

# WATER SUPPLY OUTLOOK for the UPPER COLORADO

# COLORADO BASIN

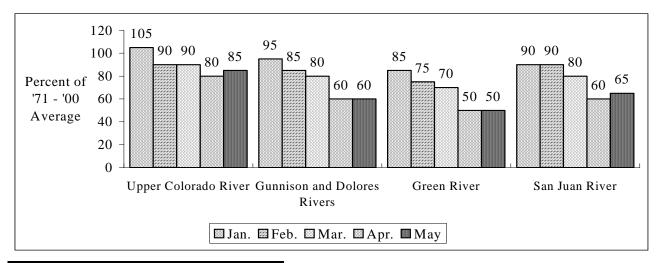
RIVER FORECAST CENTER
NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT



## MAY 1, 2007

Precipitation in April varied across the basin, with near to above average in the Upper Colorado headwaters and portions of the Gunnison and below to much below average over the Yampa/ White basins. Temperatures went well above average toward the end of April accelerating snowmelt and increasing streamflow. Overall, forecasts changed little from those issued last month.

## **APRIL - JULY VOLUME FORECASTS**

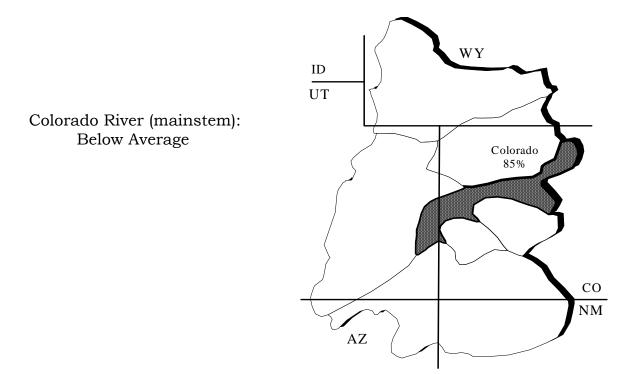


	Inside
Summary	1
Upper Colorado Mainstem	2
Gunnison and Dolores Rivers	3
Green River	4
San Juan River	5
Specific Site Forecasts	6
Flood Control Forecasts	11
Res. Monthly Infl. Forecasts	12
EOM Reservoir Contents	13
Monthly Streamflows	14
Precipitation Maps	16,17
Additional Information	18

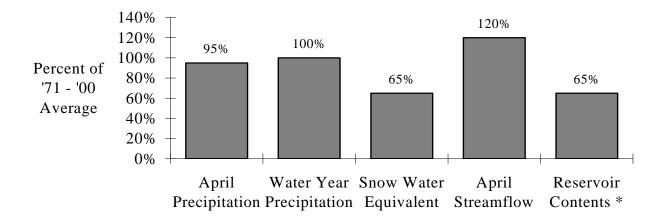
#### UPPER COLORADO MAINSTEM

April precipitation was near to above average over many portions of the Upper Colorado, resulting in a slightly improved runoff outlook in some of the Upper Colorado headwater forecast points. However, mainstem location forecasts changed little from those issued last month.

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



## Basin Conditions - May 1, 2007



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

Specific site forecasts are listed beginning on page 6.

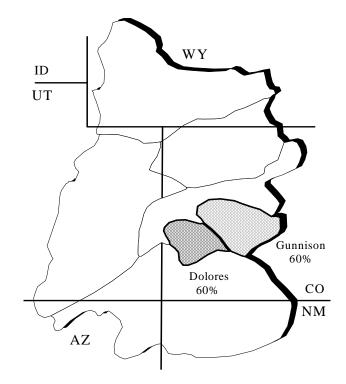
#### GUNNISON AND DOLORES RIVERS

The area had near average precipitation and temperatures during the month of April. However, the distribution of the precipitation was very uneven; the East, Taylor and North Fork Gunnison drainages had below average precipitation, while drainages on the south side of the area had above normal precipitation. There were only small changes to the forecasts from last month.

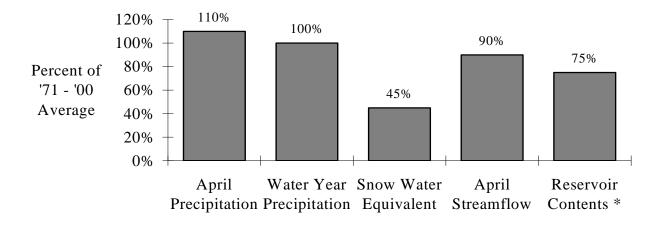
April-July streamflow forecasts for the Gunnison and Dolores Rivers are as follows:

Gunnison River:
Much Below Average

Dolores River:
Much Below Average



## Basin Conditions - May 1, 2007



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

Specific site forecasts are listed beginning on page 7.

#### Green River

Above average temperatures and below average precipitation did little to improve the runoff outlook for the Green River Basin. Above Flaming Gorge, snow water equivalent values dropped 20% while measured inflows for the month remained near 50% of average. Forecasts now range from near 50% of average to as low as 20% for sites in the Duschesne basin.

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

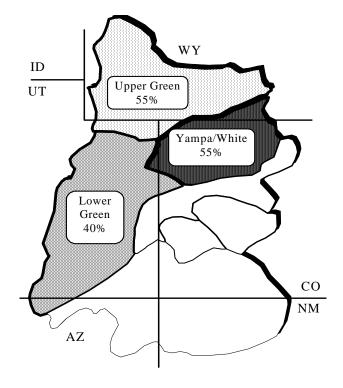
Upper Green River: Much Below Average

Yampa/White Rivers:

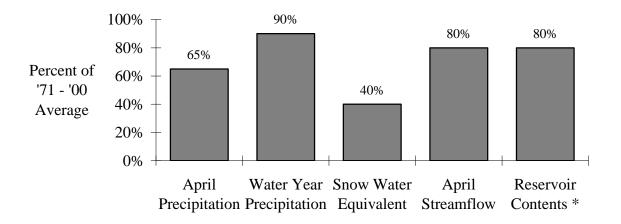
Much Below Average

Lower Green River (blo Flaming Gorge):

Much Below Average



## Basin Conditions - May 1, 2007



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

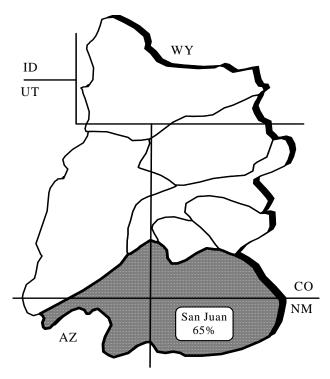
Specific site forecasts are listed beginning on page 8.

## San Juan River

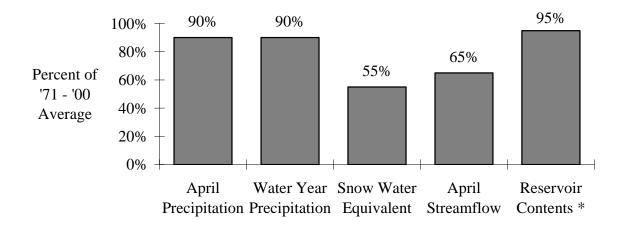
April precipitation was near to below average over the basin. The warm spell at the end of the month decreased snow water equivalents values by 10% basinwide to a value of 55%. April through July runoff forecasts now range from a low of 2% of average on Recapture Creek to a high of 72% of average on the Rio Blanco.

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

San Juan River: Much Below Average



## Basin Conditions - May 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	195	87	235	160
	DOTSERO, NR	1250	87	1540	995
	GLENWOOD SPRINGS, BLO	1750	81	2200	1300
	CAMEO, NR	1900	79	2420	1380
	CISCO, NR	3150	68	4320	2030
WILLOW CK	WILLOW CK RES, GRANBY, NR	45	88	57	35
FRASER	WINTER PARK	19.5	98	23	15.4
WILLIAMS FORK	WILLIAMS FORK RES, PARSHALL, N	85	89	102	68
MUDDY CK	WOLFORD MTN RES, BLO	30	50	41	21
BLUE	DILLON RES	165	99	197	136
	GREEN MTN RES	270	96	325	220
EAGLE	GYPSUM, BLO	270	81	340	210
FRYING PAN	RUEDI RES, BASALT, NR	110	78	136	87
ROARING FORK	GLENWOOD SPRINGS	500	70	615	400
PLATEAU CK	CAMEO, NR	60	52	128	30
MILL CK	MOAB, NR, SHELEY TUN, AT	2	40	2.6	1.48

## 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	65	63	87	45
	ALMONT	95	58	135	55
EAST	ALMONT	120	62	150	90
GUNNISON	GUNNISON, NR	220	56	295	150
TOMICHI CK	GUNNISON	40	49	63	25
LAKE FORK	GATEVIEW	110	87	130	92
GUNNISON	MORROW POINT RES	480	61	620	340
	CRYSTAL RES	535	58	725	345
MUDDY CK	* PAONIA RES, BARDINE, NR	59	59	75	48
NF GUNNISON	SOMERSET, NR	170	56	220	124
SURFACE CK	CEDAREDGE	8.8	51	11.4	6.8
UNCOMPAHGRE	RIDGWAY RES	82	80	106	63
	COLONA	105	76	144	75
	DELTA	70	60	126	45
GUNNISON	GRAND JUNCTION, NR	900	58	1290	505
DOLORES	DOLORES	160	60	205	124
	MCPHEE RES	180	56	230	141
	CISCO, NR	300	49	460	140
SAN MIGUEL	PLACERVILLE, NR	96	73	125	72

<sup>★ =</sup> 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	160	60	196	128
	GREEN RIVER, WY, NR	405	46	570	270
	GREEN RIVER, UT	1410	44	1860	960
PINE CK	FREMONT LK, ABV	70	67	84	57
NEW FORK	BIG PINEY, NR	210	53	280	191
BIG SANDY	FARSON, NR	31	53	41	23
BLACKS FORK	ROBERTSON, NR	60	63	68	43
EF SMITHS FORK	ROBERTSON, NR	17.6	57	25	11.1
HAMS FORK	FRONTIER, NR, POLE CK, BLO	30	46	41	21
	VIVA NAUGHTON RES	40	45	59	26
YAMPA	STAGECOACH RSVR, ABV	15	52	23	9.8
	STEAMBOAT SPRINGS	170	61	215	132
	MAYBELL, NR	540	55	705	400
ELK	MILNER, NR	210	65	255	171
ELKHEAD CK	ELKHEAD, NR	21	54	31	13.4
	MAYNARD GULCH, BLO	35	59	50	19.7
FORTIFICATION CK	* FORTIFICATION, NR	4.2	56	9.4	1.4
LITTLE SNAKE	SLATER, NR	88	55	115	66
	DIXON, NR	170	52	250	111
	LILY, NR	180	49	260	119

<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			Min
BIG BRUSH CK	VERNAL, NR, RED FLEET RES, ABV	13.8	66	18.9	9.8
ASHLEY CK	VERNAL, NR	29	56	41	19.4
WF DUCHESNE	HANNA, NR	10	42	15.8	5.8
ROCK CK	UPPER STILLWATER RES	45	55	57	34
	MOUNTAIN HOME, NR	50	56	64	38
DUCHESNE	TABIONA, NR	40	38	57	26
	DUCHESNE, NR, KNIGHT DIV, ABV	86	46	116	61
	MYTON	59	22	99	33
	RANDLETT, NR	70	22	150	28
STRAWBERRY	SOLDIER SPRINGS, NR	13.8	23	25	6.8
	DUCHESNE, NR	24	20	45	12
CURRANT CK	CURRANT CK RES	6.7	27	15.2	1.6
LAKE FORK	MOON LAKE RES, MTN HOME, NR	38	56	50	28
YELLOWSTONE	ALTONAH, NR	36	58	48	26
WHITEROCKS	WHITEROCKS, NR	35	62	48	24
WHITE MEEKER, NR		175	60	235	127
	WATSON, NR	190	62	285	77
GOOSEBERRY CK	SCOFIELD, NR	4.5	38	6.5	2.9
PRICE	SCOFIELD RES, SCOFIELD, NR	15.9	35	34	2.5
WHITE	BLO TABBYUNE CK, SOLDIER SUMMI	3.2	18	5.4	1.9
HUNTINGTON CK	ELECTRIC LAKE	5.3	34	7.5	3.6
	HUNTINGTON, NR	13.7	28	33	5.9
SEELEY CK	JOES VLY RES, ORANGEVILLE, NR	25	43	38	15
FERRON CK	FERRON, NR	15.8	41	21	11.5
SEVEN MILE CK	FISH LAKE, NR	3.5	50	4.8	2.5
MUDDY CK	EMERY, NR	9.1	46	12.7	6.2

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

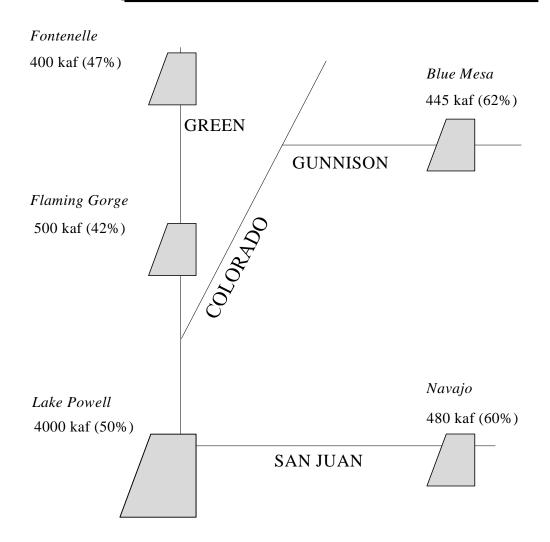
Stream	Station Most		Percent	Reas.	Reas.
		Probable Avg.		Max	Min
SAN JUAN	PAGOSA SPRINGS	155	69	198	112
	CARRACAS, NR	270	67	355	200
	FARMINGTON	720	60	945	495
	BLUFF, NR	700	57	1030	375
RIO BLANCO	PAGOSA SPRINGS, NR, BLANCO DAM	38	72	48	30
NAVAJO	CHROMO, NR, OSO DIV DAM, BLO	45	65	56	36
PIEDRA	ARBOLES, NR	135	59	170	107
LOS PINOS	VALLECITO RES, BAYFIELD, NR	135	66	162	112
ANIMAS	DURANGO	300	68	375	235
FLORIDA	LEMON RES, DURANGO, NR	35	60	43	28
LA PLATA	HESPERUS	15	60	19.1	11.7
MANCOS	MANCOS, NR	14	35	20	9.3
SOUTH CK	LLOYD'S RSVR NR MONTICELLO, AB	0.05	4	0.23	0
RECAPTURE CK	BLANDING, NR, JOHNSON CK, BLO	0.1	2	0.61	0

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

## FLOOD CONTROL FORECASTS

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

(% OF '71 - '00 AVERAGE)

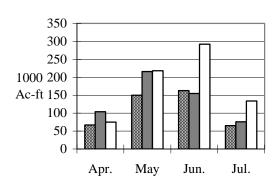


NOTE: Colorado River flood control forecasts account for a smaller set of upstream adjustments than water supply forecast points.

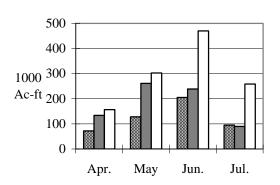
## RESERVOIR MONTHLY INFLOW FORECASTS

2007 Forecast 2006 Observed 30 Year Average

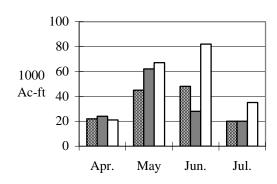
#### Blue Mesa Reservoir Inflow



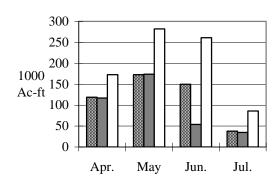
#### Flaming Gorge Reservoir Inflow



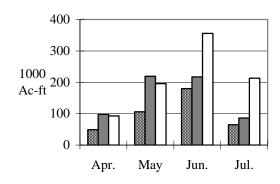
#### Vallecito Reservoir Inflow



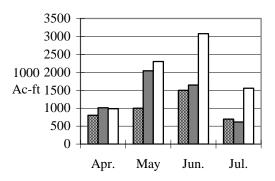
Navajo Reservoir Inflow



#### **Fontenelle Reservoir Inflow**

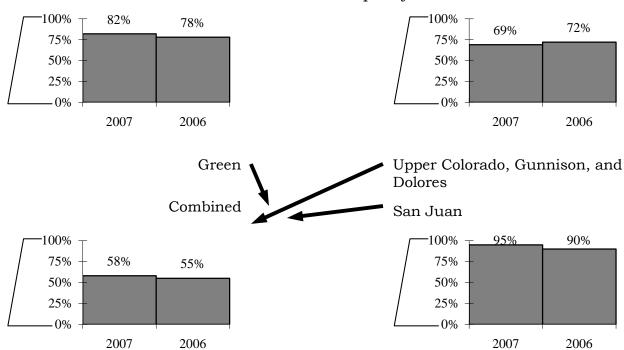


#### Lake Powell Inflow



## END OF MONTH RESERVOIR CONTENTS

## Percent of Usable Capacity



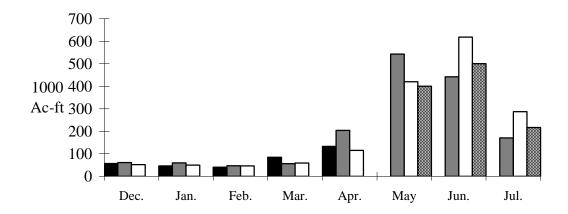
RESERVOIR	Reservoir	Usable	EOM Usable	Percent Usable
(vol. in 1000 ac-ft)	status	Capacity	Contents	Capacity
Fontenelle	1,4	344.8	130.6	38
Flaming Gorge	1,4	3749	3185	85
Strawberry	1,4	1105.9	940.6	85
Starvation	1,4	165.3	155.3	94
Lake Granby	2,4	490.3	238.8	49
Dillon	2,4	254	242.4	95
Green Mountain	2,4	146.9	74.5	51
Taylor Park	2,4	106.2	82.7	78
Blue Mesa	2,4	829.5	533.5	64
Ridgway	2,4	83.2	73.3	88
McPhee	2,4	381.1	341.2	90
Vallecito	3,4	125.4	102.5	82
Navajo	3,4	1696	1622	96
Lake Powell	4	24322	11783.5	48

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

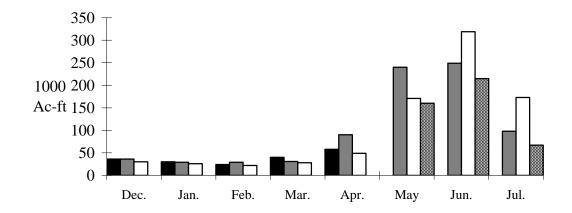
## MONTHLY STREAMFLOWS

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

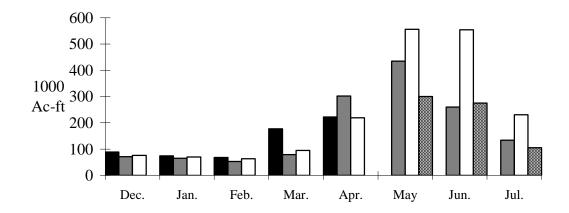
## Colorado - Dotsero, nr:



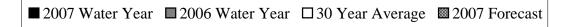
## Roaring Fork - Glenwood Springs:



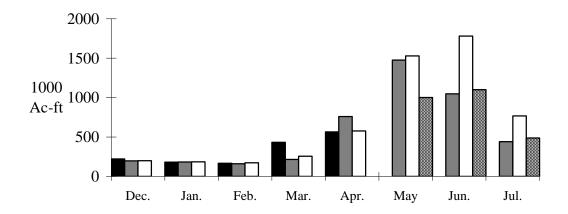
## Gunnison - Grand Junction, nr:



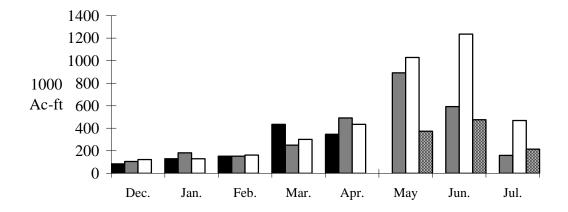
<sup>\*</sup> Data Not Available



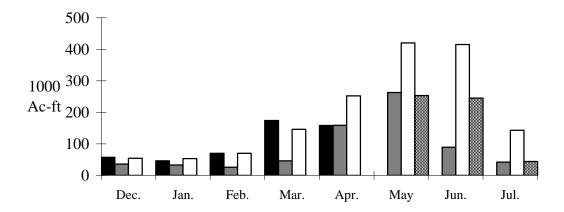
## Colorado - Cisco, nr:



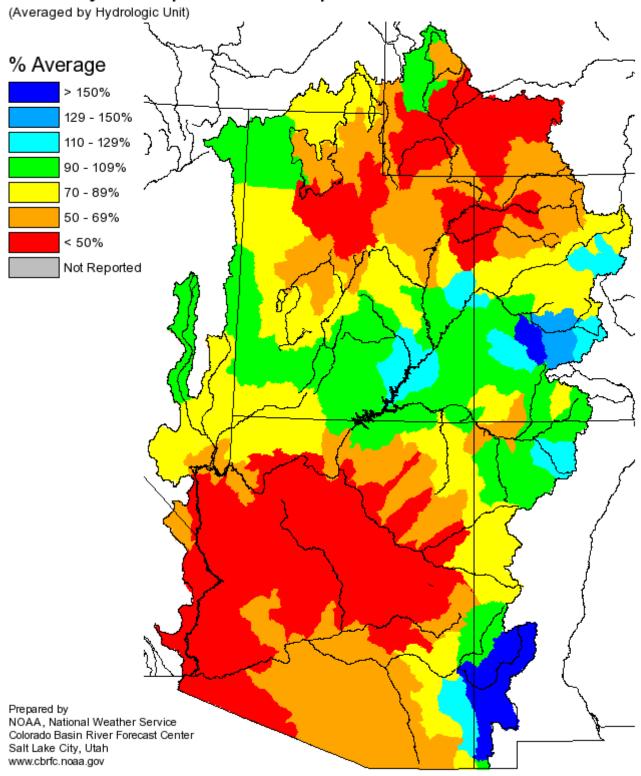
## Green - Green River, UT:



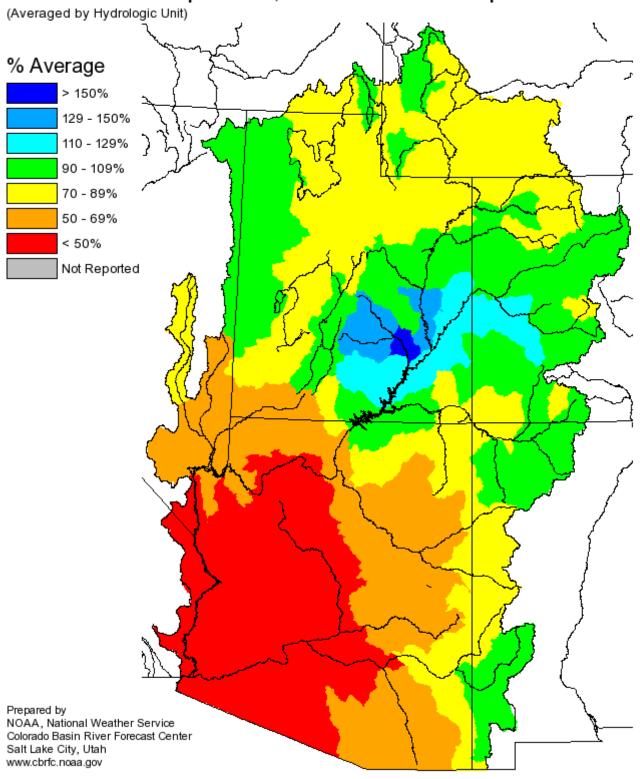
### San Juan - Bluff, nr:



# Monthly Precipitation for April 2007



# Seasonal Precipitation, October 2006 - April 2007



#### 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