

# WATER SUPPLY OUTLOOK for the UPPER COLORADO

## COLORADO BASIN RIVER FORECAST CENTER

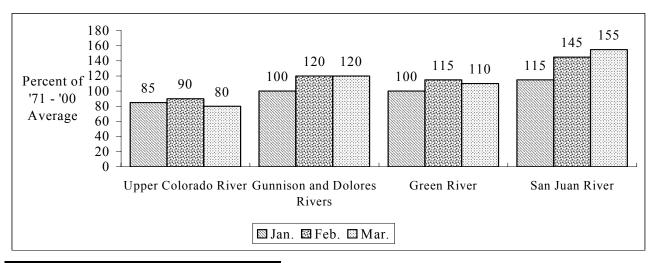
NATIONAL WEATHER SERVICE, SALT LAKE CITY, UT



## MARCH 1, 2005

February precipitation varied widely over the basin. The headwaters of the Yampa/White, Upper Colorado and Gunnison basins received below to much below average precipitation with near to above average precipitation over most mainstems and the San Juan and Dolores basin. Most April-July runoff forecasts varied little when compared to last month, with some areas increasing a bit and some decreasing a bit.

## **APRIL - JULY VOLUME FORECASTS**

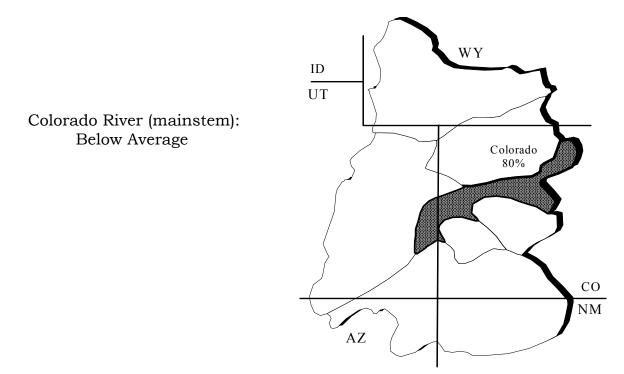


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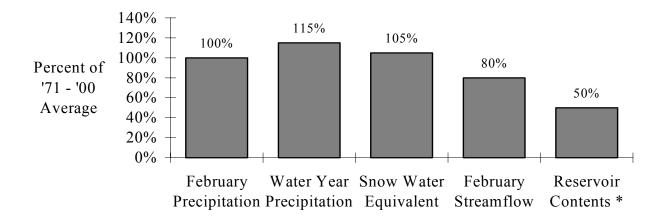
#### UPPER COLORADO MAINSTEM

February precipitation varied from much below normal over the headwaters to above average over the lower mainstem areas. Overall snowpack dropped slightly when compared to last month. Streamflow forecasts for the April-July runoff dropped a bit in some areas with little change in others and still range from 75% to 165% of average.

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



## Basin Conditions - March 1, 2005



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

Specific site forecasts are listed beginning on page 6.

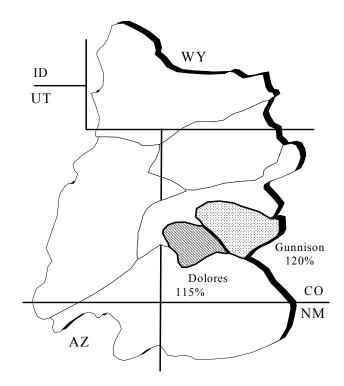
#### GUNNISON AND DOLORES RIVERS

The overall March 1 snow water equivalent as a % of average is down just slightly from February 1. As such, most forecasts remained the same or decreased a little. The exception is the North Fork of the Gunnison where snow water equivalent is near 170% and forecasts were increased 5%-10%. The April-July streamflow forecasts now range between 105% and 160% of average.

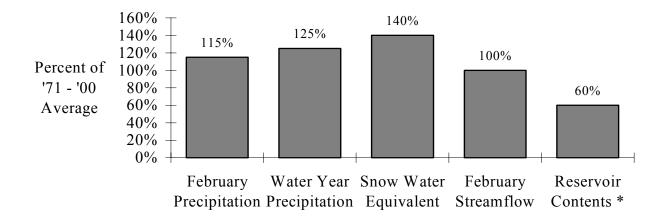
April-July streamflow forecasts for the Gunnison and Dolores Rivers are as follows:

Gunnison River: Above Average

Dolores River:
Above Average



## Basin Conditions - March 1, 2005



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

Specific site forecasts are listed beginning on page 7.

#### GREEN RIVER

The snowpack situation as of March 1 changed little from early February. A very significant snowpack remains in place in the Duchesne Basin and in portions of the Muddy, Escalante and Price drainages. Below average snowpack exists in the Upper Green and Yampa/White basins. April-July runoff volumes are expected to range from near 120% to 200% of average in Duchesne and 70% to 110% elsewhere.

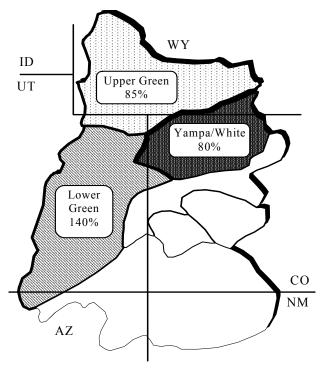
April-July streamflow forecasts for the Green River are as follows:

Upper Green River: Below Average

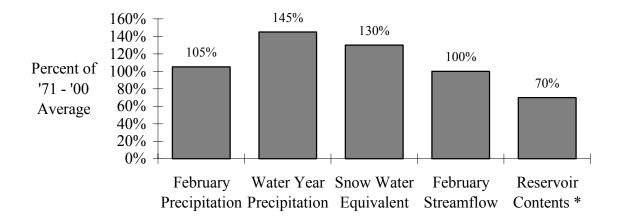
Yampa/White Rivers: Below Average

Lower Green River (blo Flaming Gorge):

Much Above Average



## BASIN CONDITIONS - MARCH 1, 2005



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

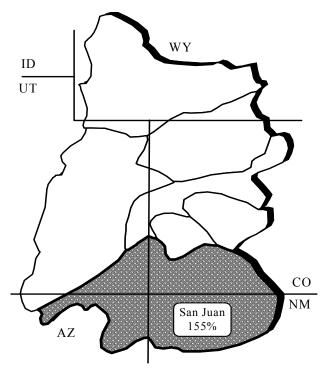
Specific site forecasts are listed beginning on page 8.

## San Juan River

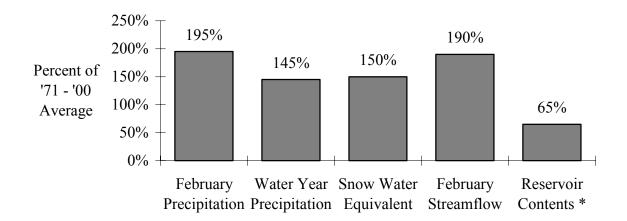
Snowpack conditions in the San Juan Basin decreased slightly from early February to 151%. February precipitation was 195% of average. These factors combined with 188% of average streamflow in February caused an increase in the forecast spring runoff volumes. Saturated soils are primed to deliver a high spring runoff if the trend continues. April through July runoff forecasts currently range from 130 % to 305% of average with a median of 154%

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

San Juan River: Much Above Average



## Basin Conditions - March 1, 2005



<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	190	84	260	140
	DOTSERO, NR	1150	80	1670	635
	GLENWOOD SPRINGS, BLO	1850	86	2460	1240
	CAMEO, NR	2050	85	2880	1220
	CISCO, NR	4650	100	6210	3090
WILLOW CK	WILLOW CK RES, GRANBY, NR	53	104	74	36
FRASER	WINTER PARK	17.5	88	23	12.1
WILLIAMS FORK	WILLIAMS FORK RES, PARSHALL, N	75	79	97	56
MUDDY CK	WOLFORD MTN RES, BLO	45	75	82	25
BLUE	DILLON RES	125	75	178	71
	GREEN MTN RES	230	82	285	180
EAGLE	GYPSUM, BLO	275	82	405	187
FRYING PAN	RUEDI RES, BASALT, NR	115	82	168	79
ROARING FORK	GLENWOOD SPRINGS	700	99	935	500
PLATEAU CK	CAMEO, NR	190	165	275	107
MILL CK	MOAB, NR, SHELEY TUN, AT	6.7	134	9.5	3.9

## 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	110	107	144	76
	ALMONT	177	107	220	132
EAST	ALMONT	215	112	270	160
GUNNISON	GUNNISON, NR	430	110	550	310
TOMICHI CK	GUNNISON	85	105	140	44
LAKE FORK	GATEVIEW	150	119	200	98
GUNNISON	MORROW POINT RES	885	113	1170	600
	CRYSTAL RES	1010	110	1350	700
MUDDY CK	⋆ PAONIA RES, BARDINE, NR	160	160	220	109
NF GUNNISON	SOMERSET, NR	470	154	615	345
SURFACE CK	CEDAREDGE	27	158	41	18
UNCOMPAHGRE	RIDGWAY RES	110	108	161	75
	COLONA	150	108	210	99
	DELTA	125	107	205	55
GUNNISON	GRAND JUNCTION, NR	1850	119	2410	1290
DOLORES	DOLORES	305	115	400	210
	MCPHEE RES	370	116	480	260
	CISCO, NR	615	111	920	310
SAN MIGUEL	PLACERVILLE, NR	145	110	192	97

 $<sup>\</sup>star$  = 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	220	83	280	161
	GREEN RIVER, WY, NR	710	81	945	475
	GREEN RIVER, UT	3050	96	4140	1960
PINE CK	FREMONT LK, ABV	90	87	106	74
NEW FORK	BIG PINEY, NR	325	82	430	220
BIG SANDY	FARSON, NR	58	100	76	40
BLACKS FORK	ROBERTSON, NR	95	100	123	67
EF SMITHS FORK	ROBERTSON, NR	30	97	40	23
HAMS FORK	FRONTIER, NR, POLE CK, BLO	58	89	82	38
	VIVA NAUGHTON RES	76	85	108	44
YAMPA	STAGECOACH RSVR, ABV	22	76	33	11.4
	STEAMBOAT SPRINGS	215	77	300	131
	MAYBELL, NR	750	76	1070	430
ELK	MILNER, NR	285	88	405	187
ELKHEAD CK	ELKHEAD, NR	30	77	59	15.2
	MAYNARD GULCH, BLO	50	85	79	21
FORTIFICATION CK	* FORTIFICATION, NR	6	80	10.6	1.4
LITTLE SNAKE	SLATER, NR	150	94	215	98
	DIXON, NR	305	92	415	195
	LILY, NR	330	90	445	215

<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	30	143	37	23
ASHLEY CK	VERNAL, NR	90	173	115	65
WF DUCHESNE	HANNA, NR	30	125	44	18.6
ROCK CK	UPPER STILLWATER RES	125	152	144	106
	MOUNTAIN HOME, NR	135	152	156	114
DUCHESNE	TABIONA, NR	130	124	156	104
	DUCHESNE, NR, KNIGHT DIV, ABV	275	146	335	215
	MYTON	450	170	560	340
	RANDLETT, NR	630	194	870	390
STRAWBERRY	SOLDIER SPRINGS, NR	75	127	110	47
	DUCHESNE, NR	150	123	189	111
CURRANT CK	CURRANT CK RES	30	120	37	23
LAKE FORK	MOON LAKE RES, MTN HOME, NR	100	147	118	82
YELLOWSTONE	ALTONAH, NR	95	153	120	70
WHITEROCKS	WHITEROCKS, NR	105	188	137	73
WHITE	MEEKER, NR	200	69	294	136
	WATSON, NR	210	69	345	76
GOOSEBERRY CK	SCOFIELD, NR	12.9	108	17.2	8.3
PRICE	SCOFIELD RES, SCOFIELD, NR	46	100	57	35
WHITE	BLO TABBYUNE CK, SOLDIER SUMMI	20	115	31	11.2
HUNTINGTON CK	ELECTRIC LAKE	16	102	24	9.8
	HUNTINGTON, NR	46	92	59	33
SEELEY CK	JOES VLY RES, ORANGEVILLE, NR	57	98	82	32
FERRON CK	FERRON, NR	41	105	57	28
SEVEN MILE CK	FISH LAKE, NR	7.5	107	12	3
MUDDY CK	EMERY, NR	21	106	32	10.1

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

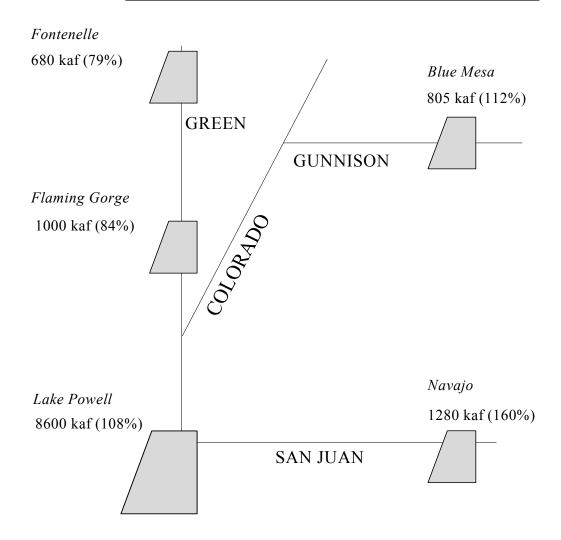
Stream		Station	Most	Percent	Reas.	Reas.
			Probable	Avg.	Max	Min
SAN JUAN		PAGOSA SPRINGS	325	144	415	235
		CARRACAS, NR	600	148	875	375
		FARMINGTON	1900	157	2470	1370
		BLUFF, NR	2000	163	2450	1550
RIO BLANCO		PAGOSA SPRINGS, NR, BLANCO DAM	73	138	97	49
NAVAJO		CHROMO, NR, OSO DIV DAM, BLO	90	130	120	60
PIEDRA		ARBOLES, NR	350	152	440	260
LOS PINOS		VALLECITO RES, BAYFIELD, NR	320	156	390	250
ANIMAS		DURANGO	625	142	770	480
FLORIDA		LEMON RES, DURANGO, NR	90	155	114	66
LA PLATA HESPERUS		HESPERUS	40	160	50	30
MANCOS		MANCOS, NR	64	160	87	41
SOUTH CK	*	LLOYD'S RSVR NR MONTICELLO, AB	4	305	6	2.4
RECAPTURE CK	*	* BLANDING, NR, JOHNSON CK, BLO		246	19.6	10.8

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

#### FLOOD CONTROL FORECASTS

#### MOST PROBABLE FORECASTS 2005 APRIL - JULY INFLOW VOLUMES

(% OF '71 - '00 AVERAGE)

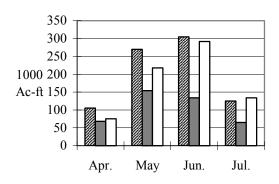


NOTE: Colorado River flood control forecasts account for a smaller set of upstream adjustments than water supply forecast points.

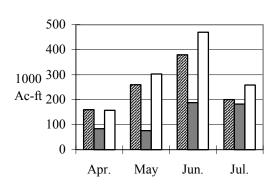
## RESERVOIR MONTHLY INFLOW FORECASTS

2005 Forecast 2004 Observed 30 Year Average

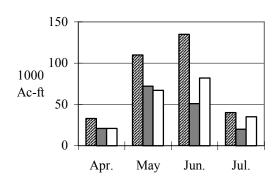
#### Blue Mesa Reservoir Inflow



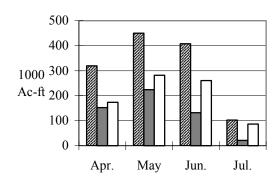
#### Flaming Gorge Reservoir Inflow



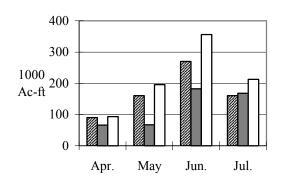
#### Vallecito Reservoir Inflow



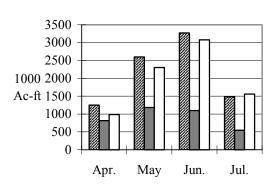
Navajo Reservoir Inflow



#### **Fontenelle Reservoir Inflow**

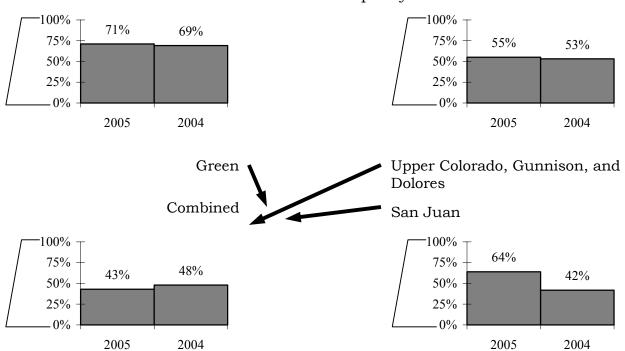


Lake Powell Inflow



## END OF MONTH RESERVOIR CONTENTS

#### Percent of Usable Capacity



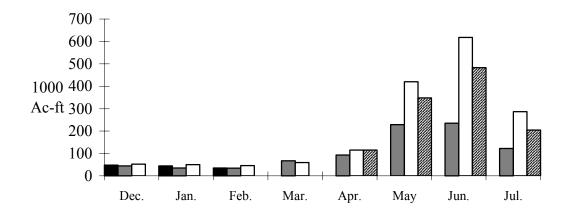
RESERVOIR	Reservoir	Usable	EOM Usable	Percent Usable
(vol. in 1000 ac-ft)	status	Capacity	Contents	Capacity
Fontenelle	1,4	344.8	147.8	43
Flaming Gorge	1,4	3749	2786.2	74
Strawberry	1,4	1105.9	722.8	65
Starvation	1,4	165.3	143.2	87
Lake Granby	2,4	490.3	156.3	32
Dillon	2,4	254	200.6	79
Green Mountain	2,4	146.9	73.5	50
Taylor Park	2,4	106.2	68.4	64
Blue Mesa	2,4	829.5	460.7	56
Ridgway	2,4	83.2	76.3	92
McPhee	2,4	381.1	216.3	57
Vallecito	3,4	125.4	55.9	45
Navajo	3,4	1696	1103.8	65
Lake Powell	4	24322	8264.7	34

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

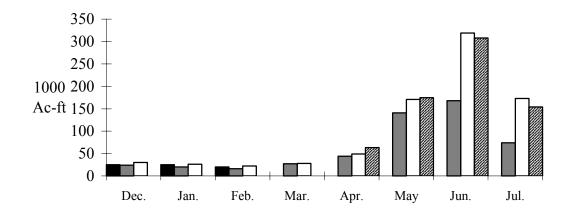
#### MONTHLY STREAMFLOWS

■ 2005 Water Year ■ 2004 Water Year □ 30 Year Average ■ 2005 Forecast

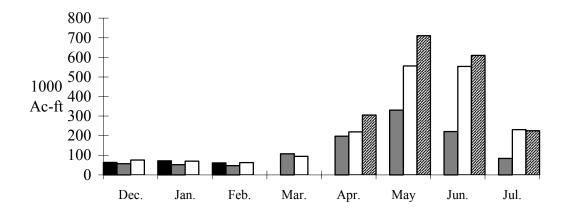
#### Colorado - Dotsero, nr:



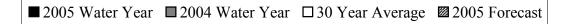
#### Roaring Fork - Glenwood Springs:



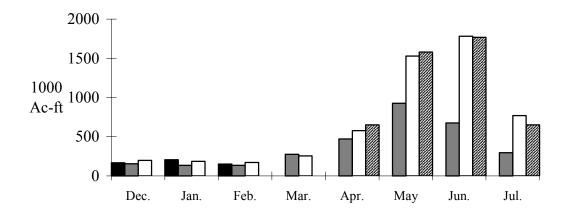
#### Gunnison - Grand Junction, nr:



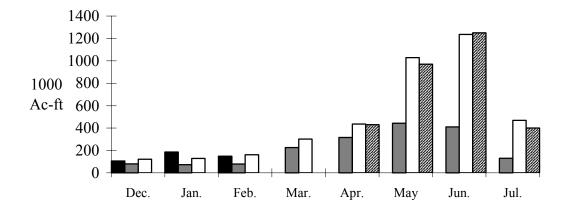
<sup>\*</sup> Data Not Available



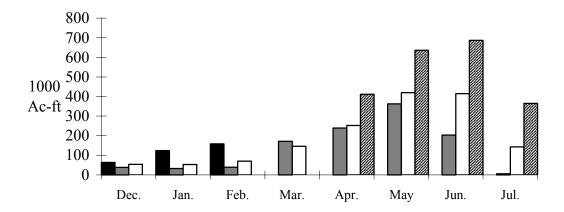
#### Colorado - Cisco, nr:



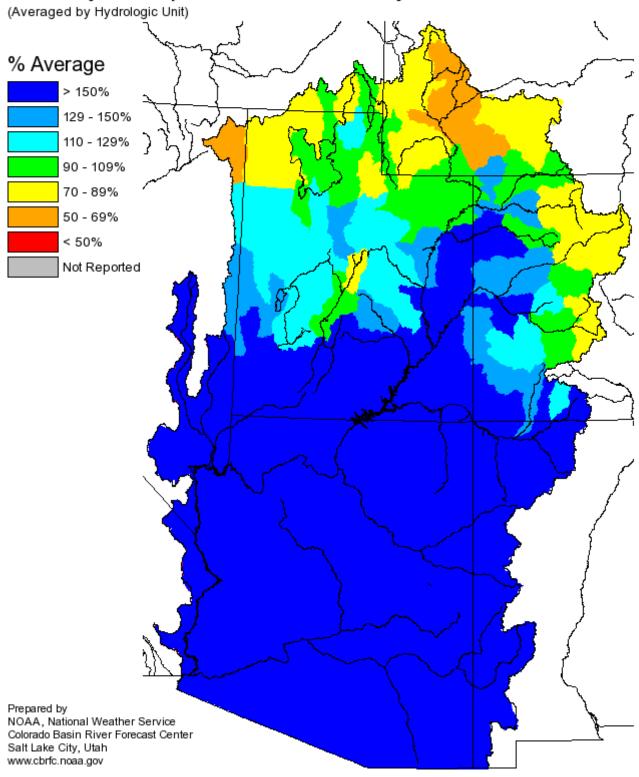
Green - Green River, UT:



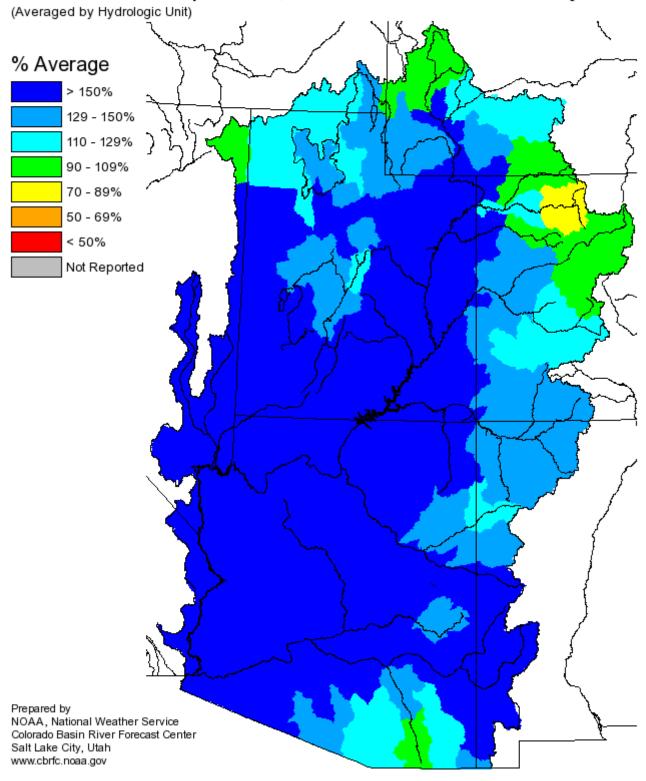
San Juan - Bluff, nr:



# Monthly Precipitation for February 2005



# Seasonal Precipitation, October 2004 - February 2005



#### 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