

# Utah

# Basin Outlook Report

# January 1, 2002



# 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 snowcourses 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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# STATE OF UTAH GENERAL OUTLOOK

Jan 1, 2002

## SUMMARY

The summer of 2001 was long, hot and extremely dry over most of Utah. Snowmelt runoff was short, pretty much over with by the end of May, which lengthened the summer irrigation season on the front end. Winter for the 2002 water year started late, which lengthened the irrigation season on the back end, further straining reservoir levels and water supply. Those few SNOTEL sites with soil moisture sensors saw some incredibly low values during the summer and late fall, some as low as 1% soil moisture by volume, indicating extremely dry conditions. In late November, storms finally appeared, first as rain and then finally, snow. The rainfall helped bring soil moisture values up in some areas, particularly along the Wasatch Front, where up to 5 inches of rain fell. In most other areas, rainfall was not nearly that plentiful. Abnormally low soil moisture levels, especially in northern Utah, remain a big concern and may significantly impact snowmelt runoff this spring. Snowpacks went from essentially zero to well above normal in early December with multiple storms blanketing the state. Then, as quickly it started, the stormy period ended and the past few weeks have seen cool temperatures, fog and inversions, but very little snow. By the beginning of January, snowpacks were near average in northern Utah and below to much below normal in the south. Because of the soil moisture deficit that exists over much of the state, an average snowpack is likely to produce less than average runoff. Mountain precipitation in December across most of Utah was 70% to 125% of average. This brings the seasonal total (Oct-Dec) to 98% of normal statewide. Reservoir storage is low at 58% of capacity, far less than last year which was 67% of capacity. Most operators are following a conservative strategy. Streamflow forecasts call for much below to near normal April-July runoff statewide.

## SNOWPACK

January first snowpacks in Utah, as measured by the NRCS SNOTEL system, are near normal on the Bear, Weber and Provo Watersheds. The Uintah Basin is below normal, near 80% of average. Southern Utah ranges from about 70% to near 85% of average. In Northern Utah, this is much more snow than last year and in the south, it is quite a bit less. There is about 60% of the snow accumulation season remaining and any snowpack outcome is possible at this point.

## PRECIPITATION

Mountain precipitation during December was a little above normal (96%-124%) in the north and below normal (70%-76%) in southern Utah. This brings the seasonal accumulation (Oct-Dec) to 98% of average statewide.

## RESERVOIRS

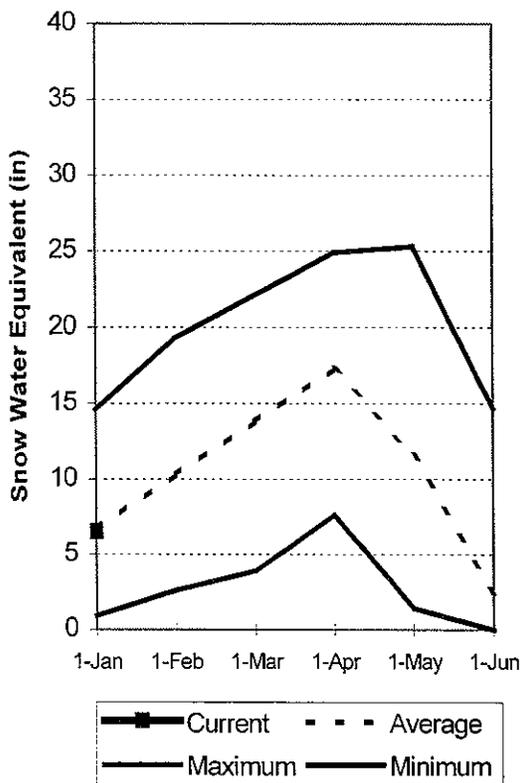
Storage in 41 of Utah's key irrigation reservoirs is at 58% of capacity. Most reservoir operators are utilizing a conservative strategy, storing as much water as possible.

## STREAMFLOW

Snowmelt streamflows are expected to be below to near average across the entire state of Utah this year.

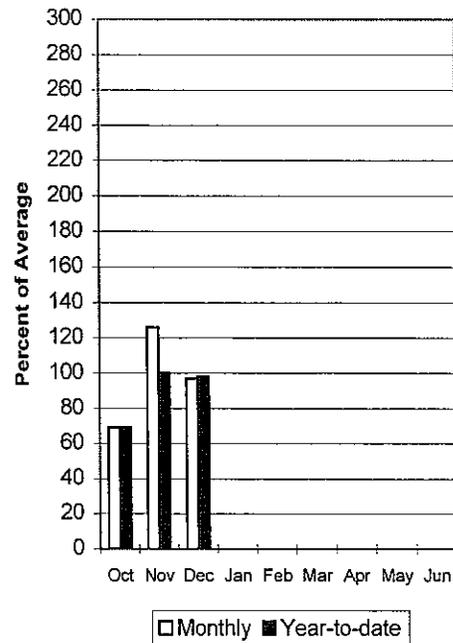
### Mountain Snowpack

1/1/02



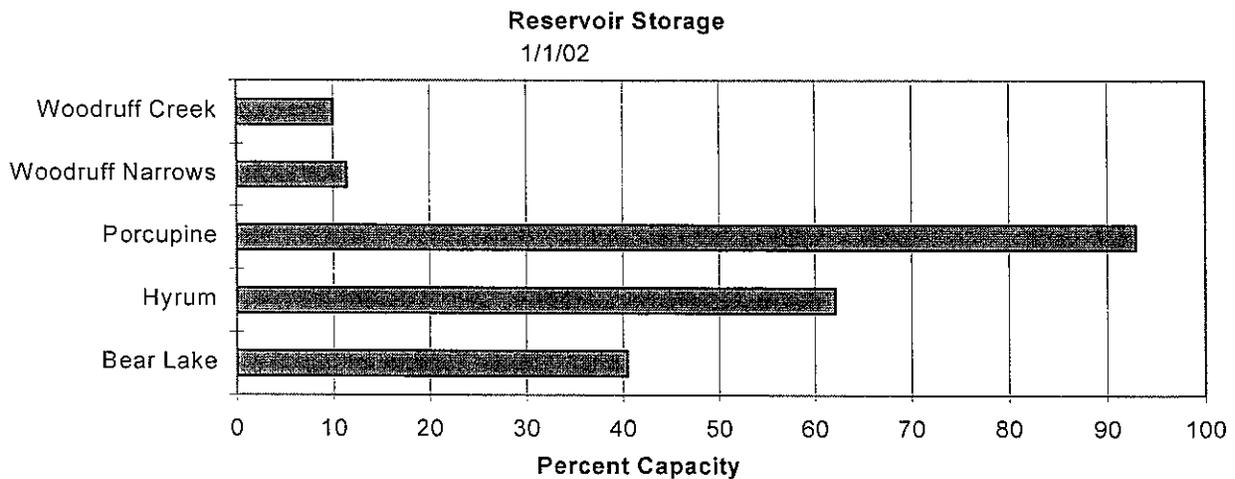
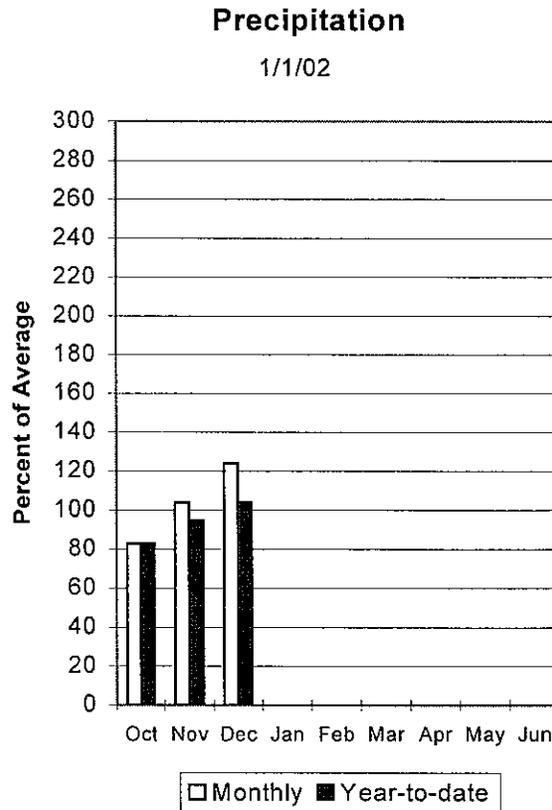
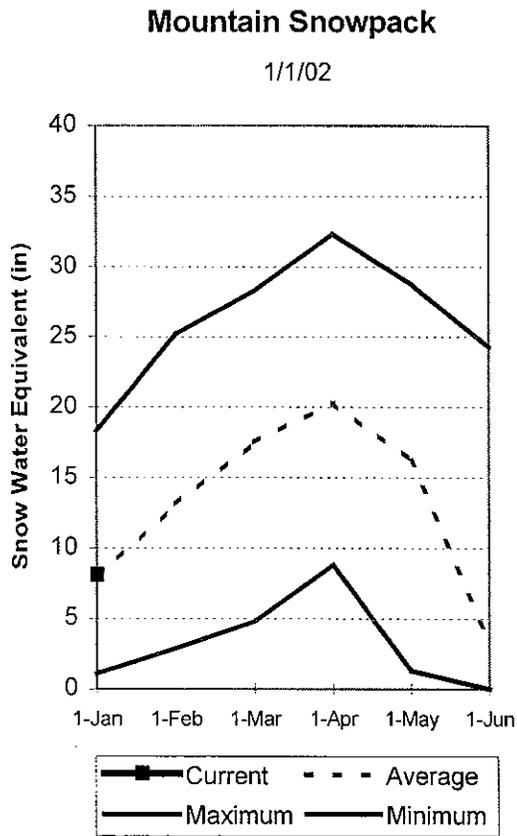
### Precipitation

1/1/02



## Bear River Basin Jan 1, 2002

Snowpacks on the Bear River Basin are near average at 103% of normal, about 125% of last year. Specific sites range from 85% to 177% of normal. The past long, hot, dry summer has had a major impact on soil moisture, which will negatively impact this year's runoff. December precipitation was above average at 124%, which brings the seasonal accumulation (Oct-Dec) to 104% of average. Forecast streamflows call for below to near normal volumes this spring. Reservoir storage is at 40% capacity. Spring runoff conditions are below normal due to extremely poor soil moisture conditions.



BEAR RIVER BASIN  
Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Bear R nr UT-WY State Line	APR-JUL	67	84	97	86	112	139	113
BEAR R nr Woodruff, UT	APR-JUL	63	95	125	84	165	249	149
BIG CK nr Randolph	APR-JUL	0.11	1.63	3.20	84	4.77	7.09	3.80
BEAR R nr Randolph, UT	APR-JUL	17.0	65	97	84	129	177	115
SMITHS FK nr Border, WY	APR-JUL	51	70	87	85	108	150	102
THOMAS FK nr WY-ID State Line (Disc.	APR-JUL			Below Average				33
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	125	193	240	83	287	355	288
MONTPELIER CK nr Montpelier (Disc)(2	APR-JUL			Below Average				12.2
CUB R nr Preston	APR-JUL			Below Average				47
L BEAR R at Paradise, UT	APR-JUL	20	29	37	79	47	68	47
LOGAN R nr Logan	APR-JUL	62	85	105	86	130	177	122
BLACKSMITH Fk nr Hyrum	APR-JUL	29	39	47	87	57	77	54

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of December					BEAR RIVER BASIN Watershed Snowpack Analysis - January 1, 2002			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1421.0	574.3	858.8	907.5	BEAR RIVER, UPPER (abv Ha	6	109	92
HYRUM	15.3	9.5	11.6	10.2	BEAR RIVER, LOWER (blw Ha	8	136	111
PORCUPINE	11.3	10.5	9.7	2.5	LOGAN RIVER	4	129	111
WOODRUFF NARROWS	57.3	10.0	8.0		RAFT RIVER	1	205	177
WOODRUFF CREEK	4.0	2.9	2.5		BEAR RIVER BASIN	14	125	103

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

The average is computed for the 1971-2000 base period.

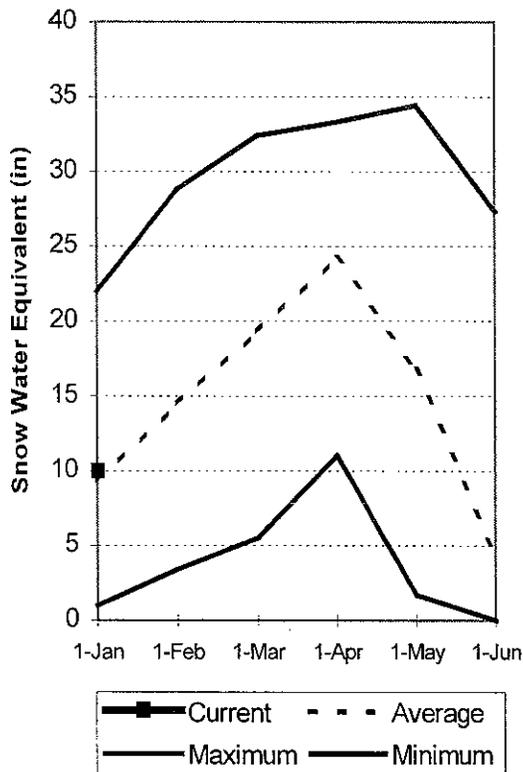
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

## Weber and Ogden River Basins

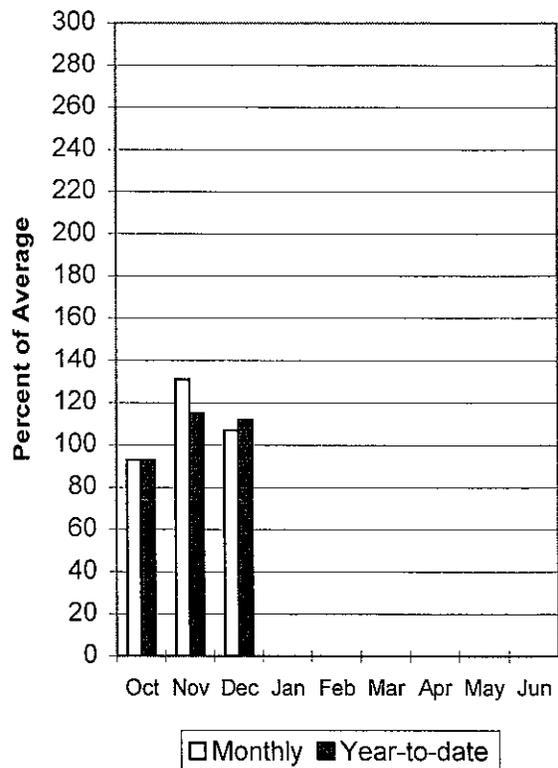
### Jan 1, 2002

Snowpack on the Weber and Ogden Watersheds is at 107% of average, about 128% of last year. Individual sites range from 80% to 145% of average. The hot, dry, conditions of last summer have dropped soil moisture levels, which will negatively impact spring runoff. Precipitation during December was near normal at 107%, bringing the seasonal accumulation (Oct-Dec) to 112% of average. Reservoir storage is at 48% of capacity. Streamflow forecasts are below to near average. Overall water supply conditions are marginal due to poor soil moisture levels and low reservoir storage.

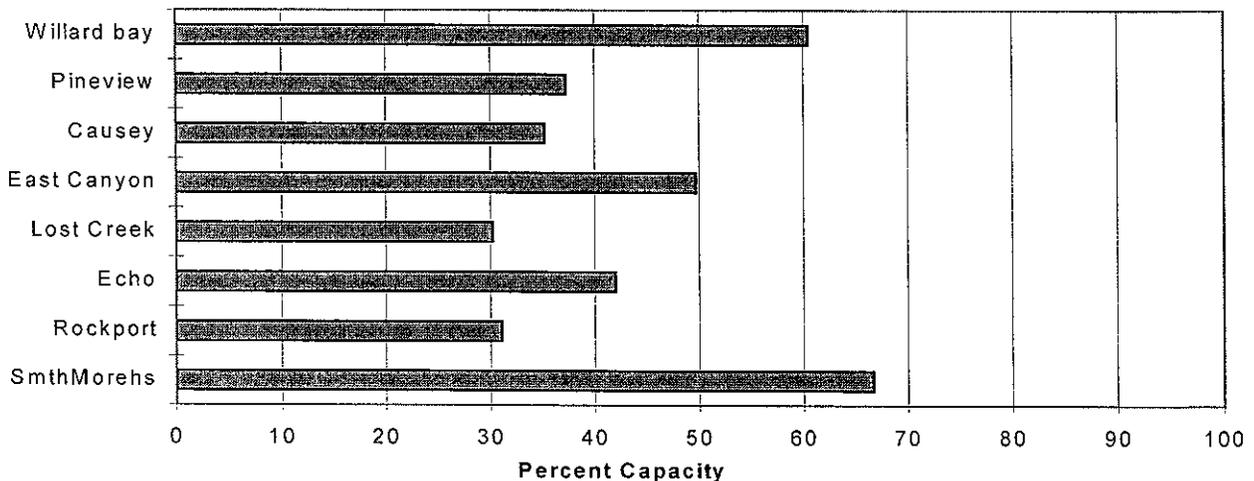
**Mountain Snowpack**  
1/1/02



**Precipitation**  
1/1/02



**Reservoir Storage**  
1/1/02



WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	<<==== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		
		30% (1000AF)	10% (1000AF)	30% (1000AF)	10% (1000AF)	30% (1000AF)	10% (1000AF)	
SMITH AND MOREHOUSE CK nr Oakley	APR-JUN	14.2	22	28	93	34	42	30
WEBER R nr Oakley	APR-JUL	77	98	113	93	128	149	122
ROCKPORT RESERVOIR inflow	APR-JUL	75	105	125	93	145	175	134
CHALK CK at Coalville, Ut	APR-JUL	12.8	29	40	91	51	67	44
WEBER R nr Coalville, Ut	APR-JUL	73	104	125	92	146	177	136
ECHO RESERVOIR Inflow	APR-JUL	85	130	160	91	190	235	176
LOST CK Res Inflow	APR-JUL	0.5	8.8	15.0	87	21	30	17.2
E CANYON CK nr Morgan	APR-JUL	13.3	22	27	90	33	41	30
WEBER R at Gateway	APR-JUL	246	287	315	91	343	384	347
S FORK OGDEN R nr Huntsville	APR-JUL	31	46	56	89	66	81	63
PINEVIEW RESERVOIR Inflow	APR-JUL	59	93	117	88	141	175	133
WHEELER CK nr Huntsville	APR-JUL	2.84	4.48	5.60	90	6.72	8.36	6.20

WEBER & OGDEN WATERSHEDS in Utah  
Reservoir Storage (1000 AF) - End of December

WEBER & OGDEN WATERSHEDS in Utah  
Watershed Snowpack Analysis - January 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	2.5	1.4	---	OGDEN RIVER	4	150	108
EAST CANYON	49.5	24.6	30.9	35.2	WEBER RIVER	9	120	107
ECHO	73.9	31.0	29.1	47.4	WEBER & OGDEN WATERSHEDS	13	129	107
LOST CREEK	22.5	6.8	7.0	15.5				
PINEVIEW	110.1	41.0	21.8	52.5				
ROCKPORT	60.9	18.9	19.6	36.8				
WILLARD BAY		NO REPORT						

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow 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 flow - actual flow may be affected by upstream water management.

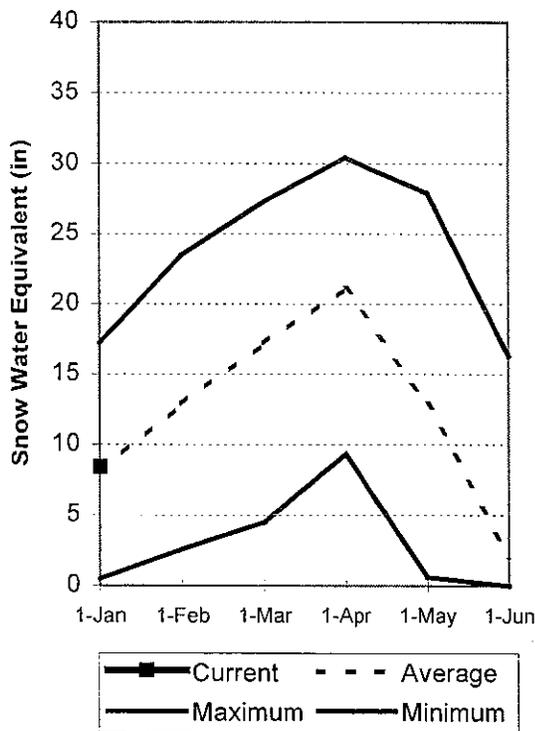
## Utah Lake, Jordan River & Tooele Valley Basins

### Jan 1, 2002

Snowpacks over these watersheds are at 104% of average, 137% of last year. Individual sites range from 75% to 173% of average. The hot, dry summer has severely depleted soil moisture levels and this will have a negative impact on spring runoff. Precipitation during December was near normal at 96%, bringing the seasonal accumulation (Oct-Dec) to 113% of average. Forecast streamflow is below to near normal. Reservoir storage is at 74% of capacity. General water supply conditions are marginal due to soil moisture levels.

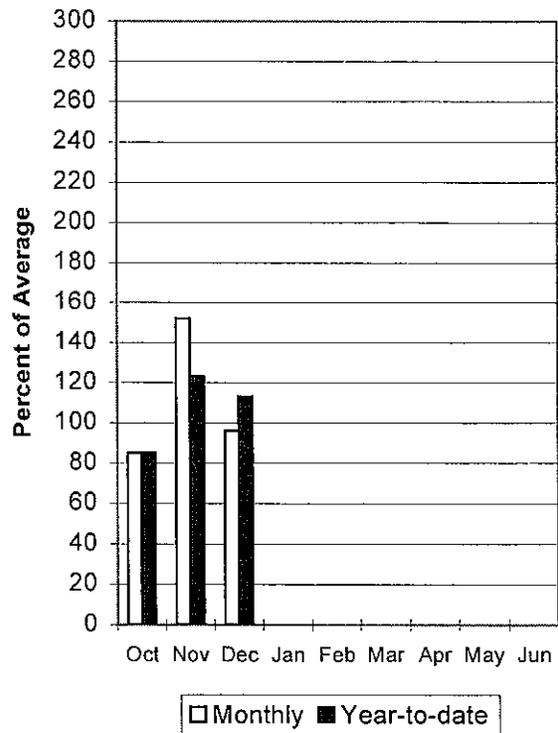
#### Mountain Snowpack

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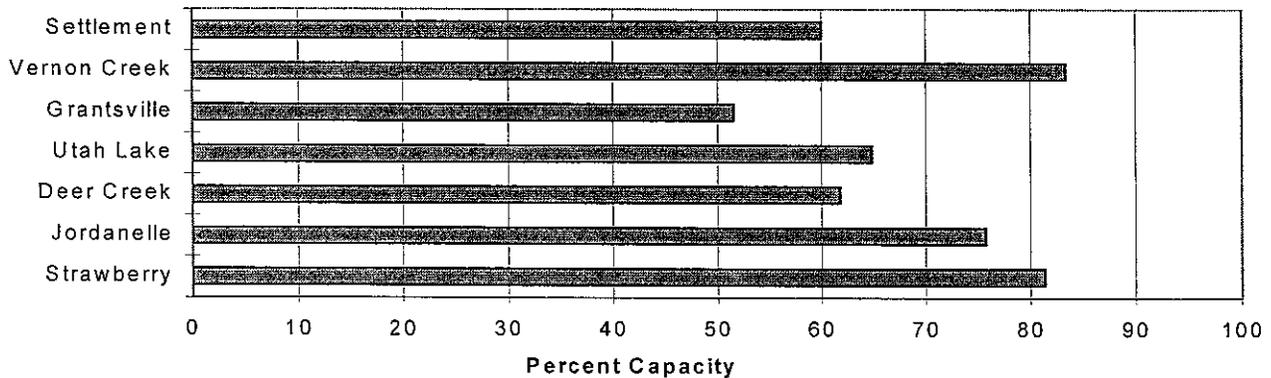
#### Precipitation

1/1/02



#### Reservoir Storage

1/1/02



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	<<==== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)		
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
SPANISH FORK nr Castilla	APR-JUL	7.7	39	63	82	88	129	77		
PROVO R nr Hailstone	APR-JUL	53	75	92	84	109	141	109		
PROVO R below Deer Creek Dam	APR-JUL	59	93	120	78	147	200	154		
AMERICAN FORK nr American Fk.	APR-JUL	9.3	17.6	24	75	30	43	32		
UTAH LAKE inflow	APR-JUL	75	184	260	80	336	475	325		
L COTTONWOOD CRK nr SLC	APR-JUL	33	41	46	115	51	59	40		
BIG COTTONWOOD CRK nr SLC	APR-JUL	32	39	44	116	49	56	38		
PARLEY'S CK nr SLC	APR-JUL	8.9	18.0	18.5	111	19.0	28	16.7		
MILL CK nr SLC	APR-JUL	5.18	7.07	8.20	117	9.33	11.20	7.00		
DELL FK nr SLC	APR-JUL	2.92	6.08	7.90	116	9.72	12.92	6.80		
EMIGRATION CK nr SLC	APR-JUL	1.44	3.75	5.20	116	6.65	9.00	4.50		
CITY CK nr SLC	APR-JUL	5.39	8.22	10.00	115	11.78	14.62	8.70		
VERNON CK nr Vernon (Acre Feet)	APR-JUL	540	885	1240	93	1737	2849	1340		
SETTLEMENT CK nr Tooele (Acre Feet)	APR-JUL	507	1215	2200	96	3985	9540	2300		
S WILLOW CK nr Grantsville	APR-JUL	0.48	1.98	3.00	94	4.02	5.52	3.20		

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Reservoir Storage (1000 AF) - End of December

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Watershed Snowpack Analysis - January 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	92.4	113.1	100.5	PROVO RIVER & UTAH LAKE	7	128	88
GRANTSVILLE	3.3	1.7	1.3	1.3	PROVO RIVER	4	116	87
SETTLEMENT CREEK	1.0	0.6	0.6	0.5	JORDAN RIVER & GREAT SALT	6	142	114
STRAWBERRY-ENLARGED	1105.9	900.1	932.6	558.8	TOOELE VALLEY WATERSHEDS	3	149	118
UTAH LAKE	870.9	564.4	701.6	648.6	UTAH LAKE, JORDAN RIVER &	16	138	104
VERNON CREEK	0.6	0.5	0.6	---				

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

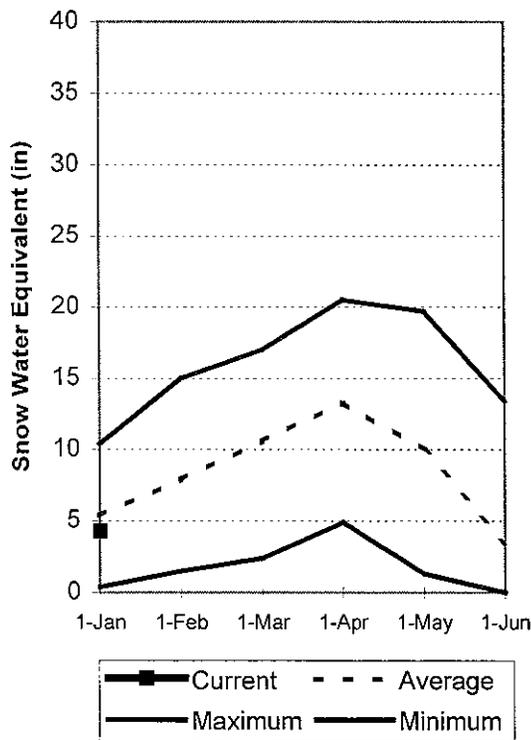
The average is computed for the 1971-2000 base period.

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

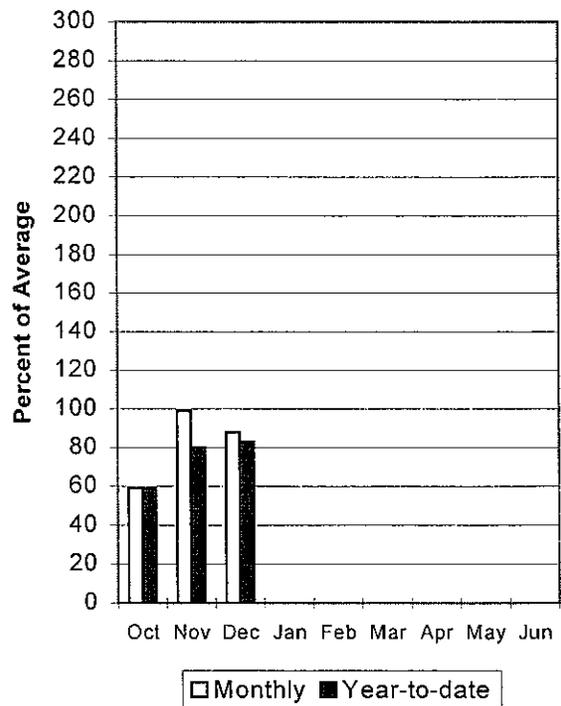
## Uintah Basin and Dagget SCD's Jan 1, 2002

Snowpacks across the Uintah Basin and North Slope areas are below average at 80%, which is, coincidentally, 80% of last years snowpack. The North Slope ranges from 66% to 83% and the Uintah Basin ranges from 52% to 109% of average. The hot, dry summer has depleted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation during December was below normal at 88%, bringing the seasonal accumulation (Oct-Dec) to 83% of average. Reservoir storage is at 81% of capacity. Springtime runoff conditions range from much below to slightly below normal.

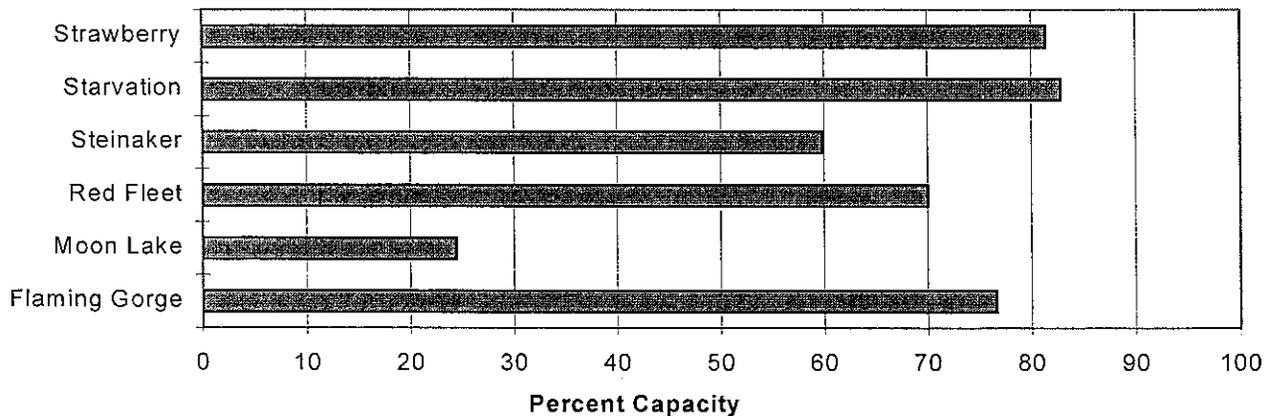
**Mountain Snowpack**  
1/1/02



**Precipitation**  
1/1/02



**Reservoir Storage**  
1/1/02



UINTEH BASIN & DAGGET SCD'S  
 Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	<<==== Drier ==== Future Conditions ===== Wetter =====>>		Chance Of Exceeding *				30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	47	57	70	74	83	101	95
EF of Smiths Fork nr Robertson	APR-JUL	15.5	18.6	21	68	24	28	31
Flaming Gorge Reservoir Inflow	APR-JUL	394	648	820	69	992	1246	1190
BIG BRUSH CK abv Red Fleet Resv	APR-JUL	7.9	12.4	15.5	74	18.6	23	21
Ashley Creek nr Vernal	APR-JUL	19.0	33	42	81	51	65	52
WF DUCHESNE RIVER nr Hanna	APR-JUL	7.9	12.8	16.8	70	21	29	24
DUCHESNE R nr Tabiona	APR-JUL	39	58	70	67	82	101	105
UPPER STILLWATER RESV inflow	APR-JUL	37	47	60	73	73	92	82
ROCK CK nr Mountain Home	APR-JUL	37	54	65	73	77	94	89
DUCHESNE R abv Knight Diversion	APR-JUL	55	97	125	67	153	195	188
STRAWBERRY RES nr Soldier Springs	APR-JUL	14.6	30	43	73	59	86	59
CURRENT CREEK RESV Inflow	APR-JUL	7.1	12.6	16.3	65	20	26	25
STARVATION RESERVOIR inflow	APR-JUL	51	61	90	74	119	161	121
Yellowstone River nr Altonah	APR-JUL	24	32	42	68	53	68	62
DUCHESNE R at Myton	APR-JUL	28	104	156	60	208	284	260
Whiterocks River nr Whiterocks	APR-JUL	19.4	36	48	86	60	77	56
DUCHESNE R nr Randlett	APR-JUL	45	94	195	60	296	445	325

UINTEH BASIN & DAGGET SCD'S Reservoir Storage (1000 AF) - End of December					UINTEH BASIN & DAGGET SCD'S Watershed Snowpack Analysis - January 1, 2002			
Reservoir	Usable Capacity	*** This Year	Usable Last Year	Storage *** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr Average	
FLAMING GORGE	3749.0	2873.4	3006.0	2940.8	UPPER GREEN RIVER in UTAH	6	87	79
MOON LAKE	49.5	12.1	15.4	29.1	ASHLEY CREEK	2	110	71
RED FLEET		NO REPORT			BLACK'S FORK RIVER	2	86	86
STEINAKER		NO REPORT			SHEEP CREEK	1	58	66
STARVATION	165.3	136.9	133.6	128.7	DUCHESNE RIVER	11	78	80
STRAWBERRY-ENLARGED	1105.9	900.1	932.6	558.8	LAKE FORK-YELLOWSTONE CRE	4	61	71
					STRAWBERRY RIVER	4	104	86
					UINTEH-WHITEROCKS RIVERS	2	83	90
					UINTEH BASIN & DAGGET SCD	17	80	80

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

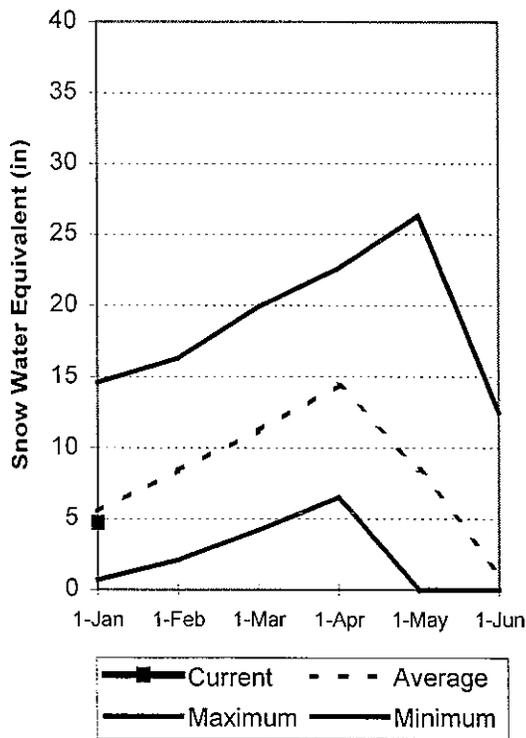
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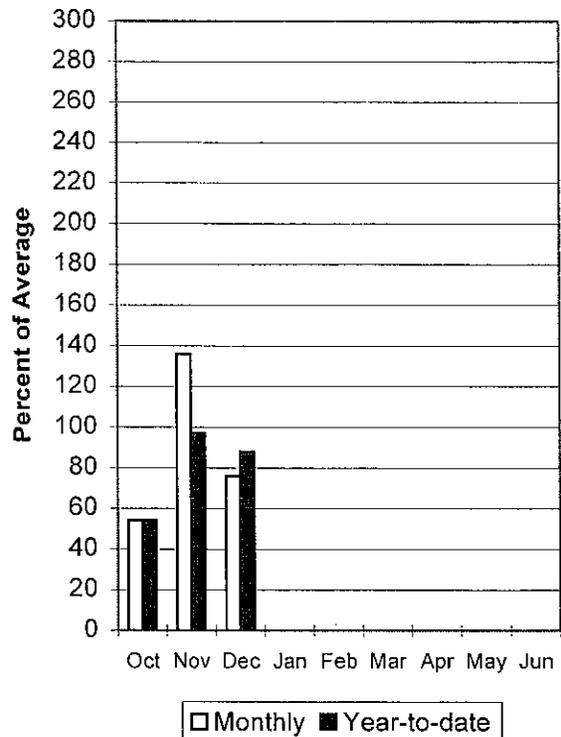
## Carbon, Emery, Wayne, Grand and San Juan Co. Jan 1, 2002

Snowpacks in this region are below normal at 86% of average, about the same as last year. Individual sites range from 55 to 121% of average. In the northern areas, soil moisture levels have been depleted which will negatively impact snowmelt runoff. Precipitation during December was below average at 76%, bringing the seasonal accumulation (Oct-Dec) to 88% of normal. Reservoir storage is at 54% of capacity. General runoff conditions and forecasts are below normal with the exception of the Moab area which is near normal.

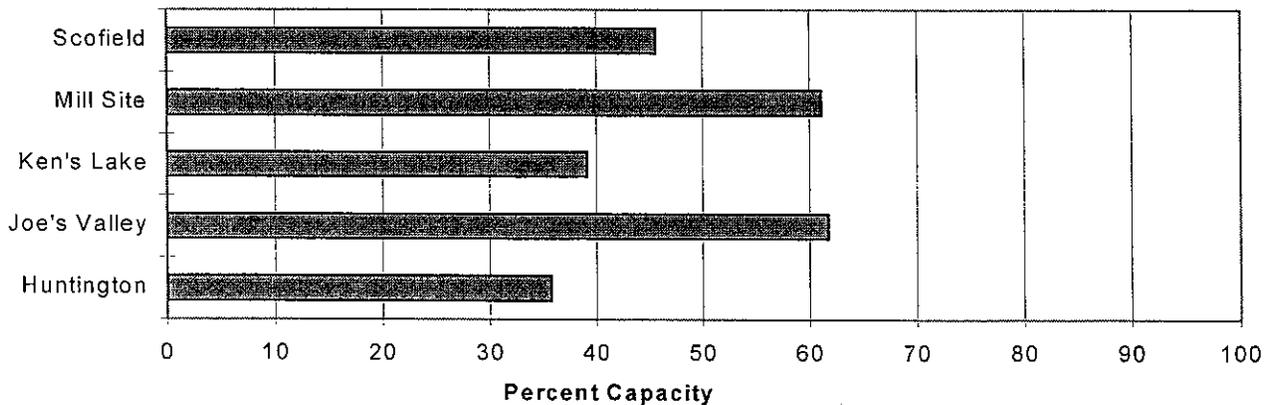
**Mountain Snowpack**  
1/1/02



**Precipitation**  
1/1/02



**Reservoir Storage**  
1/1/02



CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	Future Conditions <<==== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * (1000AF) (% AVG.)		
		90%	70%	50%	30%	10%	10%	
Gooseberry Creek nr Scofield	APR-JUL	4.4	7.8	10.1	85	12.4	15.8	11.9
Scofield Reservoir inflow	APR-JUL	24	34	41	89	48	58	46
White River blw Tabbyune Creek	APR-JUL	4.3	8.4	12.0	69	16.2	24	17.4
Green River at Green River, UT	APR-JUL	850	1630	2160	68	2690	3470	3170
Electric Lake inflow	APR-JUL	5.1	8.8	12.0	76	16.0	23	15.7
HUNTINGTON CK nr Huntington	APR-JUL	20	33	42	84	51	64	50
JOE'S VALLEY RESV Inflow	APR-JUL	18.5	35	46	79	57	74	58
Ferron Creek nr Ferron	APR-JUL	21	29	36	92	43	55	39
Colorado River nr Cisco	APR-JUL	1111	2236	3000	68	3764	4889	4400
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.21	3.47	5.00	100	6.53	8.79	5.00
Seven Mile Creek nr Fish Lake	APR-JUL	3.10	5.42	7.00	100	8.58	10.90	7.00
Muddy Creek nr Emery	APR-JUL	7.3	13.9	18.3	92	23	29	19.9
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.08	0.47	0.93	71	1.54	2.71	1.31
Recapture Ck bl Johnson Ck nr Blandi	MAR-JUL	1.95	2.53	5.00	82	7.47	11.11	6.10
San Juan River nr Bluff	APR-JUL	219	535	750	61	965	1281	1230

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of December

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - January 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	1.5	2.0	2.3	PRICE RIVER	3	106	81
JOE'S VALLEY	61.6	38.0	40.1	42.7	SAN RAFAEL RIVER	3	116	90
KEN'S LAKE	2.3	0.9	0.4	---	MUDDY CREEK	1	146	93
MILL SITE	16.7	10.2	10.1	---	FREMONT RIVER	3	54	76
SCOFIELD	65.8	30.0	40.9	31.3	LASAL MOUNTAINS	1	165	109
					BLUE MOUNTAINS	1	112	86
					WILLOW CREEK	1	85	76
					CARBON, EMERY, WAYNE, GRA	13	99	86

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

The average is computed for the 1971-2000 base period.

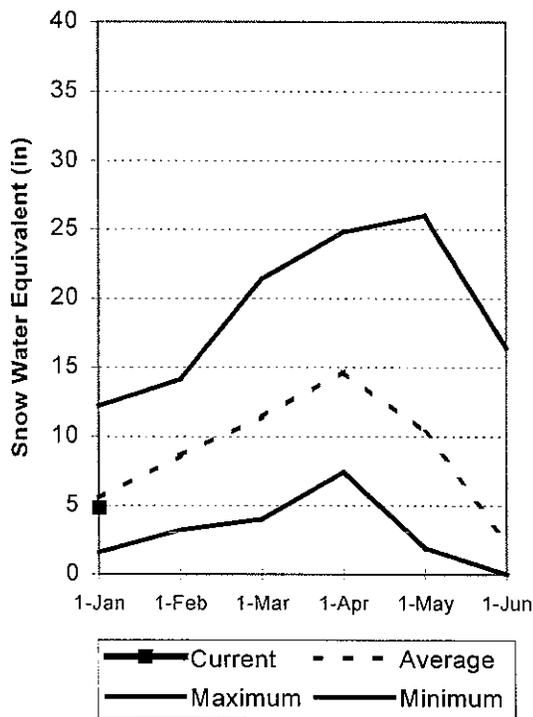
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

## Sevier and Beaver River Basins Jan 1, 2002

Snowpacks on the Sevier River Basin are slightly below normal at 87% of average, about the same as last year. Individual sites range from 55% to 119% of average. The hot, dry summer has depleted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation during December was below average at 74% of normal, bringing the seasonal accumulation (Oct-Dec) to 85% of average. Reservoir storage is at 43% of capacity. Water supply conditions and streamflow forecasts are below normal.

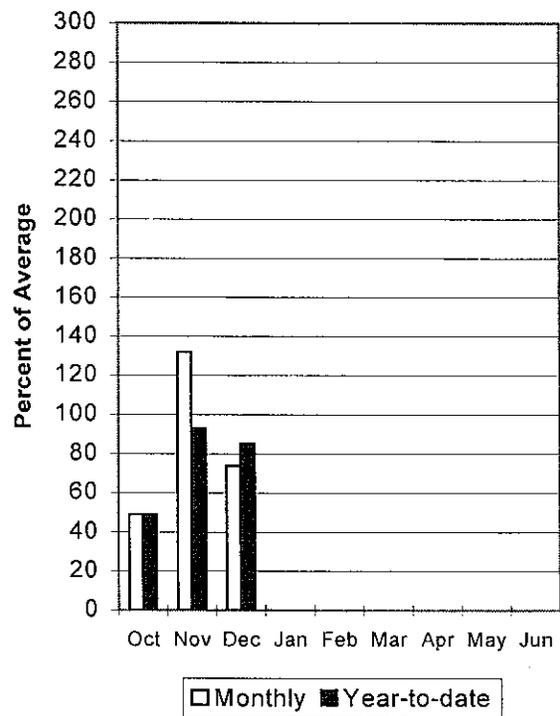
### Mountain Snowpack

1/1/02



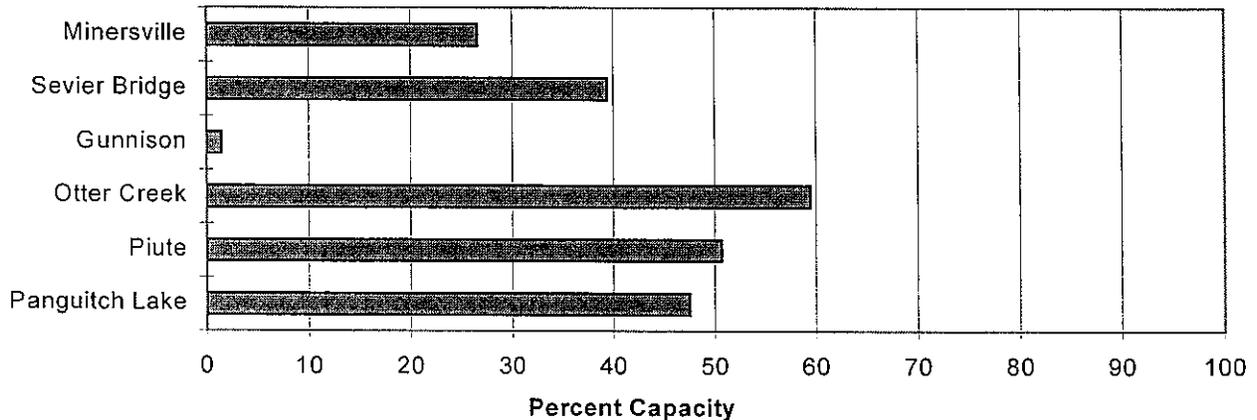
### Precipitation

1/1/02



### Reservoir Storage

1/1/02



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	<<==== Drier =====		Future Conditions		====>> Wetter =====>>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
SEVIER R at Hatch	APR-JUL	14.8	28	44	80	61	88	55
SEVIER R nr Kingston	APR-JUL	29	49	69	78	89	123	89
E F SEVIER R nr Kingston	APR-JUL	2.3	13.5	24	63	35	52	38
SEVIER R blw Piute Dam	APR-JUL	11.0	64	95	75	126	179	126
CLEAR CK nr Sevier	APR-JUL	4.2	12.0	17.0	77	22	30	22
SALINA CK at Salina	APR-JUL	Below Average						19.7
SEVIER R nr Gunnison	APR-JUL	64	121	205	73	289	431	280
CHICKEN CK nr Levan	APR-JUL	1.36	2.70	4.30	90	6.85	13.57	4.80
OAK CK nr Oak City (Acre Feet)	APR-JUL	725	1183	1650	91	2302	3758	1810
BEAVER R nr Beaver	APR-JUL	12.3	15.3	17.7	68	21	25	26
MINERSVILLE RESERVOIR Inflow	APR-JUL	5.0	8.2	11.6	70	16.3	27	16.7

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of December					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - January 1, 2002			
Reservoir	Usable Capacity	*** Usable This Year	Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr Average	
GUNNISON	20.3	0.3	0.0	9.9	UPPER SEVIER RIVER (south	8	74	76
MINERSVILLE (RkyFd)	23.3	6.2	8.1	11.2	EAST FORK SEVIER RIVER	3	61	83
OTTER CREEK	52.5	31.2	20.7	35.4	SOUTH FORK SEVIER RIVER	5	89	73
PIUTE	71.8	36.4	38.5	41.2	LOWER SEVIER RIVER (inclu	6	148	98
SEVIER BRIDGE	236.0	93.1	135.5	151.7	BEAVER RIVER	2	83	83
PANGUITCH LAKE	22.3	10.6	12.2	---	SEVIER & BEAVER RIVER BAS	16	99	87

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow 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 flow - actual flow may be affected by upstream water management.

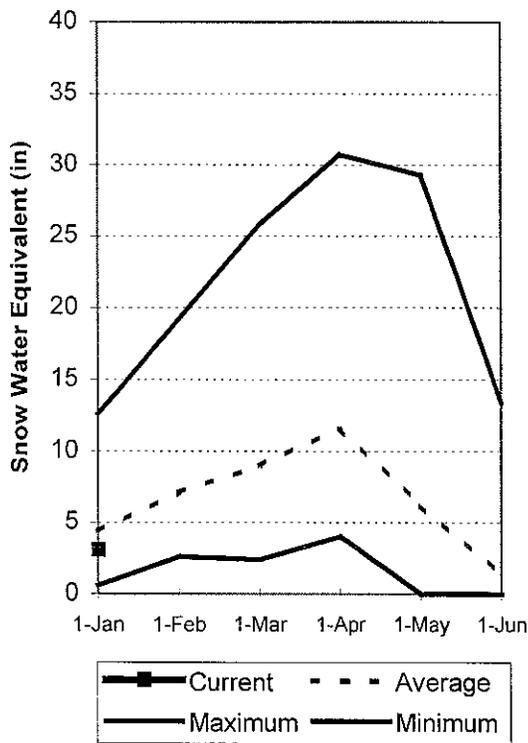
# E. Garfield, Kane, Washington, & Iron co.

Jan 1, 2002

Snowpacks in this region are below normal at 71% of average, about 74% of last year and rank as the lowest in the state. Individual sites range from 55% to 111% of average. The hot, dry summer has depelted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation was below normal during December at 70% of average, bringing the seasonal accumulation (Oct-Dec) to 59% of normal. Reservoir storage is at 56% of capacity. General water supply conditions and streamflow forecasts are much below normal.

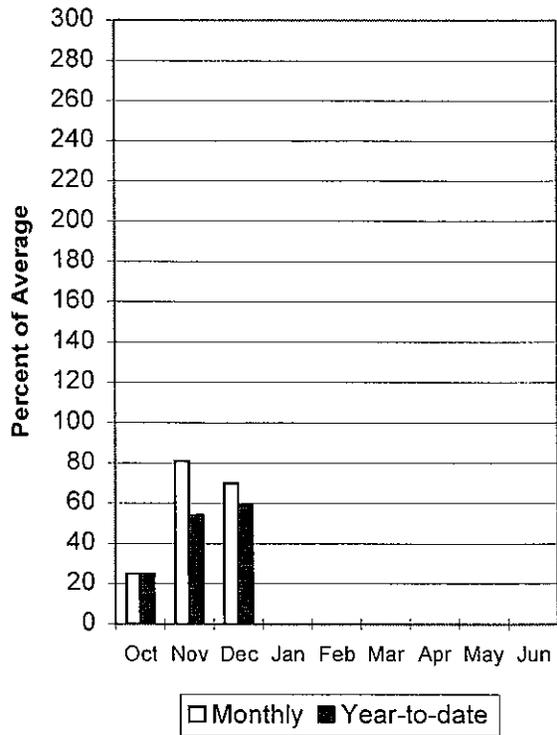
## Mountain Snowpack

1/1/02



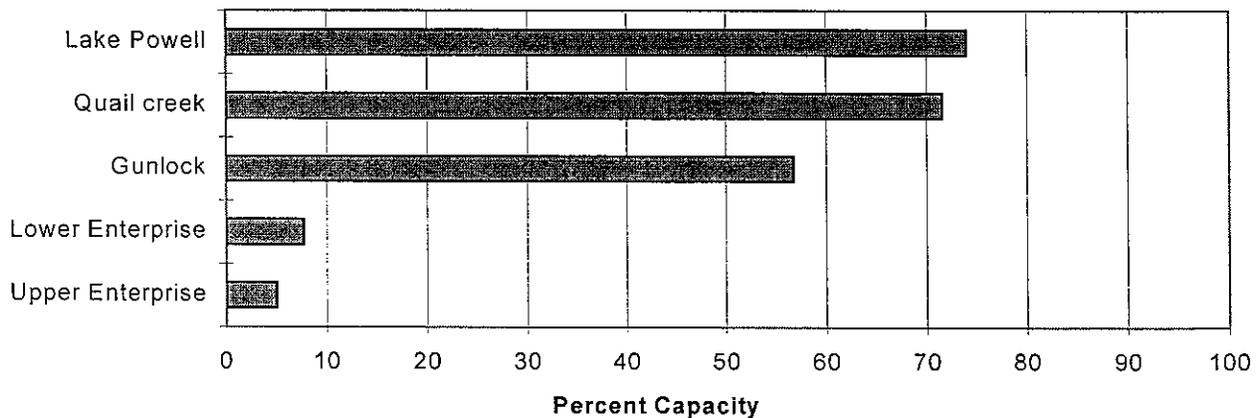
## Precipitation

1/1/02



## Reservoir Storage

1/1/02



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - January 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====		===== Chance Of Exceeding *		===== Wetter =====>>		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Lake Powell inflow	APR-JUL	1715	3790	5200	66	6610	8685	7930
Virgin River nr Virgin	APR-JUL	18.5	30	46	72	65	100	64
Virgin River nr Hurricane	APR-JUL	23	37	46	67	61	83	69
Santa Clara River nr Pine Valley	APR-JUL	1.57	2.28	3.80	69	5.70	9.20	5.50
Coal Creek nr Cedar City	APR-JUL	5.2	9.6	13.4	69	17.8	26	19.4

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of December

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - January 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	5.9	7.3	---	VIRGIN RIVER	5	96	74
LAKE POWELL	24322.0	17996.0	19823.0	---	PAROWAN	2	73	65
QUAIL CREEK	40.0	28.6	30.2	26.6	ENTERPRISE TO NEW HARMONY	2	108	80
UPPER ENTERPRISE	10.0	0.5	1.0	---	COAL CREEK	2	81	61
LOWER ENTERPRISE	2.6	0.2	0.3	---	ESCALANTE RIVER	2	37	56
					E. GARFIELD, KANE, WASHIN	9	69	71

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow 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 flow - actual flow may be affected by upstream water management.

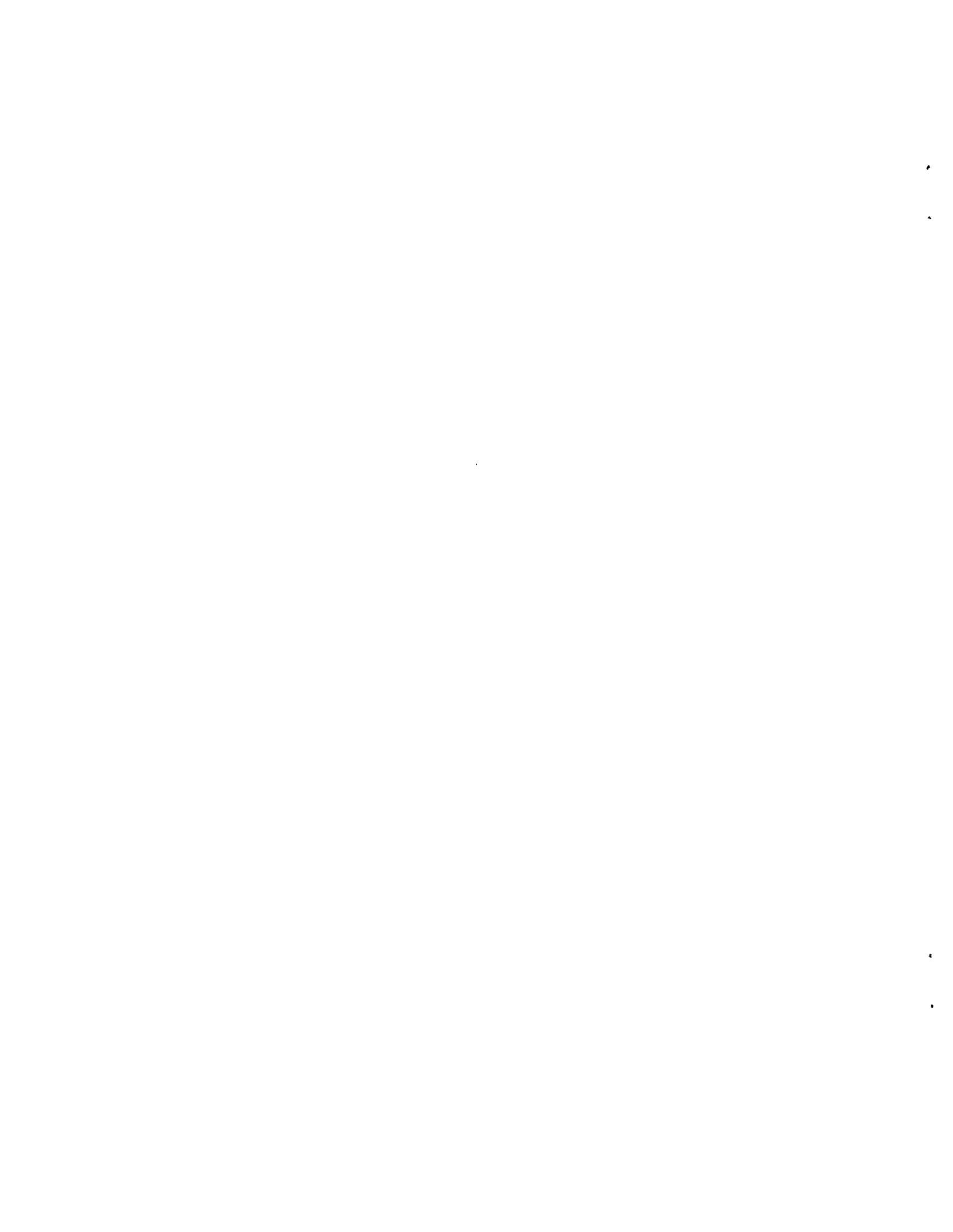
S N O W C O U R S E D A T A

JANUARY 2002

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	1/01	11	1.8	2.4	2.9
ALTA CENTRAL	8800	1/02	55	19.0	14.0	16.5
BEAVER DAMS SNOTEL	8000	1/01	-	4.6	2.2	4.3
BEAVER DIVIDE SNOTEL	8280	1/01	21	5.0	4.2	4.7
BEN LOMOND PK SNOTEL	8000	1/01	50	18.3	10.7	14.5
BEN LOMOND TR SNOTEL	6000	1/01	40	11.3	7.2	8.5
BEVAN'S CABIN	6450				-	4.2
BIG FLAT SNOTEL	10290	1/01	30	5.5	8.0	7.6
BIRCH CROSSING	8100				-	2.8
BLACK FLAT-U.M. CK S	9400	1/01	20	4.6	3.2	3.8
BLACK'S FORK GS-EF	9340				-	3.3
BLACK'S FORK JUNCTN	8930				-	3.7
BOX CREEK SNOTEL	9800	1/01	25	6.2	4.9	5.3
BRIAN HEAD	10000				-	8.2
BRIGHTON SNOTEL	8750	1/01	33	9.8	7.0	10.9
BRIGHTON CABIN	8700	1/02	43	14.4	-	11.5
BROWN DUCK SNOTEL	10600	1/01	-	6.1	9.9	7.7
BRYCE CANYON	8000				-	2.1
BUCK FLAT SNOTEL	9800	1/01	-	7.3	7.0	7.2
BUCK PASTURE	9700				-	-
BUCKBOARD FLAT	9000				-	5.4
BUG LAKE SNOTEL	7950	1/01	32	8.1	6.6	8.3
BURT'S-MILLER RANCH	7900				-	2.2
CAMP JACKSON SNOTEL	8600	1/01	22	4.8	4.3	5.6
CASTLE VALLEY SNOTEL	9580	1/01	-	3.5	4.8	4.9
CHALK CK #1 SNOTEL	9100	1/01	37	9.8	9.2	10.1
CHALK CK #2 SNOTEL	8200	1/01	30	6.4	5.8	6.7
CHALK CREEK #3	7500				-	3.5
CHEPETA SNOTEL	10300	1/01	-	5.8	5.5	6.0
CITY CREEK	7500	12/27	49	17.1	-	11.8
CLAYTON SPRINGS SNTL	10000	1/01	20	3.1	7.1	-
CLEAR CK RIDG #1 SNT	9200	1/01	-	6.0	5.6	7.7
CLEAR CK RIDG #2 SNT	8000	1/01	-	4.5	3.1	6.0
CORRAL	8200				-	-
CURRANT CREEK SNOTEL	8000	1/01	-	2.2	2.2	4.2
DANIELS-STRAWBERRY S	8000	1/01	24	5.5	5.2	6.5
DILL'S CAMP SNOTEL	9200	1/01	-	5.1	3.5	5.5
DONKEY RESERVOIR SNO	9800	1/01	-	2.3	6.3	4.0
DRY BREAD POND SNTL	8350	1/01	28	7.4	5.3	9.1
DRY FORK SNOTEL	7160	1/01	-	7.6	4.6	6.9
EAST WILLOW CREEK SN	8250	1/01	-	2.2	2.6	2.9
FARMINGTON CN SNOTEL	8000	1/01	51	15.7	13.1	13.0
FARMINGTON CANYON L.	6950				-	10.4
FARNSWORTH LK SNOTEL	9600	1/01	27	6.5	6.2	8.0
FISH LAKE	8700				-	2.9
FIVE POINTS LAKE SNO	10920	1/01	25	4.8	8.2	7.0
FRANCES FLATS	6700	12/27	43	13.2	-	9.5
G.B.R.C. HEADQUARTER	8700				-	-
G.B.R.C. MEADOWS	10000				-	9.7
GARDEN CITY SUMMIT	7600				-	6.5
GEORGE CREEK	8840				-	-
GOOSEBERRY R.S.	8400				-	5.1
GOOSEBERRY R.S. SNTL	7900	1/01	-	3.6	2.7	3.6
HARDSCRABBLE SNOTEL	7250	1/01	-	9.4	7.2	6.5
HARRIS FLAT SNOTEL	7700	1/01	-	2.5	1.5	2.5
HAYDEN FORK SNOTEL	9100	1/01	22	6.1	6.2	6.3
HENRY'S FORK	10000				-	-
HEWINTA SNOTEL	9500	1/01	22	3.4	4.3	4.1
HICKERSON PARK SNTL	9100	1/01	15	1.9	3.3	2.9
HIDDEN SPRINGS	5500	12/26	23	4.9	-	.2
HOBBLE CREEK SUMMIT	7420				-	6.1
HOLE-IN-ROCK SNOTEL	9150	1/01	14	2.5	3.1	2.7
HORSE RIDGE SNOTEL	8260	1/01	-	8.6	6.8	9.3
HUNTINGTON-HORSESHOE	9800				-	9.7
INDIAN CANYON SNOTEL	9100	1/01	-	3.6	5.6	4.4
JOHNSON VALLEY	8850				-	2.7
JONES CORRAL G.S.	9720				-	-
KILFOIL CREEK	7300				-	5.5
KILLYON CANYON	6300	12/26	25	6.8	3.7	5.1
KIMBERLY MINE SNOTEL	9300	1/01	-	4.2	6.1	6.0

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KING'S CABIN SNOTEL	8730	1/01	17	3.5	3.4	5.0
KLONDIKE NARROWS	7400				-	7.5
KOLOB SNOTEL	9250	1/01	27	5.7	7.5	6.9
LAKEFORK #1 SNOTEL	10100	1/01	20	4.3	6.2	5.6
LAKEFORK BASIN SNTL	10900	1/01	33	5.1	9.2	8.2
LAKEFORK MOUNTAIN #3	8400				-	2.8
LAMBS CANYON	7400	12/28	31	9.5	7.4	7.4
LASAL MOUNTAIN LOWER	8800				-	3.8
LASAL MOUNTAIN SNTL	9850	1/01	25	5.1	3.1	4.7
LILY LAKE SNOTEL	9050	1/01	27	5.1	5.9	5.5
LITTLE BEAR LOWER	6000				-	4.3
LITTLE BEAR SNOTEL	6550	1/01	-	7.1	4.6	5.2
LITTLE GRASSY SNOTEL	6100	1/01	-	2.3	0.0	2.1
LONG FLAT SNOTEL	8000	1/01	-	1.6	3.6	2.8
LONG VALLEY JCT. SNT	7500	1/01	-	2.0	0.0	1.8
LOOKOUT PEAK SNOTEL	8200	1/01	-	12.2	9.9	9.9
LOST CREEK RESERVOIR	6130				-	2.0
LOUIS MEADOW SNOTEL	6700	1/01	39	11.4	7.5	-
MAMMOTH-COTTONWD SNT	8800	1/01	27	7.3	5.3	7.6
MERCHANT VALLEY SNTL	8750	1/01	-	5.3	5.0	5.4
MIDDLE CANYON	7000				-	5.9
MIDWAY VALLEY SNOTEL	9800	1/01	27	5.5	7.6	9.0
MILL CREEK	6950	12/28	40	12.2	9.2	8.3
MILL-D NORTH SNOTEL	8960	1/01	-	13.8	9.9	10.3
MILL-D SOUTH FORK	7400	1/02	37	11.9	-	8.6
MINING FORK SNOTEL	8000	1/01	33	9.5	4.9	5.5
MONTE CRISTO SNOTEL	8960	1/01	34	9.4	7.8	11.0
MOSBY MTN. SNOTEL	9500	1/01	-	4.2	6.5	5.1
MT. BALDY R.S.	9500				-	9.9
MUD CREEK #2	8600				-	5.3
OAK CREEK	7760				-	-
PANGUITCH LAKE R.S.	8200				-	-
PARLEY'S CANYON SUM.	7500	12/28	36	11.4	7.5	8.1
PARLEY'S CANYON SNTL	7500	1/01	-	8.1	5.5	7.2
PARRISH CREEK SNOTEL	7740	1/01	44	12.7	9.2	-
PAYSON R.S. SNOTEL	8050	1/01	20	8.1	3.7	7.2
PICKLE KEG SNOTEL	9600	1/01	-	7.4	3.7	6.2
PINE CREEK SNOTEL	8800	1/01	-	8.2	5.3	8.8
RED PINE RIDGE SNTL	9200	1/01	25	5.4	4.1	6.7
REDDEN MINE LOWER	8500				-	6.7
REES'S FLAT	7300				-	5.6
ROCK CREEK SNOTEL	7900	1/01	-	3.1	3.8	3.7
ROCKY BN-SETTLEMT SN	8900	1/01	38	9.2	6.9	10.0
SEELEY CREEK SNOTEL	10000	1/01	22	5.5	4.6	6.4
SILVER LAKE (BRIGHT.)	8730	1/02	39	12.7	-	10.6
SMITH MOREHOUSE SNTL	7600	1/01	25	6.1	4.5	5.7
SNOWBIRD SNOTEL	9700	1/01	-	15.0	10.5	13.2
SPIRIT LAKE	10300				-	5.5
SQUAW SPRINGS	9300				-	3.2
STEEL CREEK PARK SNO	10100	1/01	27	5.9	6.5	6.7
STILLWATER CAMP	8550				-	3.9
STRAWBERRY DIVIDE SN	8400	1/01	-	8.1	5.6	7.4
SUSC RANCH	8200				-	2.8
TALL POLES	8800				-	5.3
TEMPLE FORK SNOTEL	7410	1/01	-	7.7	-	-
THAYNES CANYON SNTL	9200	1/01	34	9.8	10.0	9.0
THISTLE FLAT	8500				-	-
TIMBERLINE	9100				-	-
TIMPANOGOS DIVIDE SN	8140	1/01	30	7.1	5.4	9.2
TONY GROVE LK SNOTEL	8400	1/01	48	15.0	12.8	14.3
TONY GROVE R.S.	6250				-	5.0
TRIAL LAKE	9960				-	9.8
TRIAL LAKE SNOTEL	9960	1/01	34	9.3	8.4	10.5
TROUT CREEK SNOTEL	9400	1/01	-	3.0	2.5	4.2
UPPER JOES VALLEY	8900				-	4.1
VERNON CREEK SNOTEL	7500	1/01	24	4.4	3.7	4.0
VIPONT	7670				-	-
WEBSTER FLAT SNOTEL	9200	1/01	-	3.6	3.6	6.0
WHITE RIVER #1 SNTL	8550	1/01	-	3.4	4.9	5.2
WHITE RIVER #3	7400				-	3.5
WIDTSOE #3 SNOTEL	9500	1/01	-	2.4	7.7	4.4
WRIGLEY CREEK	9000				-	4.3
YANKEE RESERVOIR	8700				-	3.7

<b>UTAH SURFACE</b>	<b>WATER</b>	<b>SUPPLY</b>	<b>INDEX</b>
<b>Snow Surveys</b>	<b>NRCS</b>	<b>USDA</b>	
<b>Basin or Region</b>	<b>SWSI/%</b>	<b>Percentile</b>	<b>Years with Similar SWSI</b>
<b>Bear River</b>	<b>-2.8</b>	<b>16%</b>	<b>94,90,61,63</b>
<b>Ogden River</b>	<b>-2.0</b>	<b>26%</b>	<b>2000,91,68,70</b>
<b>Weber River</b>	<b>-1.4</b>	<b>33%</b>	<b>79,81,99,76</b>
<b>Tooele Valley</b>	<b>NA</b>		
<b>Provo</b>	<b>-2.3</b>	<b>22%</b>	<b>59,57,77,65</b>
<b>North Slope</b>	<b>NA</b>		
<b>West Uintah Basin</b>	<b>1.7</b>	<b>70%</b>	<b>96,86,01,00</b>
<b>East Uintah Basin</b>	<b>-1.7</b>	<b>29%</b>	<b>88,90,81,91</b>
<b>Price River</b>	<b>0.8</b>	<b>60%</b>	<b>81,74,82,97</b>
<b>San Rafael</b>	<b>-0.1</b>	<b>48%</b>	<b>87,00,74,82</b>
<b>Moab</b>	<b>-0.5</b>	<b>43%</b>	<b>97,00,96,94</b>
<b>Upper Sevier River</b>	<b>-1.7</b>	<b>30%</b>	<b>89,72,00,67</b>
<b>Lower Sevier River</b>	<b>-1.1</b>	<b>36%</b>	<b>90,01,68,94</b>
<b>Beaver River</b>	<b>-2.8</b>	<b>16%</b>	<b>72,76,64,66</b>
<b>Virgin River</b>	<b>-0.2</b>	<b>47%</b>	<b>86,94,01,97</b>
<b>Snow Surveys</b>			<b>SWSI Scale: -4 to 4</b>
<b>245 N Jimmy Doolittle Rd</b>			<b>Percentile: 0 - 100%</b>
<b>Salt Lake City, UT</b>			
<b>(801) 524-5213</b>			



*Issued by*

**Pearlie S. Reed  
Chief  
Natural Resources Conservation Service  
U.S. Department of Agriculture**

*Released by*

**Phillip J. Nelson  
State Conservationist  
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Salt Lake City, Utah**

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245 North Jimmy Doolittle Road  
Salt Lake City, UT 84116



**Utah**  
**Basin Outlook Report**  
Natural Resources Conservation Service  
Salt Lake City, UT





# Utah Water Supply Outlook Report

February 1, 2002



Snowpack on the Weber River from 8000 to 9000 feet elevation, February 1, 2003  
Photo by Randy Julander, Snow survey, NRCS, USDA

# STATE OF UTAH GENERAL OUTLOOK

Feb 1, 2003

## SUMMARY

January 2003 will be a month that water users will want to forget. The month had record setting warm days with very little snowpack accumulation. In fact, many low elevation stations lost snow or completely melted out. Melt out in January! There were temperatures in the mid 50's at the 11,000 foot elevation in the Uintahs – an unbelievably warm month. A water year that had started out with high hopes for a reversal of the continuing drought, one that initially had near average snowpacks has gone in one short month, to a status that will require maximum observed historical snowpack accumulation in order to just get back to normal! The Bear, Weber, Provo, and the Uintahs all have 3% or less chance of getting enough snow accumulation over the next 2 months to get back to normal by April 1. Southeast Utah, the Sevier and southwest Utah each have a 6%, 13% and 22% probability of reaching average by April 1. These are exceptionally poor odds, especially in northern Utah. Given average snowpack accumulations, most areas will end up in the 60% to 75% of average range, which is a little better than current conditions. Snowpacks across the state are fairly consistent at 50% to 60% of average, except for southwest Utah which has only 39% of normal. The current water supply outlook is a continuation of the past four years – much below average. Soil moisture condition remains in relatively good shape over most of the state that is currently monitored. This should improve snowmelt runoff efficiency over what we have seen the past few years, where much of the snowpack has been lost to soil moisture replacement. Reservoir storage in 41 major reservoirs across the state is at 47% of capacity, down 656,000 acre feet from last year, out of a total capacity of 5, 470,000, or about 12 %. The amount of water represented by 650,000 acre feet is a little more than 2 completely full Jordanelle reservoirs, a substantial deficit of reservoir storage. Some larger reservoirs, such as Bear Lake and Utah Lake would take several years of at least average runoff to fill to capacity. Streamflow continues to be much below average over most of the state, and won't improve significantly until snowmelt season. Thus there will be little reservoir recharge over the winter months.

## SNOWPACK

February first snowpacks as measured by the NRCS SNOTEL system are near 55% to 60% of average in northern Utah. Southeast Utah has the highest snowpack at 62% of average and southwest Utah has the lowest at 39% of average. Northern Utah has very little chance of accumulating enough snowpack over the next two months to get back to average conditions by April 1. On the Weber and over the Uintah Mountains, it would take a new record maximum snowpack accumulation. The Bear and the Provo watersheds are not far behind and would need the maximum February-March accumulation to reach average by April 1. Another drought year appears to be at the door.

## PRECIPITATION

Mountain precipitation during January was much below normal (30%-40%) in the north and much below normal (15%-30%) in southern Utah. This brings the seasonal accumulation (Oct-Jan) to 66% of average statewide.

## RESERVOIRS

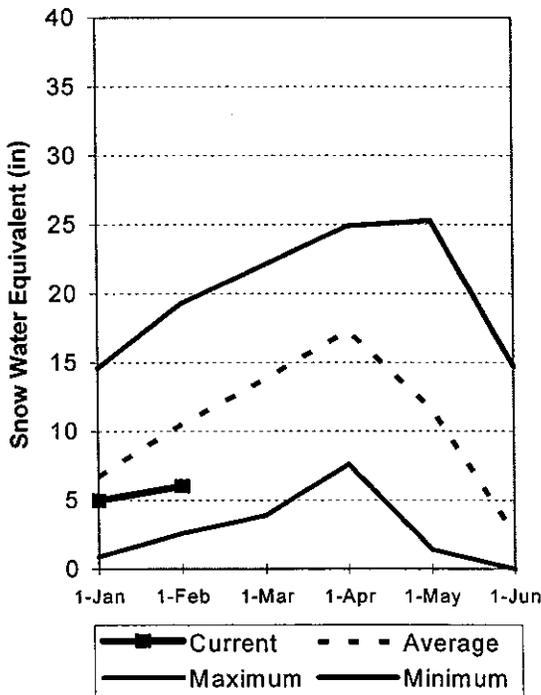
Storage in 41 of Utah's key irrigation reservoirs is at 47% of capacity. This is down substantially from last year indicating heavy use of reservoir storage to make up the streamflow deficit. Most reservoir operators are utilizing a conservative strategy, storing as much water as possible.

## STREAMFLOW

Snowmelt streamflows are expected to be much below average across the entire state of Utah this year. Low snowpacks tend to melt earlier and produce proportionately less runoff. Streams may peak early, have significantly less volume and have short recessions back to base flow. Overall water supply conditions are below normal.

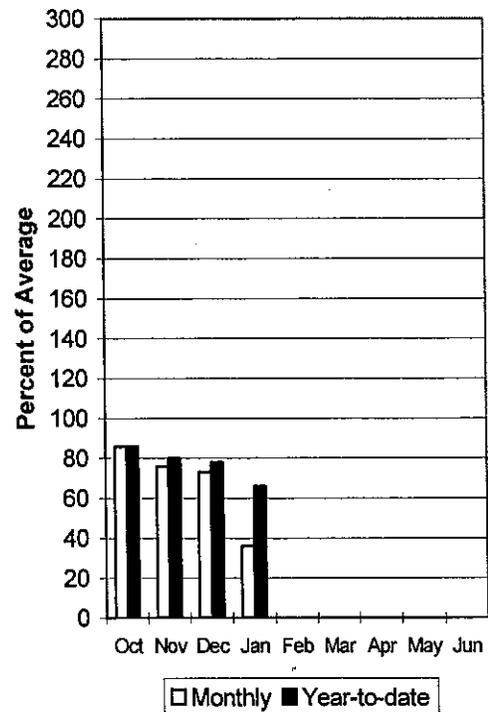
### Mountain Snowpack

2/1/2003



### Precipitation

2/1/2003

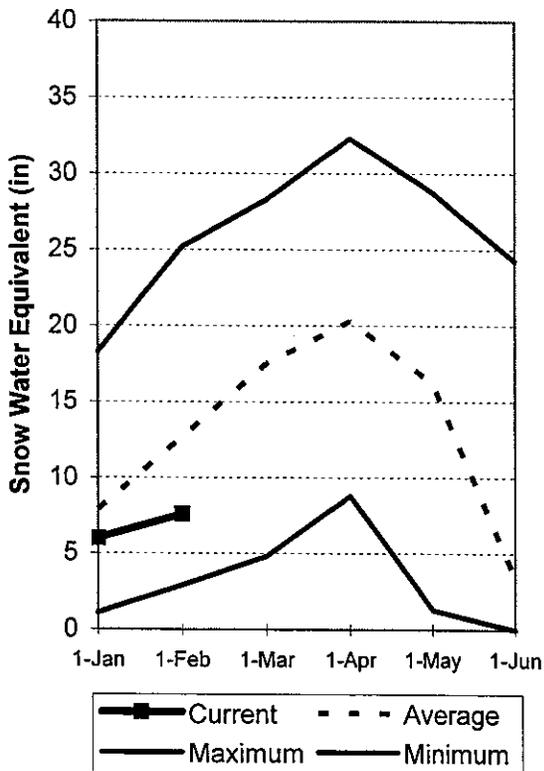


## Bear River Basin Feb 1, 2003

Snowpacks on the Bear River Basin are much below average at 60% of normal, about 69% of last year and down 16% relative to last month. There is about a 3% chance of getting back to average by April 1. Specific sites range from 31% to 82% of normal. This could be the sixth consecutive below normal April 1 snowpack for this watershed. Soil moisture conditions are somewhat improved from last year and may offer higher runoff efficiency. January precipitation was much below average at 49%, which brings the seasonal accumulation (Oct-Jan) to 69% of average. Forecast streamflows are for much below normal volumes this spring. Reservoir storage is at 25% of capacity. Water supply conditions are much below normal due to low snowpack and low reservoir storage.

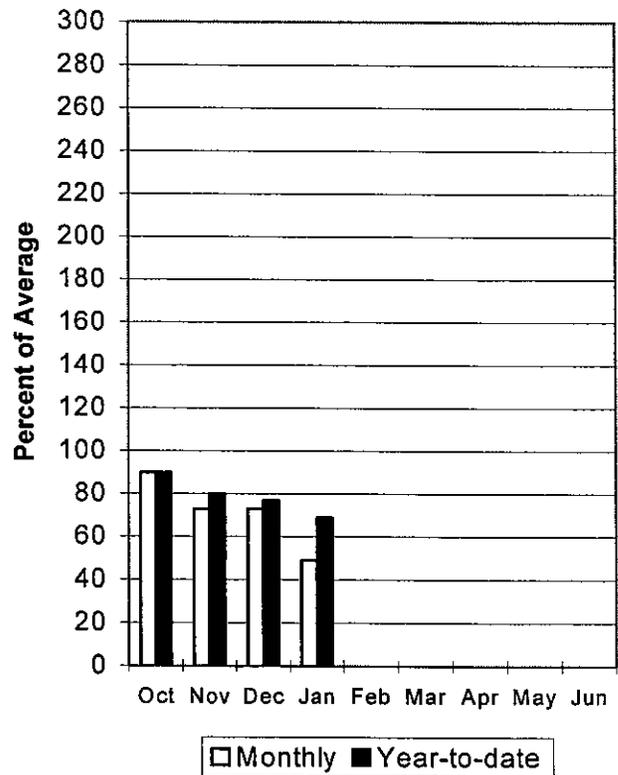
### Bear River Snowpack

2/1/2003



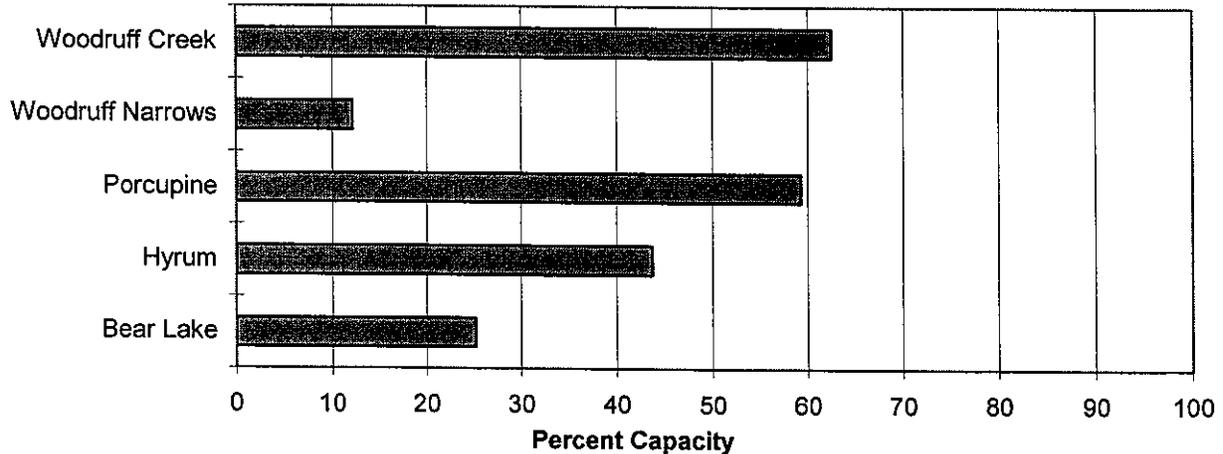
### Bear River Precipitation

2/1/2003



### Reservoir Storage

2/1/2003



BEAR RIVER BASIN  
Streamflow Forecasts - February 1, 2003

Forecast Point	Forecast Period	Future Conditions				Wetter		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Bear R nr UT-WY State Line	APR-JUL	51	61	70	60	80	97	116
Woodruff Narrows Res inflow	APR-JUL	25	40	53	39	67	91	136
Big Creek nr Randolph	APR-JUL	0.49	1.45	2.10	43	3.62	5.90	4.90
Smiths Fork nr Border	APR-JUL	38	49	58	56	69	88	103
Bear River blw Stewart Dam	APR-JUL	58	79	93	32	138	198	288
Little Bear River at Paradise	APR-JUL	10.8	14.6	18.0	39	22	30	46
Logan River nr Logan	APR-JUL	43	56	67	55	80	102	122
Blacksmith Fork nr Hyrum	APR-JUL	16.2	21	25	52	30	39	48

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

BEAR RIVER BASIN  
Watershed Snowpack Analysis - February 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1421.0	358.2	582.7	906.1	BEAR RIVER, UPPER (abv Ha	6	79	62
HYRUM	15.3	6.7	10.0	10.4	BEAR RIVER, LOWER (blw Ha	8	65	59
PORCUPINE	11.3	6.7	10.5	4.4	LOGAN RIVER	4	63	56
WOODRUFF NARROWS	57.3	7.0	4.0	25.2	RAFT RIVER	1	38	51
WOODRUFF CREEK	4.0	2.5	3.0	---	BEAR RIVER BASIN	14	70	60

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

The average is computed for the 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.

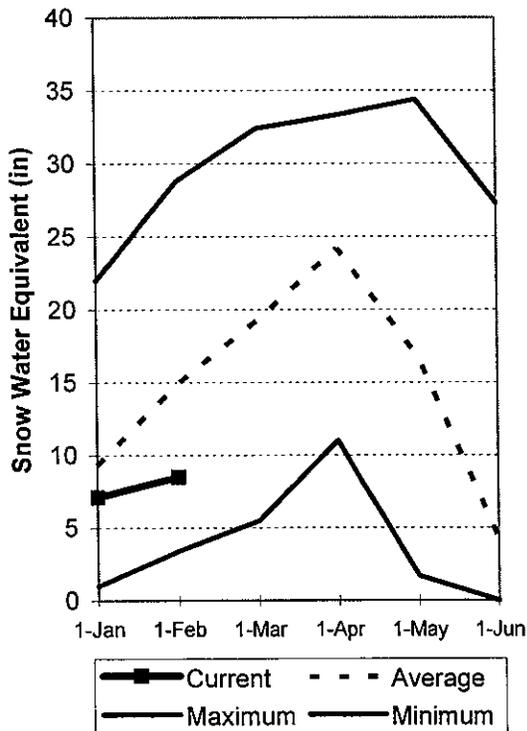
# Weber and Ogden River Basins

Feb 1, 2003

Snowpack on the Weber and Ogden Watersheds is much below normal at 57% of average, about 65% of last year and down 21% relative to last month. Individual sites range from 46% to 71% of average. This could be the fifth consecutive year of below normal April 1 snowpack for this watershed with little chance of getting back to average conditions. Soil moisture conditions are somewhat improved from last year and may yield a higher runoff efficiency. Precipitation during January was much below normal at 38%, bringing the seasonal accumulation (Oct-Jan) to 64% of average. Reservoir storage is at 46% of capacity. Streamflow forecasts are much below average. Overall water supply conditions are much below normal due to poor snowpack and low reservoir storage.

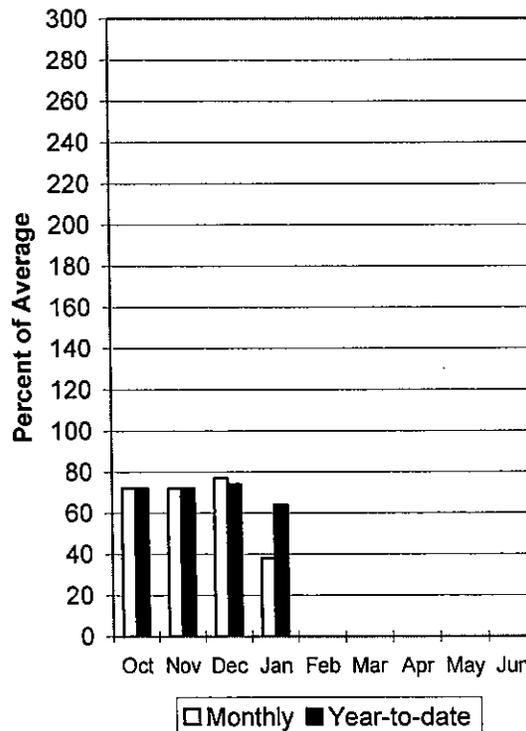
### Weber River Snowpack

2/1/2003



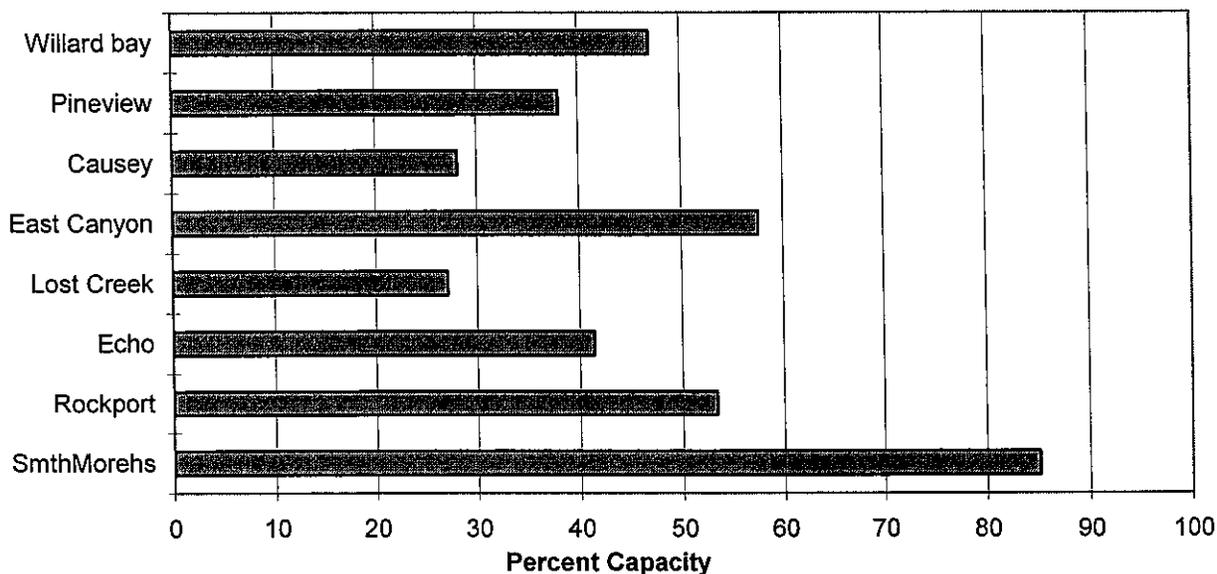
### Weber River Precipitation

2/1/2003



### Reservoir Storage

2/1/2003



WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - February 1, 2003

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						
				Chance Of Exceeding *				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Smith & Morehouse Res inflow	APR-JUL	13.1	18.4	22	65	26	31	34
Weber River nr Oakley	APR-JUL	45	64	77	63	90	109	123
Rockport Reservoir inflow	APR-JUL	30	55	72	54	89	114	134
Weber River nr Coalville	APR-JUL	28	54	72	53	90	116	137
Chalk Creek at Coalville	APR-JUL	9.6	14.0	17.0	38	25	36	45
Echo Reservoir inflow	APR-JUL	33	68	91	51	114	149	179
Lost Creek Reservoir inflow	APR-JUL	1.4	3.5	5.5	31	7.9	12.2	17.6
East Canyon Reservoir inflow	APR-JUL	7.8	11.5	14.5	47	17.8	23	31
Weber River at Gateway	APR-JUL	51	120	166	47	210	280	355
SF Ogden River nr Huntsville	APR-JUL	5.8	21	31	48	41	56	64
Pineview Reservoir inflow	APR-JUL	10.0	40	60	45	80	110	133
Wheeler Creek nr Huntsville	APR-JUL	1.40	2.80	3.70	59	4.60	6.00	6.30

WEBER & OGDEN WATERSHEDS in Utah  
Reservoir Storage (1000 AF) - End of January

WEBER & OGDEN WATERSHEDS in Utah  
Watershed Snowpack Analysis - February 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	2.0	2.5	2.8	OGDEN RIVER	4	62	54
EAST CANYON	49.5	28.5	23.5	35.4	WEBER RIVER	9	66	59
ECHO	73.9	30.6	29.7	50.2	WEBER & OGDEN WATERSHEDS	13	65	57
LOST CREEK	22.5	6.1	6.9	14.0				
PINEVIEW	110.1	42.0	38.3	51.7				
ROCKPORT	60.9	32.5	20.7	34.3				
WILLARD BAY	215.0	101.0	100.7	151.6				

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

The average is computed for the 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.

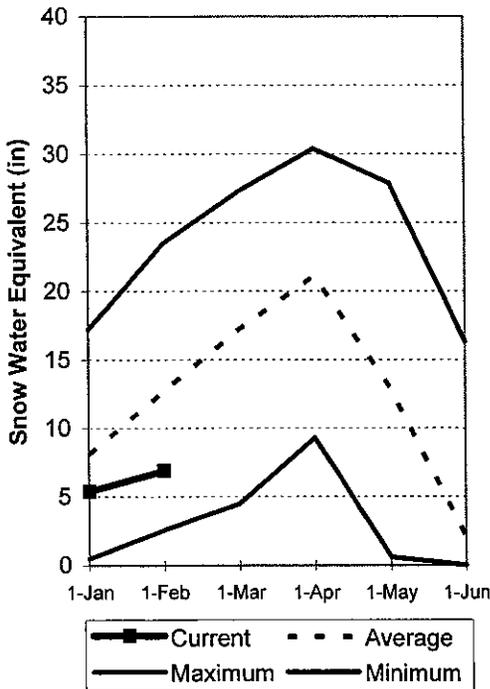
## Utah Lake, Jordan River & Tooele Valley Basins

### Feb 1, 2003

Snowpacks over these watersheds are at 54% of average, 64% of last year and down 12% relative to last month. Individual sites range from 10% to 75% of average. There is about a 3% chance of getting back to average conditions by April 1. This could be the fifth consecutive year of below normal April 1 snowpack on these watersheds. Soil moisture is somewhat improved from last year and may yield a higher runoff efficiency. Precipitation during January was much below normal at 40%, bringing the seasonal accumulation (Oct-Jan) to 62% of average. Forecast streamflows are much below normal. Reservoir storage is at 65% of capacity. General water supply conditions are poor due to low snowpack and low reservoir storage.

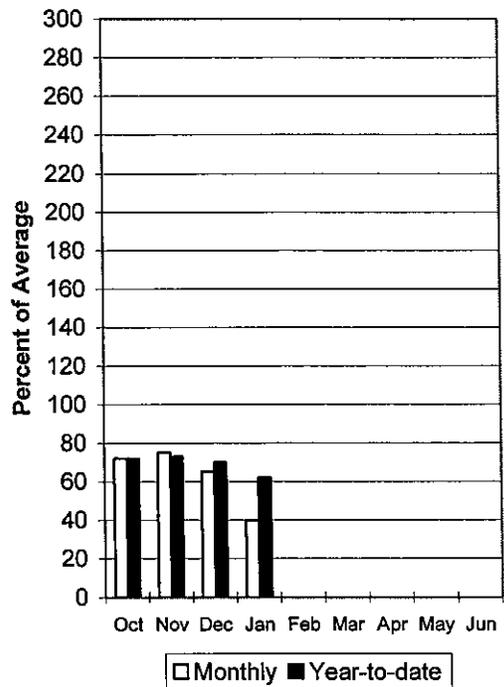
#### Provo River Snowpack

2/1/2003



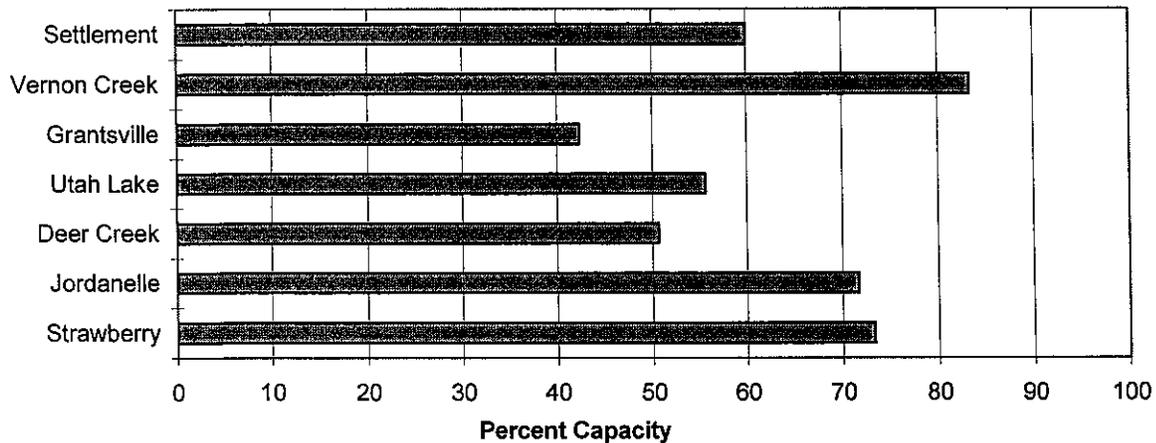
#### Provo River Precipitation

2/1/2003



#### Reservoir Storage

2/1/2003



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - February 1, 2003

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		90%		70%		Chance Of Exceeding *		
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Spanish Fork River nr Castilla	APR-JUL	6.9	11.6	36	47	60	86	77
Provo River nr Woodland	APR-JUL	22	42	55	53	68	88	103
Provo River nr Hailstone	APR-JUL	10.0	36	52	48	68	94	109
Provo R blw Deer Creek Dam	APR-JUL	6.0	44	70	56	96	133	126
American Fk R nr American Fk	APR-JUL	3.5	9.8	14.0	44	18.2	26	32
Utah Lake inflow	APR-JUL	46	84	155	48	226	325	325
Little Cottonwood Ck nr SLC	APR-JUL	12.4	18.7	23	58	27	34	40
Big Cottonwood Ck nr SLC	APR-JUL	6.5	13.8	18.0	47	22	30	38
Mill Creek nr SLC	APR-JUL	0.98	1.59	2.80	40	4.01	5.80	7.00
Parley's Creek nr SLC	APR-JUL	1.0	3.9	7.7	46	11.5	16.7	16.7
Dell Fork nr SLC	APR-JUL	0.00	1.28	2.90	43	4.52	7.00	6.80
Emigration Creek nr SLC	APR-JUL	0.00	0.09	1.50	33	2.91	4.80	4.50
City Creek nr SLC	APR-JUL	0.96	1.89	3.60	41	5.31	7.80	8.70
Vernon Creek nr Vernon	APR-JUL	0.33	0.47	0.60	41	0.77	1.09	1.48
Settlement Creek nr Tooele	APR-JUL	0.28	0.52	0.80	41	1.23	2.30	1.97
S Willow Ck nr Grantsville	APR-JUL	0.50	1.39	2.00	63	2.95	4.40	3.20

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Reservoir Storage (1000 AF) - End of January

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Watershed Snowpack Analysis - February 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	75.8	97.9	104.8	PROVO RIVER & UTAH LAKE	7	79	52
GRANTSVILLE	3.3	1.4	1.8	1.8	PROVO RIVER	4	76	51
SETTLEMENT CREEK	1.0	0.6	0.7	0.6	JORDAN RIVER & GREAT SALT	6	53	53
STRAWBERRY-ENLARGED	1105.9	811.2	903.8	642.2	TOOELE VALLEY WATERSHEDS	3	61	55
UTAH LAKE	870.9	464.4	598.8	790.9	UTAH LAKE, JORDAN RIVER &	16	62	53
VERNON CREEK	0.6	0.5	0.6	---				

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

The average is computed for the 1971-2000 base period.

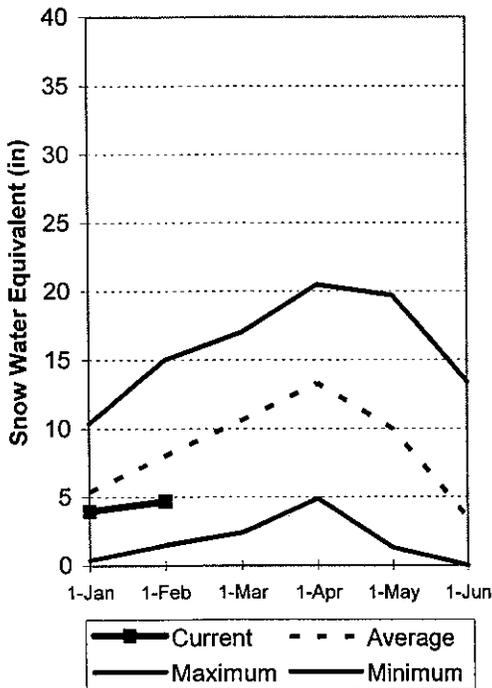
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# Uintah Basin and Dagget SCD's

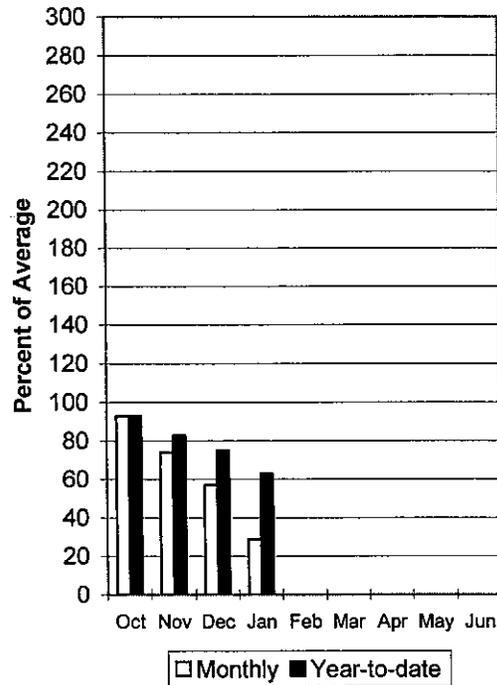
## Feb 1, 2003

Snowpacks across the Uintah Basin and North Slope areas are much below average at 60%, which is 91% of last year's snowpack and down 14% relative to last month. The North Slope ranges from 41% to 80% and the Uintah Basin ranges from 34% to 71% of average. This could be the fifth consecutive below normal April 1 snowpack in the Uintah Basin with very little chance of getting back to average conditions. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during January was much below normal at 29%, bringing the seasonal accumulation (Oct-Jan) to 63% of average. Reservoir storage is at 72% of capacity. Springtime runoff conditions are much below normal due to low snowpack and low reservoir storage.

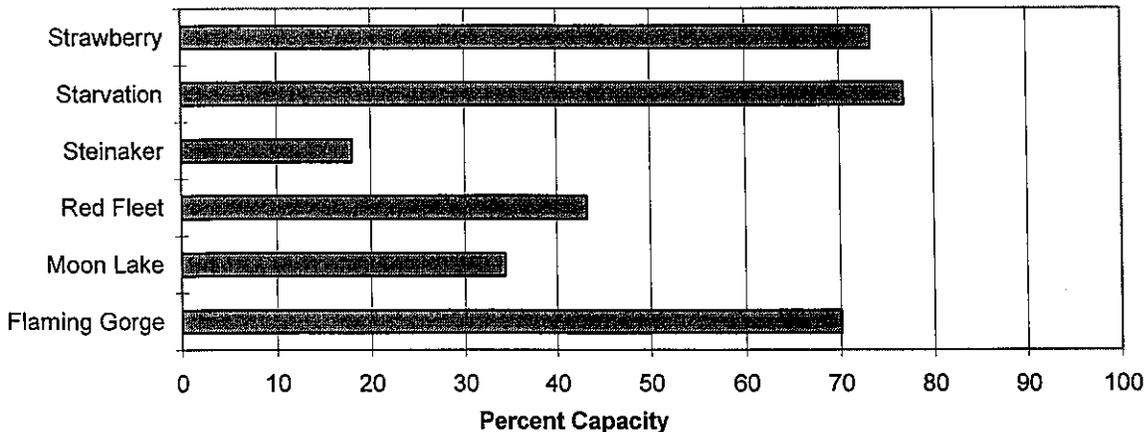
**Uintahs Snowpack**  
2/1/2003



**Uintahs Precipitation**  
2/1/2003



**Reservoir Storage**  
2/1/2003



UINTAH BASIN & DAGGET SCD'S  
Streamflow Forecasts - February 1, 2003

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====>>		Chance Of Exceeding *		====>> Wetter =====<<		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	25	43	55	58	67	85	95
EF of Smiths Fork nr Robertson	APR-JUL	12.7	15.1	17.0	55	19.1	23	31
Flaming Gorge Reservoir Inflow	APR-JUL	283	502	650	55	798	1017	1190
BIG BRUSH CK abv Red Fleet Resv	APR-JUL	5.8	10.1	13.0	62	15.9	20	21
Ashley Creek nr Vernal	APR-JUL	4.9	22	33	64	44	61	52
WF DUCHESNE RIVER nr Hanna	APR-JUL	6.5	10.1	13.0	54	16.2	22	24
DUCHESNE R nr Tabiona	APR-JUL	30	46	57	54	68	84	105
UPPER STILLWATER RESV inflow	APR-JUL	18.8	34	45	55	56	71	82
ROCK CK nr Mountain Home	APR-JUL	26	40	49	55	59	72	89
DUCHESNE R abv Knight Diversion	APR-JUL	37	73	98	52	123	159	188
STRAWBERRY RES nr Soldier Springs	APR-JUL	9.2	17.2	24	41	32	46	59
CURRENT CREEK RESV Inflow	APR-JUL	3.0	7.3	10.2	41	13.1	17.4	25
STARVATION RESERVOIR inflow	APR-JUL	9.0	28	49	41	70	101	121
Lake Fork River abv Moon Lake	APR-JUL	16.8	29	38	56	47	59	68
Yellowstone River nr Altonah	APR-JUL	10.3	26	36	58	46	62	62
DUCHESNE R at Myton	APR-JUL	48	53	90	35	138	209	260
Whiterocks River nr Whiterocks	APR-JUL	1.7	22	35	63	49	68	56
DUCHESNE R nr Randlett	APR-JUL	77	90	114	35	215	364	325

UINTAH BASIN & DAGGET SCD'S  
Reservoir Storage (1000 AF) - End of January

UINTAH BASIN & DAGGET SCD'S  
Watershed Snowpack Analysis - February 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average	
		This Year	Last Year	Avg			Last Yr	Average
FLAMING GORGE	3749.0	2626.0	2854.1	2966.0	UPPER GREEN RIVER in UTAH	6	88	59
MOON LAKE	49.5	18.9	13.6	27.9	ASHLEY CREEK	2	86	53
RED FLEET	25.7	11.1	18.3	18.0	BLACK'S FORK RIVER	2	89	63
STEINAKER	33.4	6.0	16.9	21.6	SHEEP CREEK	1	71	45
STARVATION	165.3	127.0	149.7	132.3	DUCHESNE RIVER	11	92	60
STRAWBERRY-ENLARGED	1105.9	811.2	903.8	642.2	LAKE FORK-YELLOWSTONE CRE	4	95	61
					STRAWBERRY RIVER	4	91	55
					UINTAH-WHITEROCKS RIVERS	2	88	68
					UINTAH BASIN & DAGGET SCD	17	91	60

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

The average is computed for the 1971-2000 base period.

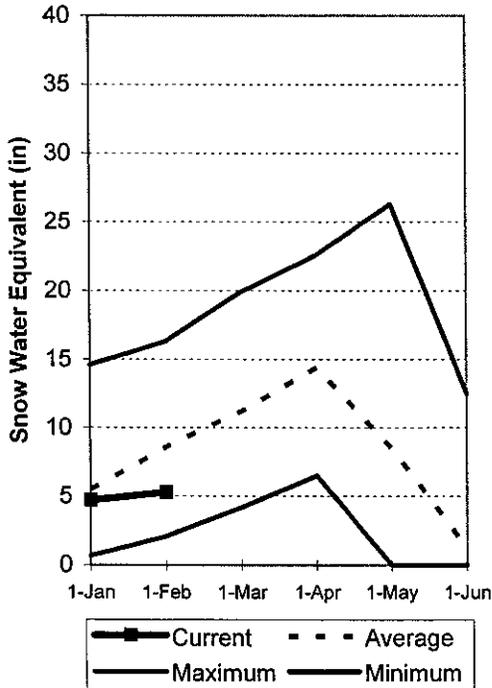
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

# Carbon, Emery, Wayne, Grand and San Juan Co.

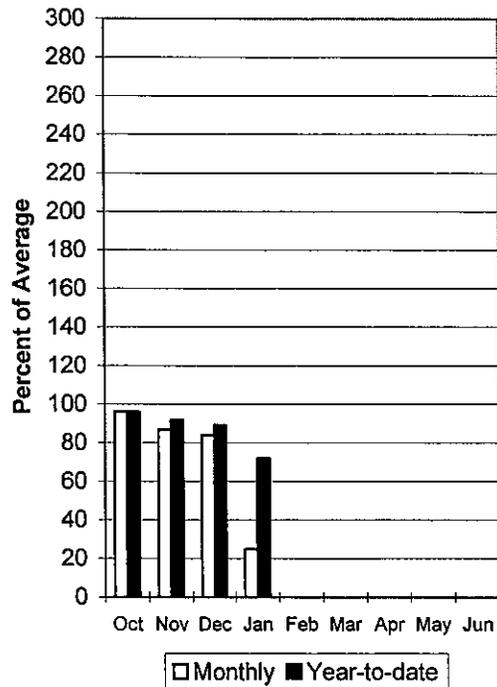
## Feb 1, 2003

Snowpacks in this region are much below normal at 61% of average, about the same as last year but down 24% relative to last month. Individual sites range from 40% to 78% of average. This could be the fifth consecutive below normal April 1 snowpack for this region with about a 6% chance of getting back to average by April 1. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during January was much below average at 25%, bringing the seasonal accumulation (Oct-Jan) to 72% of normal. Reservoir storage is at 32% of capacity. General runoff and water supply conditions are much below normal due to low snowpack and low reservoir storage.

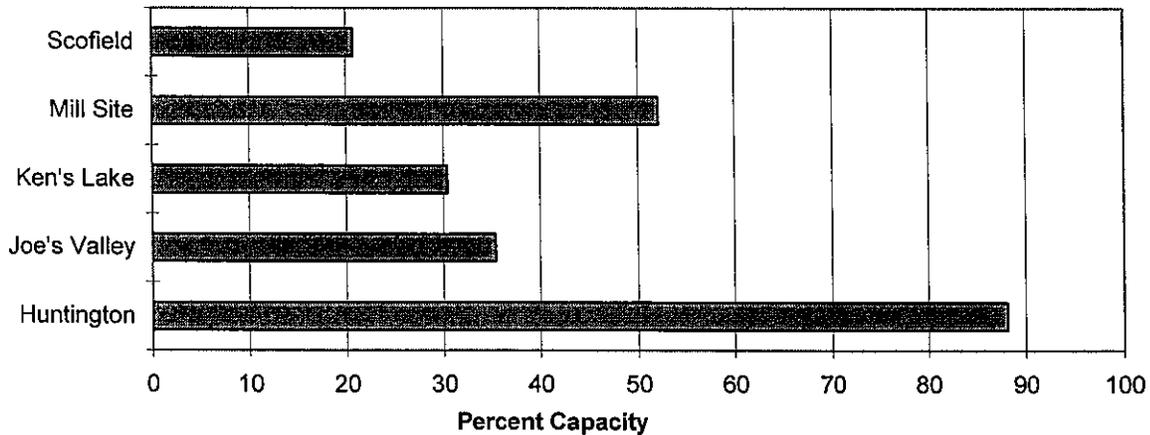
**Southeast Utah Snowpack**  
2/1/2003



**Southeast Utah Precipitation**  
2/1/2003



**Reservoir Storage**  
2/1/2003



CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - February 1, 2003

Forecast Point	Forecast Period	Future Conditions <<==== Drier ==== Future Conditions ==== Wetter =====>>						30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Gooseberry Creek nr Scofield	APR-JUL	2.2	5.3	7.3	61	9.3	12.4	11.9
Scofield Reservoir inflow	APR-JUL	16.1	24	30	65	36	44	46
White River blw Tabbyune Creek	APR-JUL	3.5	6.8	9.6	55	12.9	18.7	17.4
Green River at Green River, UT	APR-JUL	641	1331	1800	57	2269	2959	3170
Electric Lake inflow	APR-JUL	4.4	7.1	9.5	61	12.3	17.5	15.7
HUNTINGTON CK nr Huntington	APR-JUL	12.8	23	30	60	37	47	50
JOE'S VALLEY RESV Inflow	APR-JUL	9.3	24	34	59	44	59	58
Ferron Creek nr Ferron	APR-JUL	14.4	20	25	64	30	39	39
Colorado River nr Cisco	APR-JUL	1438	2427	3100	67	3773	4762	4650
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.00	1.72	3.00	60	4.28	6.16	5.00
Seven Mile Creek nr Fish Lake	APR-JUL	0.45	2.19	4.00	57	5.81	8.49	7.00
Muddy Creek nr Emery	APR-JUL	1.7	8.4	13.0	65	17.6	24	19.9
North Ck ab R.S. nr Monticello	MAR-JUL	0.08	0.15	0.70	52	1.67	3.84	1.35
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.12	0.40	0.68	52	1.04	1.70	1.31
Recapture Ck bl Johnson Ck nr Blandi	MAR-JUL	0.30	1.16	2.80	46	4.44	6.86	6.10
San Juan River nr Bluff	APR-JUL	128	409	600	49	791	1072	1230

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of January

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - February 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	3.7	3.2	2.8	PRICE RIVER	3	105	61
JOE'S VALLEY	61.6	21.8	38.6	41.2	SAN RAFAEL RIVER	3	93	65
KEN'S LAKE	2.3	0.7	1.0	1.1	MUDDY CREEK	1	95	71
MILL SITE	16.7	8.7	10.1	78.8	FREMONT RIVER	3	119	69
SCOFIELD	65.8	13.6	25.0	33.8	LASAL MOUNTAINS	1	75	53
					BLUE MOUNTAINS	1	68	40
					WILLOW CREEK	1	77	47
					CARBON, EMERY, WAYNE, GRA	13	96	61

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

The average is computed for the 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.

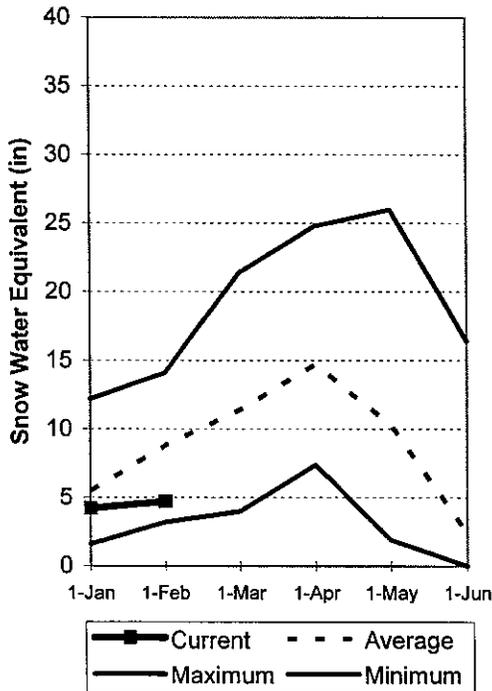
## Sevier and Beaver River Basins

### Feb 1, 2003

Snowpacks on the Sevier River Basin are much below normal at 54% of average, about 87% of last year and down 22% relative to last month. Individual sites range from 0% to 72% of average. This could be the fifth consecutive below normal April 1 snowpack year for the Sevier with only a 13% chance of getting back to average by April 1. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during January was much below average at 28% of normal, bringing the seasonal accumulation (Oct-Jan) to 71% of average. Reservoir storage is at 26% of capacity. Water supply conditions and streamflow forecasts are much below normal due to low snowpack and low reservoir storage.

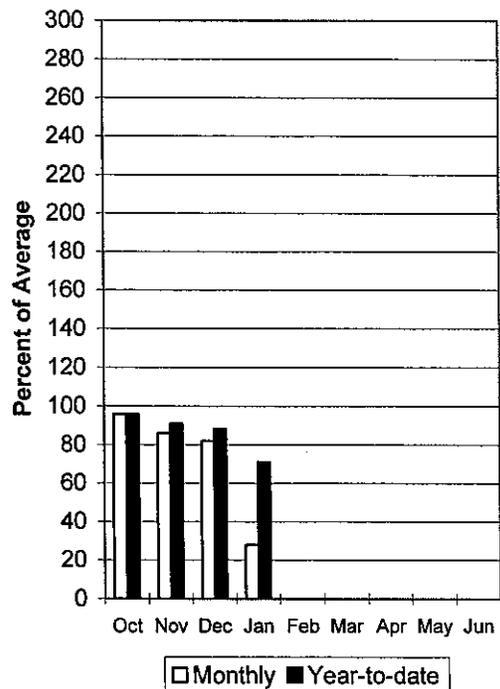
#### Sevier River Snowpack

2/1/2003



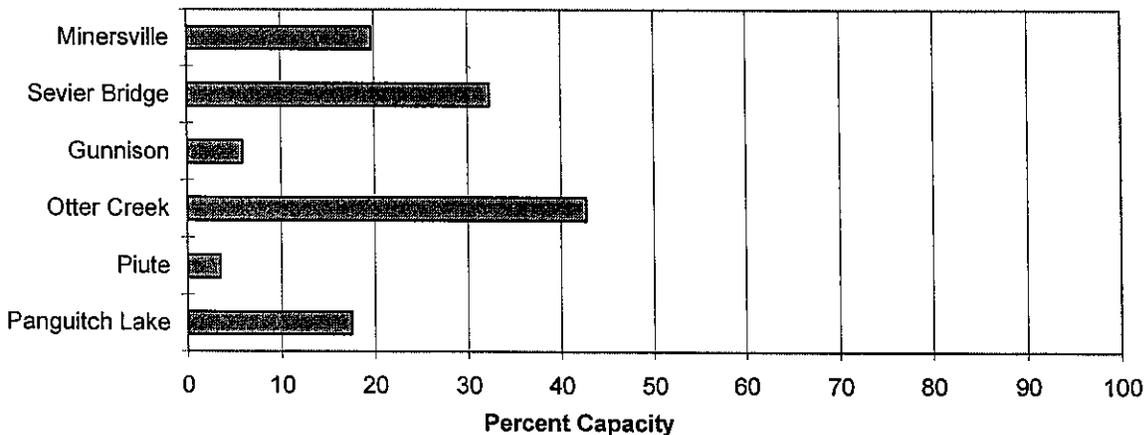
#### Sevier River Precipitation

2/1/2003



#### Reservoir Storage

2/1/2003



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - February 1, 2003

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
				Chance Of Exceeding *				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Sevier River at Hatch	APR-JUL	9.9	17.6	28	51	38	57	55
Sevier River nr Kingston	APR-JUL	5.3	30	44	49	58	83	89
EF Sevier R nr Kingston	APR-JUL	2.3	9.1	19.0	50	29	43	38
Sevier R blw Piute Dam	APR-JUL	6.0	32	58	46	84	122	126
Clear Creek nr Sevier	APR-JUL	2.2	6.2	11.0	50	15.8	24	22
Salina Creek at Salina	APR-JUL		MUCH	BELOW AVERAGE RUNOFF		EXPECTED		
Sevier R nr Gunnison	APR-JUL	39	52	126	45	200	340	280
Chicken Creek nr Levan	APR-JUL	0.76	1.31	1.90	42	2.76	4.80	4.50
Oak Creek nr Oak City	APR-JUL	0.38	0.55	0.70	43	0.89	1.29	1.63
Beaver River nr Beaver	APR-JUL	10.9	13.2	15.0	58	17.1	21	26
Minersville Reservoir inflow	APR-JUL	2.9	4.7	6.5	39	9.0	14.6	16.6

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of January					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - February 1, 2003			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	1.1	1.4	13.1	UPPER SEVIER RIVER (south	8	94	50
MINERSVILLE (RkyFd)	23.3	4.6	7.6	14.4	EAST FORK SEVIER RIVER	3	107	60
OTTER CREEK	52.5	22.4	35.1	36.5	SOUTH FORK SEVIER RIVER	5	85	44
PIUTE	71.8	2.5	40.7	49.5	LOWER SEVIER RIVER (inclu	6	80	57
SEVIER BRIDGE	236.0	76.3	106.2	159.6	BEAVER RIVER	2	99	58
PANGUITCH LAKE	22.3	3.9	11.9	131.4	SEVIER & BEAVER RIVER BAS	16	88	54

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

The average is computed for the 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.

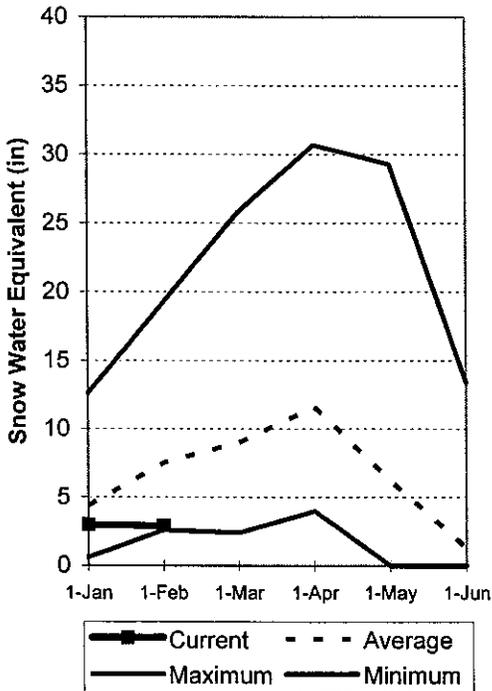
# E. Garfield, Kane, Washington, & Iron co.

Feb 1, 2003

Snowpacks in this region are at 39% of average, about 85% of last year and down 29% relative to last month. Individual sites range from 0 to 78% of average and it could be the fifth consecutive below normal April 1 snowpack year. There is a 22% chance of getting back to average conditions by April 1. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation was much below normal during January at 16% of average, bringing the seasonal accumulation (Oct-Jan) to 68% of normal. Reservoir storage is at 25% of capacity. General water supply conditions and streamflow forecasts are much below normal.

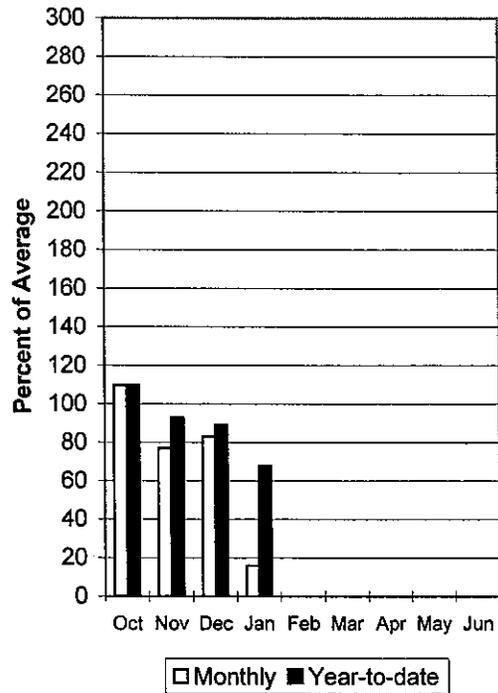
## Southwest Utah Snowpack

2/1/2003



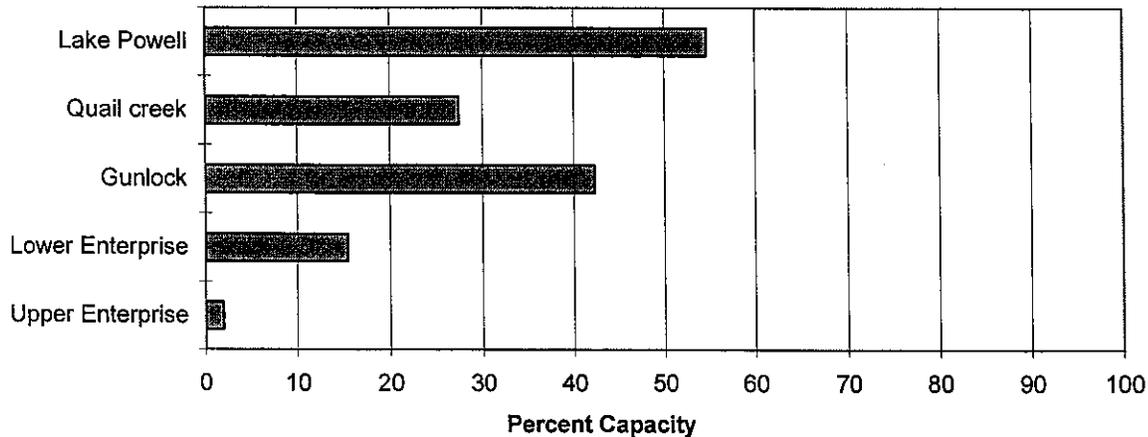
## Southwest Utah Precipitation

2/1/2003



## Reservoir Storage

2/1/2003



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - February 1, 2003

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<----- Drier ----->>		----->>		----->>		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Lake Powell inflow	APR-JUL	1523	3355	4600	58	5845	7677	7930
Virgin River nr Virgin	APR-JUL	16.2	26	34	53	43	58	64
Virgin River nr Hurricane	APR-JUL	17.0	22	31	45	40	53	69
Santa Clara River nr Pine Valley	APR-JUL	0.47	1.53	2.60	47	3.95	6.46	5.50

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of January

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - February 1, 2003

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	4.4	7.1	5.7	VIRGIN RIVER	5	81	40
LAKE POWELL	24322.0	13300.0	17507.0	---	PAROWAN	2	96	50
QUAIL CREEK	40.0	11.0	32.4	26.5	ENTERPRISE TO NEW HARMONY	2	0	0
UPPER ENTERPRISE	10.0	0.2	0.5	---	COAL CREEK	2	94	43
LOWER ENTERPRISE	2.6	0.4	0.2	38.0	ESCALANTE RIVER	2	141	70
					E. GARFIELD, KANE, WASHIN	9	88	39

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

The average is computed for the 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.

<b>UTAH SURFACE</b>	<b>WATER</b>	<b>SUPPLY</b>	<b>INDEX</b>
<b>Snow Surveys</b>	<b>NRCS</b>	<b>USDA</b>	
<b>Basin or Region</b>	<b>SWSI/%</b>	<b>Percentile</b>	<b>Years with Similar SWSI</b>
<b>Bear River</b>	<b>-4</b>	<b>2%</b>	<b>92,93,2002</b>
<b>Ogden River</b>	<b>-3.7</b>	<b>5%</b>	<b>77,88,92</b>
<b>Weber River</b>	<b>-3.7</b>	<b>5%</b>	<b>77,92,88,02</b>
<b>Tooele Valley</b>	<b>NA</b>		
<b>Provo</b>	<b>-3.4</b>	<b>9%</b>	<b>63,60,64,62</b>
<b>North Slope</b>	<b>NA</b>		
<b>West Uintah Basin</b>	<b>-.2</b>	<b>48%</b>	<b>94,88,95,87</b>
<b>East Uintah Basin</b>	<b>-3.5</b>	<b>8%</b>	<b>89,02,94</b>
<b>Price River</b>	<b>-2.9</b>	<b>15%</b>	<b>91,90,63,64</b>
<b>San Rafael</b>	<b>-2.3</b>	<b>22%</b>	<b>92,02,81,01</b>
<b>Moab</b>	<b>-2.8</b>	<b>17%</b>	<b>90,89,99,81</b>
<b>Upper Sevier River</b>	<b>-4</b>	<b>2%</b>	<b>63,61,77</b>
<b>Lower Sevier River</b>	<b>-2.9</b>	<b>16%</b>	<b>64,91,66,67</b>
<b>Beaver River</b>	<b>-3.4</b>	<b>9%</b>	<b>61,02,63,90</b>
<b>Virgin River</b>	<b>-2.5</b>	<b>20%</b>	<b>89,02,91,96</b>
<b>Snow Surveys</b>			<b>SWSI Scale: -4 to 4</b>
<b>245 N Jimmy Doolittle Rd</b>			<b>Percentile: 0 - 100%</b>
<b>Salt Lake City, UT</b>			
<b>(801) 524-5213</b>			

## S N O W C O U R S E D A T A

FEBRUARY 2003

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	2/01	5	1.7	2.4	5.4
ALTA CENTRAL	8800	1/31	47	14.1	24.1	24.7
BEAVER DAMS SNOTEL	8000	2/01	-	4.1	4.8	7.0
BEAVER DIVIDE SNOTEL	8280	2/01	21	4.8	6.0	7.8
BEN LOMOND PK SNOTEL	8000	2/01	40	14.4	23.8	25.0
BEN LOMOND TR SNOTEL	6000	2/01	24	9.1	14.9	14.4
BEVAN'S CABIN	6450				-	-
BIG FLAT SNOTEL	10290	2/01	31	7.5	5.9	11.4
BIRCH CROSSING	8100				-	4.6
BLACK FLAT-U.M. CK S	9400	2/01	17	4.0	5.1	5.9
BLACK'S FORK GS-EF	9340				-	5.8
BLACK'S FORK JUNCTN	8930				-	5.9
BOX CREEK SNOTEL	9800	2/01	24	6.2	6.8	8.0
BRIAN HEAD	10000				-	11.8
BRIGHTON SNOTEL	8750	2/01	30	8.0	12.5	15.9
BRIGHTON CABIN	8700	1/31	36	10.4	18.2	17.5
BROWN DUCK SNOTEL	10600	2/01	-	6.8	7.2	11.1
BRYCE CANYON	8000				-	3.6
BUCK FLAT SNOTEL	9800	2/01	30	8.4	8.1	11.3
BUCK PASTURE	9700				-	-
BUCKBOARD FLAT	9000				-	-
BUG LAKE SNOTEL	7950	2/01	27	7.4	12.8	13.2
BURT'S-MILLER RANCH	7900				-	3.8
CAMP JACKSON SNOTEL	8600	2/01	16	3.6	5.3	9.0
CASCADE MOUNTAIN	7770	2/01	23	6.4	-	-
CASTLE VALLEY SNOTEL	9580	2/01	-	3.7	4.3	7.7
CHALK CK #1 SNOTEL	9100	2/01	36	9.5	12.6	15.3
CHALK CK #2 SNOTEL	8200	2/01	26	6.8	9.0	9.9
CHALK CREEK #3	7500				-	5.6
CHEPETA SNOTEL	10300	2/01	-	5.2	7.3	8.3
CLAYTON SPRINGS SNTL	10000	2/01	21	4.2	3.6	-
CLEAR CK RIDG #1 SNT	9200	2/01	27	6.8	6.7	12.3
CLEAR CK RIDG #2 SNT	8000	2/01	-	6.1	5.1	9.4
CORRAL	8200				-	-
CURRANT CREEK SNOTEL	8000	2/01	15	2.3	3.2	6.8
DANIELS-STRAWBERRY S	8000	2/01	25	6.3	6.8	11.1
DILL'S CAMP SNOTEL	9200	2/01	-	6.0	6.3	8.4
DONKEY RESERVOIR SNO	9800	2/01	-	4.0	2.7	5.1
DRY BREAD POND SNTL	8350	2/01	28	6.6	10.0	14.5
DRY FORK SNOTEL	7160	2/01	-	5.6	9.0	10.1
EAST WILLOW CREEK SN	8250	2/01	-	2.3	3.0	4.9
FARMINGTON CN SNOTEL	8000	2/01	45	14.5	21.1	20.3
FARMINGTON CANYON L.	6950				-	16.2
FARNSWORTH LK SNOTEL	9600	2/01	28	6.3	7.5	11.4
FISH LAKE	8700				-	5.1
FIVE POINTS LAKE SNO	10920	2/01	29	6.3	6.1	9.8
G.B.R.C. HEADQUARTER	8700				-	-
G.B.R.C. MEADOWS	10000				-	14.5
GARDEN CITY SUMMIT	7600				-	11.1
GEORGE CREEK	8840				-	-
GOOSEBERRY R.S.	8400				-	7.5
GOOSEBERRY R.S. SNTL	7900	2/01	10	3.0	4.1	5.8
HARDSCRABBLE SNOTEL	7250	2/01	-	6.7	11.3	10.9
HARRIS FLAT SNOTEL	7700	2/01	-	2.0	2.5	4.7
HAYDEN FORK SNOTEL	9100	2/01	28	8.0	8.4	9.8
HENRY'S FORK	10000				-	-
HEWINTA SNOTEL	9500	2/01	22	4.4	4.1	6.7
HICKERSON PARK SNTL	9100	2/01	7	2.0	2.8	4.4
HIDDEN SPRINGS	5500	1/30	3	1.1	6.8	5.5
HOBBLE CREEK SUMMIT	7420				-	9.6
HOLE-IN-ROCK SNOTEL	9150	2/01	17	3.3	3.1	4.1
HORSE RIDGE SNOTEL	8260	2/01	-	9.5	12.6	15.1
HUNTINGTON-HORSESHOE	9800				-	15.1
INDIAN CANYON SNOTEL	9100	2/01	21	4.9	3.8	6.9
JOHNSON VALLEY	8850				-	4.6
JONES CORRAL G.S.	9720				-	-
KILFOIL CREEK	7300				-	9.4

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KILLYON CANYON	6300	1/31	5	1.2	8.4	11.5
KIMBERLY MINE SNOTEL	9300	2/01	-	4.9	5.2	9.4
KING'S CABIN SNOTEL	8730	2/01	19	4.3	4.0	6.8
KLONDIKE NARROWS	7400				-	12.7
KOLOB SNOTEL	9250	2/01	22	5.8	7.1	12.1
LAKEFORK #1 SNOTEL	10100	2/01	22	4.9	5.2	7.9
LAKEFORK BASIN SNTL	10900	2/01	36	6.7	7.5	11.7
LAKEFORK MOUNTAIN #3	8400				-	4.6
LAMBS CANYON	7400	1/30	25	6.4	10.9	11.2
LASAL MOUNTAIN LOWER	8800				-	5.9
LASAL MOUNTAIN SNTL	9850	2/01	15	4.1	5.5	7.8
LILY LAKE SNOTEL	9050	2/01	30	6.5	6.5	8.2
LITTLE BEAR LOWER	6000				-	7.1
LITTLE BEAR SNOTEL	6550	2/01	-	2.8	8.9	9.1
LITTLE GRASSY SNOTEL	6100	2/01	-	0.0	2.0	4.9
LONG FLAT SNOTEL	8000	2/01	-	0.0	1.7	5.6
LONG VALLEY JCT. SNT	7500	2/01	-	0.0	1.8	4.4
LOOKOUT PEAK SNOTEL	8200	2/01	-	10.1	15.0	15.4
LOST CREEK RESERVOIR	6130				-	3.8
LOUIS MEADOW SNOTEL	6700	2/01	21	6.5	13.6	-
MAMMOTH-COTTONWD SNT	8800	2/01	28	9.0	8.3	12.9
MERCHANT VALLEY SNTL	8750	2/01	-	3.9	5.6	8.2
MIDDLE CANYON	7000				-	9.1
MIDWAY VALLEY SNOTEL	9800	2/01	29	7.1	7.0	13.9
MILL CREEK	6950	1/30	23	6.3	14.7	12.5
MILL-D NORTH SNOTEL	8960	2/01	-	7.8	16.9	15.8
MILL-D SOUTH FORK	7400	1/31	23	6.3	14.9	13.0
MINING FORK SNOTEL	8000	2/01	25	7.0	12.3	9.3
MONTE CRISTO SNOTEL	8960	2/01	40	8.7	13.6	18.2
MOSBY MTN. SNOTEL	9500	2/01	-	5.2	4.5	7.0
MT. BALDY R.S.	9500				-	14.9
MUD CREEK #2	8600				-	8.6
OAK CREEK	7760				-	-
PANGUITCH LAKE R.S.	8200				-	-
PARLEY'S CANYON SNTL	7500	2/01	-	4.8	10.0	11.6
PARRISH CREEK SNOTEL	7740	2/01	32	9.4	15.9	-
PAYSON R.S. SNOTEL	8050	2/01	18	4.9	9.7	11.6
PICKLE KEG SNOTEL	9600	2/01	-	7.2	8.8	10.0
PINE CREEK SNOTEL	8800	2/01	-	4.8	9.3	12.9
RED PINE RIDGE SNTL	9200	2/01	26	6.8	6.8	10.5
REDDEN MINE LOWER	8500				-	10.8
REES'S FLAT	7300				-	8.7
ROCK CREEK SNOTEL	7900	2/01	-	3.1	3.4	5.6
ROCKY BN-SETTLEMT SN	8900	2/01	30	7.4	11.1	15.1
SEELEY CREEK SNOTEL	10000	2/01	17	4.6	6.4	8.8
SMITH MOREHOUSE SNTL	7600	2/01	20	4.6	7.6	9.2
SNOWBIRD SNOTEL	9700	2/01	45	10.9	24.4	20.1
SPIRIT LAKE	10300				-	7.4
SQUAW SPRINGS	9300				-	4.6
STEEL CREEK PARK SNO	10100	2/01	30	5.7	7.3	9.4
STILLWATER CAMP	8550				-	6.5
STRAWBERRY DIVIDE SN	8400	2/01	-	6.8	8.5	11.9
SUSC RANCH	8200				-	5.2
TALL POLES	8800				-	8.4
TEMPLE FORK SNOTEL	7410	2/01	28	7.8	10.4	-
THAYNES CANYON SNTL	9200	2/01	33	8.2	12.4	13.8
THISTLE FLAT	8500				-	-
TIMBERLINE	9100				-	-
TIMPANOGOS DIVIDE SN	8140	2/01	24	6.7	9.3	15.0
TONY GROVE LK SNOTEL	8400	2/01	49	15.7	20.0	23.4
TONY GROVE R.S.	6250				-	9.0
TRIAL LAKE	9960				-	14.7
TRIAL LAKE SNOTEL	9960	2/01	35	7.6	11.4	15.7
TROUT CREEK SNOTEL	9400	2/01	14	2.4	3.8	5.8
UPPER JOES VALLEY	8900				-	6.8
VERNON CREEK SNOTEL	7500	2/01	14	3.0	5.2	7.1
VIPONT	7670				-	-
WEBSTER FLAT SNOTEL	9200	2/01	-	3.1	3.8	9.8
WHITE RIVER #1 SNTL	8550	2/01	-	4.7	4.5	8.3
WHITE RIVER #3	7400				-	5.8
WIDTSOE #3 SNOTEL	9500	2/01	-	4.5	2.7	7.1
WRIGLEY CREEK	9000				-	6.7
YANKEE RESERVOIR	8700				-	5.6







# Utah Water Supply Outlook Report

April 1, 2002



Looking toward Marsh Peak, Uintah Basin, April 2002

photo by Ray Wilson, Snow survey, NRCS, USDA

# Water Supply Outlook Reports

## and

### Federal - State - Private

### Cooperative Snow Surveys

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Internet Address: <http://www.ut.nrcs.usda.gov/snow/>

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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 snowcourses 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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# STATE OF UTAH GENERAL OUTLOOK

Apr 1, 2002

## SUMMARY

January was a dud! February was a complete disaster! March teased us early on with large storms, but in the end, it simply put the final nail in the coffin for most of the state. In northern Utah, snowpacks on the Weber and Provo increased 5% relative to last month simply by getting an average snowpack accumulation for the month. On the Bear River, snowpacks decreased by 1% relative to last month. The only area near average in the entire state is that region along the Wasatch Front from Ogden south to Little Cottonwood Canyon. Mitigating that small bit of optimistic news, is the fact that this is the fourth consecutive below normal snowpack year for the Weber, Provo, Uintah Basin, southeast Utah, Sevier and southwest Utah as well as the fifth consecutive for the Bear River. In the Uintah Basin, current snowpacks are the lowest since the 1977 drought year. In southeast Utah on the Price, San Rafael, Dirty Devil and the Moab/Monticello area, snowpacks are the third lowest in the past 42 years. Only 1999 and 1977 had less snow in this region than current levels. At current snowmelt rates, the Moab/Monticello area could melt out this week, meaning runoff could potentially be finished for that area. Again, given current melt rates, the Price, San Rafael and the Dirty Devil could be melted out by May. This is an extremely early, short duration and low volume meltout and runoff season. The message here is: catch the runoff in April, because there is a potential that April Runoff may be all there is this year. On the Sevier River Basin and southwest Utah, snowpacks are at record low levels, eclipsing both 1999 and 1977. Abnormally low soil moisture levels, especially in northern Utah, remain a big concern and may significantly impact snowmelt runoff this spring. Mountain precipitation in March for Utah was below average at 79%. This brings the seasonal total (Oct-Mar) to 76% of normal statewide. Precipitation was higher in the north, 75 to 100% and much lower in the south, 30 to 70% of average. Reservoir storage is low at 63% of capacity, far less than last year, which was 75% of capacity. This is about 415 thousand-acre feet less water currently in storage than last year, an amount roughly equivalent to all the reservoirs on the Weber River.

## SNOWPACK

April first snowpacks in Utah, as measured by the NRCS SNOTEL system, are below normal on the Bear (74%), Weber (82%) and Provo (79%) Watersheds. The Uintah Basin is much below normal, near 59% of average. Southern Utah ranges from about 24% to near 54% of average. Current snowpacks across southern Utah and the Sevier River Basin are the lowest of the past 42 years of record. For the Uintahs and the Sevier River Basin, it is the lowest since 1977. Current melt rates indicate that much of the snowpack in southern Utah will be gone before May 1. In northern Utah, snowpacks may last until mid May or later, depending on future climatological conditions. These poor conditions virtually insure that this will be yet another poor water supply year.

## PRECIPITATION

Mountain precipitation during March was below to near normal (75%-100%) in the north and extremely dry (30%-70%) in southern Utah. This brings the seasonal accumulation (Oct-Mar) to 76% of average statewide.

## RESERVOIRS

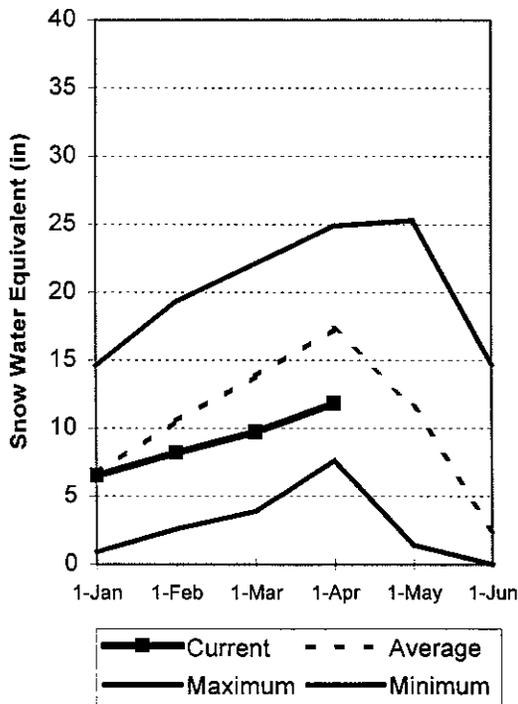
Storage in 41 of Utah's key irrigation reservoirs is at 63% of capacity. Most reservoir operators are utilizing a conservative strategy, storing as much water as possible. Some reservoirs, such as Scofield, Woodruff Narrows and others, have little chance of filling this year. Given current streamflow forecasts, some reservoirs will store little or no water this year.

## STREAMFLOW

Snowmelt streamflows are expected to be much below to below average across the entire state of Utah this year. Low snowpacks tend to melt earlier and produce proportionately less runoff. Streams may peak early, have significantly less volume and have short recessions back to base flow. April may be the only significant runoff month this year in southern Utah. Overall water supply conditions are much below normal.

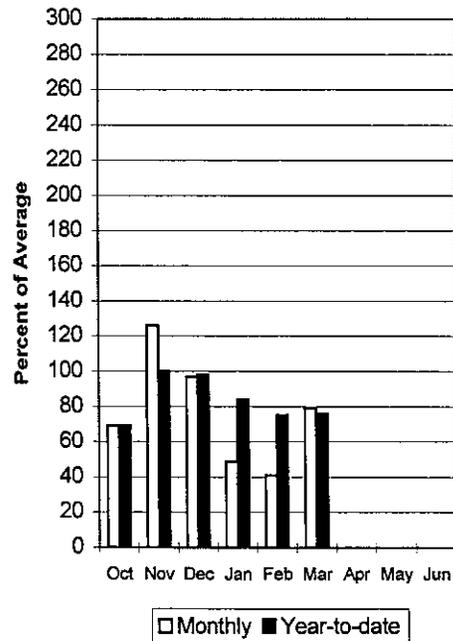
### Mountain Snowpack

4/1/02



### Precipitation

4/1/02

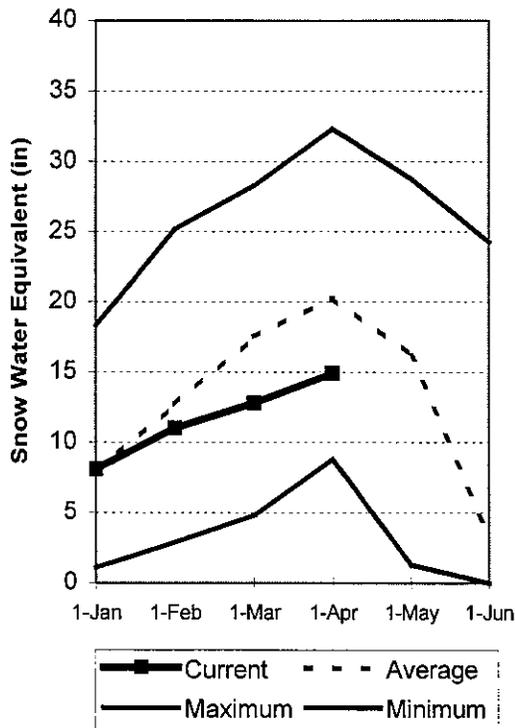


## Bear River Basin Apr 1, 2002

Snowpacks on the Bear River Basin are below average at 74% of normal, about 151% of last year and down 1% relative to last month. Specific sites range from 62% to 114% of normal. This is the fifth consecutive below normal snowpack for this watershed. The past long, hot, dry summer has had a major impact on soil moisture, which will negatively impact this year's runoff. March precipitation was below average at 76%, which brings the seasonal accumulation (Oct-Mar) to 81% of average. Forecast streamflows are for much below to below normal volumes this spring. Reservoir storage is at 43% capacity. Water supply conditions are much below normal due to low snowpack, low reservoir storage and extremely dry soil moisture conditions.

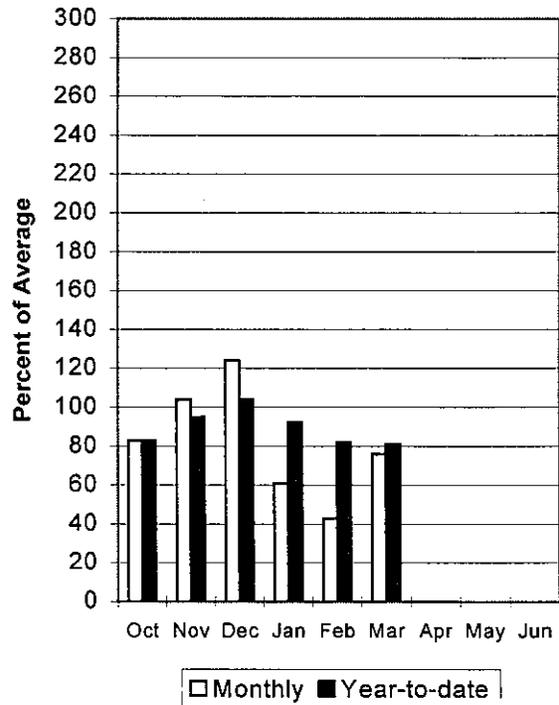
### Mountain Snowpack

4/1/02



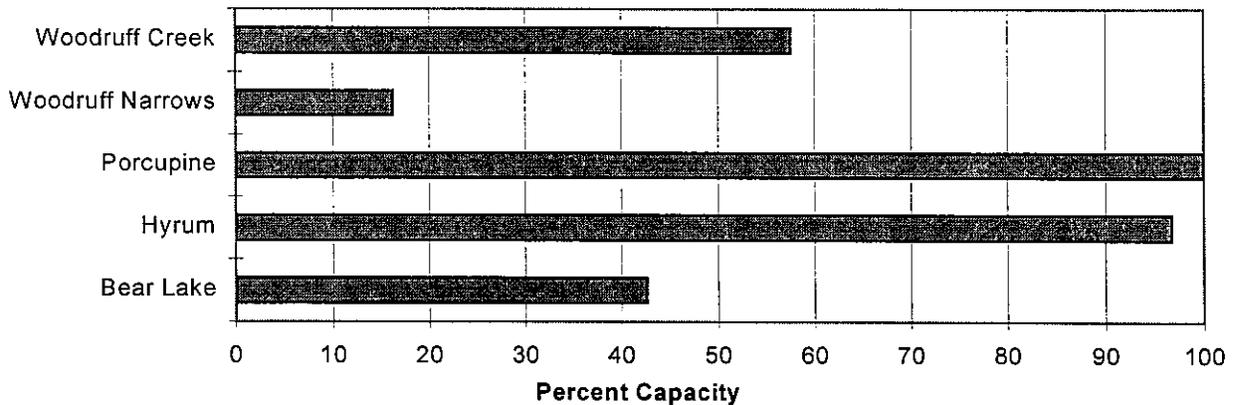
### Precipitation

4/1/02



### Reservoir Storage

4/1/02



BEAR RIVER BASIN  
Streamflow Forecasts - April 1, 2002

Forecast Point	Forecast Period	<<==== Drier ==== Future Conditions ==== Wetter =====>>						30-Yr Avg. (1000AF)		
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF) 10% (1000AF)	
Bear R nr UT-WY State Line	APR-JUL	40	65	71	63	78	98	113		
BEAR R nr Woodruff, UT	APR-JUL	22	74	91	61	112	158	149		
BIG CK nr Randolph	APR-JUL	0.35	0.84	2.30	61	3.76	5.92	3.80		
BEAR R nr Randolph, UT	APR-JUL	7.0	36	62	54	88	127	115		
SMITHS FK nr Border, WY	APR-JUL	31	49	55	54	62	79	102		
THOMAS FK nr WY-ID State Line (Disc.	APR-JUL			Much Below Average				33		
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	18.0	73	110	38	147	202	288		
MONTPELIER CK nr Montpelier (Disc)(2	APR-JUL			Much Below Average				12.2		
CUB R nr Preston	APR-JUL			Much Below Average				47		
L BEAR R at Paradise, UT	APR-JUL	16.2	20	23	49	27	33	47		
LOGAN R nr Logan	APR-JUL	41	67	72	59	78	102	122		
BLACKSMITH Fk nr Hyrum	APR-JUL	10.8	30	32	59	35	55	54		

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of March					BEAR RIVER BASIN Watershed Snowpack Analysis - April 1, 2002			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1421.0	605.5	911.1	923.8	BEAR RIVER, UPPER (abv Ha	6	126	74
HYRUM	15.3	14.8	14.6	12.2	BEAR RIVER, LOWER (blw Ha	8	174	73
PORCUPINE	11.3	11.3	9.0	6.7	LOGAN RIVER	4	156	77
WOODRUFF NARROWS	57.3	9.3	---	32.7	RAFT RIVER	1	238	110
WOODRUFF CREEK	4.0	2.3	2.0	---	BEAR RIVER BASIN	14	151	74

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

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

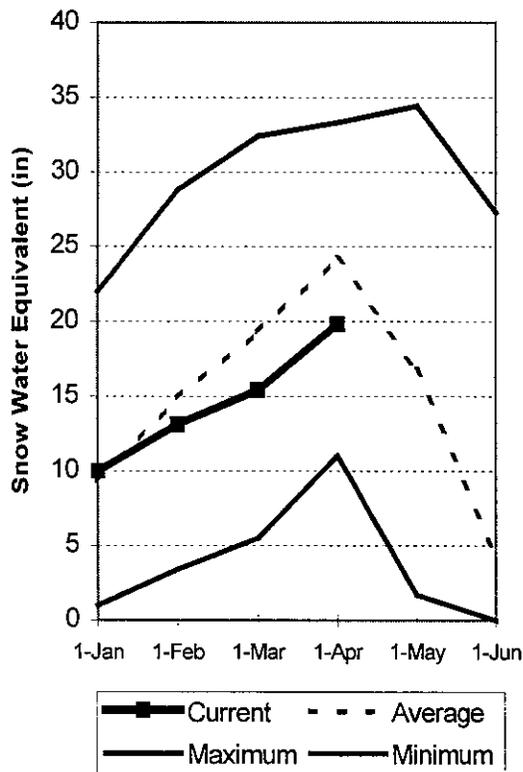
# Weber and Ogden River Basins

Apr 1, 2002

Snowpack on the Weber and Ogden Watersheds is at 82% of average, about 132% of last year, and up 5% relative to last month. Individual sites range from 52% to 106% of average. This is the fourth consecutive year of below normal snowpack for this watershed. The hot, dry conditions of last summer have dropped soil moisture levels, which will negatively impact spring runoff. Precipitation during March was near normal at 98%, bringing the seasonal accumulation (Oct-Mar) to 88% of average. Reservoir storage is at 52% of capacity. Streamflow forecasts are much below to below average. Overall water supply conditions are marginal due to poor snowpack, soil moisture levels and low reservoir storage.

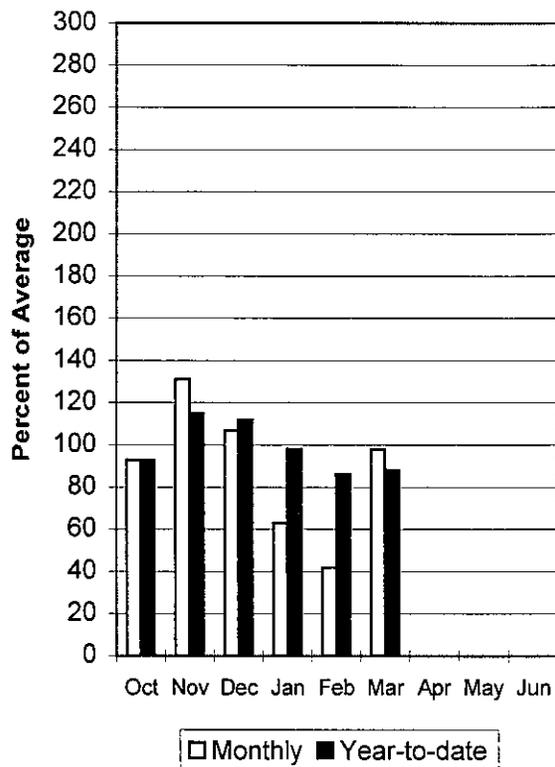
## Mountain Snowpack

4/1/02



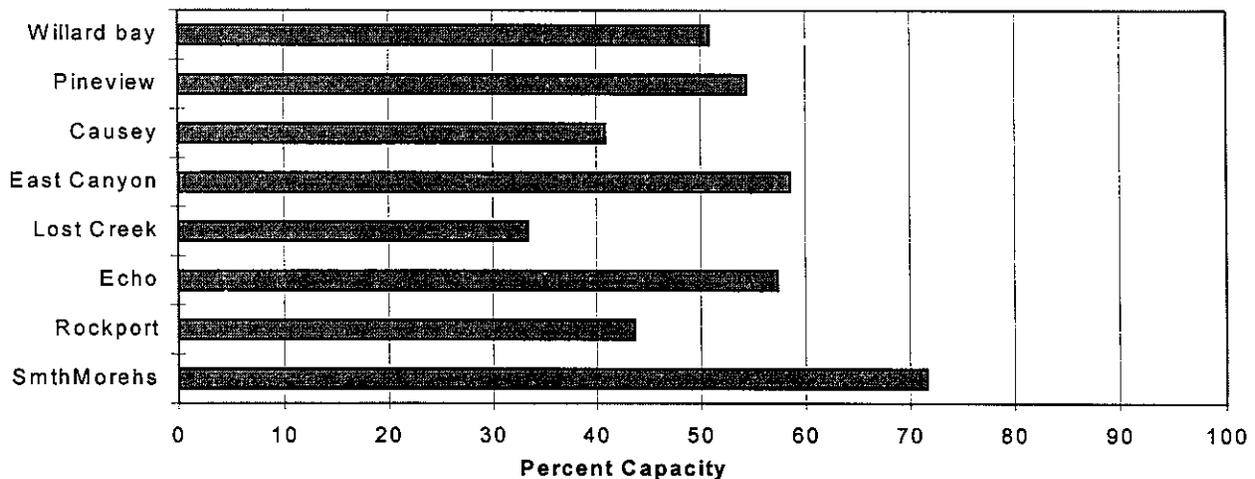
## Precipitation

4/1/02



## Reservoir Storage

4/1/02



WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - April 1, 2002

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)		
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
SMITH AND MOREHOUSE CK nr Oakley	APR-JUN	10.7	15.0	18.0	60	21	25	30		
WEBER R nr Oakley	APR-JUL	45	66	77	63	88	109	122		
ROCKPORT RESERVOIR inflow	APR-JUL	34	71	84	63	97	129	134		
CHALK CK at Coalville, Ut	APR-JUL	6.2	23	31	71	39	55	44		
WEBER R nr Coalville, Ut	APR-JUL	55	76	91	67	106	127	136		
ECHO RESERVOIR Inflow	APR-JUL	46	86	112	64	138	172	176		
LOST CK Res Inflow	APR-JUL	4.1	7.5	10.6	62	13.7	17.7	17.2		
E CANYON CK nr Morgan	APR-JUL	5.4	15.4	19.0	63	23	31	30		
WEBER R at Gateway	APR-JUL	76	192	220	63	248	350	347		
S FORK OGDEN R nr Huntsville	APR-JUL	17.0	32	37	59	42	56	63		
PINEVIEW RESERVOIR Inflow	APR-JUL	41	66	80	60	94	118	133		
WHEELER CK nr Huntsville	APR-JUL	1.87	2.78	3.40	55	4.02	4.93	6.20		

WEBER & OGDEN WATERSHEDS in Utah  
Reservoir Storage (1000 AF) - End of March

WEBER & OGDEN WATERSHEDS in Utah  
Watershed Snowpack Analysis - April 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	2.9	2.3	---	OGDEN RIVER	4	131	75
EAST CANYON	49.5	29.0	38.0	36.5	WEBER RIVER	9	132	86
ECHO	73.9	42.4	45.7	51.5	WEBER & OGDEN WATERSHEDS	13	132	82
LOST CREEK	22.5	7.5	10.8	14.1				
PINEVIEW	110.1	59.9	47.3	61.7				
ROCKPORT	60.9	26.6	25.1	35.1				
WILLARD BAY	215.0	109.2	152.0	160.9				

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

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

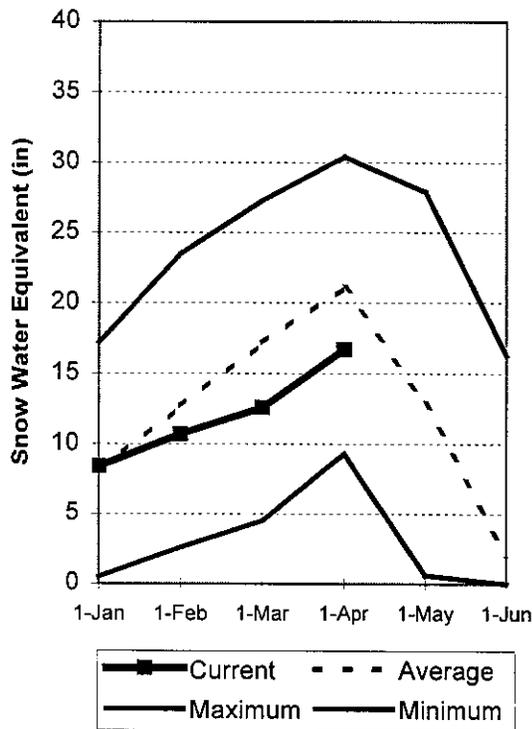
## Utah Lake, Jordan River & Tooele Valley Basins

### Apr 1, 2002

Snowpacks over these watersheds are at 79% of average, 140% of last year and up 5% relative to last month. Individual sites range from 55% to 118% of average. This is the fourth consecutive year of below normal snowpack on these watersheds. The hot, dry summer has severely depleted soil moisture levels and this will have a negative impact on spring runoff. Precipitation during March was near normal at 99%, bringing the seasonal accumulation (Oct-Mar) to 88% of average. Forecast streamflows are much below to below normal. Reservoir storage is at 78% of capacity. General water supply conditions are poor due to low snowpack and low soil moisture levels.

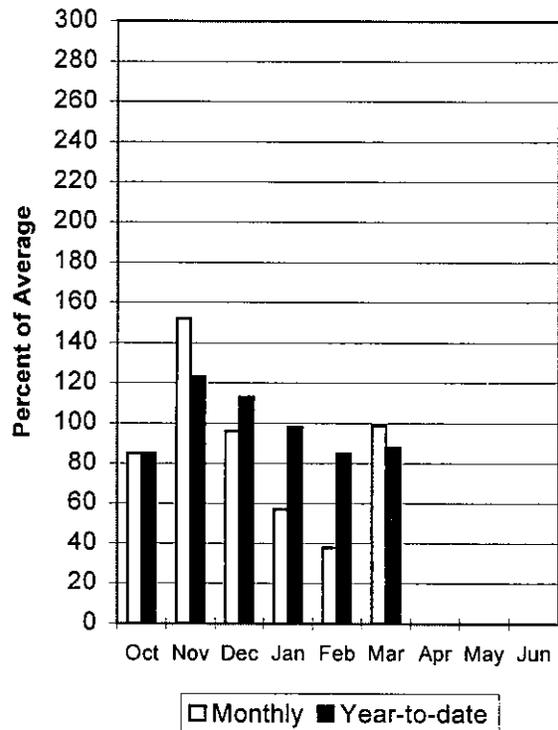
### Mountain Snowpack

4/1/02



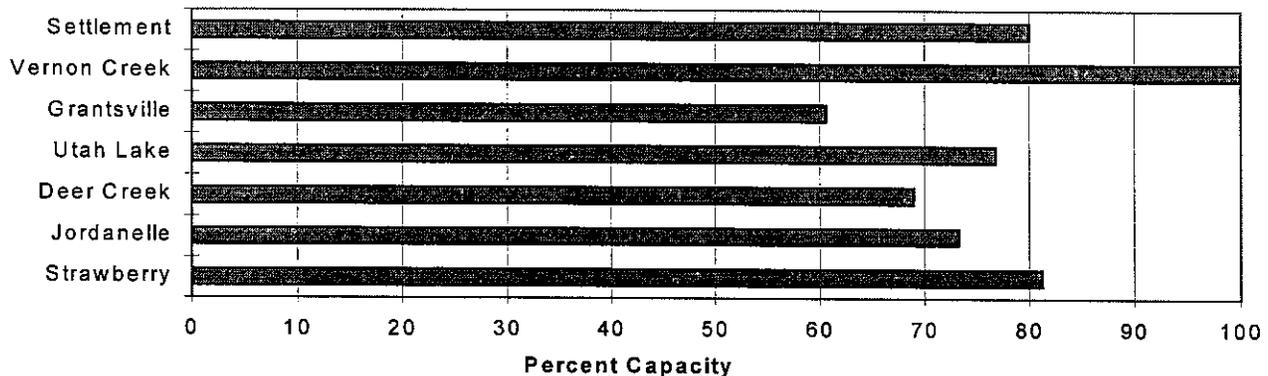
### Precipitation

4/1/02



### Reservoir Storage

4/1/02



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - April 1, 2002

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)		
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF) 10% (1000AF)	
SPANISH FORK nr Castilla	APR-JUL	6.2	26	46	60	66	86	77		
PROVO R nr Hailstone	APR-JUL	29	51	65	60	79	101	109		
PROVO R below Deer Creek Dam	APR-JUL	32	63	83	66	103	134	126		
AMERICAN FORK nr American Fk.	APR-JUL	10.2	14.2	17.0	53	19.8	24	32		
UTAH LAKE inflow	APR-JUL	33	117	170	52	223	306	325		
L COTTONWOOD CRK nr SLC	APR-JUL	30	33	36	90	39	42	40		
BIG COTTONWOOD CRK nr SLC	APR-JUL	26	31	34	90	37	42	38		
PARLEY'S CK nr SLC	APR-JUL	6.8	10.9	14.0	84	17.1	21	16.7		
MILL CK nr SLC	APR-JUL	3.92	5.43	6.50	93	7.57	9.10	7.00		
DELL FK nr SLC	APR-JUL	1.90	4.24	5.70	84	7.16	9.52	6.80		
EMIGRATION CK nr SLC	APR-JUL	1.26	2.90	4.10	91	5.30	7.02	4.50		
CITY CK nr SLC	APR-JUL	4.61	6.62	8.00	92	9.38	11.40	8.70		
VERNON CK nr Vernon (Acre Feet)	APR-JUL	333	454	560	42	691	941	1340		
SETTLEMENT CK nr Tooele (Acre Feet)	APR-JUL	326	573	840	37	1231	2161	2300		
S WILLOW CK nr Grantsville	APR-JUL	0.03	0.39	1.20	38	2.01	3.20	3.20		

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Reservoir Storage (1000 AF) - End of March

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Watershed Snowpack Analysis - April 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	103.2	136.1	113.0	PROVO RIVER & UTAH LAKE	7	137	65
GRANTSVILLE	3.3	2.0	2.2	2.7	PROVO RIVER	4	150	64
SETTLEMENT CREEK	1.0	0.8	0.8	0.7	JORDAN RIVER & GREAT SALT	6	153	97
STRAWBERRY-ENLARGED	1105.9	898.4	948.3	648.8	TOOELE VALLEY WATERSHEDS	3	106	69
UTAH LAKE	870.9	668.8	778.5	855.8	UTAH LAKE, JORDAN RIVER &	16	140	79
VERNON CREEK	0.6	0.6	0.6	---				

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

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

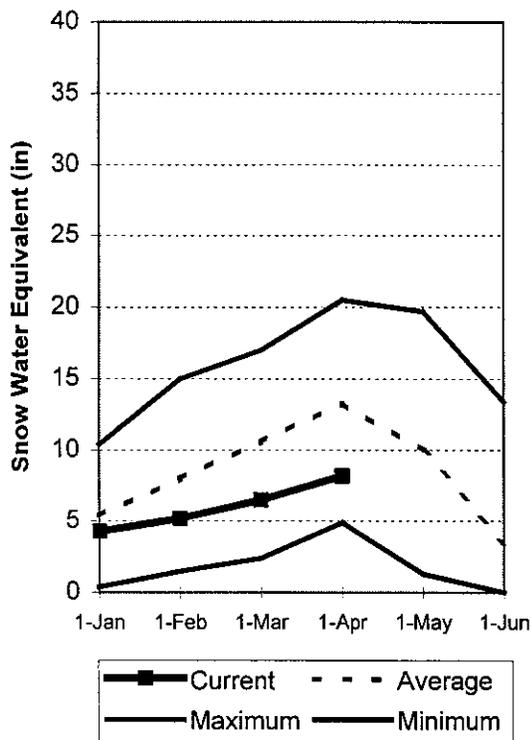
# Uintah Basin and Dagget SCD's

Apr 1, 2002

Snowpacks across the Uintah Basin and North Slope areas are much below average at 61%, which is 81% of last year's snowpack and up 2% relative to last month. The North Slope ranges from 62% to 70% and the Uintah Basin ranges from 33% to 76% of average. This is the fourth consecutive below normal snowpack in the Uintah Basin and the lowest snowpack since 1977. The past hot, dry summer has depleted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation during March was below normal at 75%, bringing the seasonal accumulation (Oct-Mar) to 69% of average. Reservoir storage is at 83% of capacity.

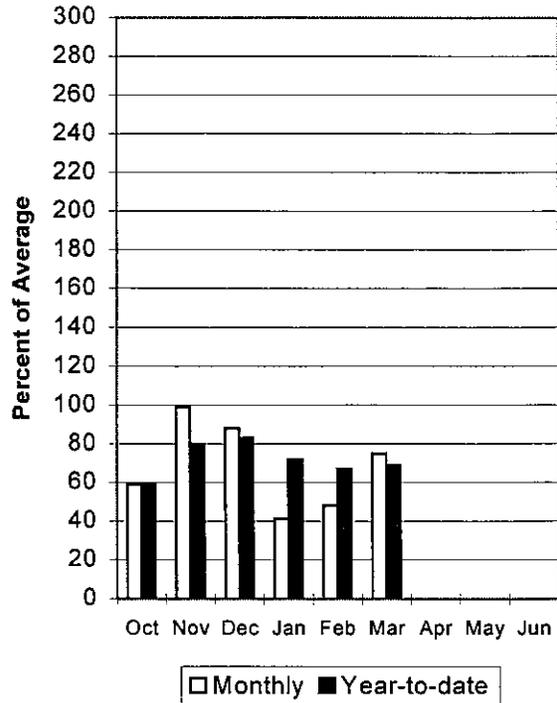
## Mountain Snowpack

4/1/02



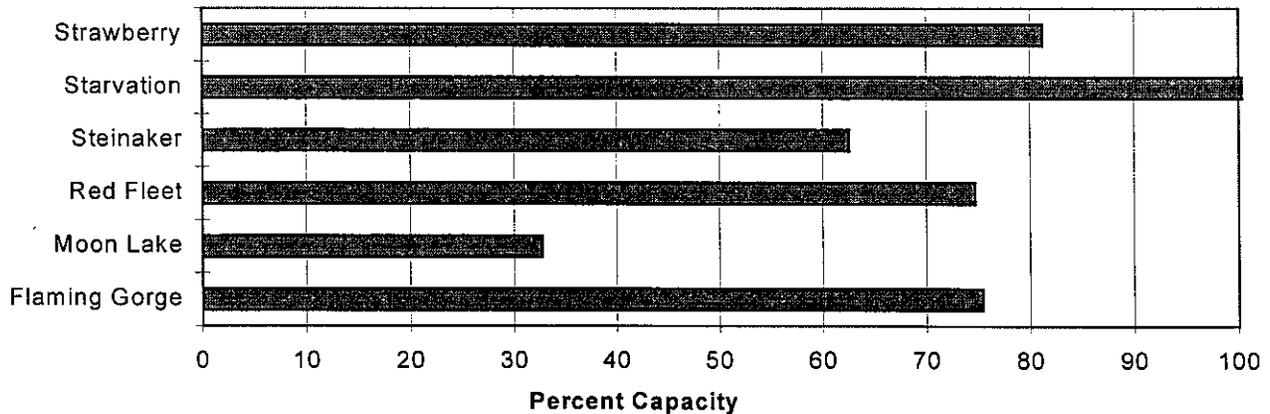
## Precipitation

4/1/02



## Reservoir Storage

4/1/02



UINTAH BASIN & DAGGET SCD'S  
Streamflow Forecasts - April 1, 2002

Forecast Point	Forecast Period	<<==== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	41	50	56	59	65	79	95
EF of Smiths Fork nr Robertson	APR-JUL	13.6	15.7	17.2	56	18.9	22	31
Flaming Gorge Reservoir Inflow	APR-JUL	419	598	720	61	842	1021	1190
BIG BRUSH CK abv Red Fleet Resv	APR-JUL	5.8	9.8	12.5	60	15.2	19.2	21
Ashley Creek nr Vernal	APR-JUL	12.4	22	29	56	36	46	52
WF DUCHESNE RIVER nr Hanna	APR-JUL	6.2	9.4	12.0	50	14.9	19.6	24
DUCHESNE R nr Tabiona	APR-JUL	38	51	60	57	69	82	105
UPPER STILLWATER RESV inflow	APR-JUL	29	37	42	51	51	63	82
ROCK CK nr Mountain Home	APR-JUL	31	42	50	56	58	69	89
DUCHESNE R abv Knight Diversion	APR-JUL	38	69	90	48	111	142	188
STRAWBERRY RES nr Soldier Springs	APR-JUL	12.6	19.5	25	42	31	42	59
CURRENT CREEK RESV Inflow	APR-JUL	2.9	6.4	8.8	35	11.2	14.7	25
STARVATION RESERVOIR inflow	APR-JUL	37	44	49	41	64	87	121
Yellowstone River nr Altonah	APR-JUL	23	30	35	57	43	55	62
DUCHESNE R at Myton	APR-JUL	58	77	90	35	131	191	260
Whiterocks River nr Whiterocks	APR-JUL	11.3	23	30	54	38	49	56
DUCHESNE R nr Randlett	APR-JUL	47	73	90	28	186	326	325

UINTAH BASIN & DAGGET SCD'S Reservoir Storage (1000 AF) - End of March					UINTAH BASIN & DAGGET SCD'S Watershed Snowpack Analysis - April 1, 2002			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
FLAMING GORGE	3749.0	2828.5	3025.0	2920.0	UPPER GREEN RIVER in UTAH	6	92	68
HOON LAKE	49.5	16.2	21.6	30.8	ASHLEY CREEK	2	84	60
RED FLEET	25.7	19.2	20.0	18.8	BLACK'S FORK RIVER	2	113	73
STEINAKER	33.4	20.9	25.5	24.2	SHEEP CREEK	1	70	70
STARVATION	165.3	166.7	162.3	138.6	DUCHESNE RIVER	11	76	59
STRAWBERRY-ENLARGED	1105.9	898.4	948.3	648.8	LAKE FORK-YELLOWSTONE CRE	4	63	58
					STRAWBERRY RIVER	4	105	55
					UINTAH-WHITEROCKS RIVERS	2	72	70
					UINTAH BASIN & DAGGET SCD	17	81	61

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

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

# Carbon, Emery, Wayne, Grand and San Juan Co.

Apr 1, 2002

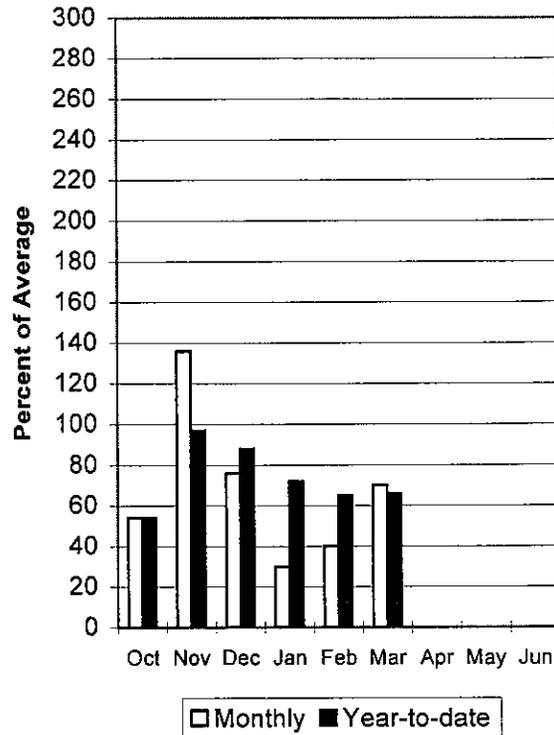
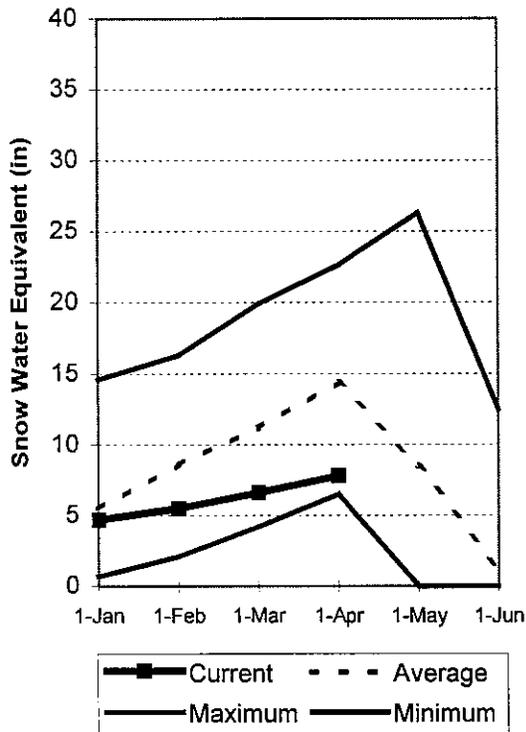
Snowpacks in this region are much below normal at 54% of average, about 68% of last year and down 1% relative to last month. Individual sites range from 19% to 82% of average. This is the fourth consecutive below normal snowpack for this region and there have been only 2 years with lower April 1 snowpacks, 1999 and 1977. In the northern areas, soil moisture levels have been depleted which will negatively impact snowmelt runoff. Precipitation during March was below average at 70%, bringing the seasonal accumulation (Oct-Mar) to 66% of normal. Reservoir storage is at 54% of capacity. General runoff conditions and forecasts are much below normal due to low snowpack and low soil moisture.

## Precipitation

4/1/02

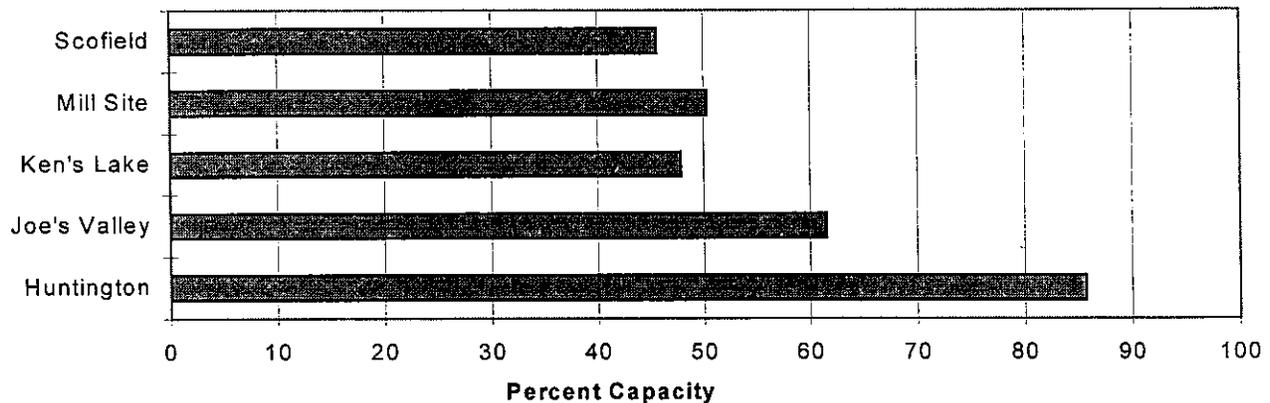
### Mountain Snowpack

4/1/02



### Reservoir Storage

4/1/02



CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - April 1, 2002

Forecast Point	Forecast Period	Future Conditions				Wetter		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	Chance Of Exceeding * (% AVG.)	30% (1000AF)	10% (1000AF)	
Gooseberry Creek nr Scofield	APR-JUL	3.1	4.8	5.9	50	7.0	8.7	11.9
Scofield Reservoir inflow	APR-JUL	13.2	17.9	21	46	24	29	46
White River blw Tabbyune Creek	APR-JUL	3.3	5.3	7.0	40	8.9	12.1	17.4
Green River at Green River, UT	APR-JUL	515	1131	1550	49	1969	2585	3170
Electric Lake inflow	APR-JUL	4.5	5.9	7.0	45	8.3	10.3	15.7
HUNTINGTON CK nr Huntington	APR-JUL	15.3	21	24	48	28	33	50
JOE'S VALLEY RESV Inflow	APR-JUL	10.7	21	28	48	35	45	58
Ferron Creek nr Ferron	APR-JUL	14.7	18.3	21	54	24	28	39
Colorado River nr Cisco	APR-JUL	562	1329	1850	42	2371	3138	4400
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	0.99	1.59	2.00	40	3.02	4.53	5.00
Seven Mile Creek nr Fish Lake	APR-JUL	1.88	2.50	4.00	57	5.50	7.72	7.00
Muddy Creek nr Emery	APR-JUL	4.5	8.4	11.0	55	13.6	17.5	19.9
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.02	0.15	0.31	24	0.52	0.93	1.31
Recapture Ck bl Johnson Ck nr Blandi	MAR-JUL	0.56	1.06	1.40	23	2.88	5.07	6.10
San Juan River nr Bluff	APR-JUL	159	231	280	23	428	647	1230

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of March

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - April 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	3.6	4.2	3.9	PRICE RIVER	3	99	62
JOE'S VALLEY	61.6	37.9	43.4	41.4	SAN RAFAEL RIVER	3	98	67
KEN'S LAKE	2.3	1.1	0.7	---	MUDDY CREEK	1	97	57
MILL SITE	16.7	8.4	11.1	---	FREMONT RIVER	3	33	43
SCOFIELD	65.8	30.0	33.2	34.7	LASAL MOUNTAINS	1	52	35
					BLUE MOUNTAINS	1	26	23
					WILLOW CREEK	1	37	34
					CARBON, EMERY, WAYNE, GRA	13	68	54

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

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

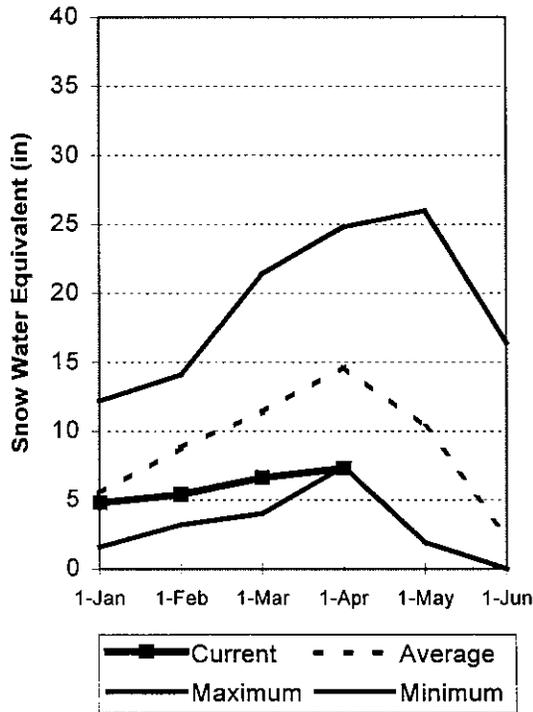
# Sevier and Beaver River Basins

Apr 1, 2002

Snowpacks on the Sevier River Basin are much below normal at 49% of average, about 60% of last year and down 5% relative to last month. The Upper Sevier is much lower at 35% of average. Individual sites range from 0% to 82% of average. This is a new record low snowpack for the Sevier River Basin and the fourth consecutive below normal snowpack year. The hot, dry summer has depleted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation during March was much below average at 61% of normal, bringing the seasonal accumulation (Oct-Mar) to 63% of average. Reservoir storage is at 61% of capacity. Water supply conditions and streamflow forecasts are much below normal.

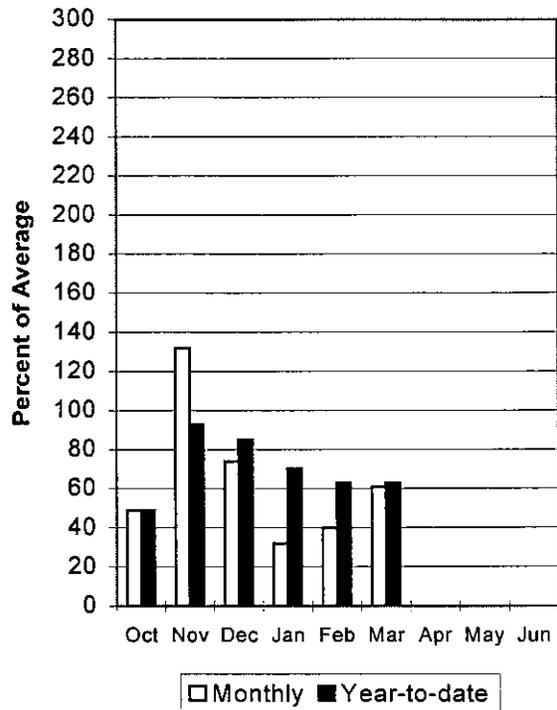
## Mountain Snowpack

4/1/02



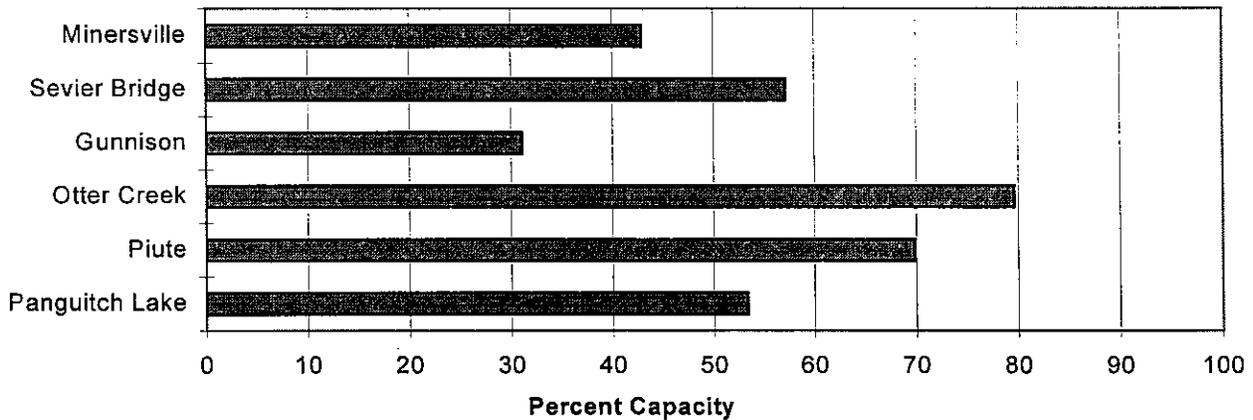
## Precipitation

4/1/02



## Reservoir Storage

4/1/02



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - April 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====>>		====>> Wetter <<<<				
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
SEVIER R at Hatch	APR-JUL	3.8	15.6	22	40	28	40	55
SEVIER R nr Kingston	APR-JUL	5.3	27	33	37	39	61	89
E F SEVIER R nr Kingston	APR-JUL	2.3	4.2	12.0	32	19.8	32	38
SEVIER R blw Piute Dam	APR-JUL	6.0	29	50	40	71	103	126
CLEAR CK nr Sevier	APR-JUL	1.1	7.6	11.0	50	14.4	21	22
SALINA CK at Salina	APR-JUL	Much Below Average						19.7
SEVIER R nr Gunnison	APR-JUL	42	46	120	43	194	350	280
CHICKEN CK nr Levan	APR-JUL	0.67	0.85	1.00	21	1.18	1.50	4.80
OAK CK nr Oak City (Acre Feet)	APR-JUL	342	434	510	28	600	761	1810
BEAVER R nr Beaver	APR-JUL	6.9	8.1	9.0	35	10.0	11.8	26
MINERSVILLE RESERVOIR Inflow	APR-JUL	4.1	4.6	5.0	30	5.4	6.1	16.7

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of March					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - April 1, 2002			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	6.3	13.3	16.3	UPPER SEVIER RIVER (south	8	34	35
MINERSVILLE (RkyFd)	23.3	10.0	11.2	17.9	EAST FORK SEVIER RIVER	3	28	35
OTTER CREEK	52.5	41.8	37.7	43.5	SOUTH FORK SEVIER RIVER	5	40	35
PIUTE	71.8	50.1	68.2	58.5	LOWER SEVIER RIVER (inclu	6	106	65
SEVIER BRIDGE	236.0	134.9	175.7	189.7	BEAVER RIVER	2	58	46
PANGUITCH LAKE	22.3	11.9	14.5	---	SEVIER & BEAVER RIVER BAS	16	60	49

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

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

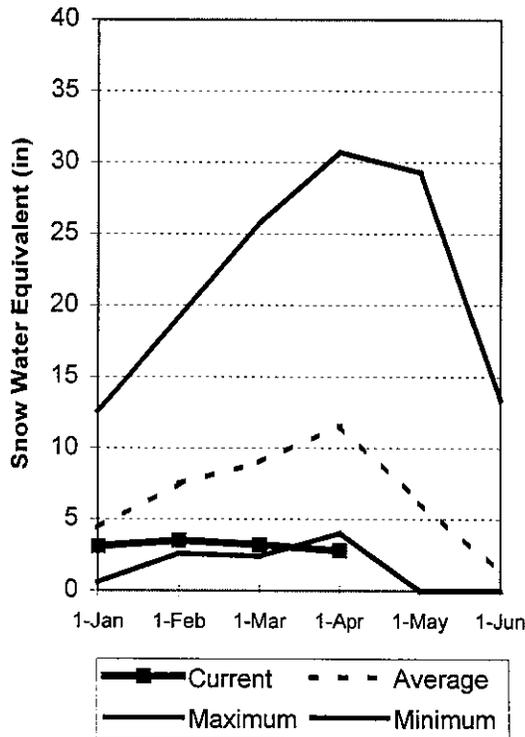
# E. Garfield, Kane, Washington, & Iron co.

Apr 1, 2002

Snowpacks in this region are much below normal at 24% of average, about 26% of last year, down 7% relative to last month and rank as the lowest in the state. Individual sites range from 0% to 52% of average. This is a new record low snowpack for the region and the fourth consecutive below normal snowpack year. The hot, dry summer has depleted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation was much below normal during March at 31% of average, bringing the seasonal accumulation (Oct-Mar) to 38% of normal. Reservoir storage is at 73% of capacity. General water supply conditions and streamflow forecasts are much below normal.

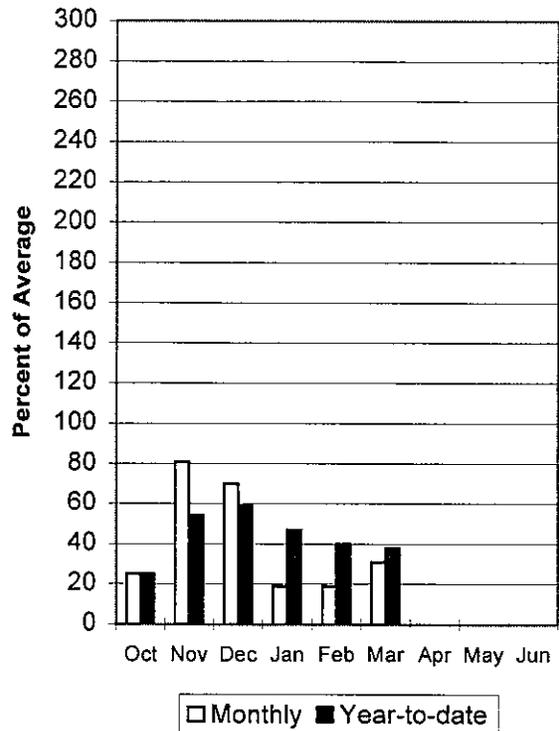
## Mountain Snowpack

4/1/02



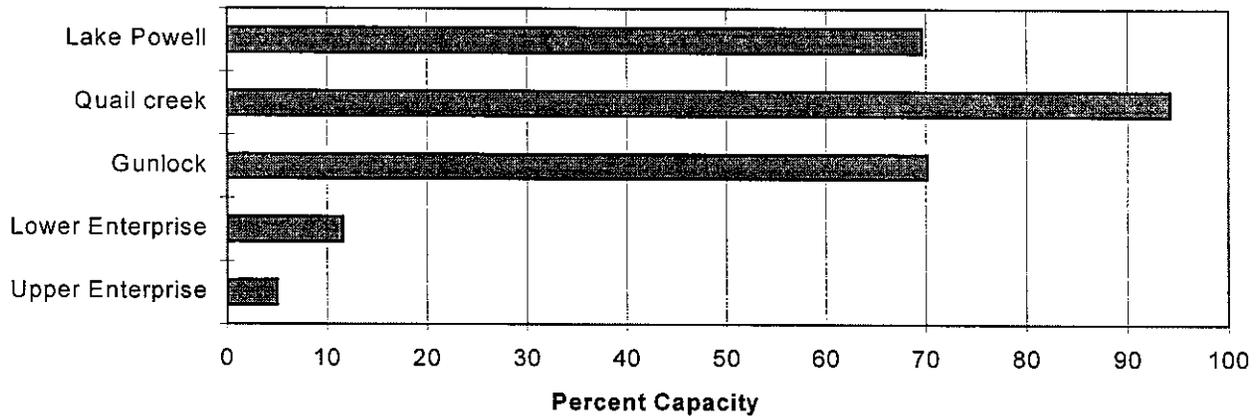
## Precipitation

4/1/02



## Reservoir Storage

4/1/02



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - April 1, 2002

Forecast Point	Forecast Period	<<==== Drier ===== Future Conditions ===== Wetter =====>>		Chance Of Exceeding *				30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Lake Powell inflow	APR-JUL	487	1983	3000	38	4017	5513	7930
Virgin River nr Virgin	APR-JUL	3.1	7.0	10.4	16	14.5	22	64
Virgin River nr Hurricane	APR-JUL	5.4	6.7	7.6	11	14.5	25	69
Santa Clara River nr Pine Valley	APR-JUL	0.03	0.24	0.51	9	0.87	1.58	5.50
Coal Creek nr Cedar City	APR-JUL	1.7	3.2	4.6	24	6.2	9.0	19.4

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of March

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - April 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	7.3	10.0	---	VIRGIN RIVER	5	32	24
LAKE POWELL	24322.0	16927.0	18865.0	---	PAROWAN	2	41	38
QUAIL CREEK	40.0	37.7	38.3	31.0	ENTERPRISE TO NEW HARMONY	2	0	0
UPPER ENTERPRISE	10.0	0.5	3.1	---	COAL CREEK	2	32	24
LOWER ENTERPRISE	2.6	0.3	0.8	---	ESCALANTE RIVER	2	22	32
					E. GARFIELD, KANE, WASHIN	9	26	24

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

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

<b>UTAH SURFACE</b>	<b>WATER</b>	<b>SUPPLY</b>	<b>INDEX</b>
<b>Snow Surveys</b>	<b>NRCS</b>	<b>USDA</b>	
<b>Basin or Region</b>	<b>SWSI/%</b>	<b>Percentile</b>	<b>Years with Similar SWSI</b>
<b>Bear River</b>	<b>-3.2</b>	<b>12%</b>	<b>91,95,94,90</b>
<b>Ogden River</b>	<b>-2.4</b>	<b>21%</b>	<b>01,81,90,2000</b>
<b>Weber River</b>	<b>-3.2</b>	<b>11%</b>	<b>92,88,90,2001</b>
<b>Tooele Valley</b>	<b>NA</b>		
<b>Provo</b>	<b>-2.3</b>	<b>22%</b>	<b>59,57,77,65</b>
<b>North Slope</b>	<b>NA</b>		
<b>West Uintah Basin</b>	<b>0.8</b>	<b>60%</b>	<b>95,87,96,86</b>
<b>East Uintah Basin</b>	<b>-3.1</b>	<b>13%</b>	<b>89,96,94,92</b>
<b>Price River</b>	<b>-2.3</b>	<b>22%</b>	<b>64,59,89,98</b>
<b>San Rafael</b>	<b>-2.6</b>	<b>19%</b>	<b>89,92,81,01</b>
<b>Moab</b>	<b>-3.8</b>	<b>4%</b>	<b>90,89,99,81</b>
<b>Upper Sevier River</b>	<b>-2.4</b>	<b>21%</b>	<b>90,91,92,65</b>
<b>Lower Sevier River</b>	<b>-1.9</b>	<b>27%</b>	<b>62,65,72,78</b>
<b>Beaver River</b>	<b>-3.6</b>	<b>7%</b>	<b>77,61,63,90</b>
<b>Virgin River</b>	<b>-2.9</b>	<b>16%</b>	<b>90,89,91,96</b>
<b>Snow Surveys</b>			<b>SWSI Scale: -4 to 4</b>
<b>245 N Jimmy Doolittle Rd</b>			<b>Percentile: 0 - 100%</b>
<b>Salt Lake City, UT</b>			
<b>(801) 524-5213</b>			

## SNOW COURSE DATA

APRIL 2002

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	4/01	0	0.0	9.0	7.1
ALTA CENTRAL	8800	4/03	88	37.8	23.4	37.3
BEAVER DAMS SNOTEL	8000	4/01	-	6.0	3.0	10.5
BEAVER DIVIDE SNOTEL	8280	4/01	27	7.9	3.9	10.6
BEN LOMOND PK SNOTEL	8000	4/01	68	32.8	24.8	41.5
BEN LOMOND TR SNOTEL	6000	4/01	48	18.2	12.4	19.5
BEVAN'S CABIN	6450	3/30	28	8.4	9.8	11.6
BIG FLAT SNOTEL	10290	4/01	39	7.5	14.4	19.0
BIRCH CROSSING	8100	3/26	6	1.7	6.1	5.4
BLACK FLAT-U.M. CK S	9400	4/01	18	6.7	8.1	10.3
BLACK'S FORK GS-EF	9340	3/28	25	7.3	7.9	9.7
BLACK'S FORK JUNCTN	8930	3/28	28	7.0	4.8	9.3
BOX CREEK SNOTEL	9800	4/01	31	9.3	11.9	13.7
BRIAN HEAD	10000	3/29	28	8.7	19.9	21.1
BRIGHTON SNOTEL	8750	4/01	55	19.3	13.6	25.4
BRIGHTON CABIN	8700	4/02	68	27.2	18.7	27.8
BROWN DUCK SNOTEL	10600	4/01	-	9.9	18.0	18.2
BRYCE CANYON	8000	4/01	0	0.0	5.2	3.8
BUCK FLAT SNOTEL	9800	4/01	-	13.3	13.1	18.7
BUCK PASTURE	9700	3/28	48	12.8	11.1	16.9
BUCKBOARD FLAT	9000	3/25	25	6.4	9.4	12.4
BUG LAKE SNOTEL	7950	4/01	50	18.0	12.2	21.2
BURT'S-MILLER RANCH	7900	3/28	17	5.5	0.2	4.9
CAMP JACKSON SNOTEL	8600	4/01	12	3.1	11.8	13.6
CASTLE VALLEY SNOTEL	9580	4/01	-	5.8	14.8	14.6
CHALK CK #1 SNOTEL	9100	4/01	62	20.9	16.4	24.9
CHALK CK #2 SNOTEL	8200	4/01	54	16.3	11.8	16.2
CHALK CREEK #3	7500	3/28	23	7.3	2.9	6.9
CHEPETA SNOTEL	10300	4/01	-	10.8	12.9	14.2
CITY CREEK	7500	3/27	79	29.4	20.4	26.9
CLAYTON SPRINGS SNTL	10000	4/01	14	3.8	15.4	-
CLEAR CK RIDG #1 SNT	9200	4/01	-	14.6	12.7	19.7
CLEAR CK RIDG #2 SNT	8000	4/01	-	8.9	9.5	14.7
CORRAL	8200	3/28	16	3.7	9.2	9.0
CURRENT CREEK SNOTEL	8000	4/01	-	3.4	4.1	10.2
DANIELS-STRAWBERRY S	8000	4/01	32	10.4	6.4	16.7
DILL'S CAMP SNOTEL	9200	4/01	-	8.5	8.8	14.9
DONKEY RESERVOIR SNO	9800	4/01	-	4.5	14.3	8.7
DRY BREAD POND SNTL	8350	4/01	42	11.7	10.6	22.6
DRY FORK SNOTEL	7160	4/01	-	14.1	10.1	18.2
EAST WILLOW CREEK SN	8250	4/01	-	2.8	7.5	8.3
FARMINGTON CN SNOTEL	8000	4/01	85	34.0	27.5	34.3
FARMINGTON CANYON L.	6950	3/27	69	24.2	21.9	25.6
FARNSWORTH LK SNOTEL	9600	4/01	48	12.9	16.1	19.6
FISH LAKE	8700	3/29	19	5.1	7.3	8.8
FIVE POINTS LAKE SNO	10920	4/01	42	9.9	16.1	17.7
FRANCES FLATS	6700	3/27	56	22.2	11.4	17.4
G.B.R.C. HEADQUARTER	8700	3/29	38	11.8	12.2	16.6
G.B.R.C. MEADOWS	10000	3/29	54	16.9	17.3	24.0
GARDEN CITY SUMMIT	7600	3/27	43	12.7	9.4	16.2
GEORGE CREEK	8840	3/30	55	20.2	18.0	22.3
GOOSEBERRY R.S.	8400	3/29	29	8.0	9.3	12.0
GOOSEBERRY R.S. SNTL	7900	4/01	-	4.0	5.0	8.7
HARDSCRABBLE SNOTEL	7250	4/01	-	17.3	10.8	20.2
HARRIS FLAT SNOTEL	7700	4/01	-	0.0	5.3	6.7
HAYDEN FORK SNOTEL	9100	4/01	36	12.9	9.3	16.6
HENRY'S FORK	10000	3/28	37	9.5	8.9	14.0
HEWINTA SNOTEL	9500	4/01	33	9.1	6.8	12.1
HICKERSON PARK SNTL	9100	4/01	19	5.4	7.7	7.7
HIDDEN SPRINGS	5500	3/27	19	6.5	0.0	2.4
HOBBLE CREEK SUMMIT	7420	3/28	35	10.3	5.9	13.9
HOLE-IN-ROCK SNOTEL	9150	4/01	19	5.0	6.3	7.2
HORSE RIDGE SNOTEL	8260	4/01	-	18.3	12.5	23.9
HUNTINGTON-HORSESHOE	9800	3/28	53	18.1	13.0	24.0
INDIAN CANYON SNOTEL	9100	4/01	-	4.8	11.0	11.9
JOHNSON VALLEY	8850	3/29	15	4.0	4.6	7.1
JONES CORRAL G.S.	9720	3/29	26	6.1	14.5	12.5
KILFOIL CREEK	7300	3/27	47	14.3	10.3	14.4
KILLYON CANYON	6300	3/26	29	10.6	0.1	5.6

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KIMBERLY MINE SNOTEL	9300	4/01	-	8.3	15.5	16.7
KING'S CABIN SNOTEL	8730	4/01	21	6.7	7.8	11.3
KLONDIKE NARROWS	7400	3/27	42	14.4	9.1	19.2
KOLOB SNOTEL	9250	4/01	30	8.5	20.5	23.9
LAKEFORK #1 SNOTEL	10100	4/01	28	7.6	12.3	12.7
LAKEFORK BASIN SNTL	10900	4/01	52	12.6	16.6	20.7
LAKEFORK MOUNTAIN #3	8400	3/28	14	3.4	5.2	6.0
LAMBS CANYON	7400	3/28	47	16.3	8.9	16.1
LASAL MOUNTAIN LOWER	8800	3/28	19	5.9	9.0	9.8
LASAL MOUNTAIN SNTL	9850	4/01	14	4.7	9.1	13.5
LILY LAKE SNOTEL	9050	4/01	38	9.6	9.2	13.5
LITTLE BEAR LOWER	6000	3/27	30	9.7	5.8	9.5
LITTLE BEAR SNOTEL	6550	4/01	-	8.0	2.6	12.3
LITTLE GRASSY SNOTEL	6100	4/01	-	0.0	.0	.7
LONG FLAT SNOTEL	8000	4/01	-	0.0	5.2	7.5
LONG VALLEY JCT. SNT	7500	4/01	-	0.0	.0	3.2
LOOKOUT PEAK SNOTEL	8200	4/01	-	24.1	20.3	24.3
LOST CREEK RESERVOIR	6130	3/27	16	4.1	0.0	2.0
LOUIS MEADOW SNOTEL	6700	4/01	44	18.4	10.8	-
MAMMOTH-COTTONWD SNT	8800	4/01	35	12.2	12.1	21.0
MERCHANT VALLEY SNTL	8750	4/01	-	7.3	11.0	13.4
MIDDLE CANYON	7000	3/30	34	11.0	9.2	14.0
MIDWAY VALLEY SNOTEL	9800	4/01	34	9.4	22.5	25.3
MILL CREEK	6950	3/28	63	22.8	14.0	20.6
MILL-D NORTH SNOTEL	8960	4/01	-	26.7	16.7	25.5
MILL-D SOUTH FORK	7400	4/02	50	20.1	9.8	19.1
MINING FORK SNOTEL	8000	4/01	42	16.4	14.1	21.0
MONTE CRISTO SNOTEL	8960	4/01	65	23.0	17.6	30.1
MOSBY MTN. SNOTEL	9500	4/01	-	7.7	12.9	12.1
MT. BALDY R.S.	9500	3/29	59	18.7	17.3	24.1
MUD CREEK #2	8600	3/28	34	7.6	9.8	13.5
OAK CREEK	7760	3/29	36	9.9	7.5	12.0
PANGUITCH LAKE R.S.	8200	3/29	0	.0	4.5	4.0
PARLEY'S CANYON SUM.	7500	3/28	58	19.3	12.5	18.9
PARLEY'S CANYON SNTL	7500	4/01	-	15.3	8.4	17.1
PARRISH CREEK SNOTEL	7740	4/01	71	26.6	19.8	-
PAYSON R.S. SNOTEL	8050	4/01	35	12.2	6.8	20.6
PICKLE KEG SNOTEL	9600	4/01	-	14.4	12.5	17.9
PINE CREEK SNOTEL	8800	4/01	-	16.8	13.7	24.8
RED PINE RIDGE SNTL	9200	4/01	-	11.6	8.8	17.3
REDDEN MINE LOWER	8500	3/28	49	15.6	10.2	17.8
REES'S FLAT	7300	3/29	34	9.9	6.4	12.6
ROCK CREEK SNOTEL	7900	4/01	-	4.7	5.2	8.1
ROCKY BN-SETTLEMT SN	8900	4/01	52	18.1	18.6	26.5
SEELEY CREEK SNOTEL	10000	4/01	32	9.7	13.3	15.3
SILVER LAKE (BRIGHT.)	8730	4/02	64	24.3	20.1	26.3
SMITH MOREHOUSE SNTL	7600	4/01	41	13.4	7.6	14.0
SNOWBIRD SNOTEL	9700	4/01	-	42.3	24.5	35.8
SPIRIT LAKE	10300	3/28	35	8.7	14.6	13.8
SQUAW SPRINGS	9300	3/29	16	4.9	7.8	7.1
STEEL CREEK PARK SNO	10100	4/01	44	11.4	11.4	15.9
STILLWATER CAMP	8550	3/28	34	9.0	6.0	10.5
STRAWBERRY DIVIDE SN	8400	4/01	-	12.9	8.5	18.7
SUSC RANCH	8200	3/26	2	0.8	5.3	7.0
TALL POLES	8800	3/26	26	7.2	14.4	14.7
TEMPLE FORK SNOTEL	7410	4/01	41	13.3	-	-
THAYNES CANYON SNTL	9200	4/01	58	19.7	21.1	24.9
THISTLE FLAT	8500	3/29	44	13.7	11.5	16.9
TIMBERLINE	9100	3/28	25	6.3	12.0	14.7
TIMPANOGOS DIVIDE SN	8140	4/01	42	13.9	8.2	24.0
TONY GROVE LK SNOTEL	8400	4/01	67	29.3	22.2	37.7
TONY GROVE R.S.	6250	3/27	29	9.5	5.1	11.1
TRIAL LAKE	9960	3/28	59	18.8	15.5	24.2
TRIAL LAKE SNOTEL	9960	4/01	48	17.0	14.3	25.3
TROUT CREEK SNOTEL	9400	4/01	-	6.9	8.4	11.2
UPPER JOES VALLEY	8900	3/28	23	5.2	6.5	9.9
VERNON CREEK SNOTEL	7500	4/01	22	6.4	5.9	11.7
VIPONT	7670	3/30	46	17.6	7.3	15.4
WEBSTER FLAT SNOTEL	9200	4/01	-	0.4	8.5	15.9
WHITE RIVER #1 SNTL	8550	4/01	-	6.7	9.1	13.5
WHITE RIVER #3	7400	3/28	18	5.0	0.0	6.1
WIDTSOE #3 SNOTEL	9500	4/01	-	2.4	19.0	12.8
WRIGLEY CREEK	9000	3/29	23	5.8	10.4	11.3
YANKEE RESERVOIR	8700	3/29	15	4.0	10.8	10.0



*Issued by*

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YOU MAY OBTAIN THIS PRODUCT AS WELL AS CURRENT SNOW, PRECIPITATION, TEMPERATURE AND SOIL MOISTURE, RESERVOIR, SURFACE WATER SUPPLY INDEX, AND OTHER DATA BY VISITING OUR WEB SITE @:

<http://www.ut.nrcs.usda.gov/snow/>

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**Utah Water Supply  
Outlook Report**  
Natural Resources Conservation Service  
Salt Lake City, UT





# Utah Water Supply Outlook Report

May 1, 2002



Panguitch Lake Snow Course

Photo by Randy Julander, Snow survey, NRCS, USDA



# Water Supply 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 snowcourses 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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# STATE OF UTAH GENERAL OUTLOOK

May 1, 2002

## SUMMARY

The first half of April was extremely dry but the second half brought some storms to much of northern Utah. Southern Utah, again, failed to accumulate significant precipitation. Snowmelt across the state proceeded at a phenomenal rate, ranging from 150% on the Sevier to 208% of average in the Uintah Basin. While the Sevier set a new record low May 1 snowpack level, southern Utah melted out to zero, as it did in 1977. Most areas in the north lost between 33% and 60% of their existing snowpacks during April. Losing that much snow (33%-100%) in a short time frame will generally put a lot of water into the stream system. Current streamflows for sites with little or no diversion or storage impacts are as follows: Virgin: 8-11%, Sevier: 19%, SE Utah: 33%, Price: 19 - 131%, Duchesne: 21-54%, Weber: 73%, and the Bear: 12-42% of average. April streamflow is typically the beginning of snowmelt and as such, is not a huge streamflow month. This year, in southern Utah, it will conclude the snowmelt season with paltry flows. There could easily be new minimum record streamflows in southern Utah this year. In northern Utah, snowmelt will continue through May, but given current response from the rivers, there will be an extremely poor conversion of snowpack to streamflow. This is an extremely early, short duration and low volume meltout and runoff season. Abnormally low soil moisture levels, especially in northern Utah, remain a big concern and may significantly impact snowmelt runoff this spring. Mountain precipitation in April for Utah was below average at 70%. This brings the seasonal total (Oct-Apr) to 75% of normal statewide. Precipitation was higher in the north, 80 to 90% and much lower in the south, 50 to 60% of average. Reservoir storage is low at 66% of capacity, up only 3% from last month. This is far less than last year, which was 77% of capacity. This is about 408 thousand-acre feet less water currently in storage than last year, an amount roughly equivalent to all the reservoirs on the Weber River.

## SNOWPACK

April first snowpacks as measured by the NRCS SNOTEL system, are the highest, but still much below normal on the Bear (54%), Weber (61%) and Provo (54%) Watersheds. The Uintah Basin is much below normal, near 27% of average. Southern Utah ranges from 0% to near 14% of average. Current snowpacks across southern Utah and the Sevier River Basin are the lowest of the past 42 years of record or are zero. For the Uintahs is the lowest since 1992. Current melt rates, 150 to 200% of average, indicate that the remaining snowpack in northern Utah will be gone before June. These poor conditions virtually insure that this will be yet another poor water supply year.

## PRECIPITATION

Mountain precipitation during April was below to near normal (80%-90%) in the north and extremely dry (50%-60%) in southern Utah. This brings the seasonal accumulation (Oct-Apr) to 75% of average statewide.

## RESERVOIRS

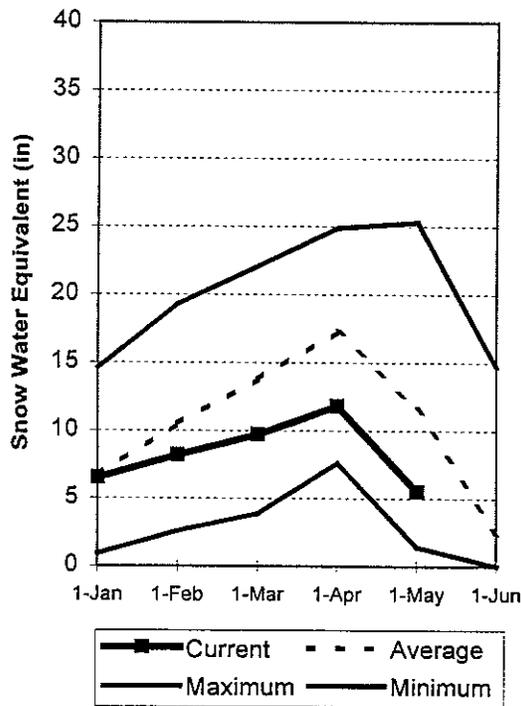
Storage in 41 of Utah's key irrigation reservoirs is at 66% of capacity. Most reservoir operators are utilizing a conservative strategy, storing as much water as possible. Reservoirs on the Sevier, Virgin and SE Utah began drawing down reservoir storage in April instead of storing water. Storage on many other reservoirs did not change from last month indicating that water is being used as fast as it is coming in. Some reservoirs, such as Scofield, Woodruff Narrows, Piute, Otter Creek, Gunnison, Sevier Bridge and others, have little chance of filling this year. Given current streamflow forecasts, some reservoirs will store little or no water this year.

## STREAMFLOW

Snowmelt streamflows are expected to be much below to below average across the entire state of Utah this year. Low snowpacks tend to melt earlier and produce proportionately less runoff. Streams may peak early, have significantly less volume and have short recessions back to base flow. Overall water supply conditions are much below normal.

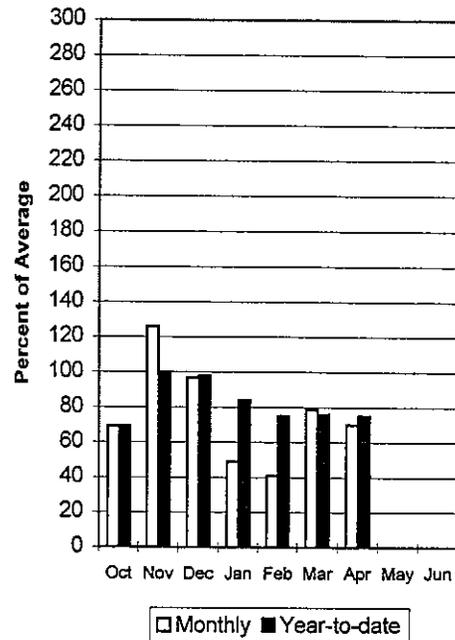
### Mountain Snowpack

5/1/02



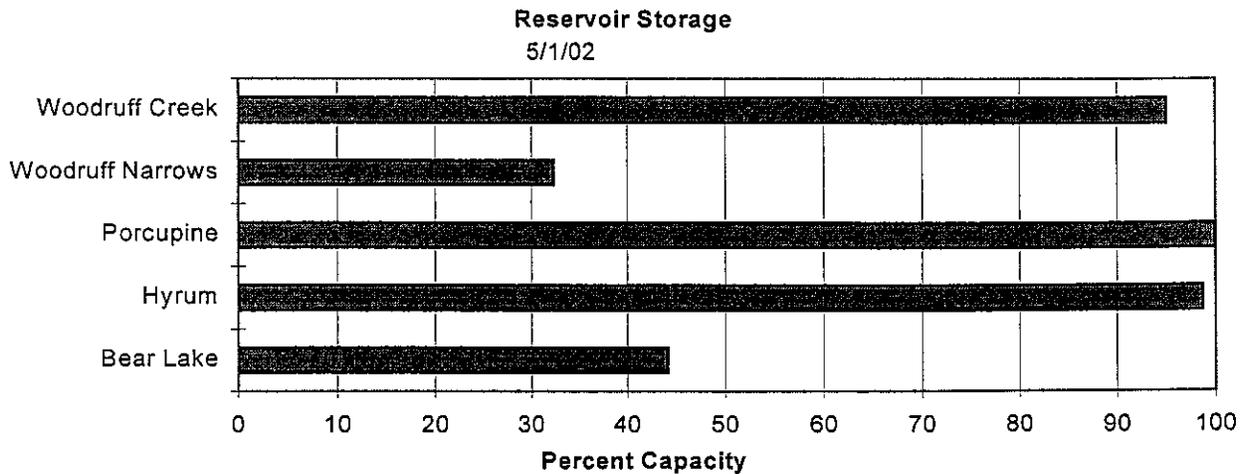
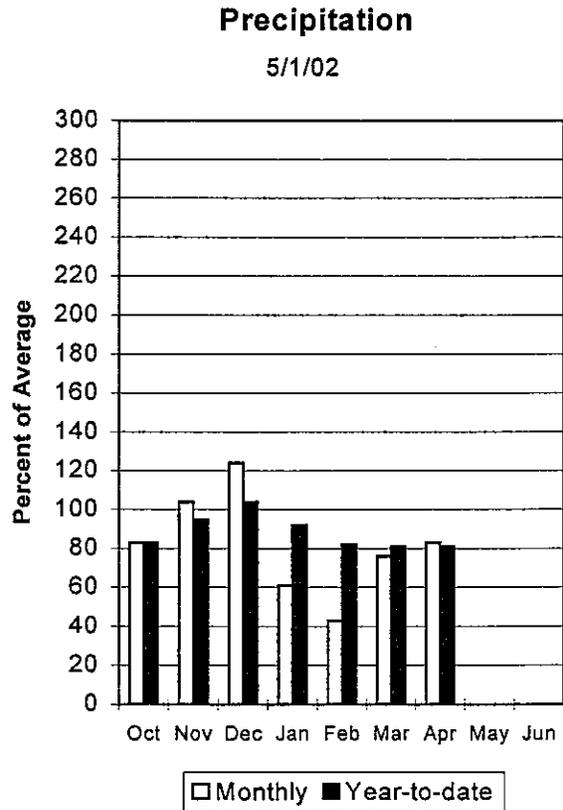
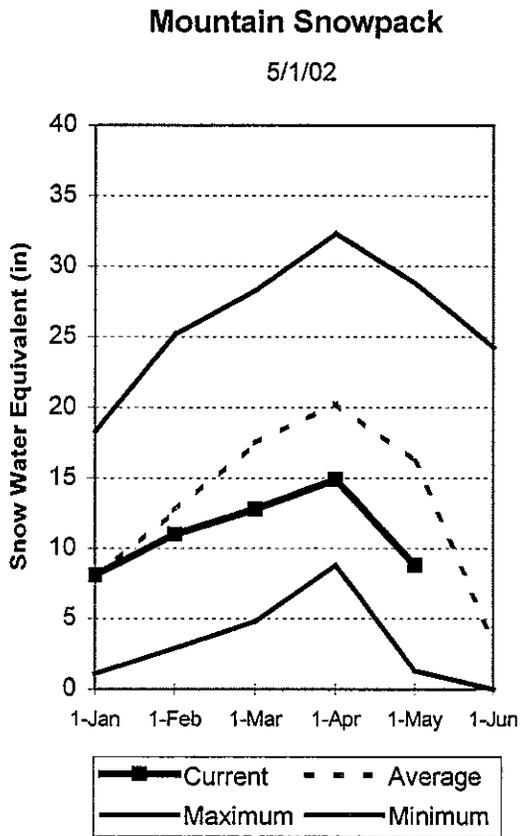
### Precipitation

5/1/02



## Bear River Basin May 1, 2002

Snowpacks on the Bear River Basin are much below average at 54% of normal, about 138% of last year and down 20% relative to last month. Specific sites range from 0% to 79% of normal. This is the fifth consecutive below normal snowpack for this watershed. The past long, hot, dry summer has had a major impact on soil moisture, which will negatively impact this year's runoff. April precipitation was below average at 83%, which brings the seasonal accumulation (Oct-Apr) to 81% of average. Forecast streamflows are for much below to below normal volumes this spring. Reservoir storage is at 45% capacity. Water supply conditions are much below normal due to low snowpack, low reservoir storage and extremely dry soil moisture conditions.



BEAR RIVER BASIN  
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====>>		====> Wetter <====>		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Bear R nr UT-WY State Line	APR-JUL	53	57	60	53	63	68	113
BEAR R nr Woodruff, UT	APR-JUL	49	62	74	50	88	113	149
BIG CK nr Randolph	APR-JUL	0.04	0.57	2.00	53	3.43	5.54	3.80
BEAR R nr Randolph, UT	APR-JUL	5.0	35	55	48	75	105	115
SMITHS FK nr Border, WY	APR-JUL	42	48	53	52	58	68	102
THOMAS FK nr WY-ID State Line (Disc.	APR-JUL	Much Below Average						33
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	2.0	49	81	28	113	160	288
MONTPELIER CK nr Montpelier (Disc)(2	APR-JUL	Much Below Average						12.2
CUB R nr Preston	APR-JUL	Much Below Average						47
L BEAR R at Paradise, UT	APR-JUL	14.8	17.2	19.0	40	21	25	47
LOGAN R nr Logan	APR-JUL	55	59	62	51	65	70	122
BLACKSMITH Fk nr Hyrum	APR-JUL	22	24	26	48	28	31	54

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of April					BEAR RIVER BASIN Watershed Snowpack Analysis - May 1, 2002			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1421.0	627.1	937.1	971.0	BEAR RIVER, UPPER (abv Ha	6	118	53
HYRUM	15.3	15.1	15.1	13.2	BEAR RIVER, LOWER (blw Ha	8	160	54
PORCUPINE	11.3	11.3	11.1	9.5	LOGAN RIVER	4	164	67
WOODRUFF NARROWS	57.3	18.5	21.5	38.5	RAFT RIVER	1	319	97
WOODRUFF CREEK	4.0	3.8	3.5	---	BEAR RIVER BASIN	14	138	54

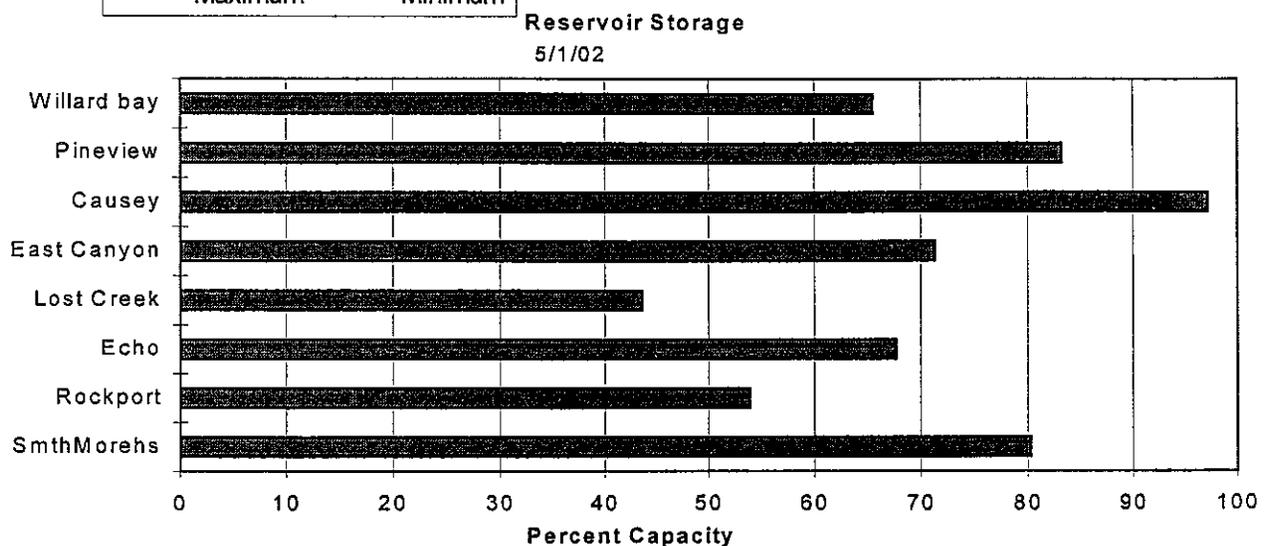
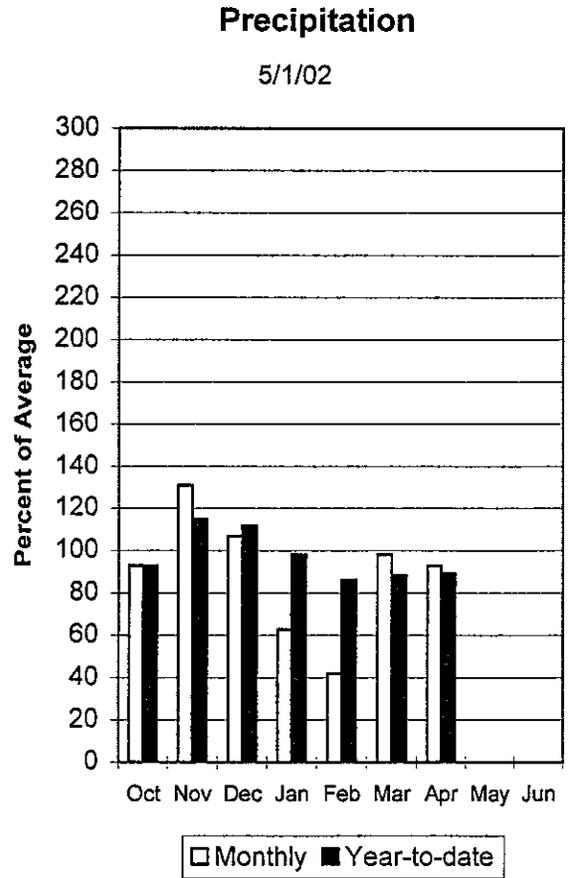
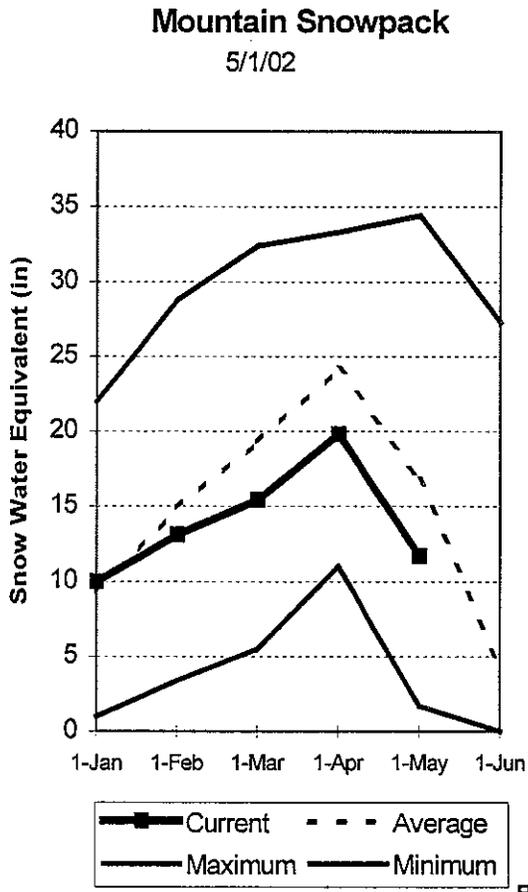
\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

# Weber and Ogden River Basins

## May 1, 2002

Snowpack on the Weber and Ogden Watersheds is at 61% of average, about 115% of last year, and down 21% relative to last month. Individual sites range from 0% to 105% of average. This is the fourth consecutive year of below normal snowpack for this watershed. The hot, dry conditions of last summer have dropped soil moisture levels, which will negatively impact spring runoff. Precipitation during April was near normal at 93%, bringing the seasonal accumulation (Oct-Apr) to 89% of average. Reservoir storage is at 68% of capacity. Streamflow forecasts are much below to below average. Overall water supply conditions are marginal due to poor snowpack, soil moisture levels and low reservoir storage.



WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====		====		==== Wetter =====>>>		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
SMITH AND MOREHOUSE CK nr Oakley	APR-JUN	8.9	12.5	15.0	50	17.5	21	30
WEBER R nr Oakley	APR-JUL	58	68	74	61	80	90	122
ROCKPORT RESERVOIR inflow	APR-JUL	64	75	82	61	89	100	134
CHALK CK at Coalville, Ut	APR-JUL	13.0	21	26	59	31	39	44
WEBER R nr Coalville, Ut	APR-JUL			79	58			136
ECHO RESERVOIR Inflow	APR-JUL	55	79	96	55	113	137	176
LOST CK Res Inflow	APR-JUL	3.0	7.2	10.0	58	12.8	17.0	17.2
E CANYON CK nr Morgan	APR-JUL	9.0	14.4	18.0	60	22	27	30
WEBER R at Gateway	APR-JUL	121	162	190	55	218	259	347
S FORK OGDEN R nr Huntsville	APR-JUL	24	31	35	56	39	46	63
PINEVIEW RESERVOIR Inflow	APR-JUL	47	65	78	59	91	109	133
WHEELER CK nr Huntsville	APR-JUL	1.39	2.35	3.00	48	3.65	4.61	6.20

WEBER & OGDEN WATERSHEDS in Utah Reservoir Storage (1000 AF) - End of April					WEBER & OGDEN WATERSHEDS in Utah Watershed Snowpack Analysis - May 1, 2002			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	6.9	5.6	---	OGDEN RIVER	4	143	64
EAST CANYON	49.5	35.3	40.9	40.5	WEBER RIVER	9	104	59
ECHO	73.9	50.0	53.8	52.9	WEBER & OGDEN WATERSHEDS	13	115	61
LOST CREEK	22.5	9.8	---	15.6				
PINEVIEW	110.1	91.6	75.8	77.7				
ROCKPORT	60.9	32.8	31.8	38.6				
WILLARD BAY		NO REPORT						

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

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

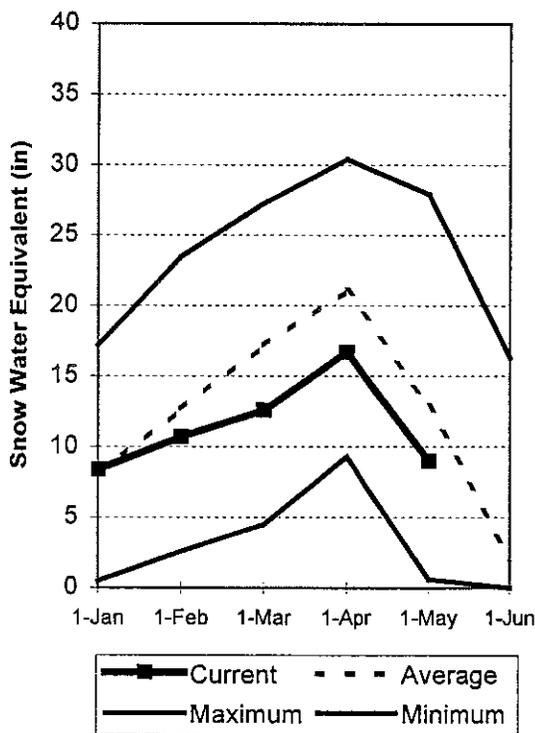
## Utah Lake, Jordan River & Tooele Valley Basins

### May 1, 2002

Snowpacks over these watersheds are at 54% of average, 108% of last year and down 25% relative to last month. Individual sites range from 0% to 122% of average. This is the fourth consecutive year of below normal snowpack on these watersheds. The hot, dry summer has severely depleted soil moisture levels and this will have a negative impact on spring runoff. Precipitation during April was below normal at 82%, bringing the seasonal accumulation (Oct-Apr) to 87% of average. Forecast streamflows are much below to below normal. Reservoir storage is at 79% of capacity. General water supply conditions are poor due to low snowpack and low soil moisture levels.

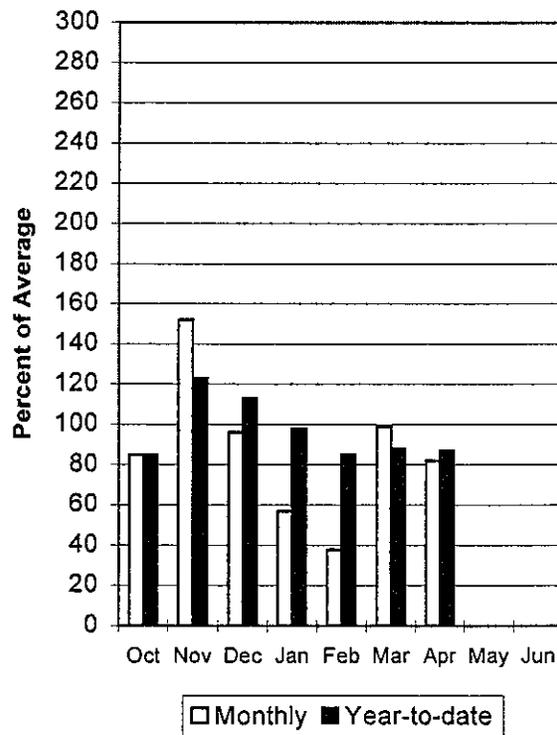
### Mountain Snowpack

5/1/02



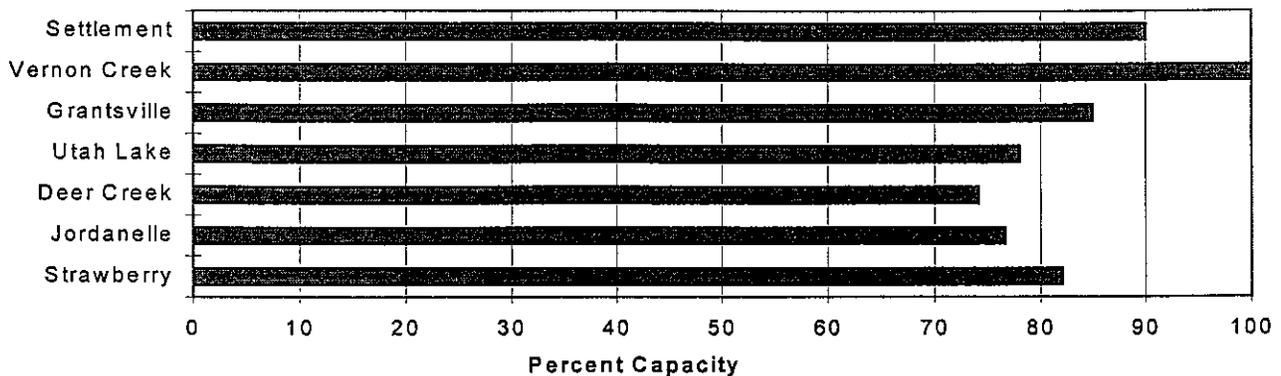
### Precipitation

5/1/02



### Reservoir Storage

5/1/02



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<===== Drier =====>>		===== Wetter =====>>				
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
SPANISH FORK nr Castilla	APR-JUL	7.7	9.0	28	36	47	66	77
PROVO R nr Hailstone	APR-JUL	29	48	59	54	70	89	109
PROVO R below Deer Creek Dam	APR-JUL	34	47	64	51	81	106	126
AMERICAN FORK nr American Fk.	APR-JUL	9.3	12.7	15.0	47	17.3	21	32
UTAH LAKE inflow	APR-JUL	20	87	140	43	193	260	325
L COTTONWOOD CRK nr SLC	APR-JUL	30	34	36	90	39	42	40
BIG COTTONWOOD CRK nr SLC	APR-JUL	24	28	31	82	34	38	38
PARLEY'S CK nr SLC	APR-JUL	6.7	9.3	12.0	72	14.7	17.5	16.7
MILL CK nr SLC	APR-JUL	3.57	4.60	5.60	80	6.60	7.63	7.00
DELL FK nr SLC	APR-JUL	2.11	3.75	5.00	74	6.25	7.89	6.80
EMIGRATION CK nr SLC	APR-JUL	1.17	2.55	3.60	80	4.65	6.12	4.50
CITY CK nr SLC	APR-JUL	3.57	5.25	6.50	75	7.75	9.40	8.70
VERNON CK nr Vernon (Acre Feet)	APR-JUL	210	285	350	26	430	583	1340
SETTLEMENT CK nr Tooele (Acre Feet)	APR-JUL	424	479	520	23	565	638	2300
S WILLOW CK nr Grantsville	APR-JUL	0.03	0.35	0.70	22	1.43	2.51	3.20

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Reservoir Storage (1000 AF) - End of April

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Watershed Snowpack Analysis - May 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	111.0	140.1	119.4	PROVO RIVER & UTAH LAKE	7	74	19
GRANTSVILLE	3.3	2.8	3.2	2.8	PROVO RIVER	4	78	25
SETTLEMENT CREEK	1.0	0.9	0.8	0.7	JORDAN RIVER & GREAT SALT	6	127	83
STRAWBERRY-ENLARGED	1105.9	906.7	958.7	663.7	TOOELE VALLEY WATERSHEDS	3	80	42
UTAH LAKE	870.9	679.4	796.9	872.6	UTAH LAKE, JORDAN RIVER &	16	108	54
VERNON CREEK	0.6	0.6	0.6	---				

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

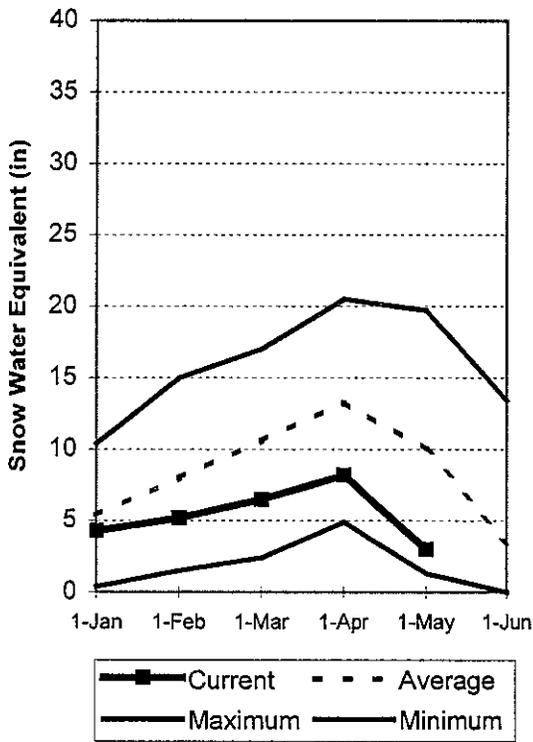
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
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# Uintah Basin and Dagget SCD's

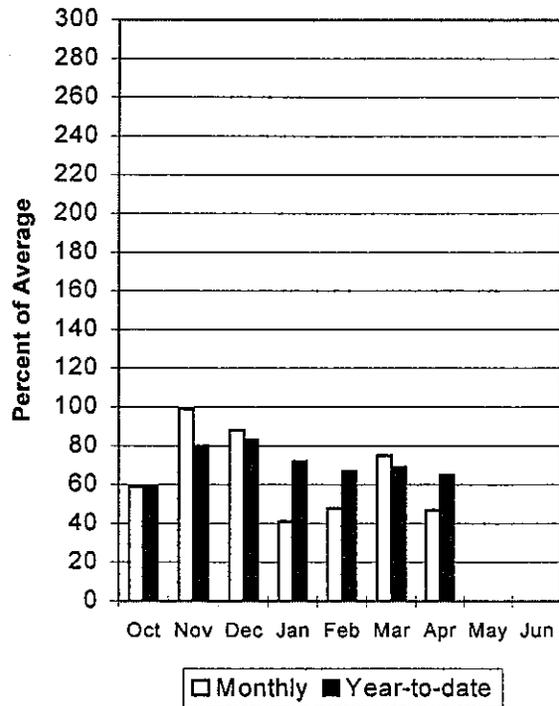
## May 1, 2002

Snowpacks across the Uintah Basin and North Slope areas are much below average at 27%, which is 34% of last year's snowpack and down 34% relative to last month. The North Slope ranges from 3% to 72% and the Uintah Basin ranges from 0% to 59% of average, 10 of 17 sites are bare. This is the fourth consecutive below normal snowpack in the Uintah Basin and the lowest snowpack since 1992. The past hot, dry summer has depleted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation during April was much below normal at 47%, bringing the seasonal accumulation (Oct-Apr) to 65% of average. Reservoir storage is at 83% of capacity. Springtime runoff conditions are much below normal.

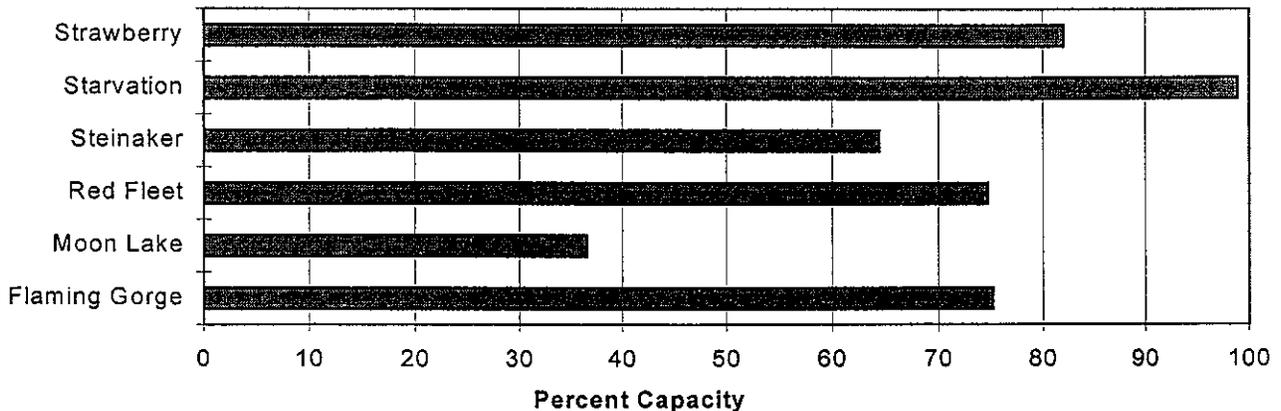
**Mountain Snowpack**  
5/1/02



**Precipitation**  
5/1/02



**Reservoir Storage**  
5/1/02



UINTAH BASIN & DAGGET SCD'S  
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<===== Drier =====>>		===== Wetter =====>>				
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	29	39	45	47	51	61	95
EF of Smiths Fork nr Robertson	APR-JUL	12.5	13.8	14.8	48	15.8	17.5	31
Flaming Gorge Reservoir Inflow	APR-JUL	355	507	610	51	713	865	1190
BIG BRUSH CK abv Red Fleet Resv	APR-JUL	6.5	8.4	9.6	46	12.3	16.2	21
Ashley Creek nr Vernal	APR-JUL	14.8	17.9	20	39	25	33	52
WF DUCHESNE RIVER nr Hanna	APR-JUL	4.1	6.7	8.8	37	11.2	15.4	24
DUCHESNE R nr Tabiona	APR-JUL	29	38	44	42	50	59	105
UPPER STILLWATER RESV inflow	APR-JUL	26	31	34	42	42	52	82
ROCK CK nr Mountain Home	APR-JUL	26	31	34	38	41	51	89
DUCHESNE R abv Knight Diversion	APR-JUL	52	63	70	37	87	113	188
STRAWBERRY RES nr Soldier Springs	APR-JUL	6.7	10.9	14.3	24	18.2	25	59
CURRENT CREEK RESV Inflow	APR-JUL	3.8	4.6	5.2	21	7.4	10.7	25
STARVATION RESERVOIR inflow	APR-JUL	25	30	33	27	45	63	121
Yellowstone River nr Altonah	APR-JUL	20	24	27	44	34	44	62
DUCHESNE R at Myton	APR-JUL	24	32	38	15	76	132	260
Whiterocks River nr Whiterocks	APR-JUL	14.0	17.6	20	36	27	37	56
DUCHESNE R nr Randlett	APR-JUL	17.0	38	53	16	144	279	325

UINTAH BASIN & DAGGET SCD'S  
Reservoir Storage (1000 AF) - End of April

UINTAH BASIN & DAGGET SCD'S  
Watershed Snowpack Analysis - May 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
FLAMING GORGE	3749.0	2020.0	3041.2	2952.0	UPPER GREEN RIVER in UTAH	6	40	25
MOON LAKE	49.5	18.1	24.3	30.8	ASHLEY CREEK	2	0	0
RED FLEET	25.7	19.2	21.8	19.9	BLACK'S FORK RIVER	2	97	49
STEINAKER	33.4	21.5	27.5	25.0	SHEEP CREEK	1	0	0
STARVATION	165.3	163.5	167.9	139.7	DUCHESNE RIVER	11	33	28
STRAWBERRY-ENLARGED	1105.9	906.7	958.7	663.7	LAKE FORK-YELLOWSTONE CRE	4	43	44
					STRAWBERRY RIVER	4	0	0
					UINTAH-WHITEROCKS RIVERS	2	15	17
					UINTAH BASIN & DAGGET SCD	17	34	27

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

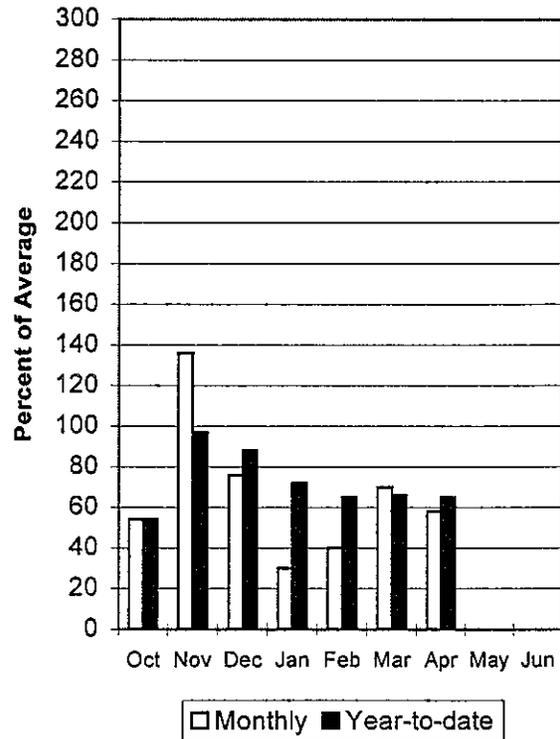
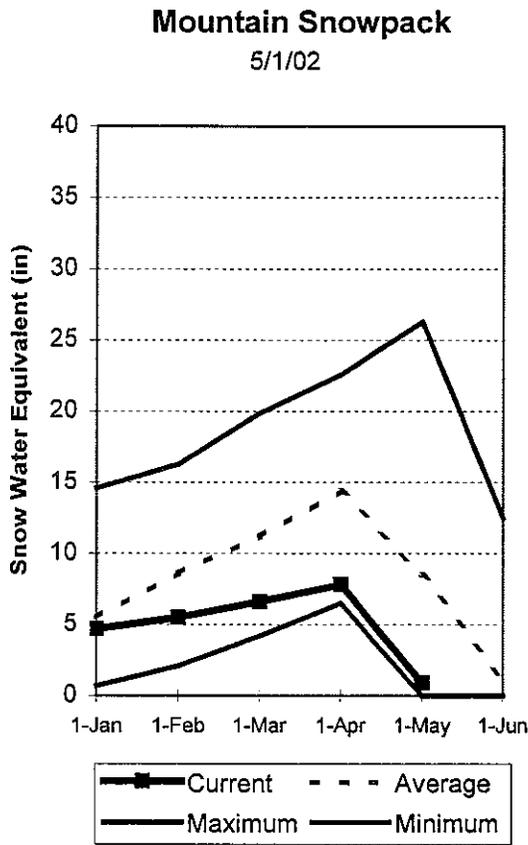
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

# Carbon, Emery, Wayne, Grand and San Juan Co.

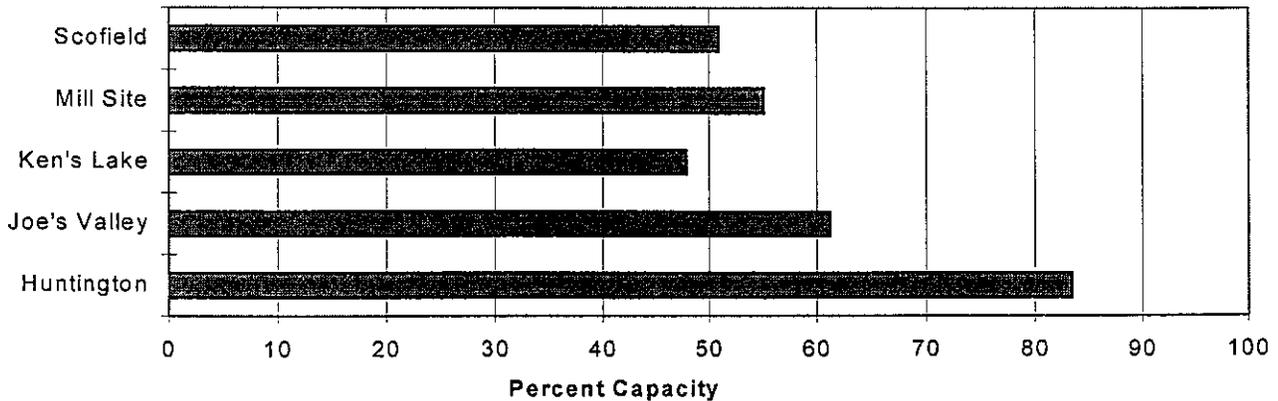
## May 1, 2002

Snowpacks in this region are much below normal at 9% of average, about 19% of last year and down 45% relative to last month. Individual sites range from 0% to 74% of average, 9 of 13 sites are bare. This is the fourth consecutive below normal snowpack for this region. In the northern areas, soil moisture levels have been depleted which will negatively impact snowmelt runoff. Precipitation during April was much below average at 58%, bringing the seasonal accumulation (Oct-Apr) to 65% of normal. Reservoir storage is at 56% of capacity. General runoff conditions and forecasts are much below normal due to low snowpack and low soil moisture.

### Precipitation 5/1/02



### Reservoir Storage 5/1/02



CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	Future Conditions				Wetter		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	Chance Of Exceeding * (% AVG.)	30% (1000AF)	10% (1000AF)	
Gooseberry Creek nr Scofield	APR-JUL	2.4	4.1	5.2	44	6.3	8.0	11.9
Scofield Reservoir inflow	APR-JUL	10.6	14.7	17.5	38	20	24	46
White River blw Tabbyune Creek	APR-JUL	2.0	3.4	4.5	26	5.8	8.0	17.4
Green River at Green River, UT	APR-JUL	919	1122	1260	40	1605	2112	3170
Electric Lake inflow	APR-JUL	3.6	4.7	5.6	36	6.6	8.2	15.7
HUNTINGTON CK nr Huntington	APR-JUL	10.3	15.2	18.5	37	22	27	50
JOE'S VALLEY RESV Inflow	APR-JUL	19.3	24	27	47	34	44	58
Ferron Creek nr Ferron	APR-JUL	14.1	16.5	18.3	47	20	23	39
Colorado River nr Cisco	APR-JUL	885	1061	1180	27	1578	2164	4400
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.04	1.43	1.70	34	2.49	3.64	5.00
Seven Mile Creek nr Fish Lake	APR-JUL	2.42	3.00	3.40	49	4.26	5.53	7.00
Muddy Creek nr Emery	APR-JUL	6.2	7.5	8.4	42	10.5	13.6	19.9
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.01	0.09	0.20	15	0.36	0.67	1.31
Recapture CK bl Johnson Ck nr Blandi	MAR-JUL	0.50	0.76	0.93	15	2.09	3.80	6.10
San Juan River nr Bluff	APR-JUL	47	56	62	5	160	304	1230

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of April

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - May 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	3.5	4.1	4.1	PRICE RIVER	3	56	16
JOE'S VALLEY	61.6	37.7	44.0	41.9	SAN RAFAEL RIVER	3	25	13
KEN'S LAKE	2.3	1.1	0.8	---	MUDDY CREEK	1	0	0
MILL SITE	16.7	9.2	---	---	FREMONT RIVER	3	0	0
SCOFIELD	65.8	33.5	38.7	37.4	LASAL MOUNTAINS	1	0	0
					BLUE MOUNTAINS	1	0	0
					WILLOW CREEK	1	0	0
					CARBON, EMERY, WAYNE, GRA	13	19	9

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

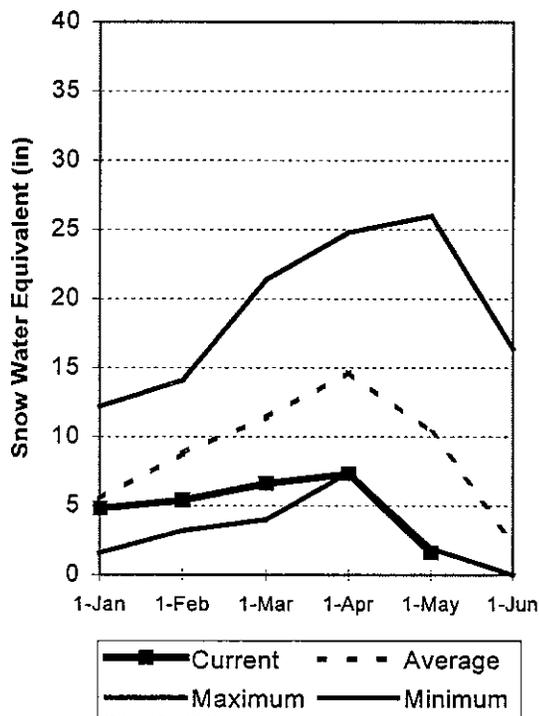
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

## Sevier and Beaver River Basins May 1, 2002

Snowpacks on the Sevier River Basin are much below normal at 14% of average, about 21% of last year and down 35% relative to last month, 12 of 17 sites are bare. The Upper Sevier is much lower at 0% of average. Individual sites range from 0% to 63% of average. This is a new record low snowpack for the Sevier River Basin and the fourth consecutive below normal snowpack year. The hot, dry summer has depleted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation during April was much below average at 58% of normal, bringing the seasonal accumulation (Oct-Apr) to 62% of average. Reservoir storage is at 57% of capacity. Water supply conditions and streamflow forecasts are much below normal.

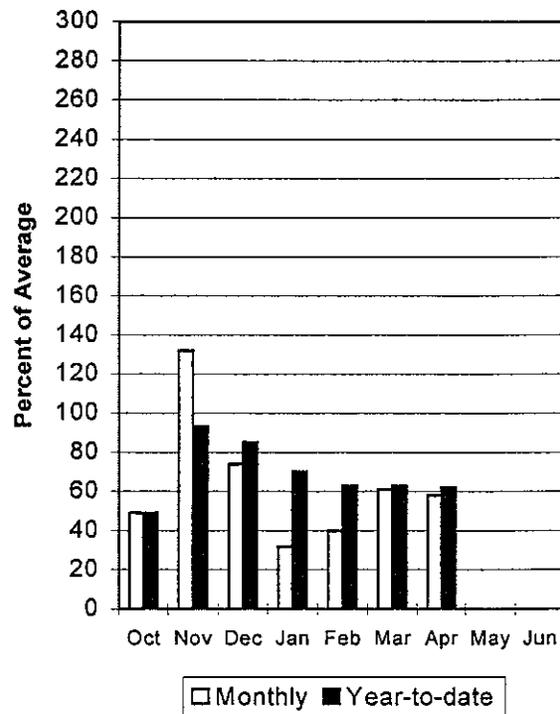
### Mountain Snowpack

5/1/02



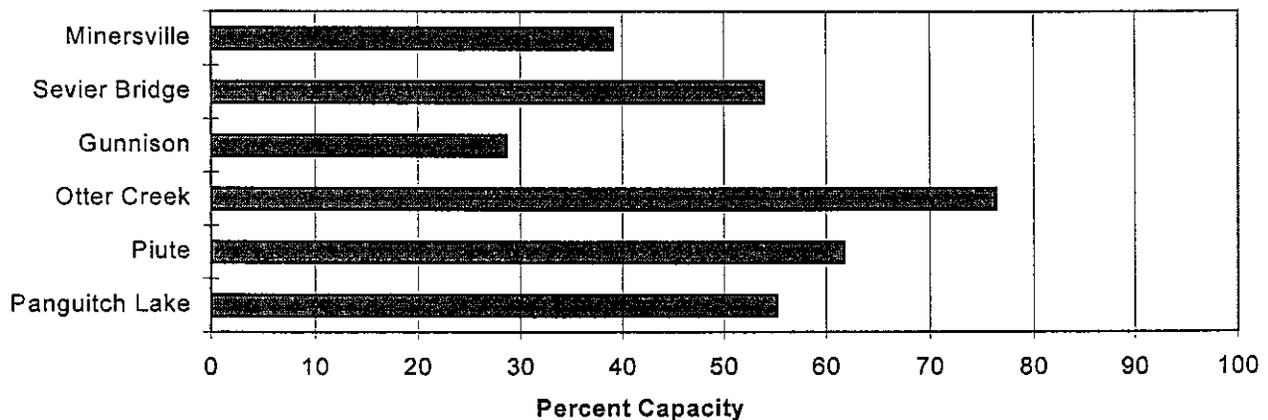
### Precipitation

5/1/02



### Reservoir Storage

5/1/02



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		Wetter				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	30% (1000AF)	10% (1000AF)	Chance Of Exceeding * (% AVG.)	
SEVIER R at Hatch	APR-JUL	8.3	10.0	16.0	29	22	34	55
SEVIER R nr Kingston	APR-JUL	14.2	17.0	27	30	37	58	89
E F SEVIER R nr Kingston	APR-JUL	2.3	2.6	10.0	26	17.4	29	38
SEVIER R blw Piute Dam	APR-JUL	6.0	12.0	32	25	52	89	126
CLEAR CK nr Sevier	APR-JUL	3.1	3.5	6.0	27	8.5	14.5	22
SALINA CK at Salina	APR-JUL	Much Below Average						19.7
SEVIER R nr Gunnison	APR-JUL	34	56	77	28	162	291	280
CHICKEN CK nr Levan	APR-JUL	0.41	0.51	0.58	12	0.66	0.81	4.80
OAK CK nr Oak City (Acre Feet)	APR-JUL	330	397	450	25	510	614	1810
BEAVER R nr Beaver	APR-JUL	3.0	3.5	3.9	15	4.4	5.1	26
MINERSVILLE RESERVOIR Inflow	APR-JUL	2.2	2.3	2.4	14	2.5	2.6	16.7

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of April					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - May 1, 2002			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	5.8	11.4	15.7	UPPER SEVIER RIVER (south	8	0	0
MINERSVILLE (RkyFd)	23.3	9.1	10.8	18.0	EAST FORK SEVIER RIVER	3	0	0
OTTER CREEK	52.5	40.1	43.8	46.0	SOUTH FORK SEVIER RIVER	5	0	0
PIUTE	71.8	44.3	59.5	55.5	LOWER SEVIER RIVER (inclu	6	51	21
SEVIER BRIDGE	236.0	127.3	162.5	183.6	BEAVER RIVER	2	36	29
PANGUITCH LAKE	22.3	12.3	16.6	---	SEVIER & BEAVER RIVER BAS	16	21	14

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

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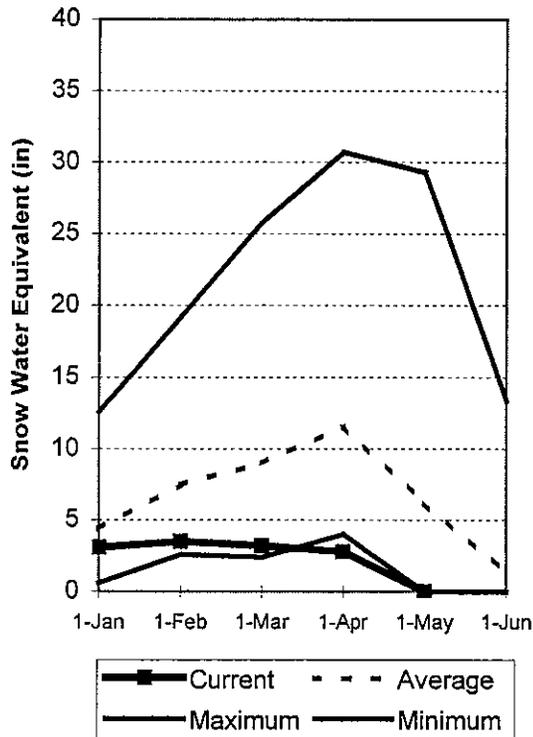
# E. Garfield, Kane, Washington, & Iron co.

Apr 1, 2002

Snowpacks in this region have melted out, including the high elevation sites, and rank as the lowest in the state. This ties a record low snowpack as 1977 was also a zero year for the region and is the fourth consecutive below normal snowpack year. The hot, dry summer has depleted soil moisture levels, which will negatively impact snowmelt runoff. Precipitation was much below normal during April at 50% of average, bringing the seasonal accumulation (Oct-Apr) to 39% of normal. Reservoir storage is at 63% of capacity, 10% less than last month. General water supply conditions and streamflow forecasts are much below normal.

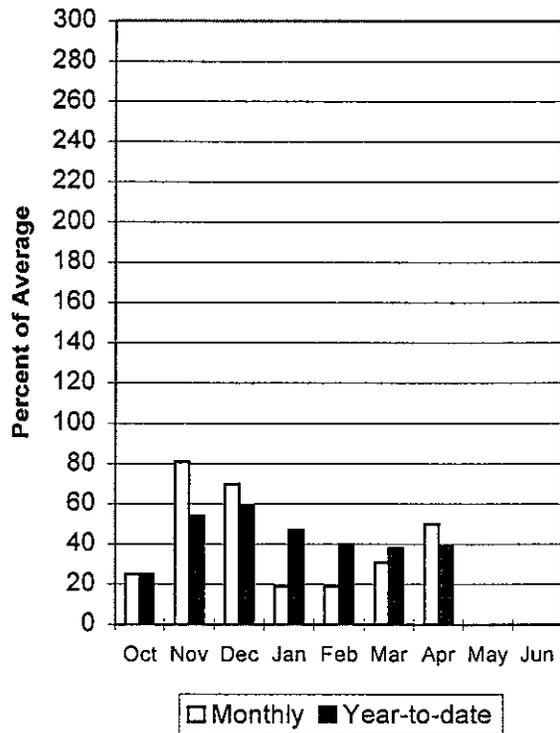
## Mountain Snowpack

5/1/02



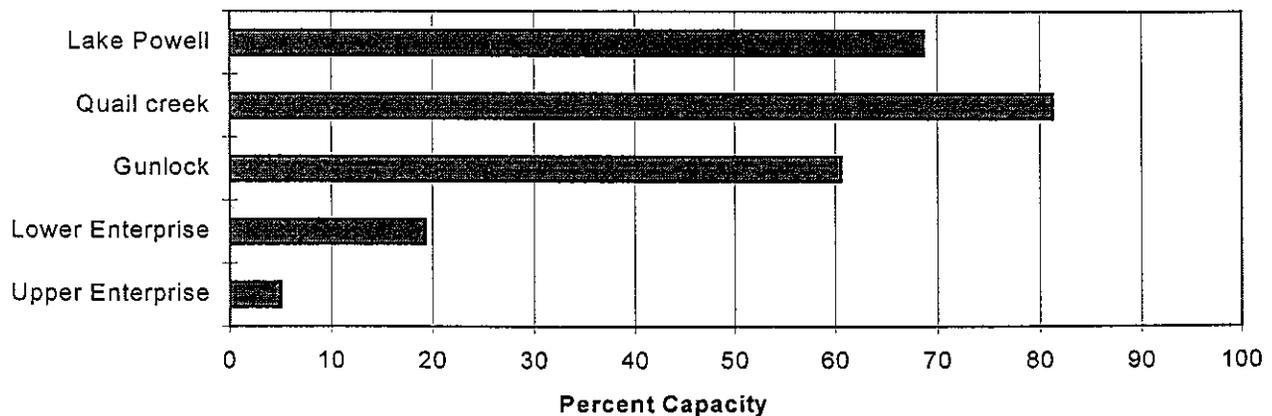
## Precipitation

5/1/02



## Reservoir Storage

5/1/02



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - May 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====>>		====> Wetter <====>				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	Chance Of Exceeding * (% AVG.)	30% (1000AF)	10% (1000AF)	
Lake Powell inflow	APR-JUL	1269	1788	2000	25	2785	3941	7930
Virgin River nr Virgin	APR-JUL	8.1	11.5	14.1	22	17.0	22	64
Virgin River nr Hurricane	APR-JUL	6.9	9.7	11.7	17	14.5	18.6	69
Santa Clara River nr Pine Valley	APR-JUL	0.45	0.83	1.15	21	1.53	2.17	5.50
Coal Creek nr Cedar City	APR-JUL	2.5	2.9	3.2	17	4.1	5.5	19.4

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of April

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - May 1, 2002

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	6.3	10.2	---	VIRGIN RIVER	5	0	0
LAKE POWELL	24322.0	16704.0	18820.0	---	PAROWAN	2	0	0
QUAIL CREEK	40.0	32.5	39.5	31.6	ENTERPRISE TO NEW HARMONY	2	0	0
UPPER ENTERPRISE	10.0	0.5	3.1	---	COAL CREEK	2	0	0
LOWER ENTERPRISE	2.6	0.5	1.0	---	ESCALANTE RIVER	2	0	0
					E. GARFIELD, KANE, WASHIN	9	0	0

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

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

<b>UTAH SURFACE</b>	<b>WATER</b>	<b>SUPPLY</b>	<b>INDEX</b>
<b>Snow Surveys</b>	<b>NRCS</b>	<b>USDA</b>	
<b>Basin or Region</b>	<b>SWSI/%</b>	<b>Percentile</b>	<b>Years with Similar SWSI</b>
<b>Bear River</b>	<b>-3.7</b>	<b>5%</b>	<b>92,91,90,61</b>
<b>Ogden River</b>	<b>-2.4</b>	<b>21%</b>	<b>01,81,90,2000</b>
<b>Weber River</b>	<b>-2.9</b>	<b>15%</b>	<b>90,88,87,94</b>
<b>Tooele Valley</b>	<b>NA</b>		
<b>Provo</b>	<b>-2.3</b>	<b>22%</b>	<b>59,57,77,65</b>
<b>North Slope</b>	<b>NA</b>		
<b>West Uintah Basin</b>	<b>0</b>	<b>50%</b>	<b>93,85,87,95</b>
<b>East Uintah Basin</b>	<b>-3.8</b>	<b>4%</b>	<b>89,96,94,92</b>
<b>Price River</b>	<b>-2.8</b>	<b>16%</b>	<b>90,59,89,91</b>
<b>San Rafael</b>	<b>-3.1</b>	<b>13%</b>	<b>94,99,90,2000</b>
<b>Moab</b>	<b>-3.8</b>	<b>4%</b>	<b>90,89,99,81</b>
<b>Upper Sevier River</b>	<b>-2.8</b>	<b>17%</b>	<b>91,90,57,64</b>
<b>Lower Sevier River</b>	<b>-2.5</b>	<b>20%</b>	<b>66,67,62,92</b>
<b>Beaver River</b>	<b>-4.0</b>	<b>2%</b>	<b>77,61,63,72</b>
<b>Virgin River</b>	<b>-2.9</b>	<b>16%</b>	<b>90,89,91,96</b>
<b>Snow Surveys</b>			<b>SWSI Scale: -4 to 4</b>
<b>245 N Jimmy Doolittle Rd</b>			<b>Percentile: 0 - 100%</b>
<b>Salt Lake City, UT</b>			
<b>(801) 524-5213</b>			

S N O W C O U R S E D A T A

MAY 2002

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	5/01	0	0.0	0.0	1.8
ALTA CENTRAL	8800	5/02	66	33.2	22.0	36.5
BEAVER DAMS SNOTEL	8000	5/01	-	0.0	0.0	4.7
BEAVER DIVIDE SNOTEL	8280	5/01	0	0.0	0.0	3.2
BEN LOMOND PK SNOTEL	8000	5/01	48	25.9	20.4	37.1
BEN LOMOND TR SNOTEL	6000	5/01	-	0.5	0.0	6.8
BEVAN'S CABIN	6450	4/28	5	2.3	4.8	5.0
BIG FLAT SNOTEL	10290	5/01	41	8.3	16.7	20.9
BIRCH CROSSING	8100	4/29	0	.0	0.0	1.4
BLACK FLAT-U.M. CK S	9400	5/01	0	0.0	1.1	7.1
BLACK'S FORK GS-EF	9340	4/28	7	3.0	6.5	8.6
BLACK'S FORK JUNCTN	8930	4/28	0	.0	1.6	6.8
BOX CREEK SNOTEL	9800	5/01	0	0.0	4.5	10.3
BRIAN HEAD	10000	4/29	0	.0	21.6	20.8
BRIGHTON SNOTEL	8750	5/01	29	11.9	13.1	25.0
BRIGHTON CABIN	8700	5/02	36	15.9	18.3	23.6
BROWN DUCK SNOTEL	10600	5/01	-	11.8	22.9	20.1
BRYCE CANYON	8000	5/01	0	0.0	0.0	-
BUCK FLAT SNOTEL	9800	5/01	-	0.7	9.0	15.6
BUCK PASTURE	9700	4/28	27	8.9	14.1	16.7
BUCKBOARD FLAT	9000	4/29	0	0.0	5.0	7.0
BUG LAKE SNOTEL	7950	5/01	34	14.2	7.4	18.0
BURT'S-MILLER RANCH	7900	4/28	0	.0	.0	1.3
CAMP JACKSON SNOTEL	8600	5/01	0	0.0	0.0	6.4
CASTLE VALLEY SNOTEL	9580	5/01	-	0.0	4.8	7.5
CHALK CK #1 SNOTEL	9100	5/01	43	17.0	14.5	25.3
CHALK CK #2 SNOTEL	8200	5/01	32	7.0	4.7	12.0
CHALK CREEK #3	7500	4/26	0	.0	.0	1.8
CHEPETA SNOTEL	10300	5/01	-	4.2	18.1	12.1
CITY CREEK	7500	4/30	40	18.9	21.4	18.8
CLAYTON SPRINGS SNTL	10000	5/01	0	0.0	9.9	-
CLEAR CK RIDG #1 SNT	9200	5/01	-	4.0	6.4	15.7
CLEAR CK RIDG #2 SNT	8000	5/01	-	0.0	0.0	7.9
CURRANT CREEK SNOTEL	8000	5/01	-	0.0	0.0	2.6
DANIELS-STRAWBERRY S	8000	5/01	0	0.0	0.0	9.5
DILL'S CAMP SNOTEL	9200	5/01	-	0.0	3.4	9.4
DONKEY RESERVOIR SNO	9800	5/01	-	0.0	4.2	4.2
DRY BREAD POND SNTL	8350	5/01	28	9.7	4.7	18.3
DRY FORK SNOTEL	7160	5/01	-	4.2	2.5	7.7
EAST WILLOW CREEK SN	8250	5/01	-	0.0	0.0	3.0
FARMINGTON CN SNOTEL	8000	5/01	70	31.7	28.7	31.8
FARMINGTON CANYON L.	6950	4/26	51	21.2	24.7	22.4
FARNSWORTH LK SNOTEL	9600	5/01	30	10.8	16.7	21.1
FISH LAKE	8700	4/26	0	.0	1.9	5.0
FIVE POINTS LAKE SNO	10920	5/01	26	7.4	19.5	17.5
FRANCES FLATS	6700	4/30	5	2.2	7.2	8.7
G.B.R.C. HEADQUARTER	8700	4/26	10	3.7	11.1	14.2
G.B.R.C. MEADOWS	10000	4/26	40	15.3	20.5	25.8
GARDEN CITY SUMMIT	7600	4/26	29	9.6	8.9	14.7
GOOSEBERRY R.S.	8400	4/26	0	.0	5.9	8.3
GOOSEBERRY R.S. SNTL	7900	5/01	-	0.0	0.0	2.7
HARDSCRABBLE SNOTEL	7250	5/01	-	0.3	0.9	6.9
HARRIS FLAT SNOTEL	7700	5/01	-	0.0	0.0	1.5
HAYDEN FORK SNOTEL	9100	5/01	5	1.4	4.9	13.0
HENRY'S FORK	10000	4/28	16	5.1	11.4	13.6
HEWINTA SNOTEL	9500	5/01	-	0.3	0.2	9.3
HICKERSON PARK SNTL	9100	5/01	0	0.0	5.5	5.7
HIDDEN SPRINGS	5500	4/30	0	0.0	0.0	-
HOBBLE CREEK SUMMIT	7420	4/26	0	.0	.0	6.3
HOLE-IN-ROCK SNOTEL	9150	5/01	0	0.0	2.5	4.7
HORSE RIDGE SNOTEL	8260	5/01	-	9.0	5.3	17.9
HUNTINGTON-HORSESHOE	9800	4/26	43	18.1	16.3	24.6
INDIAN CANYON SNOTEL	9100	5/01	-	0.0	6.7	7.9
JOHNSON VALLEY	8850	4/26	0	.0	.0	3.8
KILFOIL CREEK	7300	4/26	28	10.3	9.3	9.8
KILLYON CANYON	6300	4/29	0	0.0	0.0	-
KIMBERLY MINE SNOTEL	9300	5/01	-	0.0	10.1	12.5
KING'S CABIN SNOTEL	8730	5/01	0	0.0	4.4	7.6
KLONDIKE NARROWS	7400	4/26	13	5.3	.8	13.3
KOLOB SNOTEL	9250	5/01	0	0.0	16.9	18.2

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
LAKEFORK #1 SNOTEL	10100	5/01	2	0.8	13.5	11.5
LAKEFORK BASIN SNTL	10900	5/01	43	12.4	20.2	23.8
LAKEFORK MOUNTAIN #3	8400	4/26	0	.0	.4	1.8
LAMBS CANYON	7400	5/01	3	1.2	1.9	8.7
LASAL MOUNTAIN LOWER	8800	4/29	0	0.0	0.0	4.2
LASAL MOUNTAIN SNTL	9850	5/01	0	0.0	4.4	8.7
LILY LAKE SNOTEL	9050	5/01	5	1.3	4.2	11.1
LITTLE BEAR LOWER	6000	4/26	0	.0	.0	1.7
LITTLE BEAR SNOTEL	6550	5/01	-	0.0	0.0	3.4
LITTLE GRASSY SNOTEL	6100	5/01	-	0.0	0.0	.0
LONG FLAT SNOTEL	8000	5/01	-	0.0	0.0	1.8
LONG VALLEY JCT. SNT	7500	5/01	-	0.0	0.0	.0
LOOKOUT PEAK SNOTEL	8200	5/01	-	20.3	19.7	20.4
LOST CREEK RESERVOIR	6130	4/26	0	.0	.0	.0
LOUIS MEADOW SNOTEL	6700	5/01	0	0.0	0.0	-
MAMMOTH-COTTONWD SNT	8800	5/01	-	2.4	4.7	16.0
MERCHANT VALLEY SNTL	8750	5/01	-	0.0	6.4	8.1
MIDDLE CANYON	7000	4/28	4	1.7	4.1	7.8
MIDWAY VALLEY SNOTEL	9800	5/01	0	0.0	19.0	23.2
MILL CREEK	6950	5/01	46	19.9	12.8	18.6
MILL-D NORTH SNOTEL	8960	5/01	-	18.0	14.2	21.7
MILL-D SOUTH FORK	7400	5/02	12	5.8	8.3	12.4
MINING FORK SNOTEL	8000	5/01	17	7.9	9.3	18.3
MONTE CRISTO SNOTEL	8960	5/01	53	21.5	15.3	28.3
MOSBY MTN. SNOTEL	9500	5/01	-	0.0	10.8	12.0
MT. BALDY R.S.	9500	4/26	40	15.4	19.7	24.6
MUD CREEK #2	8600	4/26	2	1.0	7.1	8.4
OAK CREEK	7760	4/26	11	3.3	8.1	8.4
PANGUITCH LAKE R.S.	8200	4/29	0	.0	.0	-
PARLEY'S CANYON SUM.	7500	5/01	23	9.7	6.8	13.0
PARLEY'S CANYON SNTL	7500	5/01	-	0.0	0.0	9.3
PARRISH CREEK SNOTEL	7740	5/01	53	22.4	19.4	-
PAYSON R.S. SNOTEL	8050	5/01	0	0.0	0.0	13.3
PICKLE KEG SNOTEL	9600	5/01	-	1.2	7.3	14.1
PINE CREEK SNOTEL	8800	5/01	-	2.5	4.5	21.2
RED PINE RIDGE SNTL	9200	5/01	0	0.0	3.5	13.0
REDDEN MINE LOWER	8500	4/26	22	9.8	8.2	15.6
REES'S FLAT	7300	4/26	0	.0	.3	7.3
ROCK CREEK SNOTEL	7900	5/01	-	0.0	0.0	1.4
ROCKY BN-SETTLEMT SN	8900	5/01	35	12.5	16.1	25.3
SEELEY CREEK SNOTEL	10000	5/01	14	5.2	11.0	15.5
SILVER LAKE (BRIGHT.)	8730	5/02	40	20.8	26.7	26.8
SMITH MOREHOUSE SNTL	7600	5/01	5	2.3	0.0	7.5
SNOWBIRD SNOTEL	9700	5/01	-	50.2	32.6	41.3
SPIRIT LAKE	10300	4/28	15	6.7	16.1	14.7
SQUAW SPRINGS	9300	4/26	0	.0	.2	3.7
STEEL CREEK PARK SNO	10100	5/01	40	13.3	13.8	18.6
STILLWATER CAMP	8550	4/28	3	0.8	3.0	6.8
STRAWBERRY DIVIDE SN	8400	5/01	-	0.0	0.1	11.3
SUSC RANCH	8200	4/27	0	.0	0.0	2.2
TALL POLES	8800	4/29	0	.0	9.1	10.9
TEMPLE FORK SNOTEL	7410	5/01	15	5.9	-	-
THAYNES CANYON SNTL	9200	5/01	34	13.3	23.5	22.5
TIMPANOGOS DIVIDE SN	8140	5/01	4	0.8	3.9	17.6
TONY GROVE LK SNOTEL	8400	5/01	49	24.1	17.1	34.2
TONY GROVE R.S.	6250	4/26	0	.0	.0	3.2
TRIAL LAKE	9960	4/26	41	16.8	16.1	25.2
TRIAL LAKE SNOTEL	9960	5/01	28	13.4	14.4	26.5
TROUT CREEK SNOTEL	9400	5/01	-	0.0	7.4	7.8
UPPER JOES VALLEY	8900	4/26	0	.0	.2	5.0
VERNON CREEK SNOTEL	7500	5/01	0	0.0	0.0	4.5
WEBSTER FLAT SNOTEL	9200	5/01	-	0.0	0.0	6.8
WHITE RIVER #1 SNTL	8550	5/01	-	0.0	0.3	7.7
WHITE RIVER #3	7400	4/26	0	.0	.0	.5
WIDTSOE #3 SNOTEL	9500	5/01	-	0.0	16.2	9.5
WRIGLEY CREEK	9000	4/26	0	.0	6.9	7.3
YANKEE RESERVOIR	8700	4/29	0	.0	6.3	6.0



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