

# WATER SUPPLY OUTLOOK for the UPPER COLORADO

## COLORADO BASIN RIVER FORECAST CENTER

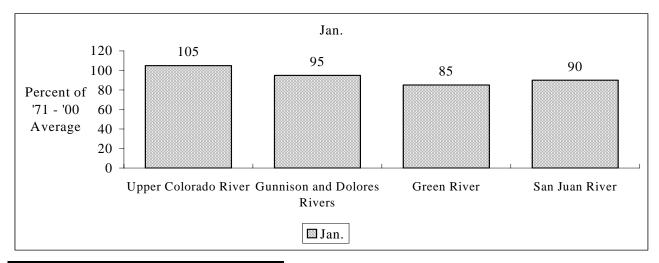
NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT



# January 1, 2007

October precipitation came in much above average for most of the basin. November and December ranged from well below to near average. While isolated snowpack observations represented a wide range of values, from much below to much above average, January 1 basin average snowpacks varied from below to near average. April through July 2007 runoff forecasts likewise varied from below to near average.

# **APRIL - JULY VOLUME FORECASTS**

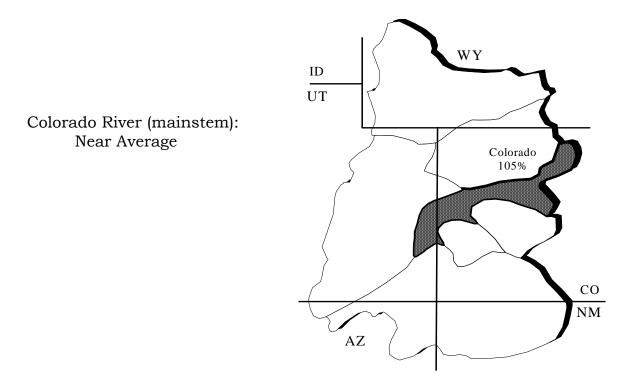


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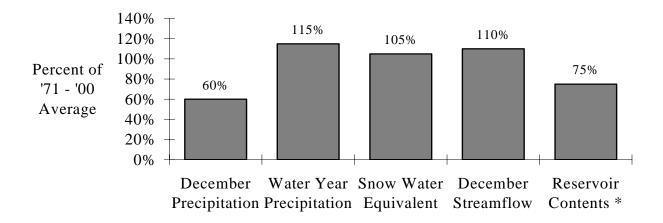
### UPPER COLORADO MAINSTEM

The water year started off with a very wet October, but November and December came in near to below average. This left upper Colorado headwater snowpack at 106% of average and the Roaring Fork snowpack at 99%. Forecasts of April through July runoff vary from 83% to 107% of average.

April-July streamflow forecasts for the Upper Colorado Mainstem are as follows:



# Basin Conditions - January 1, 2007



<sup>\*</sup> Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 6.

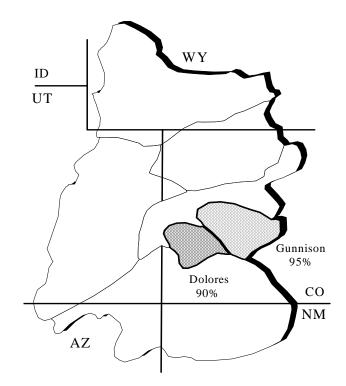
#### GUNNISON AND DOLORES RIVERS

The effect of the much above average October precipitation can be seen in the observed streamflows, which are running slightly above average. The January 1st snow water equivalents, while still near average, reflect the drier conditions that began in November. As a result, the April through July streamflow forecasts now range between 85% and 105% of average.

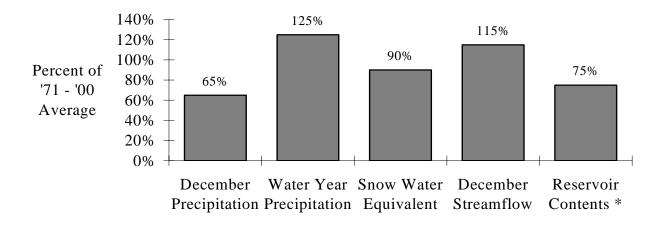
April-July streamflow forecasts for the Gunnison and Dolores Rivers are as follows:

Gunnison River: Near Average

Dolores River: Near Average



# Basin Conditions - January 1, 2007



<sup>\*</sup> Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 7.

#### Green River

Despite much above normal October precipitation, the snow accumulation in the entire Green River Basin has been below average. Climate forecasts indicate the possibility for runoff to remain in the average to below average range. Exceptions to this may be in the extreme southern portions of the basin.

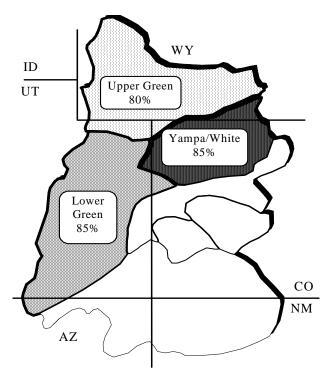
April-July streamflow forecasts for the Green River are as follows:

Upper Green River: Below Average

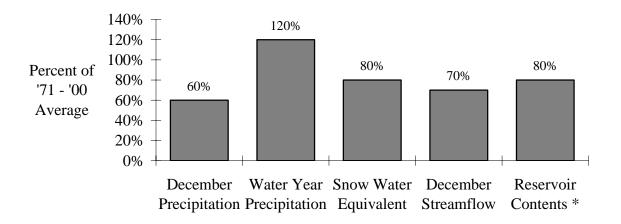
Yampa/White Rivers: Below Average

Lower Green River (blo Flaming Gorge):

Below Average



# BASIN CONDITIONS - JANUARY 1, 2007



<sup>\*</sup> Percent usable capacity, not percent average contents.

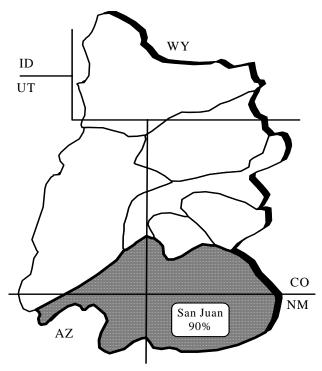
Specific site forecasts are listed beginning on page 8.

# San Juan River

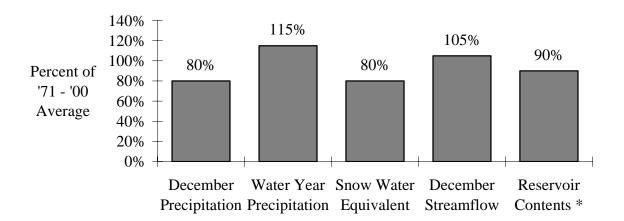
October precipitation was much above average over the San Juan basin. However, November and December came in below to much below average. This yielded seasonal precipitation over the basin of 115% of average. The January 1st snowpack was around 80% of average. April through July runoff forecasts vary from 75% to 96% of average.

April-July streamflow forecasts for the San Juan Basin are as follows:

San Juan River: Near Average



# BASIN CONDITIONS - JANUARY 1, 2007



<sup>\*</sup> Percent usable capacity, not percent average contents.

Specific site forecasts are listed beginning on page 10.

# SPECIFIC SITE FORECASTS

**Upper Colorado Mainstem:** April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most	Percent	Reas.	Reas.
		Probable	Avg.	Max	Min
COLORADO	LAKE GRANBY, GRANBY, NR	240	107	310	179
	DOTSERO, NR	1500	104	2010	1070
	GLENWOOD SPRINGS, BLO	2250	104	2890	1610
	CAMEO, NR	2500	103	3480	1520
	CISCO, NR	4650	100	7010	2290
WILLOW CK	WILLOW CK RES, GRANBY, NR	52	102	77	33
FRASER	WINTER PARK	20	100	26	14.5
WILLIAMS FORK	WILLIAMS FORK RES, PARSHALL, N	95	100	122	73
MUDDY CK	WOLFORD MTN RES, BLO	50	83	73	32
BLUE	DILLON RES	175	105	235	126
	GREEN MTN RES	300	107	395	220
EAGLE	GYPSUM, BLO	335	100	460	230
FRYING PAN	RUEDI RES, BASALT, NR	145	103	192	105
ROARING FORK	GLENWOOD SPRINGS	725	102	980	510
PLATEAU CK	CAMEO, NR	100	87	197	10
MILL CK	MOAB, NR, SHELEY TUN, AT	4.5	90	8.1	2.2

# SPECIFIC SITE FORECASTS

Gunnison and Dolores Basins: April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most	Percent	Reas.	Reas.
		Probable	Avg.	Max	Min
TAYLOR	TAYLOR PARK RES	100	97	134	71
	ALMONT	160	97	220	102
EAST	ALMONT	182	95	265	115
GUNNISON	GUNNISON, NR	370	95	535	235
TOMICHI CK	GUNNISON	80	99	138	41
LAKE FORK	GATEVIEW	130	103	177	90
GUNNISON	MORROW POINT RES	760	97	1130	470
	CRYSTAL RES	860	94	1320	500
MUDDY CK	⋆ PAONIA RES, BARDINE, NR	102	102	166	57
NF GUNNISON	SOMERSET, NR	300	98	450	187
SURFACE CK	CEDAREDGE	16	94	25	9.3
UNCOMPAHGRE	RIDGWAY RES	100	98	144	66
	COLONA	135	97	205	82
	DELTA	113	97	190	60
GUNNISON	GRAND JUNCTION, NR	1510	97	2430	595
DOLORES	DOLORES	235	89	385	130
	MCPHEE RES	285	89	455	163
	CISCO, NR	525	85	905	250
SAN MIGUEL	PLACERVILLE, NR	120	91	190	70

 $<sup>\</sup>star$  = March - June forecast period.

Green River Basin: April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most	Percent	Reas.	Reas.
		Probable	Avg.	Max	Min
GREEN	DANIEL, NR, WARREN BRIDGE, AT	225	85	310	153
	GREEN RIVER, WY, NR	710	81	1110	400
	GREEN RIVER, UT	2550	80	4120	980
PINE CK	FREMONT LK, ABV	90	87	114	69
NEW FORK	BIG PINEY, NR	315	80	470	192
BIG SANDY	FARSON, NR	44	76	65	28
BLACKS FORK	ROBERTSON, NR	83	87	119	53
EF SMITHS FORK	ROBERTSON, NR	24	77	35	14.8
HAMS FORK	FRONTIER, NR, POLE CK, BLO	54	83	89	28
	VIVA NAUGHTON RES	72	81	120	37
YAMPA	STAGECOACH RSVR, ABV	25	86	40	14.3
	STEAMBOAT SPRINGS	240	86	335	159
	MAYBELL, NR	860	87	1220	565
ELK	MILNER, NR	300	92	435	192
ELKHEAD CK	ELKHEAD, NR	35	90	53	21
	MAYNARD GULCH, BLO	56	95	80	32
FORTIFICATION CK	* FORTIFICATION, NR	5.7	76	11.5	2.3
LITTLE SNAKE	SLATER, NR	135	85	200	82
	DIXON, NR	260	79	395	154
	LILY, NR	290	79	475	149

<sup>★=</sup> March - June forecast period.

Green River Basin continued: April through July volume (kaf) forecasts (except where noted).

Stream	Station	Most	Percent	Reas.	Reas.
		Probable	Avg.	Max	Min
BIG BRUSH CK	VERNAL, NR, RED FLEET RES, ABV	19	90	29	10.9
ASHLEY CK	VERNAL, NR	47	90	74	26
WF DUCHESNE	HANNA, NR	20	83	31	11.3
ROCK CK	UPPER STILLWATER RES	73	89	102	49
	MOUNTAIN HOME, NR	80	90	113	53
DUCHESNE	TABIONA, NR	86	82	133	49
	DUCHESNE, NR, KNIGHT DIV, ABV	160	85	235	100
	MYTON	210	79	405	77
	RANDLETT, NR	260	80	505	95
STRAWBERRY	SOLDIER SPRINGS, NR	50	85	96	18.8
	DUCHESNE, NR	97	80	181	39
CURRANT CK	CURRANT CK RES	21	84	43	6.8
LAKE FORK	MOON LAKE RES, MTN HOME, NR	62	91	86	42
YELLOWSTONE	ALTONAH, NR	54	87	79	34
WHITEROCKS	WHITEROCKS, NR	50	89	76	29
WHITE	MEEKER, NR	245	84	365	147
	WATSON, NR	270	89	425	114
GOOSEBERRY CK	SCOFIELD, NR	10	84	15.7	5.6
PRICE	SCOFIELD RES, SCOFIELD, NR	39	85	62	15.6
WHITE	BLO TABBYUNE CK, SOLDIER SUMMI	12	69	24	4.3
HUNTINGTON CK	ELECTRIC LAKE	12.6	80	22	5.7
	HUNTINGTON, NR	39	80	63	15.2
SEELEY CK	JOES VLY RES, ORANGEVILLE, NR	48	83	76	26
FERRON CK	FERRON, NR	34	87	52	20
SEVEN MILE CK	FISH LAKE, NR	7	100	10.3	4.3
MUDDY CK	EMERY, NR	18	90	29	9.7

San Juan River Basin: April through July volume (kaf) forecasts (except where noted).

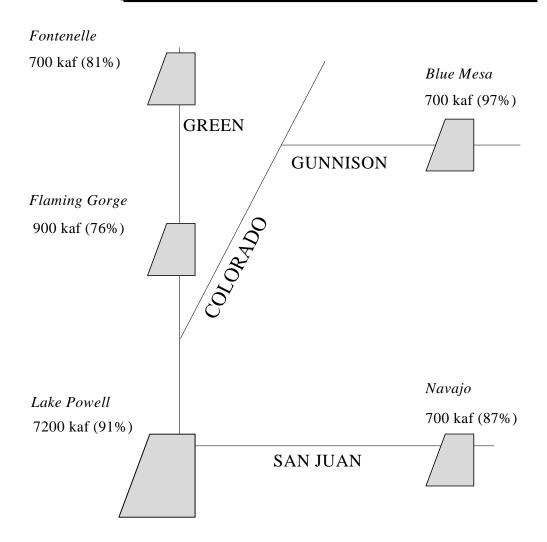
Stream		Station	Most	Percent	Reas.	Reas.
			Probable	Avg.	Max	Min
SAN JUAN		PAGOSA SPRINGS	215	96	325	104
		CARRACAS, NR	360	89	590	199
		FARMINGTON	1100	91	1760	445
		BLUFF, NR	1100	89	1790	410
RIO BLANCO		PAGOSA SPRINGS, NR, BLANCO DAM	50	94	69	35
NAVAJO		CHROMO, NR, OSO DIV DAM, BLO	65	94	95	42
PIEDRA		ARBOLES, NR	210	91	375	103
LOS PINOS		VALLECITO RES, BAYFIELD, NR	195	95	290	124
ANIMAS		DURANGO	410	93	620	255
FLORIDA		LEMON RES, DURANGO, NR	52	90	79	32
LA PLATA	ATA HESPERUS		20	80	33	11
MANCOS		MANCOS, NR	30	75	58	2.1
SOUTH CK	*	LLOYD'S RSVR NR MONTICELLO, AB	0.45	34	1.69	0.04
RECAPTURE CK	*	BLANDING, NR, JOHNSON CK, BLO	2.3	38	7.7	0.3

<sup>★ =</sup> March - July forecast period.

# FLOOD CONTROL FORECASTS

#### MOST PROBABLE FORECASTS 2007 APRIL - JULY INFLOW VOLUMES

(% OF '71 - '00 AVERAGE)

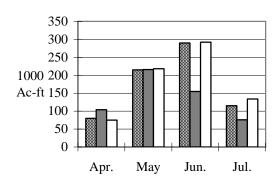


NOTE: Colorado River flood control forecasts account for a smaller set of upstream adjustments than water supply forecast points.

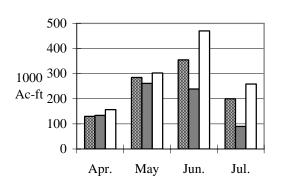
# RESERVOIR MONTHLY INFLOW FORECASTS

2007 Forecast 2006 Observed 30 Year Average

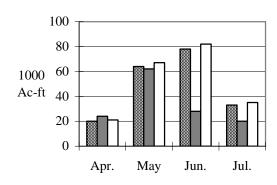
#### Blue Mesa Reservoir Inflow



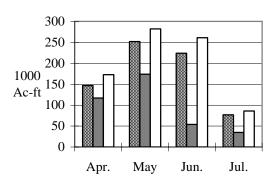
#### Flaming Gorge Reservoir Inflow



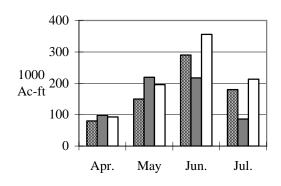
#### Vallecito Reservoir Inflow



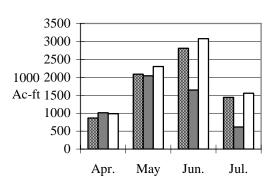
Navajo Reservoir Inflow



#### **Fontenelle Reservoir Inflow**

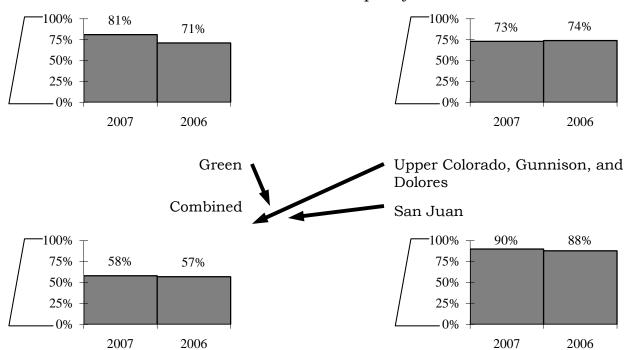


#### Lake Powell Inflow



# END OF MONTH RESERVOIR CONTENTS

# Percent of Usable Capacity



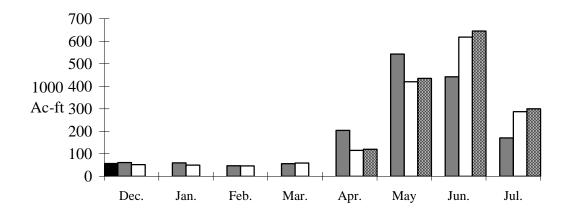
RESERVOIR	Reservoir	Usable	EOM Usable	Percent Usable
(vol. in 1000 ac-ft)	status	Capacity	Contents	Capacity
Fontenelle	1,4	344.8	181.9	53
Flaming Gorge	1,4	3749	3123.1	83
Strawberry	1,4	1105.9	929.1	84
Starvation	1,4	165.3	143.4	87
Lake Granby	2,4	490.3	313.2	64
Dillon	2,4	254	240.1	95
Green Mountain	2,4	146.9	96.5	66
Taylor Park	2,4	106.2	78.8	74
Blue Mesa	2,4	829.5	587.4	71
Ridgway	2,4	83.2	79.5	96
McPhee	2,4	381.1	missing	-99
Vallecito	3,4	125.4	76.1	61
Navajo	3,4	1696	1555.7	92
Lake Powell	4	24322	12076.5	50

- 1 = Green River reservoir status
- 2 = Upper Colorado River reservoir status
- 3 = San Juan River reservoir status
- 4 = Combined reservoir status

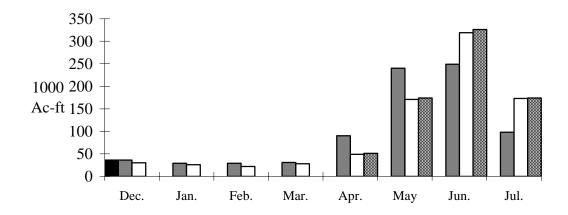
# MONTHLY STREAMFLOWS

■ 2007 Water Year ■ 2006 Water Year □ 30 Year Average ■ 2007 Forecast

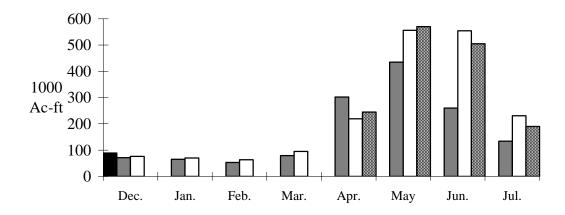
# Colorado - Dotsero, nr:



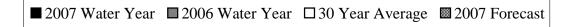
# Roaring Fork - Glenwood Springs:



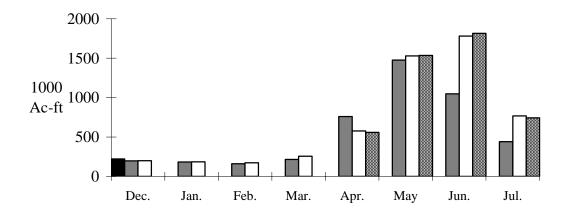
# Gunnison - Grand Junction, nr:



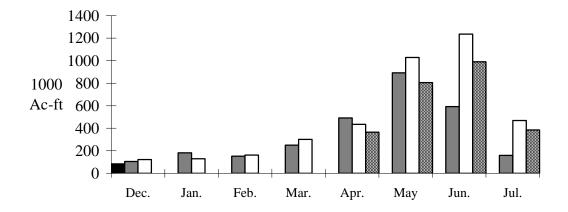
<sup>\*</sup> Data Not Available



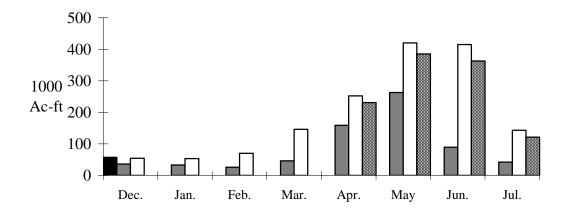
# Colorado - Cisco, nr:



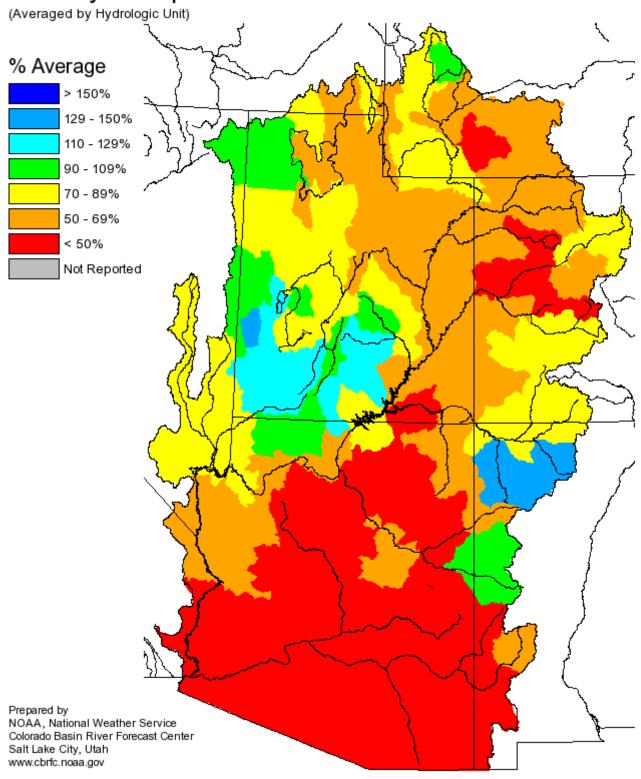
# Green - Green River, UT:



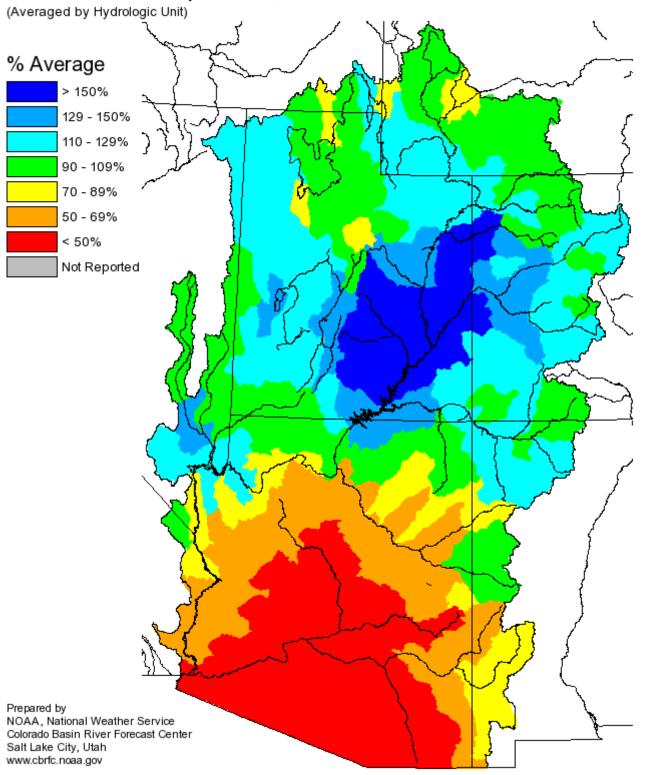
## San Juan - Bluff, nr:



# Monthly Precipitation for December 2006



# Seasonal Precipitation, October 2006 - December 2006



#### Additional Information

Water supply forecasts take into consideration present hydrometeorological conditions and use average basin temperatures and precipitation for the forecast period. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty becomes known and monthly forecasts become more accurate.

Volume forecasts represent adjusted flows; that is, observed flows with upstream water use taken into account. Adjusted flows will closely approximate natural or unimpaired flows. However, not all upstream diversions or impoundments are measured or quantifiable. For specific adjustments used with each forecast point, consult the Guide to Water Supply Forecasting.

The Water Supply Outlook is issued monthly January through May by the Colorado Basin River Forecast Center, National Weather Service. It represents a coordinated effort between the National Weather Service, Natural Resources Conservation Service, Bureau of Reclamation, U.S. Geological Survey and local water district managers.

#### **DEFINITIONS:**

Acre-Foot:

The volume equal to one acre covered one foot deep (43,560 cubic feet).

Average:

The arithmetic mean. The sum of the values divided by the number of values.

Categories:

Much above Average Above Average Near Average Below Average Much Below Average-Greater than 130% 111-130% 90-110% 70-89% Less than 70%

Forecast Period:

The period from April 1 through July 31.

Median:

The middle value. One half of the observed values are higher and half of the values are lower than this.

Most Probable Forecast:

Given the current hydrometeorological conditions to date, this is the best estimate of what the runoff volume will be this season.

Reasonable Maximum Forecast:

Given the current hydrometeorological conditions, the seasonal runoff that has a ten percent (10%) chance of being exceeded.

Reasonable Minimum Forecast:

Given the current hydrometeorological conditions, the seasonal runoff that has a ninety percent (90%) chance of being exceeded.

Water Year:

The period from October 1 through September 30.

NOTE: Data used in this report are provisional and are subject to revision.

For more information, or to be included on the mailing list, please contact:

Colorado Basin River Forecast Center, National Weather Service

2442 West North Temple, Salt Lake City, UT 84116