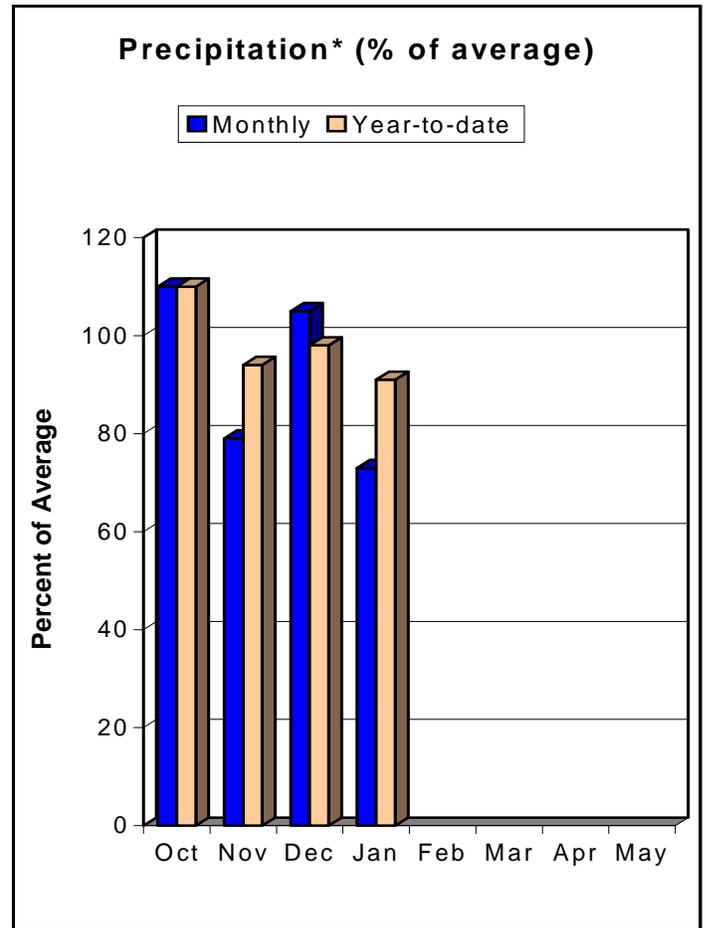
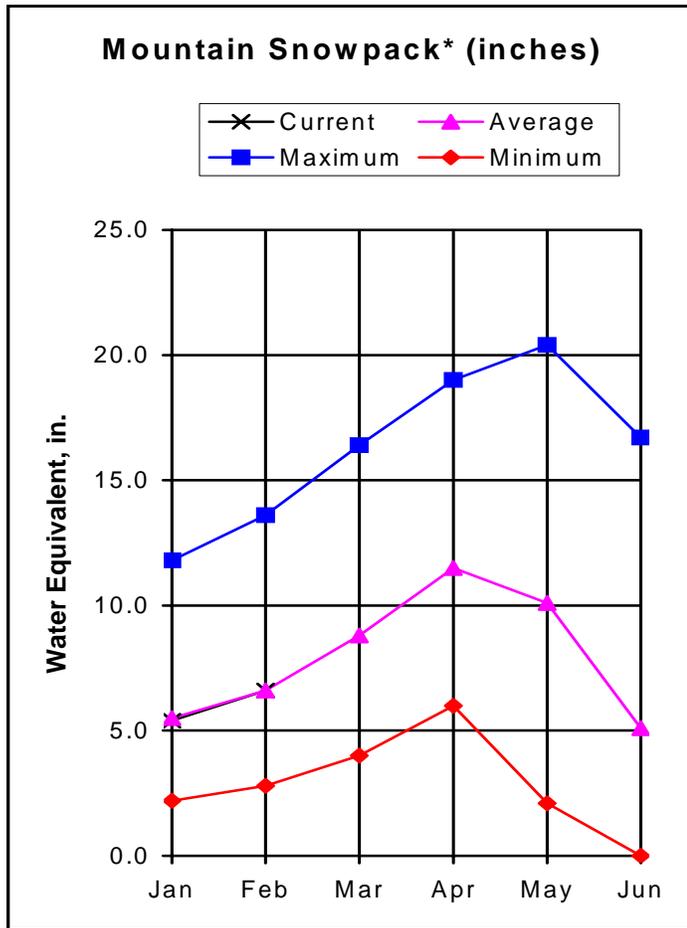
\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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 February 1, 2006



\*Based on selected stations

The Arkansas remains a divided basin in terms of snow distribution. At 100% of its average snowpack overall and up slightly from 98% last month, the upper portions of the basin are carrying most of the load. The Upper Arkansas is at 127% of its average snowpack based on 10 measuring sites. Meanwhile, the Cucharas and Huerfano basins are only at 42% of their average snowpack, and snow levels on the Purgatoire River are at a mere 23% of its average based on data from two Snotel sites. Precipitation in January was only 73% of average, bringing the year to date precipitation as of February 1 down to 91% of average from 98% of average as of January 1. Reservoir levels in the Arkansas basin are at 64% of average and 101% of storage this time last year. April through July streamflow volumes in the Arkansas basin reflect snow distribution, as streams in the northern and upper portions of the basin are forecast to produce much healthier streamflows than those in the southern portions of the basin. Look for the Arkansas at Salida to run at about 126% of average, the Cucharas River to run at about 47% of average, and the Huerfano River to run about 55% of average.

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ARKANSAS RIVER BASIN  
Streamflow Forecasts - February 1, 2006

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Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<===== Drier =====>>		=====		===== Wetter =====>>		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Chalk Ck At Nathrop	APR-JUL	14.9	21	26	113	31	40	23
	APR-SEP	18.3	25	31	115	37	47	27
Arkansas River At Salida (2)	APR-JUL	237	285	320	126	357	416	255
	APR-SEP	287	346	390	126	436	509	310
Grape Creek Near Westcliffe	APR-JUL	3.0	5.3	10.0	62	16.2	28	16.1
	APR-SEP	3.0	6.6	12.5	64	18.7	30	19.6
Pueblo Reservoir Inflow (2)	APR-JUL	268	360	430	112	507	631	385
	APR-SEP	349	458	540	111	629	772	485
Huerfano River Near Redwing	APR-JUL	5.0	5.9	6.7	55	8.6	11.9	12.3
	APR-SEP	6.6	7.6	8.5	55	10.8	14.6	15.5
Cucharas River At Boyd Ranch Nr La V	APR-JUL	1.9	4.0	5.3	47	7.8	12.5	11.3
	APR-SEP	2.9	4.3	6.7	52	9.5	14.5	13.0
Trinidad Lake Inflow	MAR-JUL	6.0	12.6	18.7	55	28	44	34
	APR-SEP	11.1	17.8	27	61	38	59	44

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

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ARKANSAS RIVER BASIN  
Watershed Snowpack Analysis - February 1, 2006

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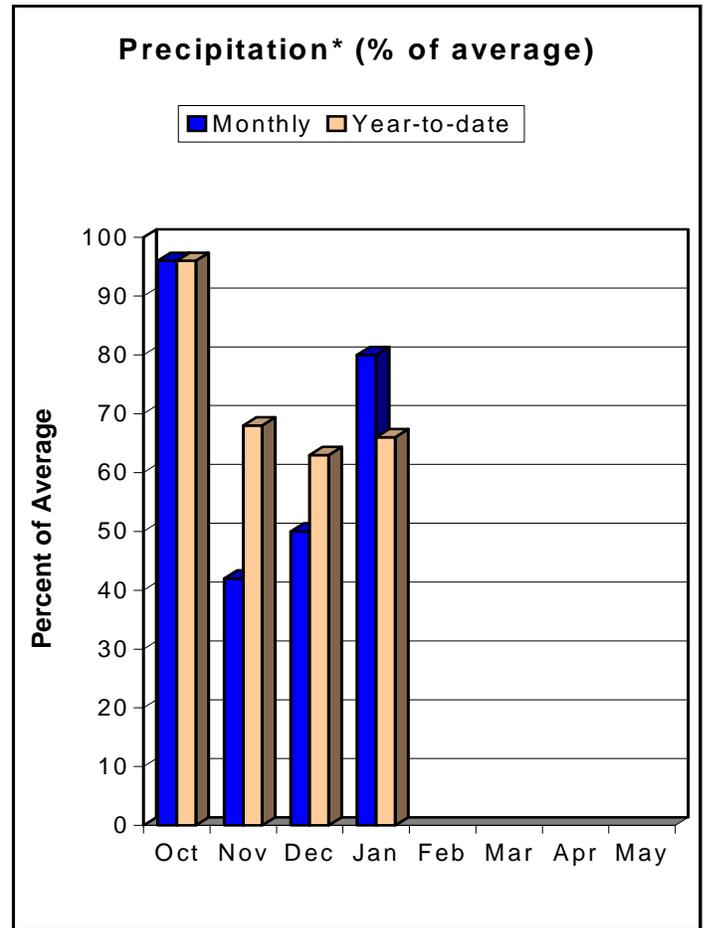
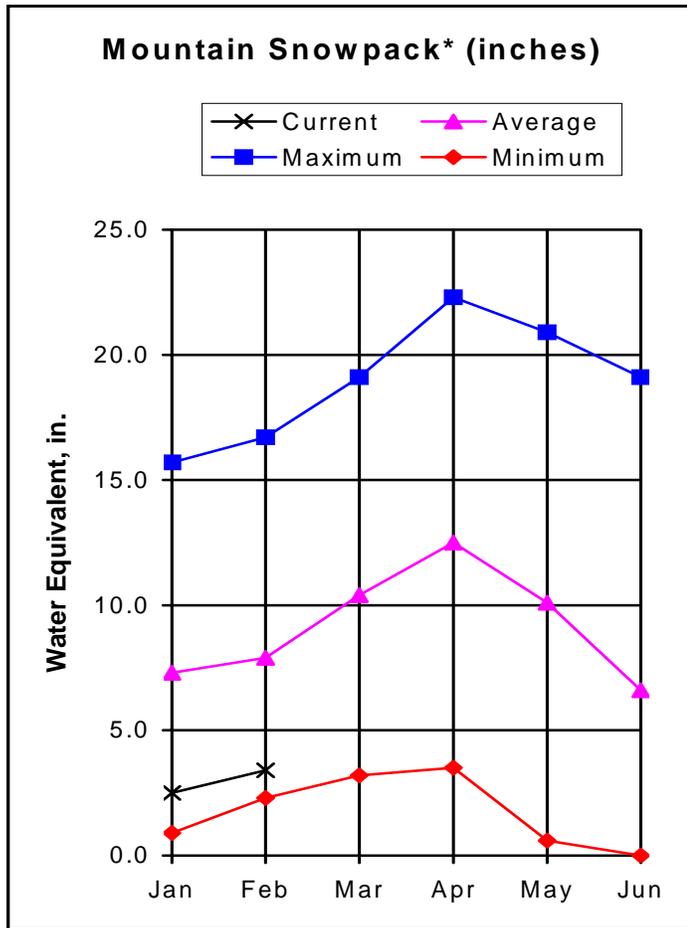
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ADOBE	70.0	20.6	0.0	31.1	UPPER ARKANSAS BASIN	10	128	127
CLEAR CREEK	11.0	8.7	8.6	6.4	CUCHARAS & HUERFANO RIVER	4	28	42
GREAT PLAINS	150.0	0.0	0.0	35.2	PURGATOIRE RIVER BASIN	2	14	23
HOLBROOK	7.0	0.0	0.0	3.9	TOTAL ARKANSAS RIVER BASIN	15	88	102
HORSE CREEK	28.0	0.0	0.0	12.2				
JOHN MARTIN	335.7	27.5	47.2	120.9				
LAKE HENRY	8.0	4.7	3.0	4.1				
MEREDITH	42.0	4.8	24.8	16.2				
PUEBLO	236.7	133.1	122.2	158.3				
TRINIDAD	72.3	19.0	23.7	25.3				
TURQUOISE	126.6	72.2	68.9	82.7				
TWIN LAKES	86.0	53.1	42.9	44.8				

\* 90%, 70%, 50%, 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 February 1, 2006



\*Based on selected stations

Late January snowfall has brought snow levels in the Upper Rio Grande basin about up to those of 2002, the overall driest year on record. That said, snowpack in the Upper Rio Grande is still thin at 43% of average, up from 34% of average last month. There is not much variability throughout the basin as most sub-basins are equally dry. January saw more precipitation than November and December, receiving 80% of its average and bringing the year to date precipitation up to 66% of average from 63% of average. Year to date precipitation in the Upper Rio Grande basin is only 44% of the precipitation for this time last year. Reservoir storage is at 88% of average and 281% of the storage this time last year. Do not expect April through September streamflow volumes to reach average flows this year. Streams in the Upper Rio Grande basin are expected to flow between 53% and 73% of average. On the high end, expect the Rio Grande Reservoir inflow to be about 70% of average and Saguache Creek near Saguache to run at about 73% of average. Trinchera Creek and Ute Creek are forecast to run the driest, both at 53% of their average.

UPPER RIO GRANDE BASIN  
Streamflow Forecasts - February 1, 2006

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====		=====> Wetter =====>>				
		90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	
Rio Grande At Thirty Mile Bridge (2)	APR-SEP	59	78	92	68	107	132	136
Rio Grande Reservoir Inflow	APR-JUL	56	71	82	70	95	115	118
Rio Grande At Wagon Wheel Gap (2)	APR-SEP	136	183	220	64	260	325	345
South Fork Rio Grande at South Fork	APR-SEP	44	61	75	57	89	111	132
Rio Grande nr Del Norte (2)	APR-SEP	199	264	315	59	372	469	531
Saguache Creek nr Saguache (2)	APR-SEP	12.4	18.8	24	73	30	39	33
Alamosa Creek Abv Terrace Reservoir	APR-SEP	23	32	39	56	47	62	70
La Jara Creek nr Capulin	MAR-JUL	2.39	3.79	5.00	58	6.44	9.04	8.70
Trinchera Creek abv Turners Ranch	APR-SEP	3.1	4.7	6.3	53	8.3	11.7	12.0
Sangre de Cristo Creek	APR-SEP	1.38	2.60	4.00	46	5.90	9.60	8.80
Ute Ck nr Fort Garland	APR-SEP	2.7	4.7	6.5	53	8.7	12.8	12.2
Platoro Reservoir Inflow	APR-JUL	30	37	43	67	49	60	64
	APR-SEP	26	33	39	55	45	55	71
Conejos River Near Mogote (2)	APR-SEP	70	96	115	58	136	171	200
San Antonio River at Ortiz	APR-SEP	2.7	4.7	6.5	40	8.7	12.9	16.4
Los Pinos River nr Ortiz	APR-SEP	25	35	43	58	52	68	74
Culebra Creek at San Luis (2)	APR-SEP	4.9	9.1	13.0	57	17.9	27	23
Costilla Reservoir Inflow	MAR-JUL	2.4	4.0	5.4	51	7.1	10.3	10.6
Costilla Creek Near Costilla (2)	MAR-JUL	5.0	8.9	12.5	48	16.9	25	26

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

UPPER RIO GRANDE BASIN  
Watershed Snowpack Analysis - February 1, 2006

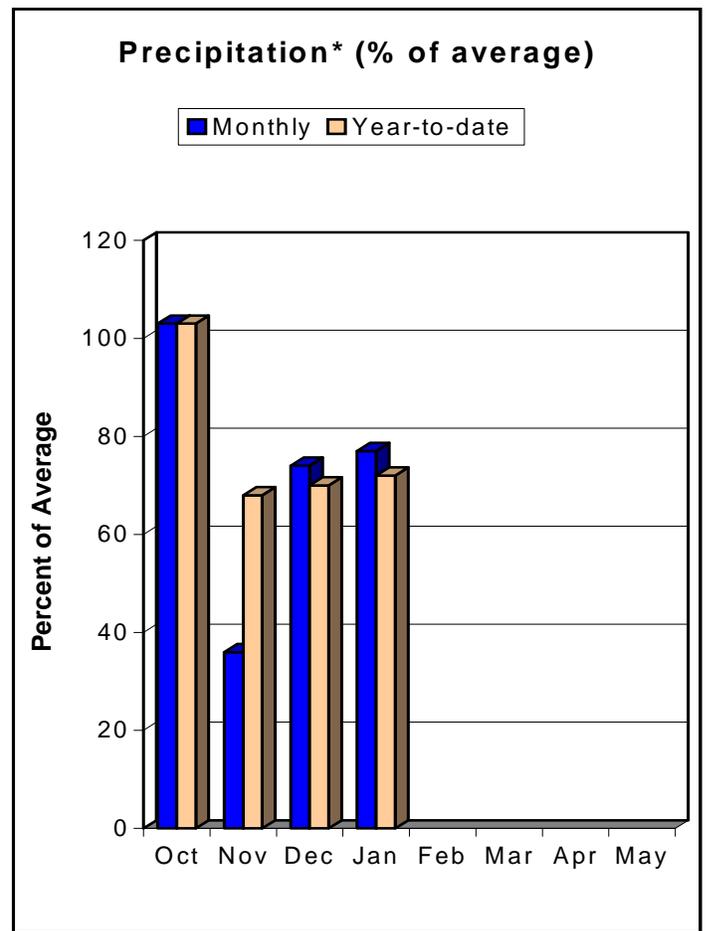
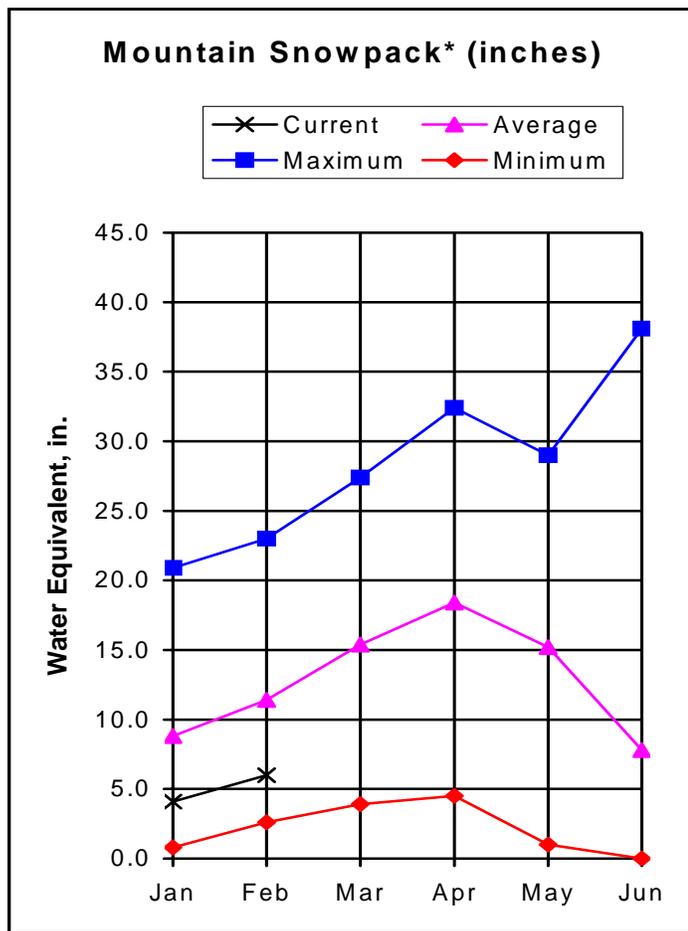
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CONTINENTAL	15.0	1.5	3.2	5.8	ALAMOSA CREEK BASIN	2	26	38
PLATORO	53.7	4.6	6.7	24.7	CONEJOS & RIO SAN ANTONIO	4	32	46
RIO GRANDE	51.0	22.2	15.6	16.5	CULEBRA & TRINCHERA CREEK	5	27	36
SANCHEZ	103.0	21.3	8.1	24.1	UPPER RIO GRANDE BASIN	12	27	45
SANTA MARIA	45.0	7.5	5.8	10.5	TOTAL UPPER RIO GRANDE BA	23	28	43
TERRACE	13.1	4.5	3.9	6.1				

\* 90%, 70%, 50%, 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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# SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS as of February 1, 2006



\*Based on selected stations

January got off to a very slow start in the combined San Miguel, Dolores, Animas and San Juan River basins. SNOTEL data show essentially no improvement in water content for the first two-thirds of the month. Fortunately, things improved during the last third of the month and, while the accumulation during the month was still below average, it was not as bad as it could have been if the dry trend had continued. February 1 snow measurements place the basin snowpacks at 54 percent of average, overall. This is the sixth lowest February 1 reading since 1968 -- only 1977, 1981, 1990, 2000 and 2002 were lower. Individually, the San Miguel, Dolores, Animas and San Juan River basins were 68, 62, 58 and 36 percent of average, respectively. Mountain precipitation during January in the combined basins was 77 percent of average (only 29 percent of the precipitation measured during January 2005). Total precipitation for the water year, which began on October 1, 2005, remains below normal at 72 percent of average (less than half of last year's total precipitation at this time). On the bright side, reservoir storage remains at 111 percent of average -- a 31 percent increase over the storage available a year ago. Given the conditions, the expectation is for below to well below average runoff. Spring and summer streamflow volumes range from 52 percent of average for the Piedra River near Arboles to a "high" of 76 percent of average for the San Miguel River near Placerville.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS  
Streamflow Forecasts - February 1, 2006

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Dolores River at Dolores	APR-JUL	98	140	175	66	215	284	265
McPhee Reservoir Inflow	APR-JUL	119	169	210	66	257	338	320
San Miguel River nr Placerville	APR-JUL	61	83	100	76	120	153	132
Gurley Reservoir Inlet	APR-JUL	2.4	6.9	10.0	61	13.1	17.4	16.5
	APRIL			0.90	54			1.66
	MAY			5.40	61			8.83
	JUNE			2.90	62			4.67
	JULY			0.80	61			1.32
Cone Reservoir Inlet	APR-JUL	0.17	1.38	2.20	62	3.04	4.24	3.53
	APRIL			0.34	74			0.46
	MAY			1.01	62			1.64
	JUNE			0.65	63			1.04
	JULY			0.20	53			0.38
Lilylands Reservoir Inlet	APR-JUL	0.42	1.18	1.70	59	2.19	2.99	2.86
	APRIL			0.23	58			0.40
	MAY			0.73	55			1.32
	JUNE			0.55	63			0.87
	JULY			0.19	70			0.27
Rio Blanco At Blanco Diversion (2)	APR-JUL	22	28	33	62	38	47	53
	APR-JUL	33	33	33	62	33	33	53
Navajo River At Oso Diversion (2)	APR-JUL	27	37	45	65	54	69	69
San Juan River Near Carracas (2)	APR-JUL	123	179	225	56	279	372	405
Piedra River near Arboles	APR-JUL	59	92	120	52	153	213	230
Vallecito Reservoir Inflow	APR-JUL	90	118	140	68	164	205	205
Navajo Reservoir Inflow (2)	APR-JUL	237	335	415	53	507	665	785
Animas River at Durango	APR-JUL	201	265	315	72	371	466	440
Lemon Reservoir Inflow	APR-JUL	28	35	40	69	46	55	58
La Plata River at Hesperus	APR-JUL	8.5	12.1	15.0	60	18.4	24	25
Mancos River nr Mancos	APR-JUL	4.4	16.7	25	63	33	46	40
	APRIL			3.50	60			5.80
	MAY			11.0	69			15.9
	JUNE			7.6	56			13.7
	JULY			2.90	63			4.60

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

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS  
Watershed Snowpack Analysis - February 1, 2006

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	14.8	0.0	12.0	ANIMAS RIVER BASIN	9	34	58
JACKSON GULCH	10.0	4.7	3.6	4.6	DOLORES RIVER BASIN	7	45	59
LEMON	40.0	23.1	18.7	20.2	SAN MIGUEL RIVER BASIN	5	54	68
MCPHEE	381.2	293.0	206.2	274.4	SAN JUAN RIVER BASIN	4	20	36
NARRAGUINNEP	19.0	12.3	18.4	12.7	TOTAL SAN MIGUEL, DOLORES	24	34	53
VALLECITO	126.0	75.8	75.4	59.4	AN JUAN RIVER BASINS			

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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/wsf/westwide.html>.

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