



Utah Water Supply Outlook Report

January 1, 2003



Parleys Canyon Near Salt Lake City, Jan 7, 2003

Photo by Jennifer Erxleben, 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

Jan 1, 2003

SUMMARY

The current water supply outlook is a continuation of the past four years – below average. Snowpacks across the state range from a low of 66% on the Provo/Jordan River watersheds, closely followed by the Virgin and southwest Utah at 68% to a high of only 85% across southeast Utah. Snowpacks across the rest of the state are close to 75% of normal. Most watersheds have only a 20% to 35% probability of getting sufficient snowpack over the next three months to return to average conditions by April 1. A poor beginning to what could easily be a fifth consecutive year of drought for most of the state. Warm temperatures have also impacted low elevation snowpacks, with many of these in the 50% range. Statewide precipitation in October, November and December were below average. Early season precipitation has improved soil moisture values substantially over much of the state. 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. The improvement in soil moisture is really the only positive aspect to current water supply conditions. Reservoir storage in 41 major reservoirs across the state is down almost 650,000 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

January first snowpacks as measured by the NRCS SNOTEL system are near 75% of average on the Bear, Weber, Uintahs and Sevier River Watersheds. The Provo and the Virgin/southwest Utah are the lowest at 66% and 68% respectively. Southeast Utah, particularly the Price/San Rafael and the Dirty Devil drainages are the highest at 85% of normal. Low elevation snowpacks have been impacted by warmer than normal temperatures of the past few weeks and some are 50% of average and below. Higher elevation snowpacks have simply not materialized with one area of particular concern. Snowpack at the headwaters of the Bear, Weber, Provo and Duchesne Rivers near Trial Lake is at only 59% of average. A substantial amount of water is generated from this area and a snowpack this low is of concern.

PRECIPITATION

Mountain precipitation during December was much below to below normal (55%-75%) in the north and below normal (80%-85%) in southern Utah. This brings the seasonal accumulation (Oct-Apr) to 78% of average statewide.

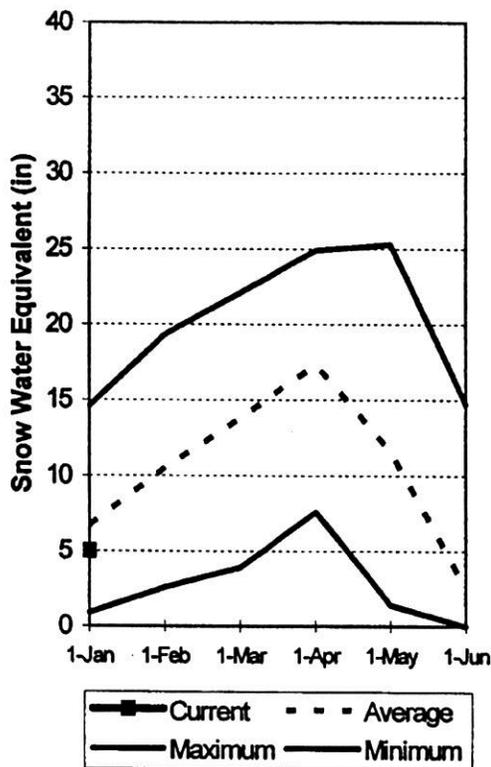
RESERVOIRS

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.

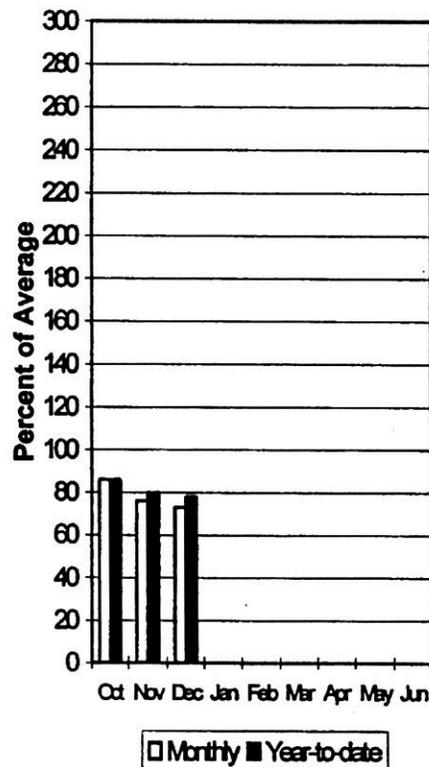
STREAMFLOW

Snowmelt streamflows are expected to be 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
1/1/2003



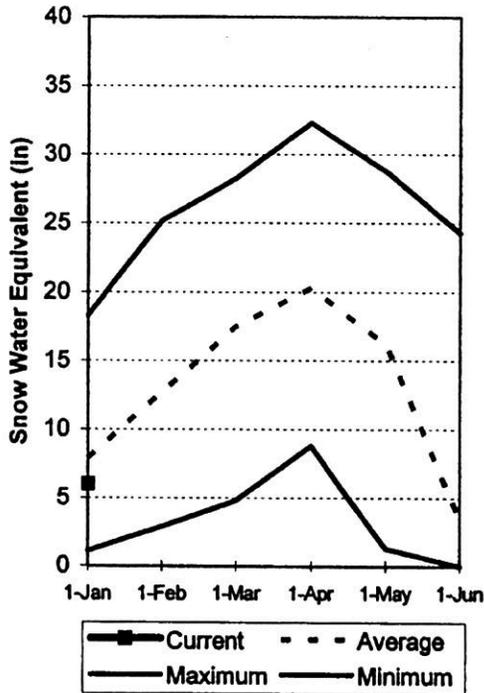
Precipitation
1/1/2003



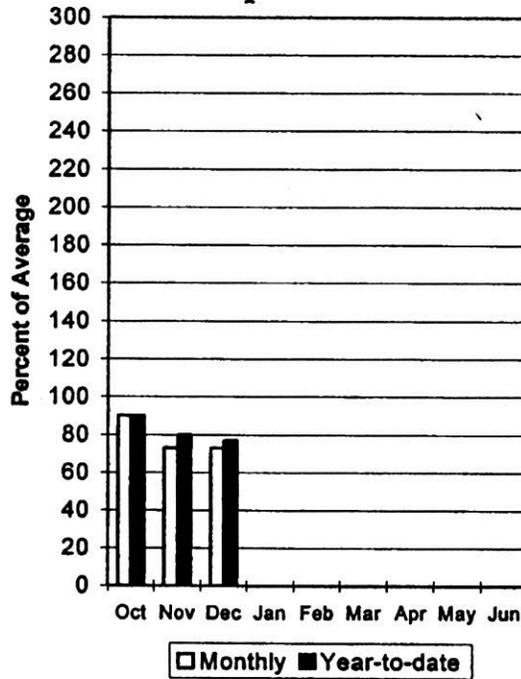
Bear River Basin Jan 1, 2003

Snowpacks on the Bear River Basin are below average at 76% of normal, about 74% of last year. Specific sites range from 63% to 103% 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. December precipitation was below average at 73%, which brings the seasonal accumulation (Oct-Dec) to 77% of average. Forecast streamflows are for below normal volumes this spring. Reservoir storage is at 25% of capacity, 15% less than last year. Water supply conditions are below normal due to low snowpack and low reservoir storage.

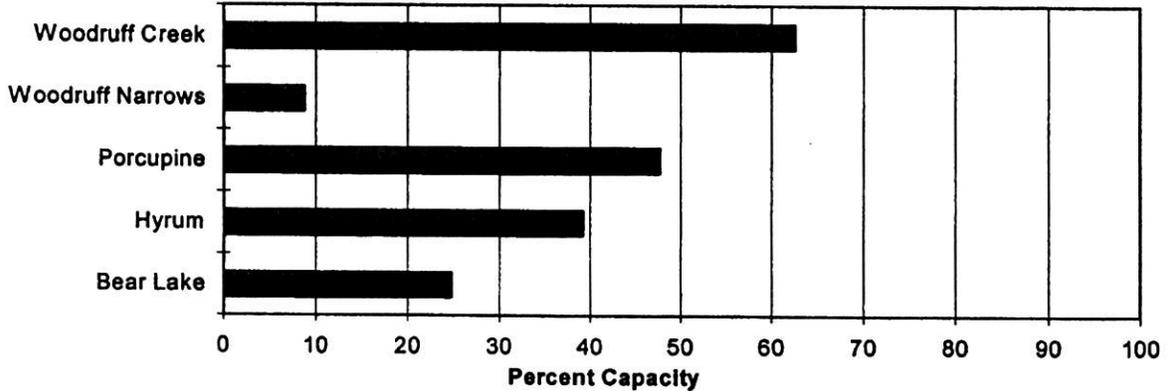
Mountain Snowpack
1/1/2003



Precipitation
1/1/200



Reservoir Storage
1/1/2003



BEAR RIVER BASIN
Streamflow Forecasts - April 1, 2002

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<----- Drier ----->>		----->>		----->>		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * (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

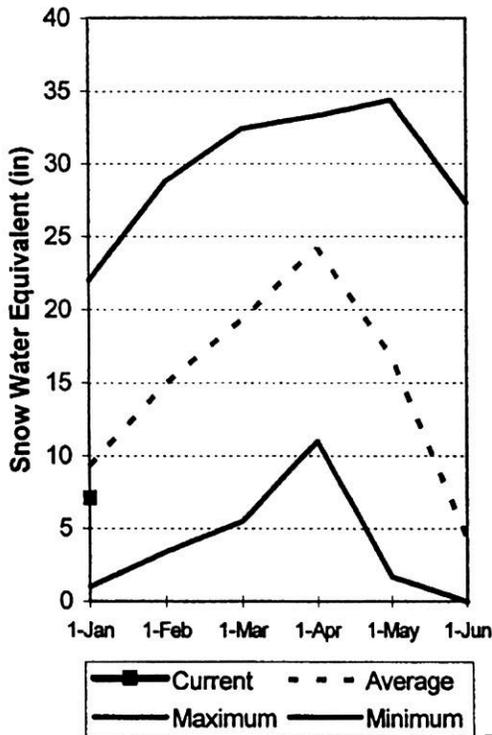
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

- (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.

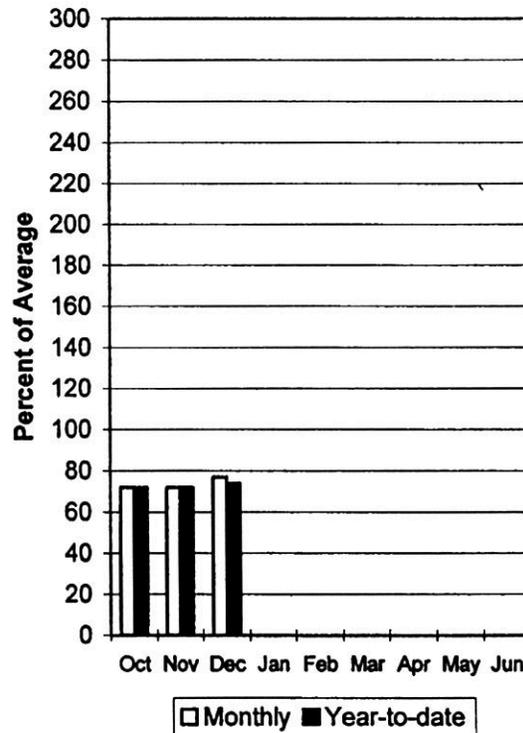
Weber and Ogden River Basins Jan 1, 2003

Snowpack on the Weber and Ogden Watersheds is at 76% of average, about 74% of last year. Individual sites range from 54% to 93% of average. This could be the fifth consecutive year of below normal April 1 snowpack for this watershed. Soil moisture conditions are somewhat improved from last year and may yield a higher runoff efficiency. Precipitation during December was below normal at 73%, bringing the seasonal accumulation (Oct-Dec) to 77% of average. Reservoir storage is at 42% of capacity, down 6% from last year. Streamflow forecasts are below average. Overall water supply conditions are marginal due to poor snowpack and low reservoir storage.

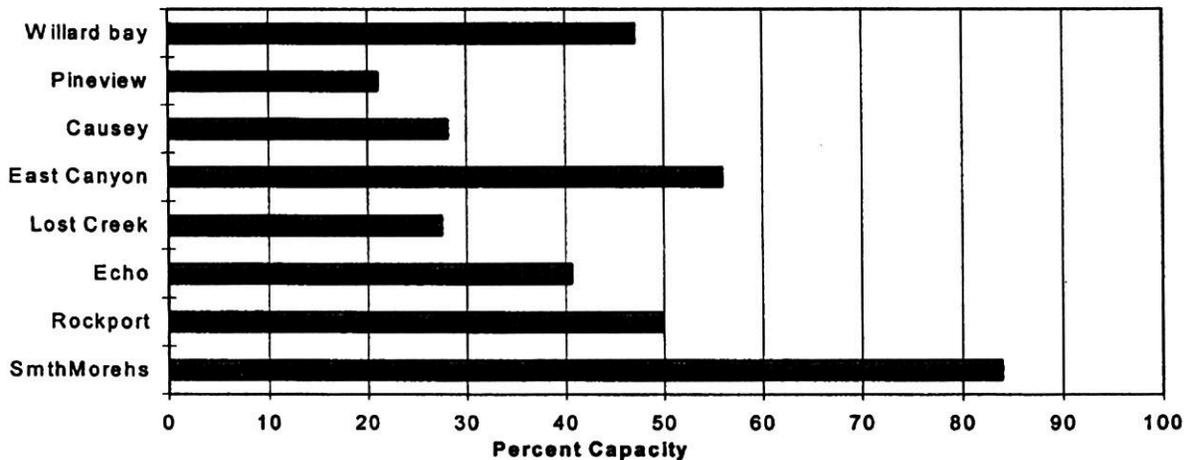
Mountain Snowpack 1/1/2003



Precipitation 1/1/2003



Reservoir Storage 1/1/2003



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

Forecast Point	Forecast Period	Future Conditions				Wetter		30-Yr Avg. (1000AF)
		<<----- Drier ----->>		----->>		30%	10%	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(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.

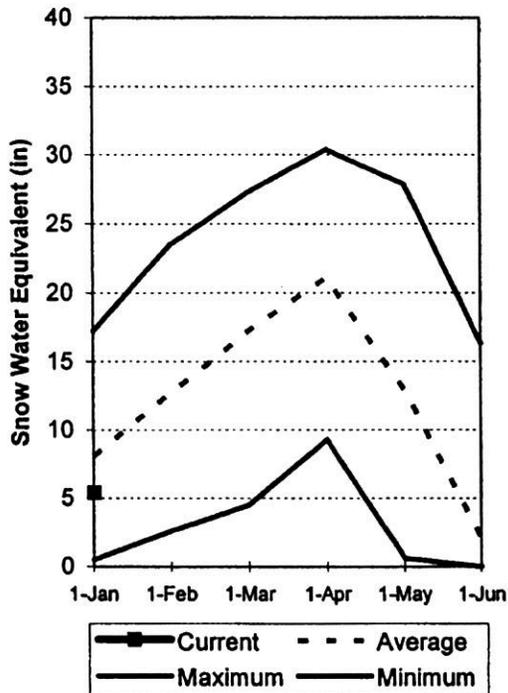
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

Utah Lake, Jordan River & Tooele Valley Basins

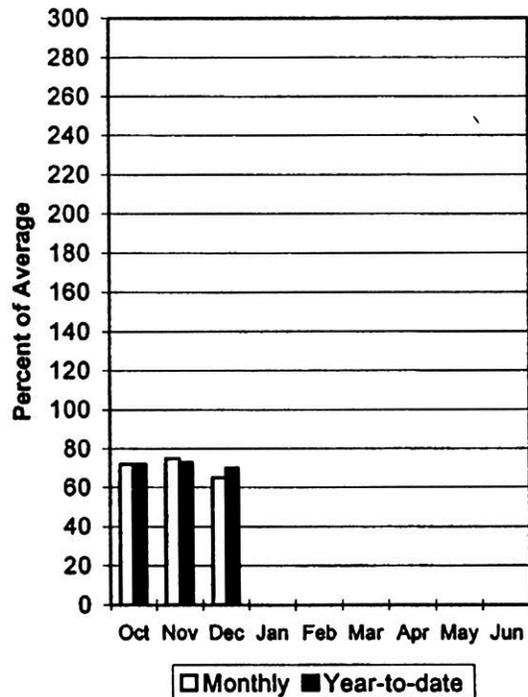
Jan 1, 2003

Snowpacks over these watersheds are at 66% of average, 63% of last year and rank as the lowest in the state. Individual sites range from 53% to 96% of average. 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 December was much below normal at 65%, bringing the seasonal accumulation (Oct-Dec) to 70% of average. Forecast streamflows are below normal. Reservoir storage is at 66% of capacity, 13% less than last year. General water supply conditions are poor due to low snowpack and low reservoir storage.

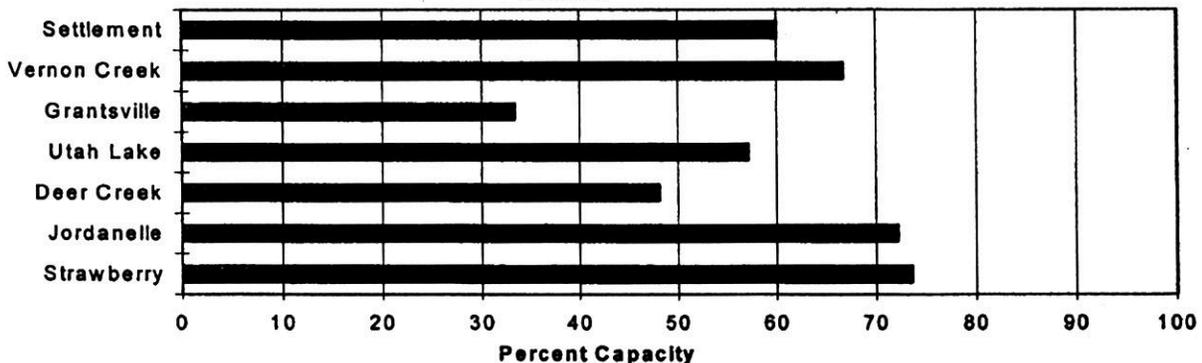
Mountain Snowpack
1/1/2003



Precipitation
1/1/2003



Reservoir Storage
1/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		50% (Most Probable)		Wetter		
		90% (1000AF)	70% (1000AF)	50% (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
FARLEY'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.

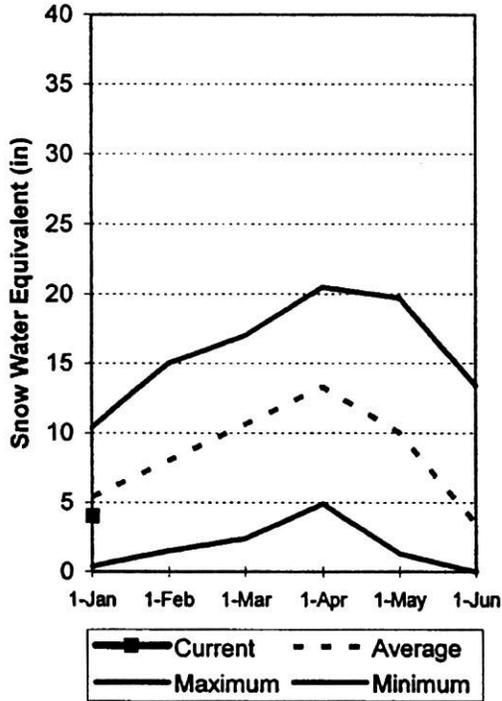
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Uintah Basin and Dagget SCD's

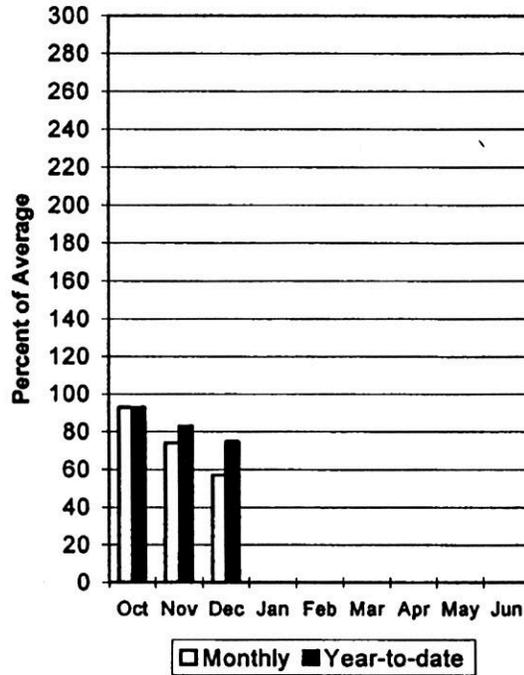
Jan 1, 2003

Snowpacks across the Uintah Basin and North Slope areas are below average at 74%, which is 93% of last year's snowpack. The North Slope ranges from 38% to 98% and the Uintah Basin ranges from 50% to 100% of average. This could be the fifth consecutive below normal April 1 snowpack in the Uintah Basin. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during December was much below normal at 57%, bringing the seasonal accumulation (Oct-Dec) to 75% of average. Reservoir storage is at 72% of capacity, down 9% from last year. Springtime runoff conditions are below normal due to low snowpack and low reservoir storage.

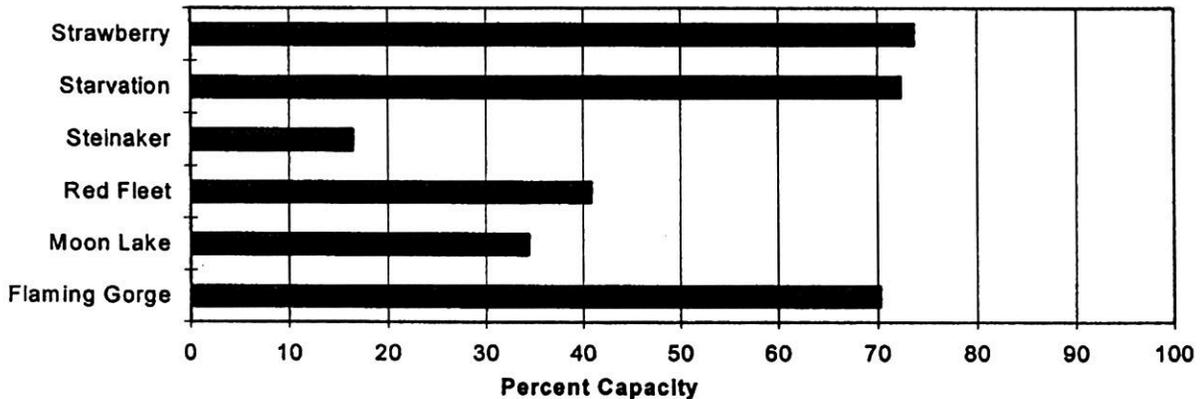
Mountain Snowpack
1/1/2003



Precipitation
1/1/2003



Reservoir Storage
1/1/2003



UINTAH BASIN & DAGGET SCD'S
Streamflow Forecasts - April 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% (Most Probable)	30%	10%	10%	
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
MOON 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.

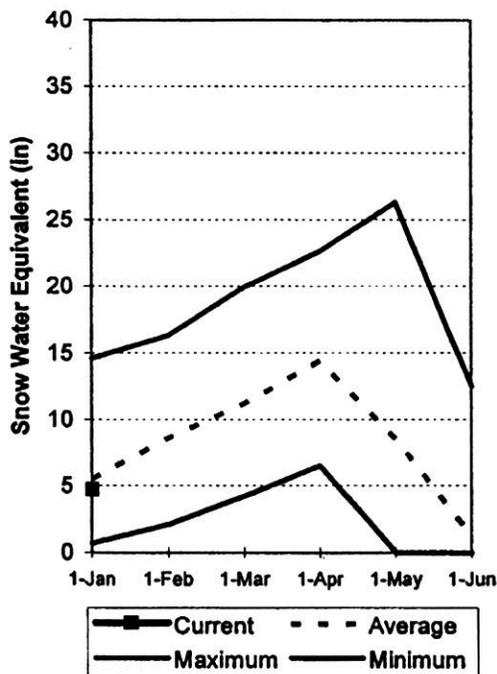
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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Carbon, Emery, Wayne, Grand and San Juan Co.

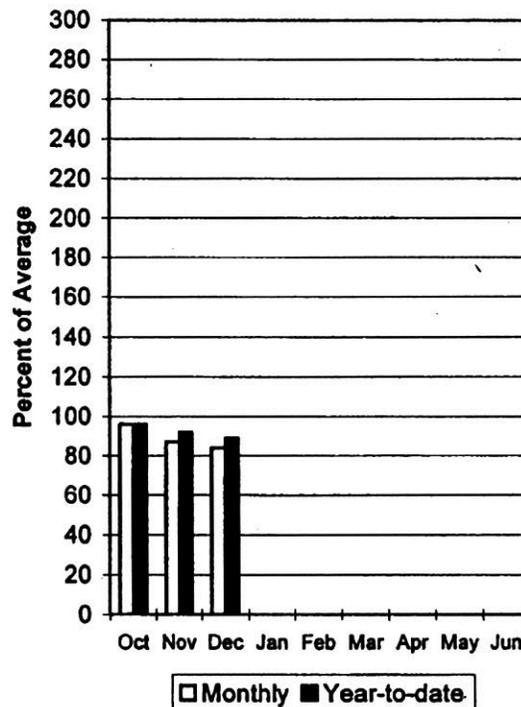
Jan 1, 2003

Snowpacks in this region are below normal at 85% of average, about the same as last year. Individual sites range from 59% to 104% of average. This could be the fifth consecutive below normal April 1 snowpack for this region. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during December was below average at 84%, bringing the seasonal accumulation (Oct-Dec) to 89% of normal. Reservoir storage is at 30% of capacity, down 24% from last year. General runoff and water supply conditions are below normal due to low snowpack and low reservoir storage.

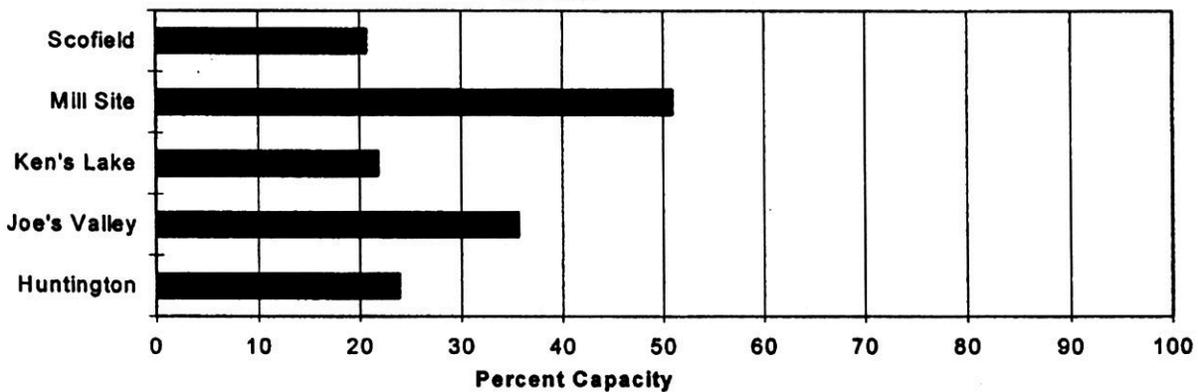
Mountain Snowpack
1/1/2003



Precipitation
1/1/2003



Reservoir Storage
1/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% 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 Tabbyuna 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

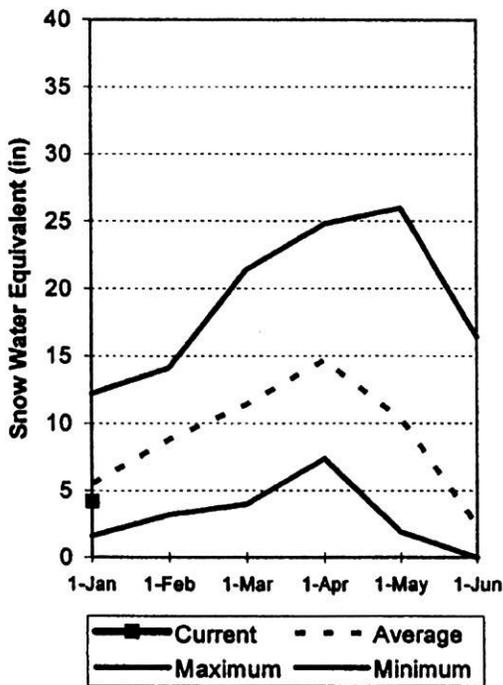
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

- (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.

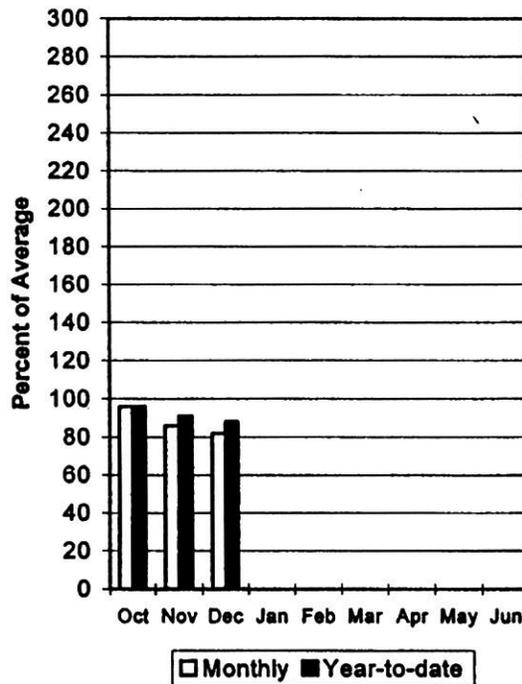
Sevier and Beaver River Basins Jan 1, 2003

Snowpacks on the Sevier River Basin are below normal at 76% of average, about 87% of last year. Individual sites range from 40% to 116% of average. This could be the fifth consecutive below normal April 1 snowpack year for the Sevier. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during December was below average at 82% of normal, bringing the seasonal accumulation (Oct-Dec) to 88% of average. Reservoir storage is at 22% of capacity, down 21% from last year. Water supply conditions and streamflow forecasts are below normal due to low snowpack and low reservoir storage.

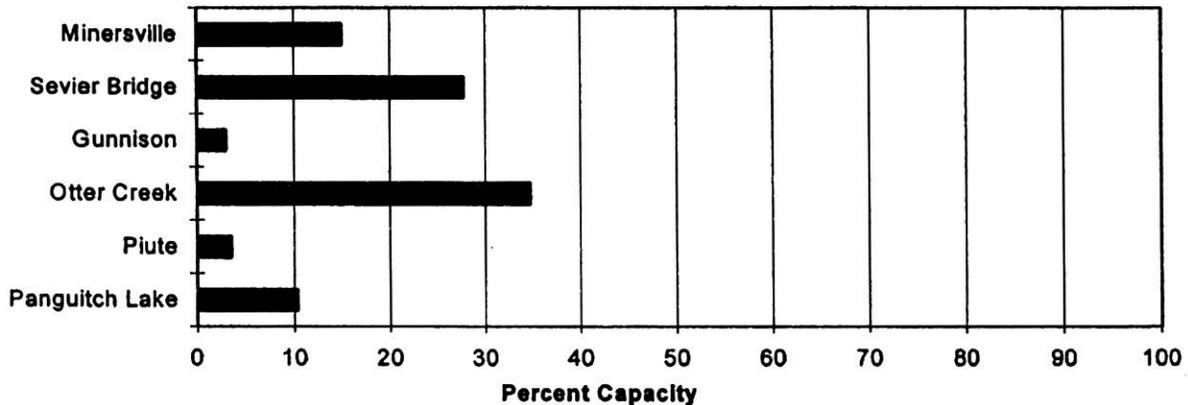
Mountain Snowpack
1/1/2003



Precipitation
1/1/2003



Reservoir Storage
1/1/2003



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

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%	10%	
		(1000AF)	(1000AF)	(1000AF)	(± AVG.)	(1000AF)	(1000AF)	(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

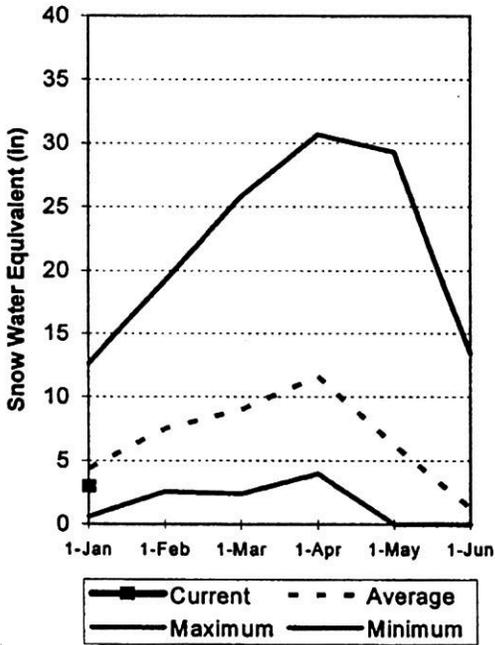
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(2) - The value is natural flow - actual flow may be affected by upstream water management.

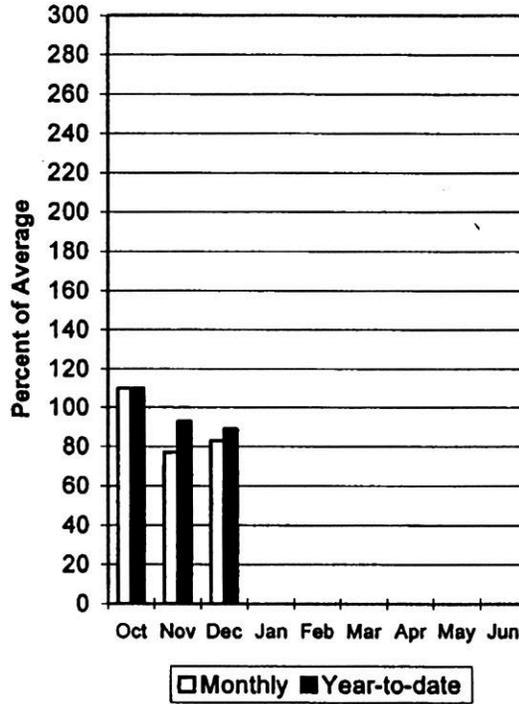
E. Garfield, Kane, Washington, & Iron co. Jan 1, 2003

Snowpacks in this region are at 68% of average, about the same as last year. Individual sites range from 36 to 80% of average and it could be the fifth consecutive below normal April 1 snowpack year. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation was below normal during December at 83% of average, bringing the seasonal accumulation (Oct-Dec) to 89% of normal. Reservoir storage is at 25% of capacity, 31% less than last year. General water supply conditions and streamflow forecasts are below normal.

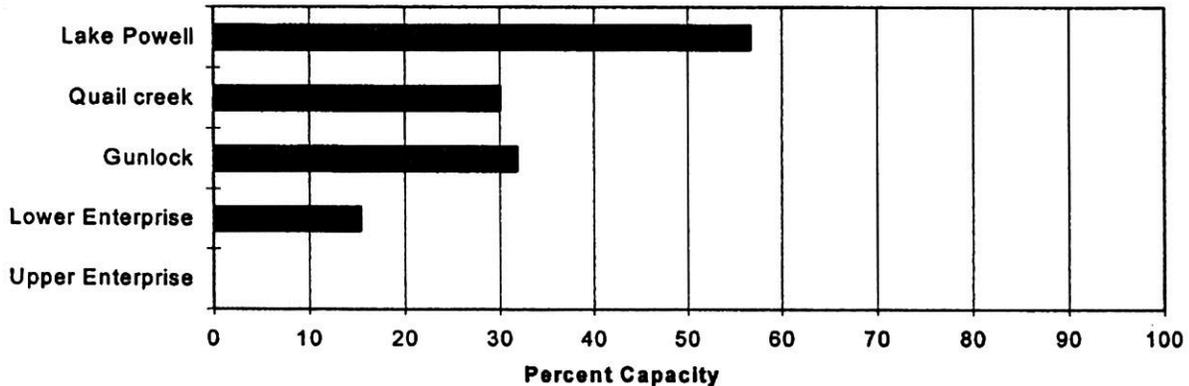
Mountain Snowpack 1/1/2003



Precipitation 1/1/2003



Reservoir Storage 1/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<----- Drier ----->>		----->>		----->>		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	% AVG.	30% (1000AF)	10% (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	---	PANOWAN	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.

UTAH SURFACE	WATER	SUPPLY	INDEX
Snow Surveys	NRCS	USDA	
Basin or Region	SWSI/%	Percentile	Years with Similar SWSI
Bear River	-4	2%	92,93,2002
Ogden River	-2.9	15%	87,01,81,90
Weber River	-3.5	8%	77,92,88,02
Tooele Valley	NA		
Provo	-3.4	9%	63,60,64,62
North Slope	NA		
West Uintah Basin	0.2	52%	88,95,87,02
East Uintah Basin	-2.2	23%	92,88,90,2000
Price River	-2.2	24%	59,02,89,98
San Rafael	-1.0	38%	95,76,88,99
Moab	-2.4	21%	88,99,81,01
Upper Sevier River	-4	2%	63,61,77
Lower Sevier River	-2.3	22%	67,92,62,65
Beaver River	-3.0	14%	63,90,72,76
Virgin River	-1.7	30%	91,96,85,87
Snow Surveys			SWSI Scale: -4 to 4
245 N Jimmy Doolittle Rd			Percentile: 0 - 100%
Salt Lake City, UT			
(801) 524-5213			

DATA CURRENT AS OF:01/07/03 11:49:55

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

JANUARY 2003

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	1/01	9	1.4	1.8	2.9
ALTA CENTRAL	8800	1/02	43	10.4	19.0	16.5
BEAVER DAMS SNOTEL	8000	1/01	-	5.0	4.6	4.3
BEAVER DIVIDE SNOTEL	8280	1/01	23	3.8	5.0	4.7
BEN LOMOND PK SNOTEL	8000	1/01	46	12.5	18.3	14.5
BEN LOMOND TR SNOTEL	6000	1/01	36	7.9	11.3	8.5
BEVAN'S CABIN	6450				-	4.2
BIG FLAT SNOTEL	10290	1/01	35	6.8	5.5	7.6
BIRCH CROSSING	8100				-	2.8
BLACK FLAT-U.M. CK S	9400	1/01	21	3.4	4.6	3.8
BLACK'S FORK GS-EF	9340				-	3.3
BLACK'S FORK JUNCTN	8930				-	3.7
BOX CREEK SNOTEL	9800	1/01	26	4.1	6.2	5.3
BRIAN HEAD	10000				-	8.2
BRIGHTON SNOTEL	8750	1/01	32	5.8	9.8	10.9
BRIGHTON CABIN	8700	1/02	36	8.8	14.4	11.5
BROWN DUCK SNOTEL	10600	1/01	-	6.0	6.1	7.7
BRYCE CANYON	8000				-	2.1
BUCK FLAT SNOTEL	9800	1/01	38	7.8	7.3	7.2
BUCK PASTURE	9700				-	-
BUCKBOARD FLAT	9000				-	5.4
BUG LAKE SNOTEL	7950	1/01	31	6.7	8.1	8.3
BURT'S-MILLER RANCH	7900				-	2.2
CAMP JACKSON SNOTEL	8600	1/01	19	3.3	4.8	5.6
CASCADE MOUNTAIN	7770	1/01	25	5.2	-	-
CASTLE VALLEY SNOTEL	9580	1/01	-	3.1	3.5	4.9
CHALK CK #1 SNOTEL	9100	1/01	37	7.2	9.8	10.1
CHALK CK #2 SNOTEL	8200	1/01	29	5.2	6.4	6.7
CHALK CREEK #3	7500				-	3.5
CHEPETA SNOTEL	10300	1/01	-	4.0	5.8	6.0
CLAYTON SPRINGS SNTL	10000	1/01	24	3.4	3.1	-
CLEAR CK RIDG #1 SNT	9200	1/01	34	5.9	6.0	7.7
CLEAR CK RIDG #2 SNT	8000	1/01	-	4.8	4.5	6.0
CORRAL	8200				-	-
CURRANT CREEK SNOTEL	8000	1/01	19	2.1	2.2	4.2
DANIELS-STRAWBERRY S	8000	1/01	29	5.0	5.5	6.5
DILL'S CAMP SNOTEL	9200	1/01	-	5.7	5.1	5.5
DONKEY RESERVOIR SNO	9800	1/01	-	3.2	2.3	4.0
DRY BREAD POND SNTL	8350	1/01	33	6.3	7.4	9.1
DRY FORK SNOTEL	7160	1/01	-	4.2	7.6	6.9
EAST WILLOW CREEK SN	8250	1/01	-	2.0	2.2	2.9
FARMINGTON CN SNOTEL	8000	1/01	50	11.4	15.7	13.0
FARMINGTON CANYON L.	6950				-	10.4
FARNSWORTH LK SNOTEL	9600	1/01	29	5.1	6.5	8.0
FISH LAKE	8700				-	2.9
FIVE POINTS LAKE SNO	10920	1/01	30	5.7	4.8	7.0
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	12	2.7	3.6	3.6
HARDSCRABLE SNOTEL	7250	1/01	-	5.9	9.4	6.5
HARRIS FLAT SNOTEL	7700	1/01	-	2.0	2.5	2.5
HAYDEN FORK SNOTEL	9100	1/01	32	6.5	6.1	6.3
HENRY'S FORK	10000				-	-
HEWINTA SNOTEL	9500	1/01	22	4.0	3.4	4.1
HICKERSON PARK SNTL	9100	1/01	6	1.1	1.9	2.9
HIDDEN SPRINGS	5500	12/27	7	1.2	4.9	.2
HOBBLE CREEK SUMMIT	7420				-	6.1
HOLE-IN-ROCK SNOTEL	9150	1/01	14	2.3	2.5	2.7
HORSE RIDGE SNOTEL	8260	1/01	-	8.2	8.6	9.3
HUNTINGTON-HORSESHOE	9800				-	9.7
INDIAN CANYON SNOTEL	9100	1/01	22	4.4	3.6	4.4
JOHNSON VALLEY	8850				-	2.7
JONES CORRAL G.S.	9720				-	-
KILFOIL CREEK	7300				-	5.5

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KILLION CANYON	6300	12/27	9	1.5	6.8	5.1
KIMBERLY MINE SNOTEL	9300	1/01	-	3.8	4.2	6.0
KING'S CABIN SNOTEL	8730	1/01	20	3.8	3.5	5.0
KLONDIKE NARROWS	7400				-	7.5
KOLOB SNOTEL	9250	1/01	23	4.8	5.7	6.9
LAKEFORK #1 SNOTEL	10100	1/01	24	4.4	4.3	5.6
LAKEFORK BASIN SNTL	10900	1/01	34	5.0	5.1	8.2
LAKEFORK MOUNTAIN #3	8400				-	2.8
LAMBS CANYON	7400	1/07	25	5.3	9.5	7.4
LASAL MOUNTAIN LOWER	8800				-	3.8
LASAL MOUNTAIN SNTL	9850	1/01	20	3.4	5.1	4.7
LILY LAKE SNOTEL	9050	1/01	27	4.8	5.1	5.5
LITTLE BEAR LOWER	6000				-	4.3
LITTLE BEAR SNOTEL	6550	1/01	-	3.3	7.1	5.2
LITTLE GRASSY SNOTEL	6100	1/01	-	1.3	2.3	2.1
LONG FLAT SNOTEL	8000	1/01	-	1.0	1.6	2.8
LONG VALLEY JCT. SNT	7500	1/01	-	1.4	2.0	1.8
LOOKOUT PEAK SNOTEL	8200	1/01	-	8.8	12.2	9.9
LOST CREEK RESERVOIR	6130				-	2.0
LOUIS MEADOW SNOTEL	6700	1/01	26	5.5	11.4	-
MAMMOTH-COTTONWD SNT	8800	1/01	33	8.2	7.3	7.6
MERCHANT VALLEY SNTL	8750	1/01	-	3.5	5.3	5.4
MIDDLE CANYON	7000				-	5.9
MIDWAY VALLEY SNOTEL	9800	1/01	33	6.4	5.5	9.0
MILL CREEK	6950	12/27	18	3.6	12.2	8.3
MILL-D NORTH SNOTEL	8960	1/01	-	5.6	13.8	10.3
MILL-D SOUTH FORK	7400	1/02	26	6.0	11.9	8.6
MINING FORK SNOTEL	8000	1/01	26	5.3	9.5	5.5
MONTE CRISTO SNOTEL	8960	1/01	39	7.5	9.4	11.0
MOSBY MTN. SNOTEL	9500	1/01	-	4.7	4.2	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 SNTL	7500	1/01	-	4.5	8.1	7.2
PARRISH CREEK SNOTEL	7740	1/01	35	7.6	12.7	-
PAYSON R.S. SNOTEL	8050	1/01	22	4.3	8.1	7.2
PICKLE KEG SNOTEL	9600	1/01	-	6.0	7.4	6.2
PINE CREEK SNOTEL	8800	1/01	-	3.5	8.2	8.8
RED PINE RIDGE SNTL	9200	1/01	35	6.0	5.4	6.7
REDDEN MINE LOWER	8500				-	6.7
REES'S FLAT	7300				-	5.6
ROCK CREEK SNOTEL	7900	1/01	-	3.2	3.1	3.7
ROCKY BN-SETTLEMENT SN	8900	1/01	31	5.3	9.2	10.0
SEKLEY CREEK SNOTEL	10000	1/01	20	4.5	5.5	6.4
SMITH MOREHOUSE SNTL	7600	1/01	22	3.1	6.1	5.7
SNOWBIRD SNOTEL	9700	1/01	44	7.8	15.0	13.2
SPIRIT LAKE	10300				-	5.5
SQUAM SPRINGS	9300				-	3.2
STEEL CREEK PARK SNO	10100	1/01	29	3.9	5.9	6.7
STILLWATER CAMP	8550				-	3.9
STRAWBERRY DIVIDE SN	8400	1/01	-	5.8	8.1	7.4
SUSC RANCH	8200				-	2.8
TALL POLES	8800				-	5.3
TEMPLE FORK SNOTEL	7410	1/01	29	6.8	7.7	-
THAYNES CANYON SNTL	9200	1/01	35	6.6	9.8	9.0
THISTLE FLAT	8500				-	-
TIMBERLINE	9100				-	-
TIMPANOGOS DIVIDE SN	8140	1/01	28	5.4	7.1	9.2
TONY GROVE LK SNOTEL	8400	1/01	51	11.4	15.0	14.3
TONY GROVE R.S.	6250				-	5.0
TRIAL LAKE	9960				-	9.8
TRIAL LAKE SNOTEL	9960	1/01	40	6.2	9.3	10.5
TROUT CREEK SNOTEL	9400	1/01	17	2.3	3.0	4.2
UPPER JOES VALLEY	8900				-	4.1
VERNON CREEK SNOTEL	7500	1/01	16	2.1	4.4	4.0
VIPONT	7670				-	-
WEBSTER FLAT SNOTEL	9200	1/01	-	2.8	3.6	6.0
WHITE RIVER #1 SNTL	8550	1/01	-	4.0	3.4	5.2
WHITE RIVER #3	7400				-	3.5
WIDTSON #3 SNOTEL	9500	1/01	-	3.9	2.4	4.4
WRIGLEY CREEK	9000				-	4.3
YANKEE RESERVOIR	8700				-	3.7



Issued by

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

Snow Survey, NRCS, USDA
245 North Jimmy Doolittle Road
Salt Lake City, UT 84116
(801) 524-5213



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





Utah Water Supply Outlook Report

February 1, 2003



Snowpack on the Weber River from 8000 to 9000 feet elevation, February 1, 2003

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

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

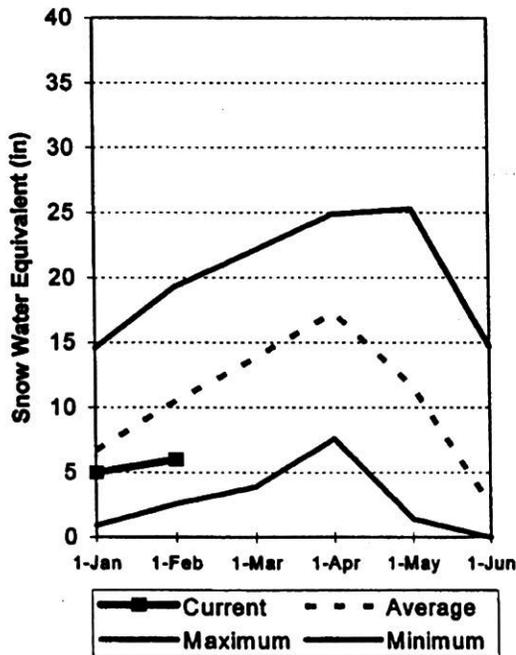
Storage in 41 of Utah's key irrigation reservoirs is at 47% of capacity. This is down substantially from last year indicating heavy use of reservoir storage to make up the streamflow deficit. Most reservoir operators are utilizing a conservative strategy, storing as much water as possible.

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.

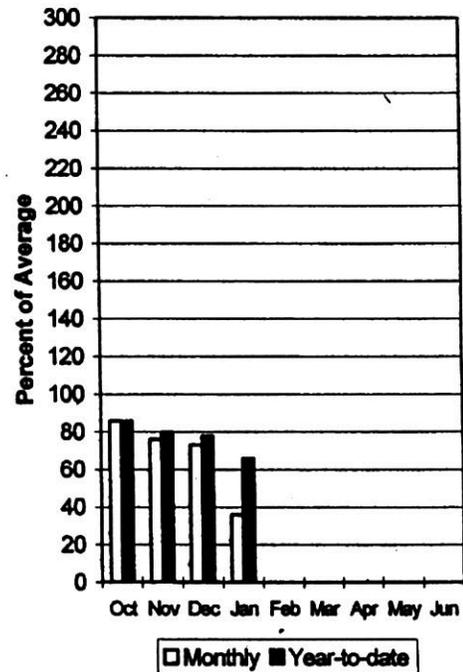
Mountain Snowpack

2/1/2003



Precipitation

2/1/2003



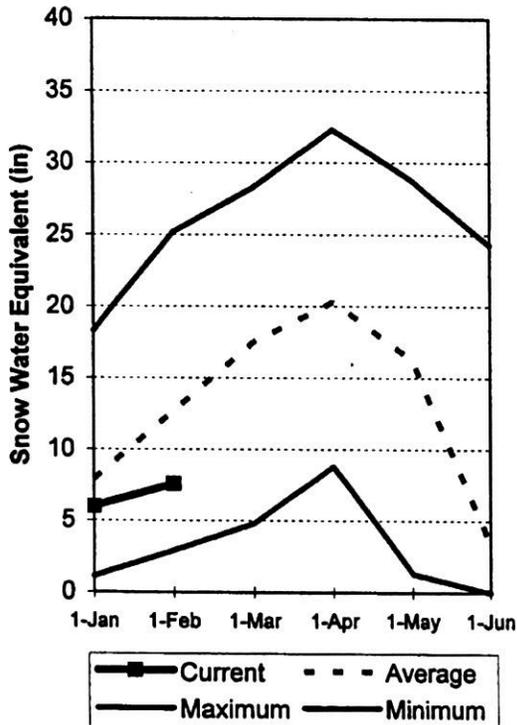
Bear River Basin

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.

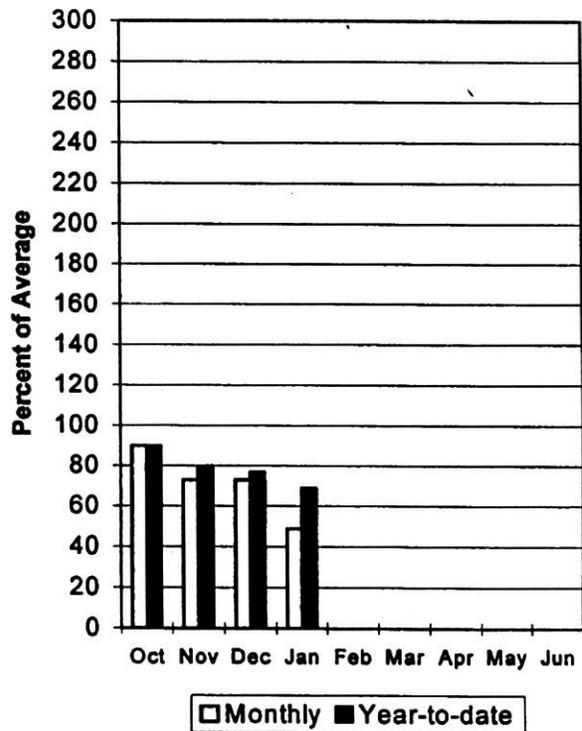
Bear River Snowpack

2/1/2003



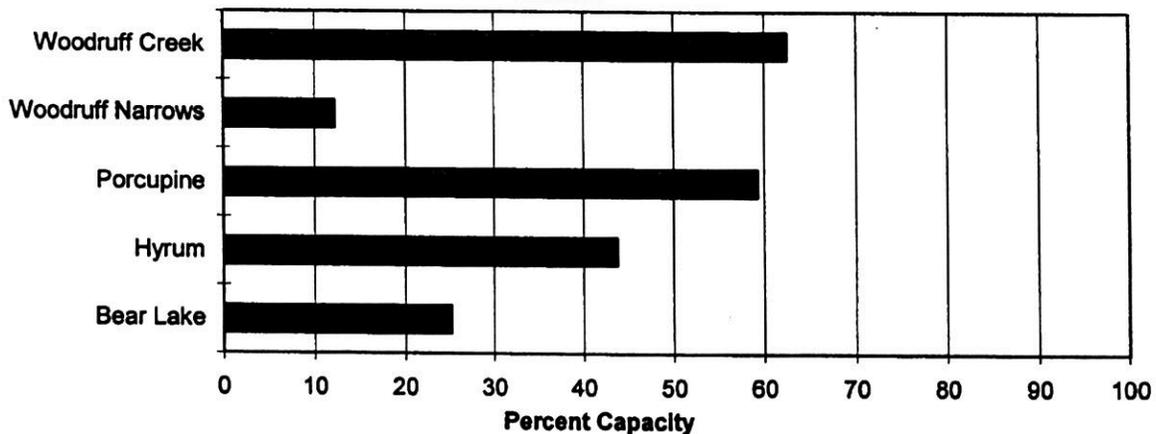
Bear River Precipitation

2/1/2003



Reservoir Storage

2/1/2003



BEAR RIVER BASIN
Streamflow Forecasts - February 1, 2003

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<----- Drier ----->>		----->>		----->>		
		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	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.

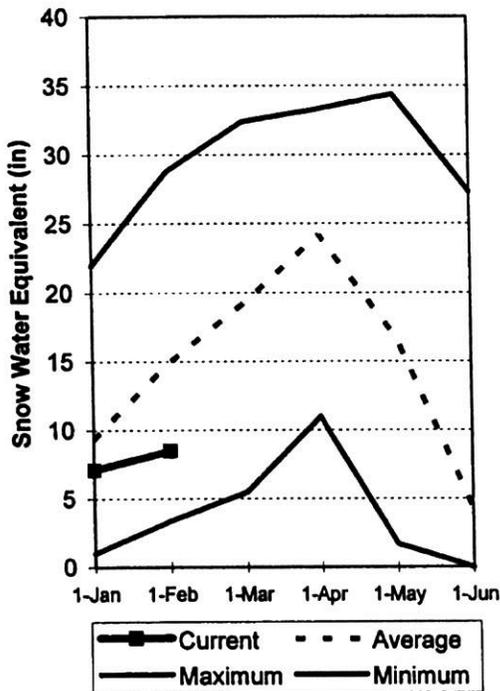
Weber and Ogden River Basins

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.

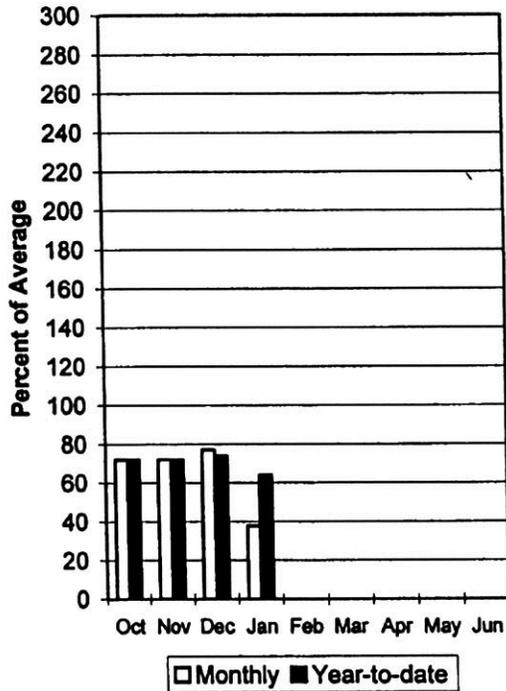
Weber River Snowpack

2/1/2003



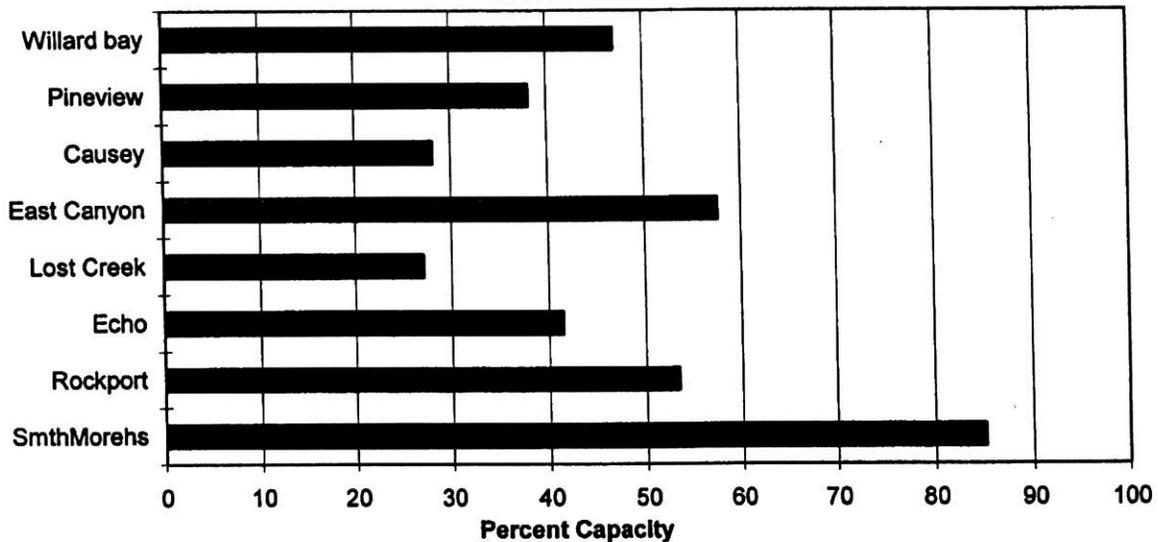
Weber River Precipitation

2/1/2003



Reservoir Storage

2/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		50% (Most Probable)		Wetter		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	% AVG.	30% (1000AF)	10% (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.

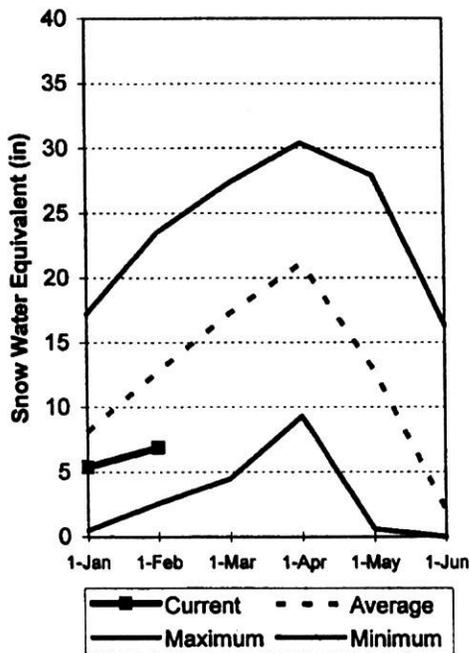
Utah Lake, Jordan River & Tooele Valley Basins

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.

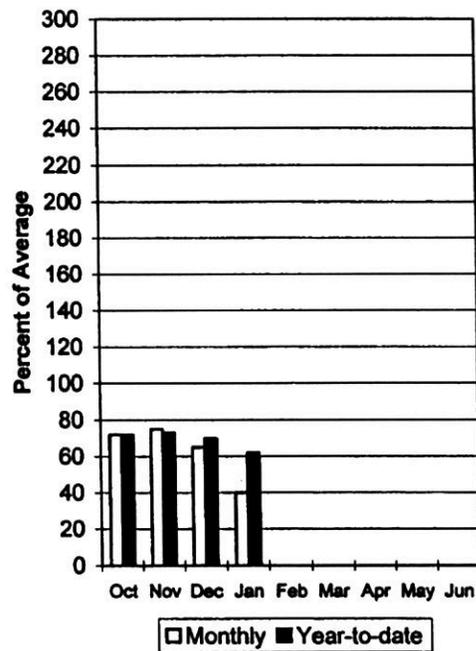
Provo River Snowpack

2/1/2003



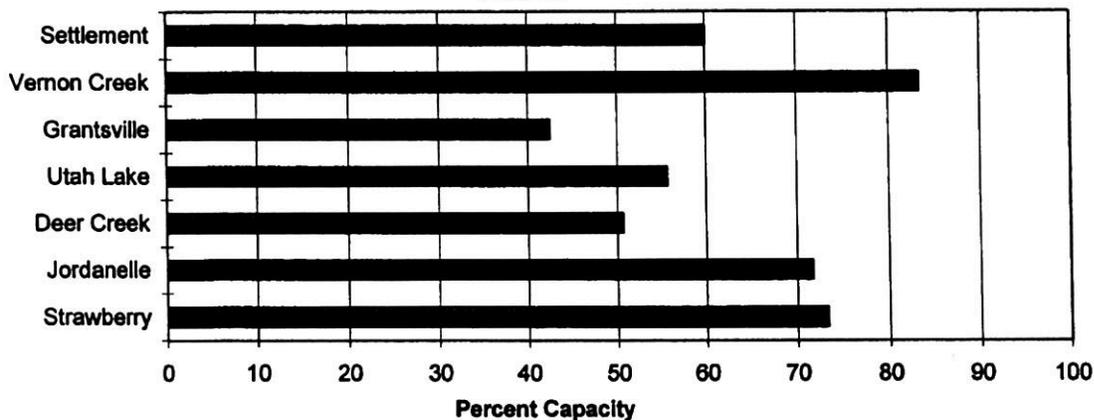
Provo River Precipitation

2/1/2003



Reservoir Storage

2/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		Future Conditions		Wetter		
		90% (1000AF)	70% (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 Dear 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.

- (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.

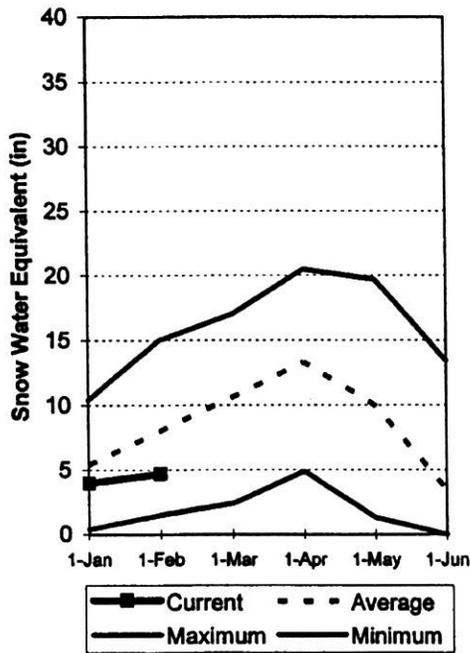
Uintah Basin and Dagget SCD's

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.

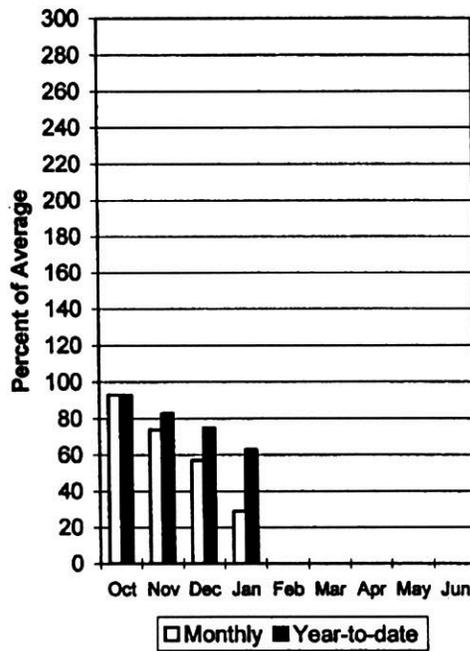
Uintahs Snowpack

2/1/2003



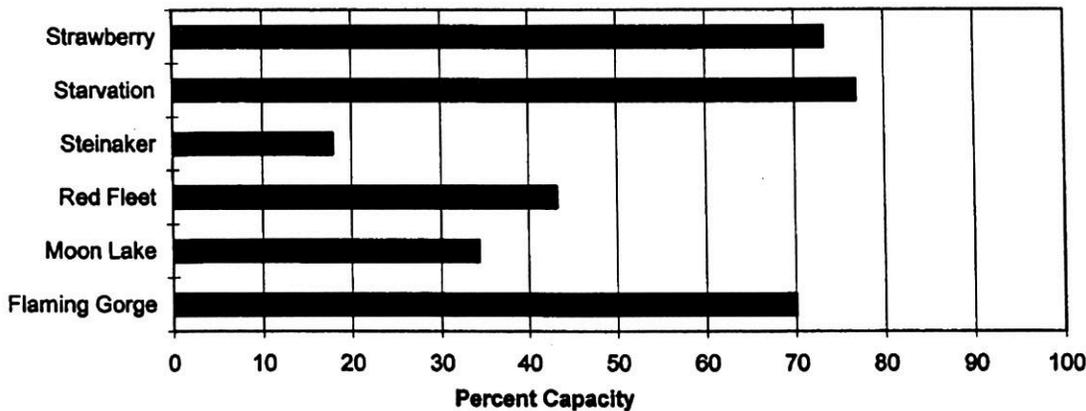
Uintahs Precipitation

2/1/2003



Reservoir Storage

2/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<< Drier >>		Future Conditions		>> Wetter <<		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 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 DUCHESSIE 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

UTAH BASIN & DAGGET SCD'S Reservoir Storage (1000 AF) - End of January					UTAH BASIN & DAGGET SCD'S 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	
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	
STEINDAKER	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 CRR	4	95	61	
					STRAWBERRY RIVER	4	91	55	
					UTAH-WHITEROCKS RIVERS	2	88	68	
					UTAH 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.

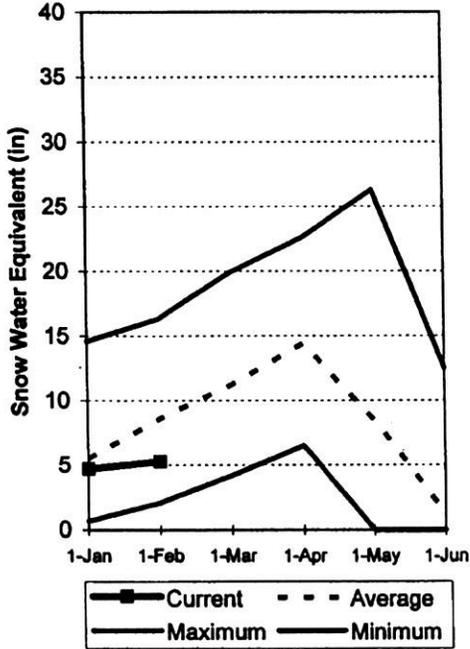
Carbon, Emery, Wayne, Grand and San Juan Co.

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.

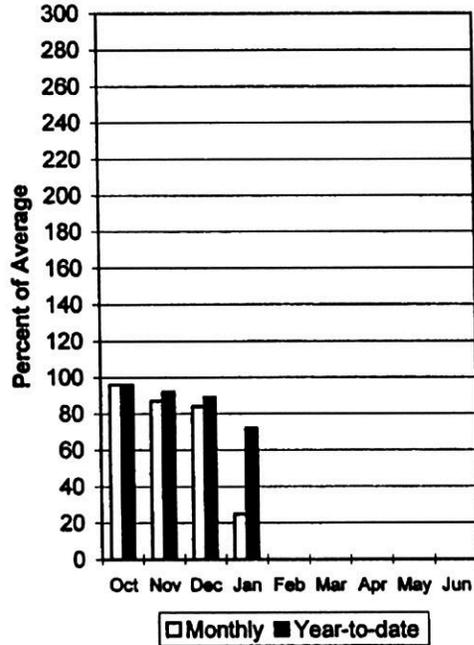
Southeast Utah Snowpack

2/1/2003



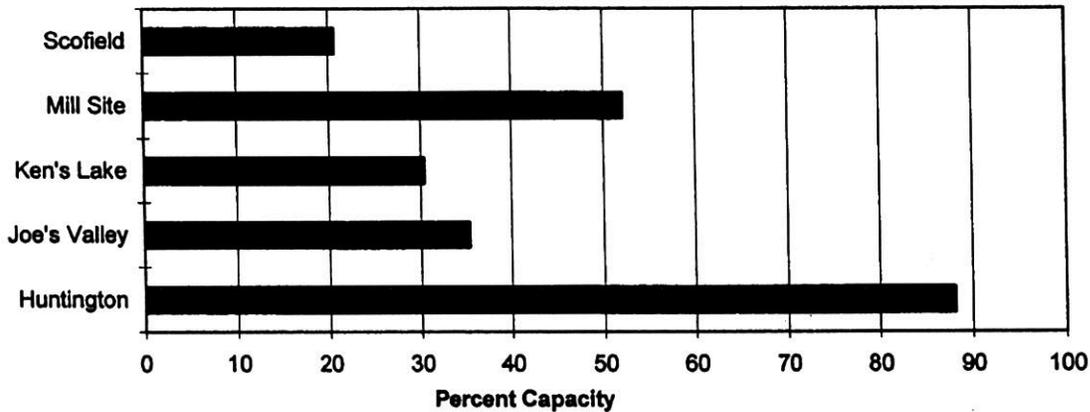
Southeast Utah Precipitation

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						30-Yr Avg. (1000AF)
		Drier		50% (Most Probable)		Wetter		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (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 Monticello	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.

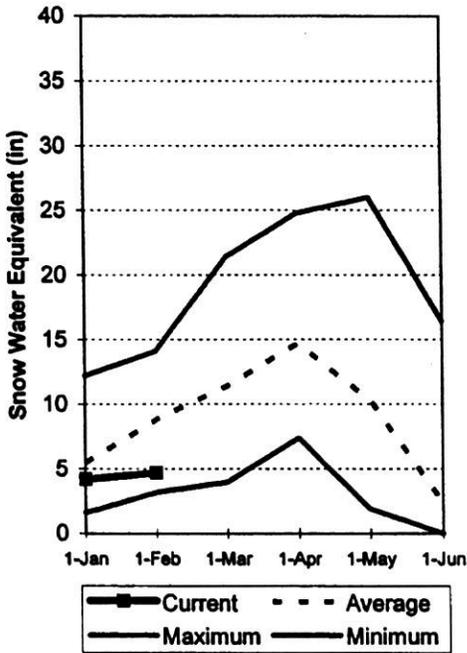
Sevier and Beaver River Basins

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.

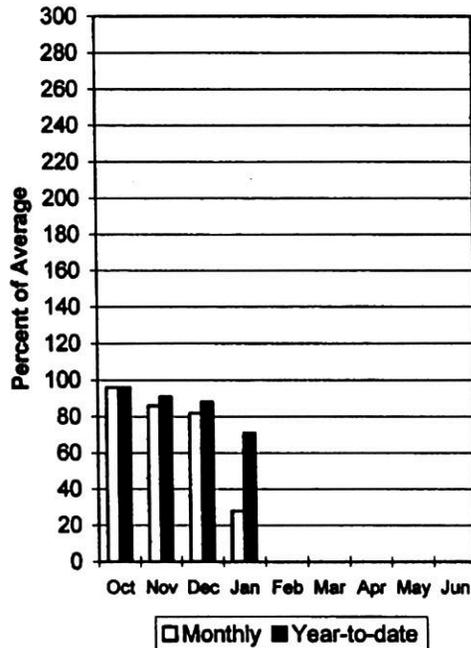
Sevier River Snowpack

2/1/2003



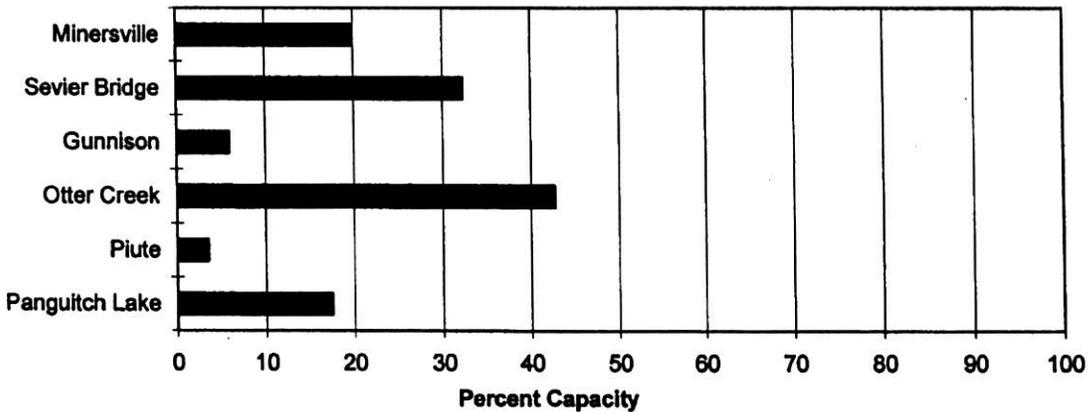
Sevier River Precipitation

2/1/2003



Reservoir Storage

2/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		50% (Most Probable)		Wetter		
		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 (MkyPd)	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
PANQUITCH 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.

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

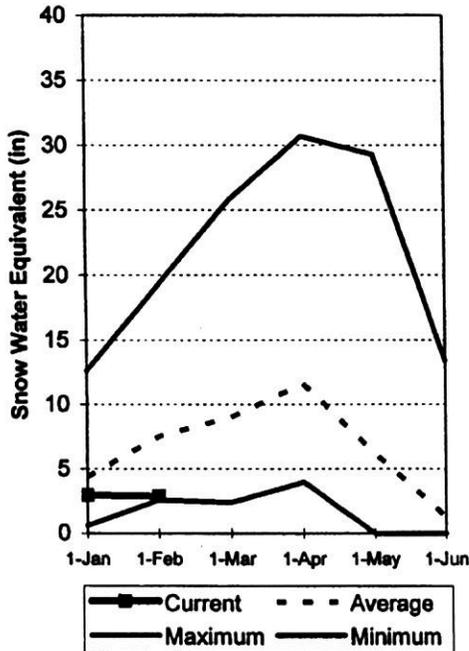
E. Garfield, Kane, Washington, & Iron co.

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.

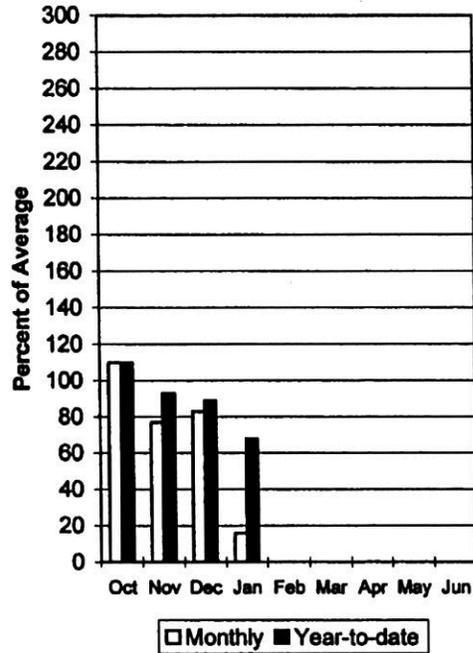
Southwest Utah Snowpack

2/1/2003



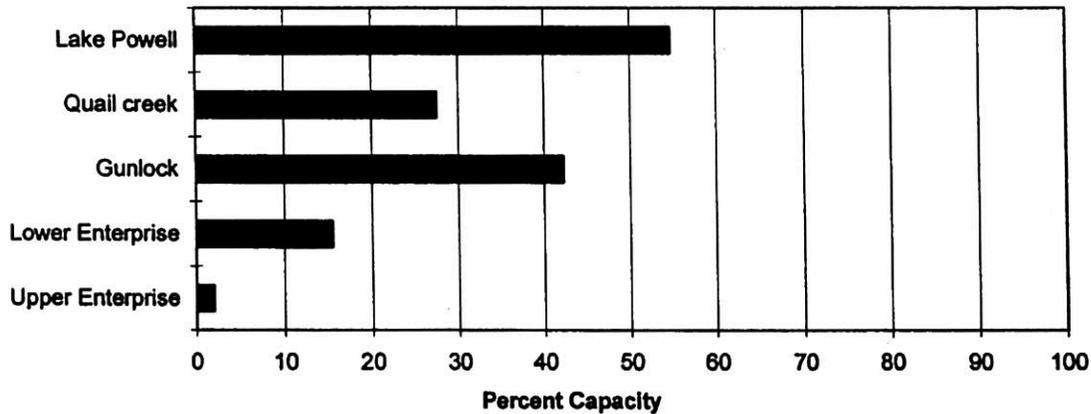
Southwest Utah Precipitation

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		Future Conditions		Wetter		
		90% (1000AF)	70% (1000AF)	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.

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

SNOW COURSE DATA

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
MOSSY 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-SETTLEMENT 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
WIDTBOE #3 SNOTEL	9500	2/01	-	4.5	2.7	7.1
WRIGLEY CREEK	9000				-	6.7
YANKEE RESERVOIR	8700				-	5.6



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

March 1, 2003



An Empty Upper Enterprise Reservoir, Nearly Empty Lower Reservoir
February 19, 2003 Photo by Randy Julander, Snow survey, NRCS, USDA

Water Supply Outlook Reports and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

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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

Mar 1, 2003

SUMMARY

A February like this one at any other time would be absolutely nondescript. Average. So average, it would be practically speaking, boring. It was even below average in some places. But this February, coming on the heels of an extremely warm, dry, essentially snow-less January and persistently declining snowpacks was anything but average in terms of the impact it has had on water supplies, especially in southern Utah. This February was a million dollar month for southern Utah, increasing snowpacks 10 to 20% relative to last month. Many areas in southern Utah were flirting with a non-snowmelt runoff year, similar in many respects to last year. With the recent storms and increases in snowpack, this area now has almost double the snowpack of last year. Before getting overly exuberant, remember that double nothing is still a pretty small figure. Snowpacks are still much below normal, but significantly improved over last month and last year. In fact, snowpacks across the state are below to much below normal, ranging from 59% to only 72% of average, a far cry from what is needed to provide adequate water supplies for a thirsty state. Low elevation snowpacks are still much below average and will most likely melt early. March snowpack accumulation in order to get back to average by April 1 ranges from 259% on the Bear in northern Utah to 431% of average for southwest Utah. The probability of this magnitude increase is essentially zero for all of northern Utah and ranges from 3 to 16% for southern Utah. Given average snowpack accumulations during March, most areas will end up in the 60% to 75% of average range, which is a little better than current conditions. 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 49% of capacity, down 641,600 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

March first snowpacks as measured by the NRCS SNOTEL system are near 60% to 70% of average in southern Utah. Southeast Utah has the highest snowpack at 72% of average and southwest Utah has the lowest at 59% of average. In northern Utah, snowpacks range from a low of 59% on the Provo to 68% on the Bear and the Uintah Basin. In order to reach average by April 1, northern snowpacks must have 250% to 300% of average March accumulation, with little chance (i.e. greater than maximum historical observations) that it will occur. Southern Utah would have to accumulate 250% to almost 450% of average March accumulations and the probability ranges from 3 to 16% of occurrence. Statewide, snowpacks are at 65% of average. Another drought year appears to be at the door.

PRECIPITATION

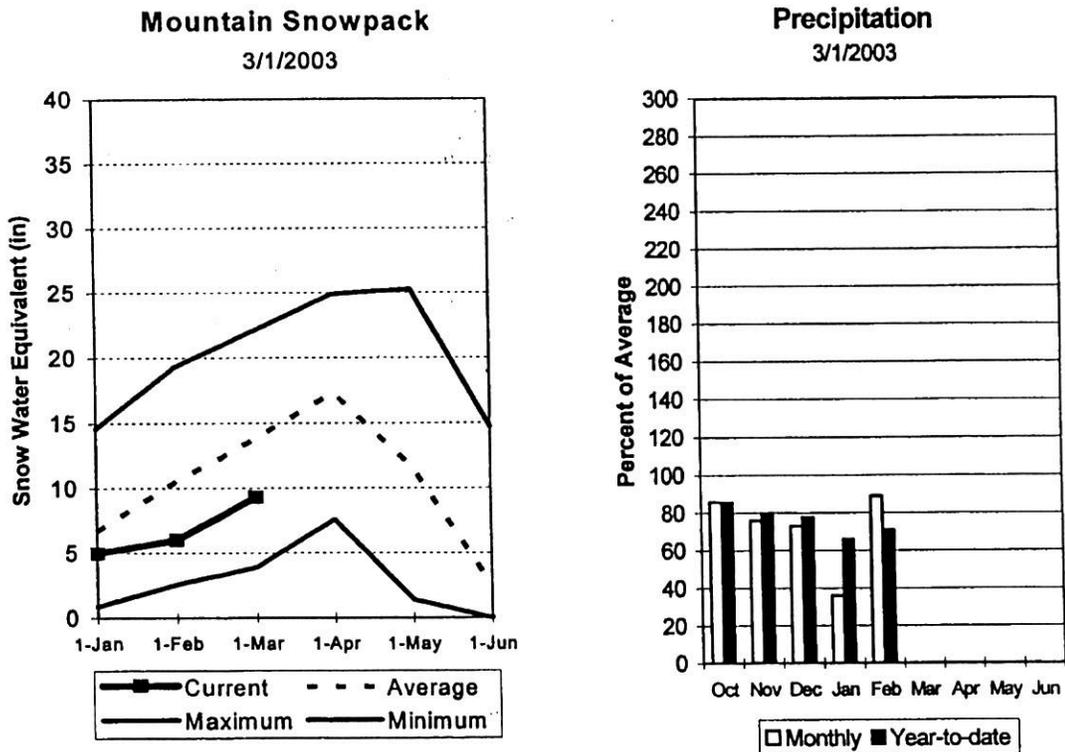
Mountain precipitation during February was below to near normal (70%-99%) in the north and near normal (99%-102%) in southern Utah. This brings the seasonal accumulation (Oct-Jan) to 71% of average statewide.

RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 49% 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.

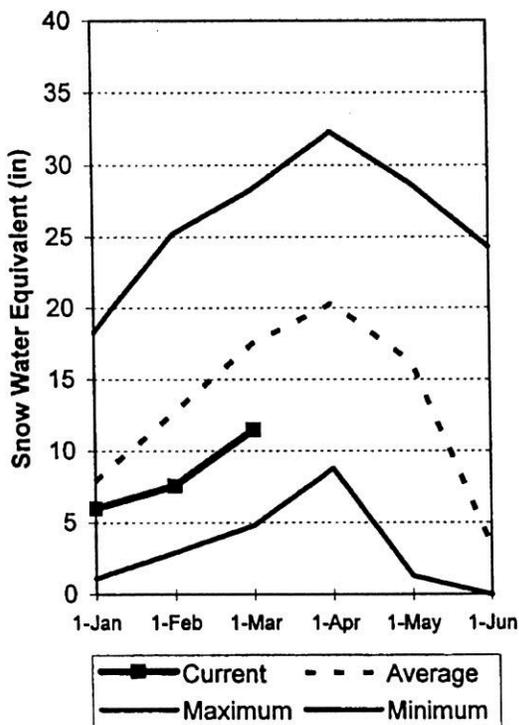


Bear River Basin Mar 1, 2003

Snowpacks on the Bear River Basin are much below average at 68% of normal, about 90% of last year and up 8% relative to last month. There is almost no chance of getting back to average by April 1. Specific sites range from 41% to 89% 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. February precipitation was near average at 99%, which brings the seasonal accumulation (Oct-Feb) to 75% of average. Forecast streamflows are for much below normal volumes this spring. Reservoir storage is at 26% of capacity. Water supply conditions are much below normal due to low snowpack and low reservoir storage.

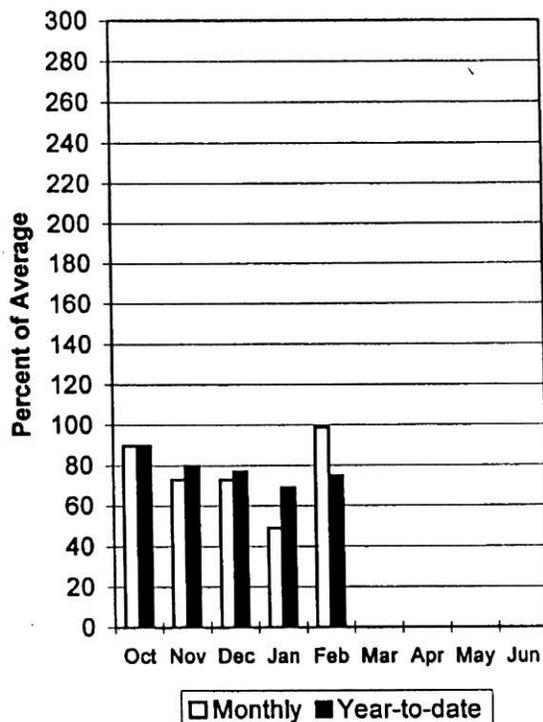
Bear River Snowpack

3/1/2003



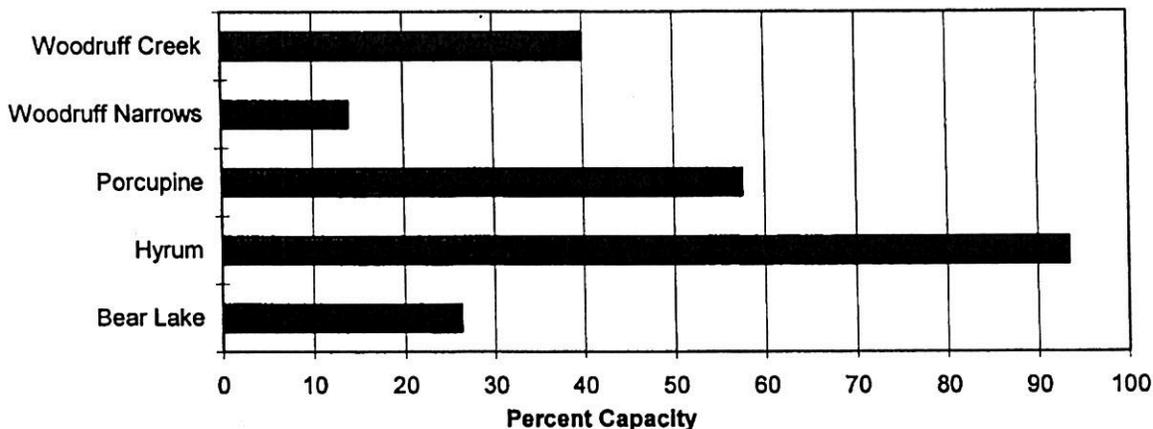
Bear River Precipitation

3/1/2003



Reservoir Storage

3/1/2003



BEAR RIVER BASIN
Streamflow Forecasts - March 1, 2003

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		50% (Most Probable)		Wetter		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	
Bear R nr UT-WY State Line	APR-JUL	52	62	70	60	79	94	116
Woodruff Narrows Res inflow	APR-JUL	26	41	53	39	67	90	136
Big Creek nr Randolph	APR-JUL	0.54	1.47	2.10	43	3.57	5.74	4.90
Smiths Fork nr Border	APR-JUL	42	52	60	58	69	86	103
Bear River blw Stewart Dam	APR-JUL	62	82	96	33	138	198	288
Little Bear River at Paradise	APR-JUL	12.2	15.6	18.4	40	22	28	46
Logan River nr Logan	APR-JUL	51	61	69	57	78	93	122
Blacksmith Fork nr Hyrum	APR-JUL	18.2	23	26	54	30	37	48

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of February					BEAR RIVER BASIN Watershed Snowpack Analysis - March 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	372.7	593.1	910.7	BEAR RIVER, UPPER (abv Ha	6	94	66
HYRUM	15.3	14.3	11.2	11.0	BEAR RIVER, LOWER (blw Ha	8	89	69
PORCUPINE	11.3	6.5	10.5	5.6	LOGAN RIVER	4	87	69
WOODRUFF NARROWS	57.3	8.0	5.5	27.6	RAFT RIVER	1	48	55
WOODRUFF CREEK	4.0	1.6	1.3	---	BEAR RIVER BASIN	14	90	68

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

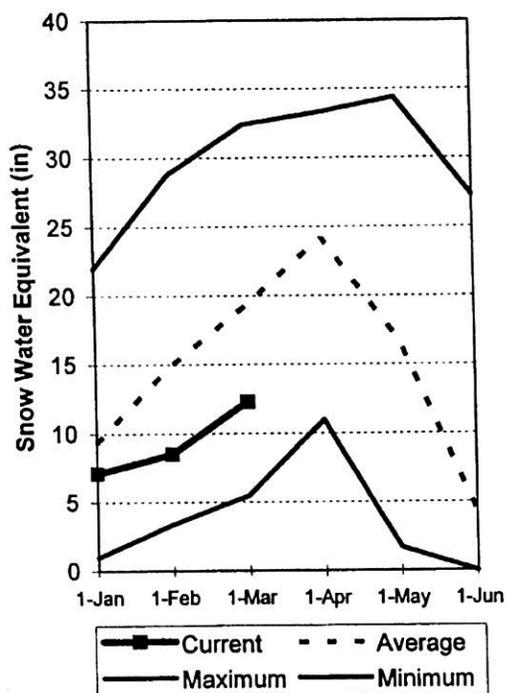
The average is computed for the 1971-2000 base period.

- (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.

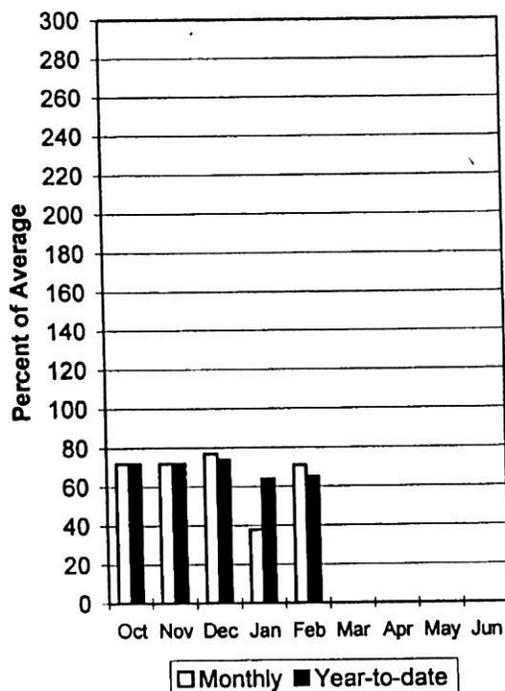
Weber and Ogden River Basins Mar 1, 2003

Snowpack on the Weber and Ogden Watersheds is much below normal at 62% of average, about 80% of last year and up 5% relative to last month. This is the lowest March 1 snowpack since 1992. Individual sites range from 34% to 82% 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 February was below normal at 71%, bringing the seasonal accumulation (Oct-Feb) to 65% of average. Reservoir storage is at 49% of capacity. Streamflow forecasts are much below average. Overall water supply conditions are much below normal due to poor snowpack and low reservoir storage.

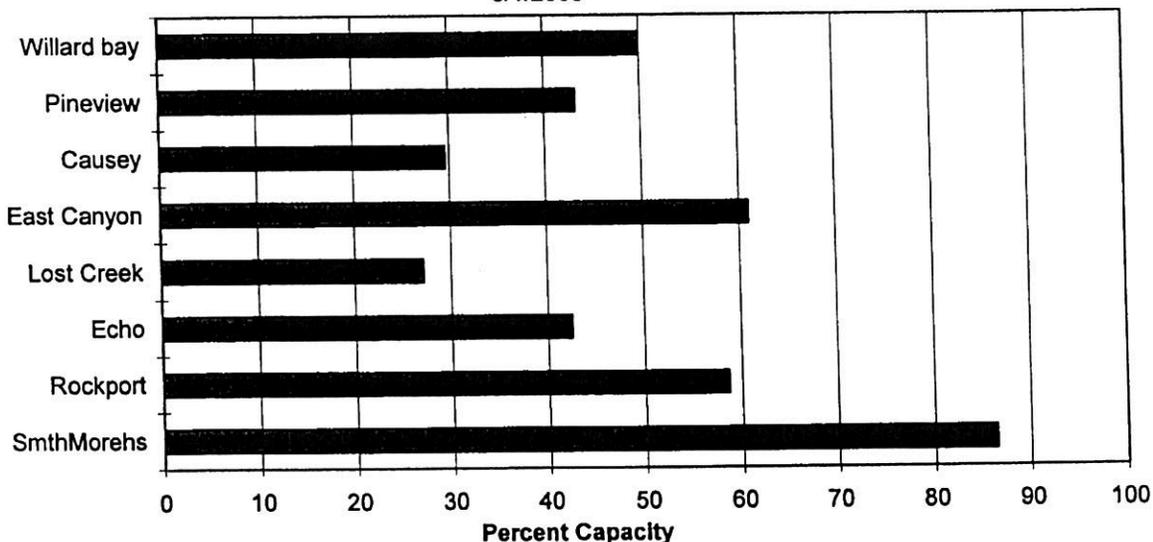
Weber River Snowpack
3/1/2003



Weber River Precipitation
3/1/2003



Reservoir Storage
3/1/2003



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

Forecast Point	Forecast Period	Drier		Future Conditions		Wetter		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	Chance Of Exceeding * (% AVG.)	30% (1000AF)	10% (1000AF)	
Smith & Morehouse Res inflow	APR-JUL	12.2	16.9	20	59	23	28	34
Weber River nr Oakley	APR-JUL	42	59	70	57	81	98	123
Rockport Reservoir inflow	APR-JUL	32	56	72	54	88	112	134
Weber River nr Coalville	APR-JUL	30	55	72	53	89	114	137
Chalk Creek at Coalville	APR-JUL	9.5	13.4	16.0	36	23	34	45
Echo Reservoir inflow	APR-JUL	34	65	86	48	107	138	179
Lost Creek Reservoir inflow	APR-JUL	1.7	3.6	5.3	30	7.3	10.8	17.6
East Canyon Reservoir inflow	APR-JUL	5.4	8.3	10.7	35	13.4	17.8	31
Weber River at Gateway	APR-JUL	37	98	140	39	182	241	355
SF Ogden River nr Huntsville	APR-JUL	18.4	24	27	42	35	48	64
Pineview Reservoir inflow	APR-JUL	11.0	36	53	40	70	95	133
Wheeler Creek nr Huntsville	APR-JUL	1.50	2.60	3.40	54	4.20	5.30	6.30

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

WEBER & OGDEN WATERSHEDS in Utah
Watershed Snowpack Analysis - March 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	2.1	2.6	2.6	OGDEN RIVER	4	73	55
EAST CANYON	49.5	30.2	26.9	35.4	WEBER RIVER	9	81	66
ECHO	73.9	31.4	38.0	51.0	WEBER & OGDEN WATERSHEDS	13	78	62
LOST CREEK	22.5	6.1	7.1	13.9				
PINEVIEW	110.1	47.6	48.8	52.6				
ROCKPORT	60.9	35.7	22.4	33.2				
WILLARD BAY	215.0	107.4	103.7	154.9				

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

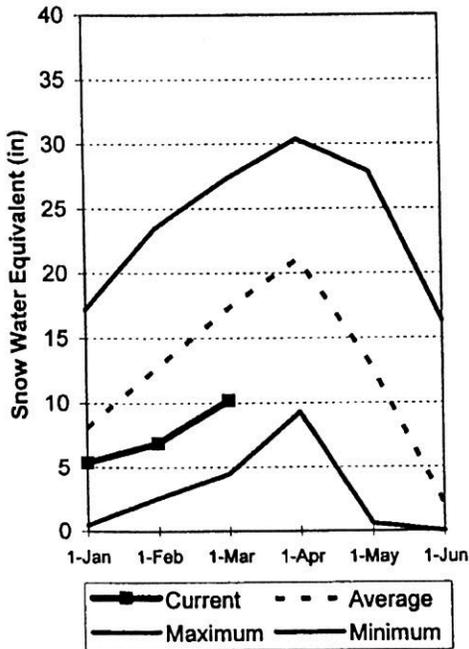
The average is computed for the 1971-2000 base period.

- (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.

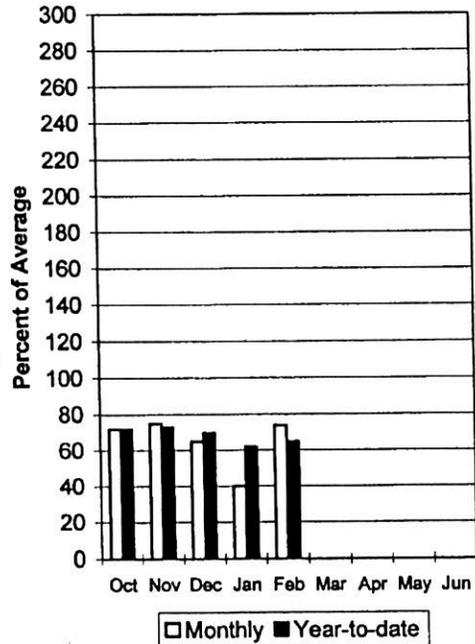
Utah Lake, Jordan River & Tooele Valley Basins Mar 1, 2003

Snowpacks over these watersheds are at 59% of average, 81% of last year and up 5% relative to last month. This is the lowest March 1 snowpack since 1981. Individual sites range from 24% to 76% of average. There is very little 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 February was below normal at 74%, bringing the seasonal accumulation (Oct-Feb) to 65% of average. Forecast streamflows are much below normal. Reservoir storage is at 67% of capacity. General water supply conditions are poor due to low snowpack and low reservoir storage.

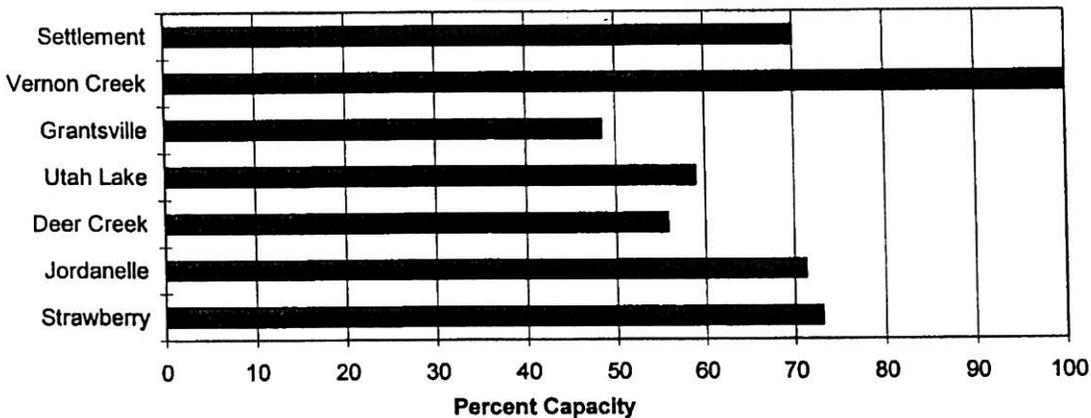
Provo River Snowpack
3/1/2003



Provo River Precipitation
3/1/2003



Reservoir Storage
3/1/2003



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

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Spanish Fork River nr Castilla	APR-JUL	7.7	11.5	35	46	59	85	77
Provo River nr Woodland	APR-JUL	24	41	53	52	65	82	103
Provo River nr Hallstone	APR-JUL	11.0	35	49	45	64	87	109
Provo R blw Deer Creek Dam	APR-JUL	11.0	43	65	52	87	118	126
American Fk R nr American Fk	APR-JUL	2.6	9.1	12.0	38	14.9	22	32
Utah Lake inflow	APR-JUL	39	74	145	45	216	295	325
Little Cottonwood Ck nr SLC	APR-JUL	13.2	18.0	22	55	26	31	40
Big Cottonwood Ck nr SLC	APR-JUL	8.4	14.1	18.0	47	22	28	38
Mill Creek nr SLC	APR-JUL	1.19	1.32	2.50	36	3.68	5.20	7.00
Parley's Creek nr SLC	APR-JUL	1.2	2.4	6.1	37	9.8	14.0	16.7
Dell Fork nr SLC	APR-JUL	0.82	1.26	2.70	40	4.14	6.60	6.80
Emigration Creek nr SLC	APR-JUL	0.00	0.31	1.40	31	2.78	4.60	4.50
City Creek nr SLC	APR-JUL	1.22	1.55	3.20	37	4.85	7.10	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	0.27	0.52	0.80	41	1.24	2.35	1.97
S Willow Ck nr Grantsville	APR-JUL	0.49	1.15	1.60	50	2.51	3.80	3.20

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY Reservoir Storage (1000 AF) - End of February					UTAH LAKE, JORDAN RIVER & TOOELE VALLEY Watershed Snowpack Analysis - March 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	83.6	97.9	107.4	PROVO RIVER & UTAH LAKE	7	100	58
GRANTSVILLE	3.3	1.6	---	2.2	PROVO RIVER	4	89	54
SETTLEMENT CREEK	1.0	0.7	---	0.6	JORDAN RIVER & GREAT SALT	6	68	60
STRAWBERRY-ENLARGED	1105.9	807.9	899.3	637.8	TOOELE VALLEY WATERSHEDS	3	78	53
UTAH LAKE	870.9	513.8	638.0	825.1	UTAH LAKE, JORDAN RIVER &	16	79	58
VERNON CREEK	0.6	0.6	0.6	---				

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

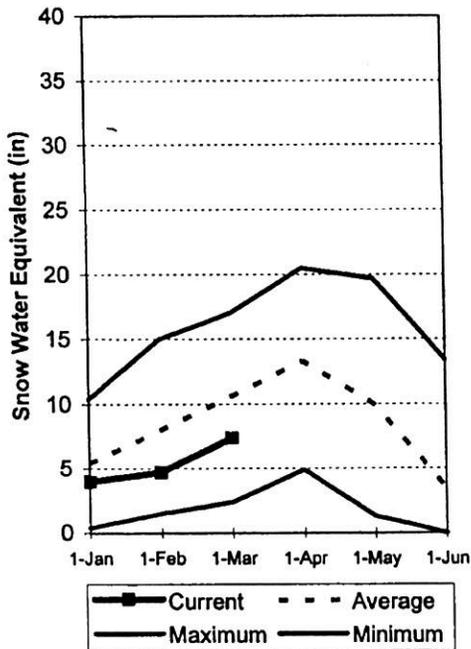
The average is computed for the 1971-2000 base period.

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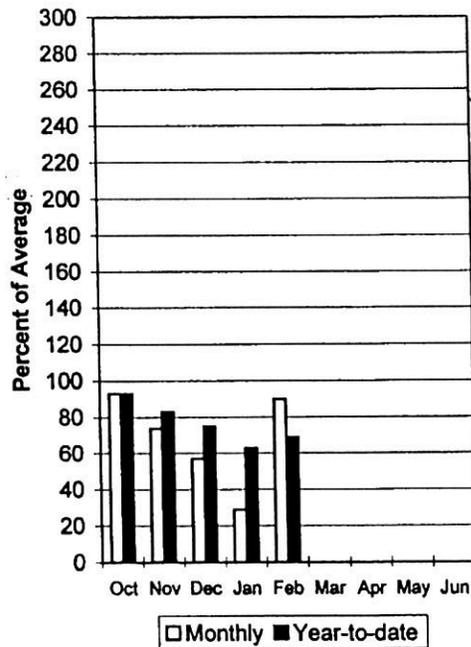
Uintah Basin and Dagget SCD's Mar 1, 2003

Snowpacks across the Uintah Basin and North Slope areas are much below average at 68%, which is 114% of last year's snowpack and up 8% relative to last month. The North Slope ranges from 64% to 95% and the Uintah Basin ranges from 34% to 84% 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 February was near normal at 90%, bringing the seasonal accumulation (Oct-Feb) to 69% of average. Reservoir storage is at 73% of capacity. Springtime runoff conditions are much below normal due to low snowpack and low reservoir storage.

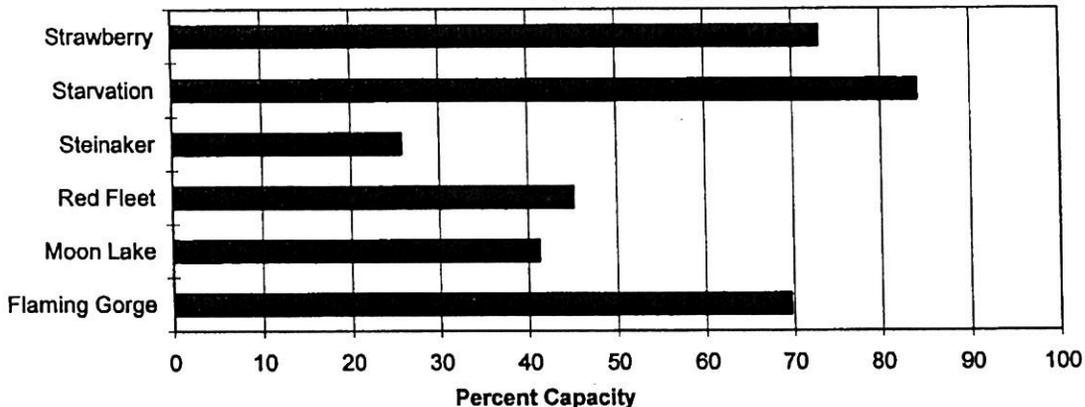
Uintahs Snowpack
3/1/2003



Uintahs Precipitation
3/1/2003



Reservoir Storage
3/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<< Drier		Future Conditions		>> Wetter		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	29	46	57	60	68	85	95
EF of Smiths Fork nr Robertson	APR-JUL	13.3	15.7	17.5	57	19.6	23	31
Flaming Gorge Reservoir Inflow	APR-JUL	335	525	660	56	795	985	1190
BIG BRUSH CK abv Red Fleet Resv	APR-JUL	7.8	12.1	15.0	71	17.9	22	21
Ashley Creek nr Vernal	APR-JUL	10.9	26	36	69	46	61	52
WF DUCHESNE RIVER nr Hanna	APR-JUL	5.9	9.8	13.0	54	16.6	23	24
DUCHESNE R nr Tabiona	APR-JUL	31	46	57	54	68	83	105
UPPER STILLWATER RESV inflow	APR-JUL	26	37	45	55	53	64	82
ROCK CK nr Mountain Home	APR-JUL	28	40	49	55	58	70	89
DUCHESNE R abv Knight Diversion	APR-JUL	39	74	98	52	122	157	188
STRAWBERRY RES nr Soldier Springs	APR-JUL	9.6	17.4	24	41	32	45	59
CURRENT CREEK RESV Inflow	APR-JUL	3.1	7.3	10.2	41	13.1	17.3	25
STARVATION RESERVOIR inflow	APR-JUL	10.0	33	49	41	65	88	121
Lake Fork River abv Moon Lake	APR-JUL	20	31	38	56	45	56	68
Yellowstone River nr Altonah	APR-JUL	11.0	26	36	58	46	61	62
DUCHESNE R at Myton	APR-JUL	21	46	90	35	134	198	260
Whiterocks River nr Whiterocks	APR-JUL	8.4	22	35	63	48	67	56
DUCHESNE R nr Randlett	APR-JUL	13.0	23	114	35	213	353	325

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

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

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	2610.0	2834.9	2919.0	UPPER GREEN RIVER in UTAH	6	114	74
MOON LAKE	49.5	20.4	14.9	29.8	ASHLEY CREEK	2	134	74
RED FLEET	25.7	11.6	18.7	18.4	BLACK'S FORK RIVER	2	100	71
STEINAKER	33.4	8.6	19.3	22.8	SHEEP CREEK	1	95	64
STARVATION	165.3	139.1	158.8	135.9	DUCHESNE RIVER	11	114	65
STRAWBERRY-ENLARGED	1105.9	807.9	899.3	637.8	LAKE FORK-YELLOWSTONE CRE	4	110	64
					STRAWBERRY RIVER	4	113	61
					UINTAH-WHITEROCKS RIVERS	2	121	79
					UINTAH BASIN & DAGGET SCD	17	114	68

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

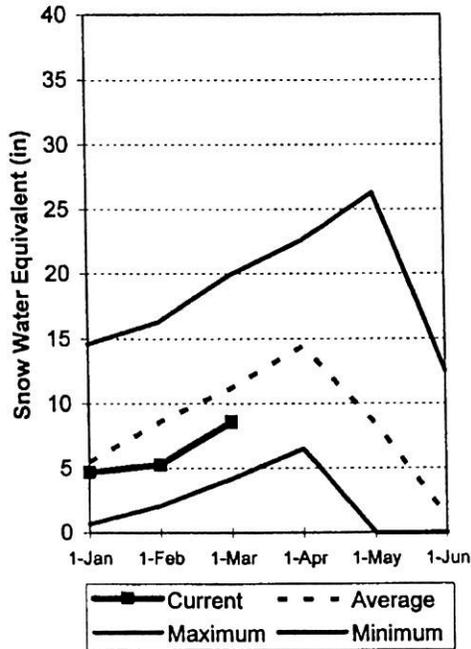
The average is computed for the 1971-2000 base period.

- (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.

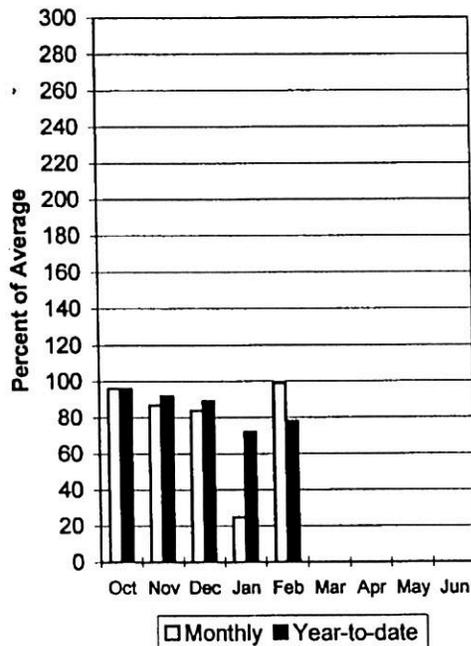
Carbon, Emery, Wayne, Grand and San Juan Co. Mar 1, 2003

Snowpacks in this region are below normal at 72% of average, about 131% of last year and up 11% relative to last month. Individual sites range from 61% to 88% of average. This could be the fifth consecutive below normal April 1 snowpack for this region with about a 3% 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 February was near average at 99%, bringing the seasonal accumulation (Oct-Feb) to 78% of normal. Reservoir storage is at 34% of capacity. General runoff and water supply conditions are much below normal due to low snowpack and low reservoir storage.

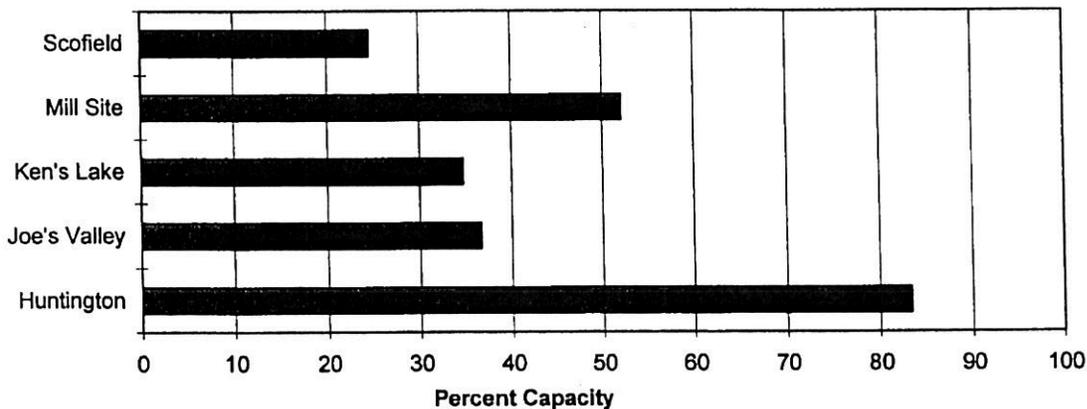
Southeast Utah Snowpack
3/1/2003



Southeast Utah Precipitation
3/1/2003



Reservoir Storage
3/1/2003



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

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)	
Gooseberry Creek nr Scofield	APR-JUL	2.7	5.5	7.3	61	9.1	11.9	11.9
Scofield Reservoir inflow	APR-JUL	17.3	24	28	61	32	39	46
White River blw Tabbyune Creek	APR-JUL	3.9	7.0	9.6	55	12.6	17.8	17.4
Green River at Green River, UT	APR-JUL	820	1470	1910	60	2350	3000	3170
Electric Lake inflow	APR-JUL	5.6	8.0	10.0	64	12.3	16.3	15.7
HUNTINGTON CK nr Huntington	APR-JUL	17.2	25	30	60	35	43	50
JOE'S VALLEY RESV Inflow	APR-JUL	9.4	24	34	59	44	59	58
Ferron Creek nr Ferron	APR-JUL	15.7	22	26	67	31	39	39
Colorado River nr Cisco	APR-JUL	1790	2720	3350	72	3980	4910	4650
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.00	2.20	3.30	66	4.40	6.10	5.00
Seven Mile Creek nr Fish Lake	APR-JUL	1.19	3.30	5.10	73	6.90	9.60	7.00
Muddy Creek nr Emery	APR-JUL	3.1	9.6	14.0	70	18.4	25	19.9
North Ck ab R.S. nr Monticello	MAR-JUL	0.01	0.26	0.75	56	1.51	3.09	1.35
South Ck ab Lloyd's Res nr Monticello	MAR-JUL	0.17	0.45	0.73	56	1.07	1.69	1.31
Recapture Ck bl Johnson Ck nr Blandi	MAR-JUL	0.30	1.72	3.40	56	5.10	7.60	6.10
San Juan River nr Bluff	APR-JUL	223	490	675	55	860	1130	1230

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

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.
Watershed Snowpack Analysis - March 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	3.5	2.7	3.4	PRICE RIVER	3	136	70
JOE'S VALLEY	61.6	22.6	37.2	41.5	SAN RAFAEL RIVER	3	112	69
KEN'S LAKE	2.3	0.8	1.0	1.3	MUDDY CREEK	1	122	76
MILL SITE	16.7	8.7	8.7	84.9	FREMONT RIVER	3	142	74
SCOFIELD	65.8	16.2	27.9	34.8	LASAL MOUNTAINS	1	139	79
					BLUE MOUNTAINS	1	167	74
					WILLOW CREEK	1	143	70
					CARBON, EMERY, WAYNE, GRA	13	131	72

* 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.

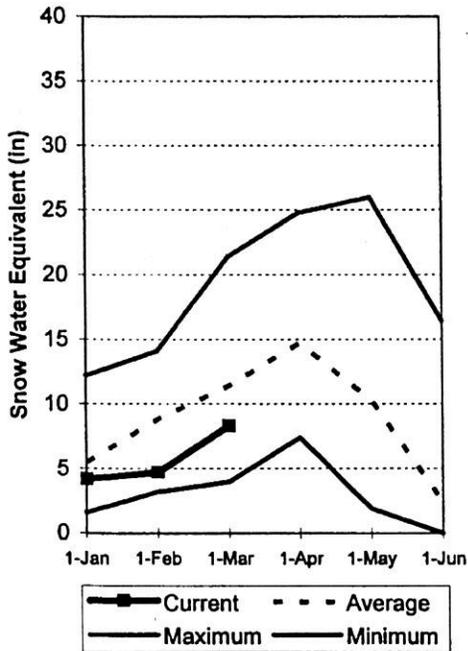
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

Sevier and Beaver River Basins Mar 1, 2003

Snowpacks on the Sevier River Basin are much below normal at 68% of average, about 126% of last year and up 14% relative to last month. Individual sites range from 31% to 78% of average. This could be the fifth consecutive below normal April 1 snowpack year for the Sevier with only a 9% 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 February was near average at 98% of normal, bringing the seasonal accumulation (Oct-Feb) to 77% of average. Reservoir storage is at 30% of capacity. Water supply conditions and streamflow forecasts are much below normal due to low snowpack and low reservoir storage.

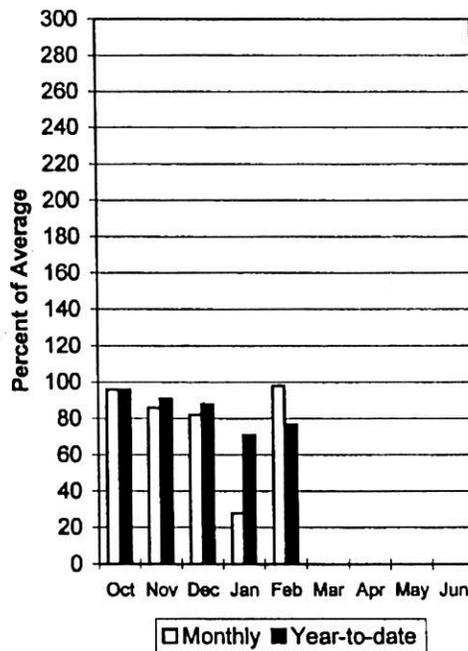
Sevier River Snowpack

3/1/2003

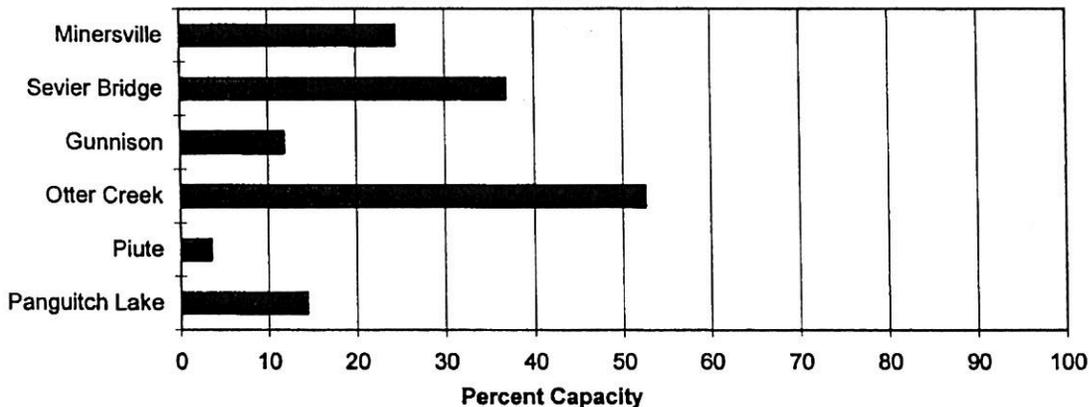


Sevier River Precipitation

3/1/2003



Reservoir Storage 3/1/2003



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

Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)	
	90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
Sevier River at Hatch	APR-JUL	4.4	21	30	55	40	56	55
Sevier River nr Kingston	APR-JUL	8.9	32	46	52	60	83	89
EF Sevier R nr Kingston	APR-JUL	2.3	10.7	20	53	29	44	38
Sevier R blw Piute Dam	APR-JUL	6.0	34	60	48	86	129	126
Clear Creek nr Sevier	APR-JUL	4.2	7.7	12.0	55	16.3	25	22
Salina Creek at Salina	APR-JUL			MUCH BELOW AVERAGE				
Sevier R nr Gunnison	APR-JUL	56	92	130	46	214	350	280
Chicken Creek nr Levan	APR-JUL	0.73	1.17	1.60	36	2.19	3.49	4.50
Oak Creek nr Oak City	APR-JUL	0.42	0.57	0.70	43	0.86	1.16	1.63
Beaver River nr Beaver	APR-JUL	11.4	14.0	16.0	62	18.3	22	26
Minersville Reservoir inflow	APR-JUL	4.5	6.2	7.8	47	9.7	13.5	16.6

SEVIER & BEAVER RIVER BASINS
Reservoir Storage (1000 AF) - End of February

SEVIER & BEAVER RIVER BASINS
Watershed Snowpack Analysis - March 1, 2003

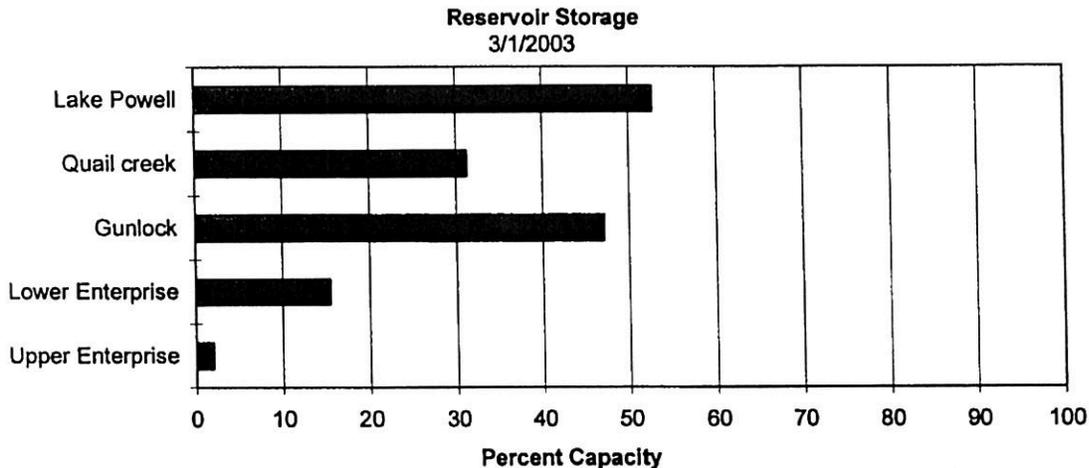
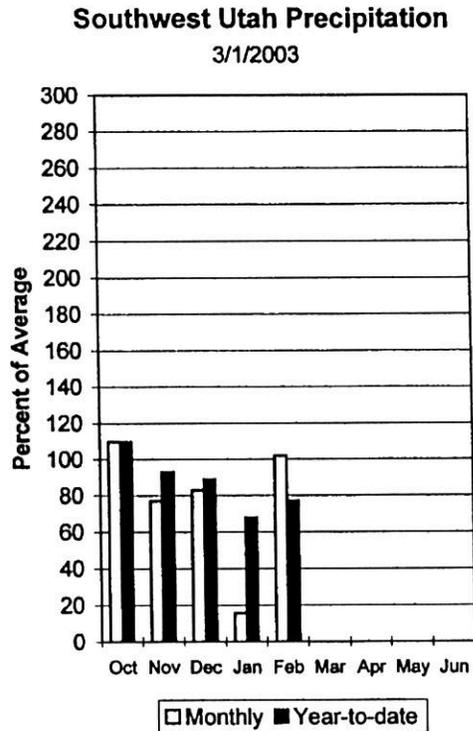
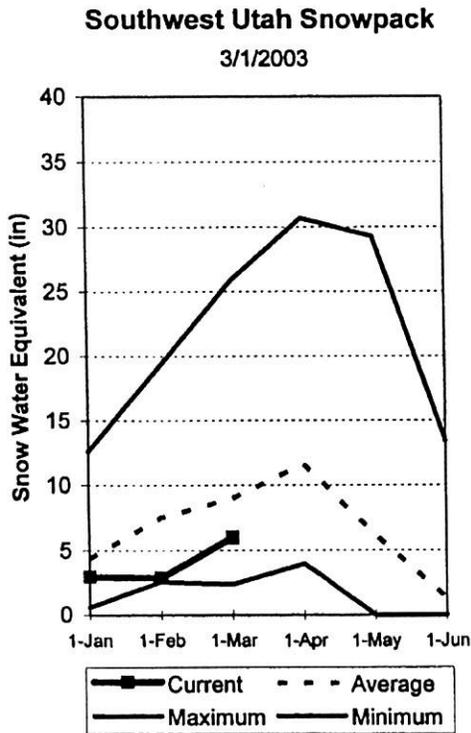
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	2.4	2.4	14.6	UPPER SEVIER RIVER (south	8	155	64
MINERSVILLE (RkyFd)	23.3	5.7	9.2	16.2	EAST FORK SEVIER RIVER	3	145	70
OTTER CREEK	52.5	27.6	39.2	40.0	SOUTH FORK SEVIER RIVER	5	164	61
PIUTE	71.8	2.5	49.5	53.3	LOWER SEVIER RIVER (inclu	6	105	71
SEVIER BRIDGE	236.0	87.0	119.4	175.6	BEAVER RIVER	2	140	69
PANGUITCH LAKE	22.3	3.2	11.6	146.8	SEVIER & BEAVER RIVER BAS	16	127	68

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.
Mar 1, 2003

Snowpacks in this region are at 59% of average, about 186% of last year and up 20% relative to last month. Individual sites range from 9 to 88% of average and it could be the fifth consecutive below normal April 1 snowpack year. There is a 16% 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 near normal during February at 102% of average, bringing the seasonal accumulation (Oct-Feb) to 77% of normal. Reservoir storage is at 29% of capacity. General water supply conditions and streamflow forecasts are much below normal.



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		50% (Most Probable)		Wetter		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Lake Powell inflow	APR-JUL	1900	3630	4800	61	5970	7700	7930
Virgin River nr Virgin	APR-JUL	13.9	27	38	59	51	74	64
Virgin River nr Hurricane	APR-JUL	8.3	25	37	54	49	66	69
Santa Clara River nr Pine Valley	APR-JUL	0.97	2.14	3.20	58	4.47	6.72	5.50
Coal Creek nr Cedar City	APR-JUL	3.7	6.8	9.5	49	12.6	17.9	19.3

E. GARFIELD, KANE, WASHINGTON, & IRON Co. Reservoir Storage (1000 AF) - End of February					E. GARFIELD, KANE, WASHINGTON, & IRON Co. Watershed Snowpack Analysis - March 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	4.9	7.5	4.9	VIRGIN RIVER	5	171	59
LAKE POWELL	24322.0	12833.0	17201.0	---	PAROWAN	2	146	62
QUAIL CREEK	40.0	12.5	37.1	29.7	ENTERPRISE TO NEW HARMONY	2	571	30
UPPER ENTERPRISE	10.0	0.2	0.5	---	COAL CREEK	2	157	62
LOWER ENTERPRISE	2.6	0.4	0.2	90.0	ESCALANTE RIVER	2	178	79
					E. GARFIELD, KANE, WASHIN	9	182	59

* 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 SURFACE WATER SUPPLY INDEX	NRCS	USDA	
Snow Surveys	SWSI/%	Percentile	Years with Similar SWSI
Basin or Region			
Bear River	-4	2%	92,93,2002
Ogden River	-3.1	10%	88,92,87,01
Weber River	-3.7	5%	77,92,88,02
Tooele Valley	NA		
Provo	-3.4	9%	63,60,64,62
North Slope	NA		
West Uintah Basin	-.2	48%	94,88,95,87
East Uintah Basin	-2.9	15%	02,94,92,88
Price River	-2.7	17%	90,63,64,59
San Rafael	-2.3	22%	92,02,81,01
Moab	-2.8	17%	90,89,99,81
Upper Sevier River	-3.8	4%	63,61,77
Lower Sevier River	-2.7	18%	91,66,67,92
Beaver River	-3.0	14%	63,90,72,76
Virgin River	-1.7	30%	91,96,85,87
Snow Surveys			SWSI Scale: -4 to 4
245 N Jimmy Doolittle Rd			Percentile: 0 - 100%
Salt Lake City, UT			
(801) 524-5213			

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KILFOIL CREEK	7300	2/24	34	8.4	12.2	12.4
KILLYON CANYON	6300	2/28	3	1.0	9.0	8.7
KIMBERLY MINE SNOTEL	9300	3/01	-	8.8	6.8	13.3
KING'S CABIN SNOTEL	8730	3/01	34	7.6	4.9	9.4
KLONDIKE NARROWS	7400	2/24	51	12.4	11.5	16.8
KOLOB SNOTEL	9250	3/01	53	10.4	7.8	17.8
LAKEFORK #1 SNOTEL	10100	3/01	39	7.2	6.0	10.5
LAKEFORK BASIN SNTL	10900	3/01	52	9.9	10.2	16.6
LAKEFORK MOUNTAIN #3	8400	2/28	25	3.6	3.1	6.1
LAMBS CANYON	7400	2/27	35	10.1	12.1	14.5
LASAL MOUNTAIN LOWER	8800	2/27	28	6.2	5.4	8.1
LASAL MOUNTAIN SNTL	9850	3/01	44	8.5	6.1	10.7
LILY LAKE SNOTEL	9050	3/01	40	9.0	8.2	10.8
LITTLE BEAR LOWER	6000	2/24	18	5.8	10.1	10.2
LITTLE BEAR SNOTEL	6550	3/01	-	5.2	10.0	12.8
LITTLE GRASSY SNOTEL	6100	3/01	-	2.0	0.0	5.8
LONG FLAT SNOTEL	8000	3/01	-	2.0	0.7	7.4
LONG VALLEY JCT. SMT	7500	3/01	-	1.8	0.0	5.8
LOOKOUT PEAK SNOTEL	8200	3/01	-	15.2	17.7	20.1
LOST CREEK RESERVOIR	6130	2/24	8	2.0	6.0	5.9
LOUIS MEADOW SNOTEL	6700	3/01	28	9.1	15.8	-
MAMMOTH-COTTONWD SMT	8800	3/01	44	13.1	10.0	17.6
MERCHANT VALLEY SNTL	8750	3/01	-	7.2	6.2	11.4
MIDDLE CANYON	7000	2/27	24	7.2	8.0	12.2
MIDWAY VALLEY SNOTEL	9800	3/01	61	12.7	8.2	19.4
MILL CREEK	6950	2/27	34	10.0	15.5	16.6
MILL-D NORTH SNOTEL	8960	3/01	-	12.4	20.0	21.0
MILL-D SOUTH FORK	7400	2/28	37	9.9	16.2	16.9
MINING FORK SNOTEL	8000	3/01	30	9.0	14.1	14.9
MONTE CRISTO SNOTEL	8960	3/01	57	12.4	16.2	24.7
MOBBY MTH. SNOTEL	9500	3/01	-	7.8	5.2	9.3
MT. BALDY R.S.	9500	2/28	63	16.5	14.4	19.9
MUD CREEK #2	8600	2/28	40	7.2	6.5	12.0
OAK CREEK	7760	2/27	32	6.6	5.5	10.0
PANGUITCH LAKE R.S.	8200	2/24	6	1.8	1.2	4.0
PARLEY'S CANYON SUM.	7500				15.2	16.2
PARLEY'S CANYON SNTL	7500	3/01	-	7.4	11.8	15.3
PARRISH CREEK SNOTEL	7740	3/01	44	12.6	19.0	-
PAYSON R.S. SNOTEL	8050	3/01	36	8.3	10.8	17.2
PICKLE KEG SNOTEL	9600	3/01	-	10.9	12.1	14.1
PINE CREEK SNOTEL	8800	3/01	-	10.8	12.7	19.3
RED PINE RIDGE SNTL	9200	3/01	41	9.5	8.1	14.2
REDDEN MINE LOWER	8500	2/26	37	8.6	11.1	15.1
REES'S FLAT	7300	2/27	34	6.9	7.6	11.2
ROCK CREEK SNOTEL	7900	3/01	-	5.1	3.9	7.9
ROCKY BN-SETTLEMT SN	8900	3/01	44	10.9	12.4	21.2
SEELEY CREEK SNOTEL	10000	3/01	32	7.5	7.1	12.3
SILVER LAKE(BRIGHT.)	8730				18.5	21.0
SMITH MOREHOUSE SNTL	7600	3/01	31	7.7	9.1	12.4
SNOWBIRD SNOTEL	9700	3/01	61	16.5	31.1	28.3
SPIRIT LAKE	10300	2/28	40	6.8	5.6	10.5
SQUAM SPRINGS	9300	2/27	20	4.2	4.4	6.6
STEEL CREEK PARK SNO	10100	3/01	46	8.8	8.9	12.7
STILLWATER CAMP	8550	2/26	35	6.9	7.8	8.8
STRAWBERRY DIVIDE SN	8400	3/01	-	8.8	10.7	16.3
SUSC RANCH	8200	2/24	3	.7	3.1	8.1
TALL POLES	8800	2/26	30	6.6	5.8	12.1
TEMPLE FORK SNOTEL	7410	3/01	47	12.1	12.2	-
THAYNES CANYON SNTL	9200	3/01	47	12.1	14.9	19.3
THISTLE FLAT	8500				-	-
TIMBERLINE	9100				-	-
TIMPANOGOS DIVIDE SN	8140	3/01	39	8.8	11.0	20.4
TONY GROVE LK SNOTEL	8400	3/01	78	24.7	25.1	30.0
TONY GROVE R.S.	6250	2/24	34	8.6	9.7	11.3
TRIAL LAKE	9960	2/28	55	13.1	14.5	20.3
TRIAL LAKE SNOTEL	9960	3/01	51	10.3	13.4	20.6
TROUT CREEK SNOTEL	9400	3/01	35	5.3	4.7	8.1
UPPER JOES VALLEY	8900	2/28	33	7.1	4.9	9.3
VERNON CREEK SNOTEL	7500	3/01	23	4.8	5.2	10.1
VIPONT	7670	2/24	22	6.6	15.2	12.2
WEBSTER FLAT SNOTEL	9200	3/01	-	7.7	4.8	13.5
WHITE RIVER #1 SNTL	8550	3/01	-	7.2	6.1	11.6
WHITE RIVER #3	7400	2/28	19	5.3	4.8	7.8
WIDTSOK #3 SNOTEL	9500	3/01	-	7.0	2.8	9.7
WRIGLEY CREEK	9000	2/28	36	7.4	5.7	9.6
YANKEE RESERVOIR	8700	2/28	26	4.8	3.6	8.4



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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/>

Snow Survey, NRCS, USDA
245 North Jimmy Doolittle Road
Salt Lake City, UT 84116
(801) 524-5213



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





Utah Water Supply Outlook Report

April 1, 2003



Ray Wilson Measures 15% of average at the Lost Creek Snow Course
March 27, 2003

Photo by Timothy Bardsley, Snow survey, NRCS, USDA

Water Supply Outlook Reports and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

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

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, 2003

SUMMARY

April 1 is the typical peak for snowpacks in Utah. This April marks the fifth consecutive year of below normal peak snowpacks across the state. In those five years, some areas at various times had extremely low snowpacks and at times they were a little closer to average, but all fell short of the 30 year normal. One of the characteristics of drought is persistence and this one, like a bad cold, just keeps hanging around. Historically, (for the period of snow record) general droughts that affect the entire state or even specific watersheds for this long are rare. March was another average month, very similar to February. Snowpacks at this peak time are about 60% to 75% of average in northern Utah and the Uintah Basin. In southern Utah, snowpacks range from 54% on the Virgin to 77% on the Sevier and southeastern Utah. This is a much improved situation from January, but still a rather bleak picture for snowmelt runoff this spring and summer. In the north, snowpacks are less (10% to 30%) than they were last year. In the south, they are substantially more (150% to 225%) than last year. However, all Utah snowpacks remain below to much below average. Low elevation snowpacks are still much below average and will most likely melt early. 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. Precipitation for March was near normal in northern Utah (86%-103%), in the southeast it was above average but on the Virgin, it below average. This brings the statewide seasonal precipitation, (Oct-Mar) to 77%. Reservoir storage in 41 major reservoirs across the state is at 53% of capacity, down 550,000 acre feet from last year, out of a total capacity of 5, 470,000, or about 10 %. Reservoir storage is down 1,200,000 acre feet (22%) from 2001 levels, reflecting the persistent nature of this drought. Some larger reservoirs, such as Bear Lake and Utah Lake would take several years of at least average runoff to fill to capacity. Water supply conditions are below to much below normal.

SNOWPACK

March first snowpacks as measured by the NRCS SNOTEL system range from 54% to 77% of average in southern Utah. Southeast Utah and the Sevier have the highest snowpacks at 77% of average and southwest Utah has the lowest at 54% of average. In northern Utah, snowpacks range from a low of 60% on the Weber to 73% on the Uintah Basin. Low elevation snowpacks are very low this year and, in some cases, stations are already reading zero. This could have a negative impact on streamflow. Statewide, snowpacks are at 68% of average, very similar to last year.

PRECIPITATION

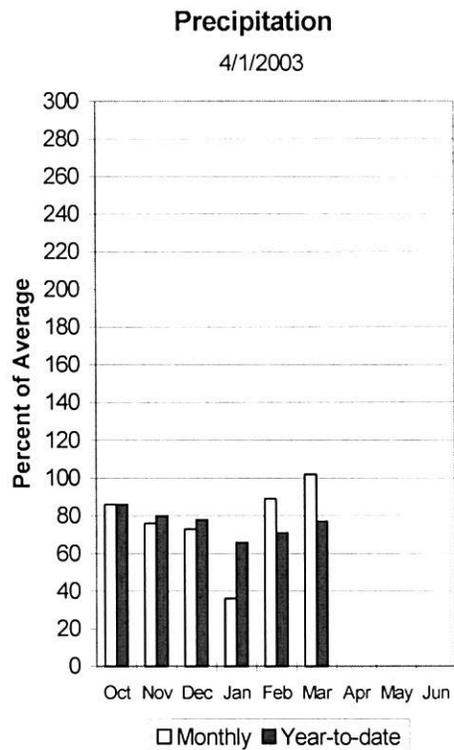
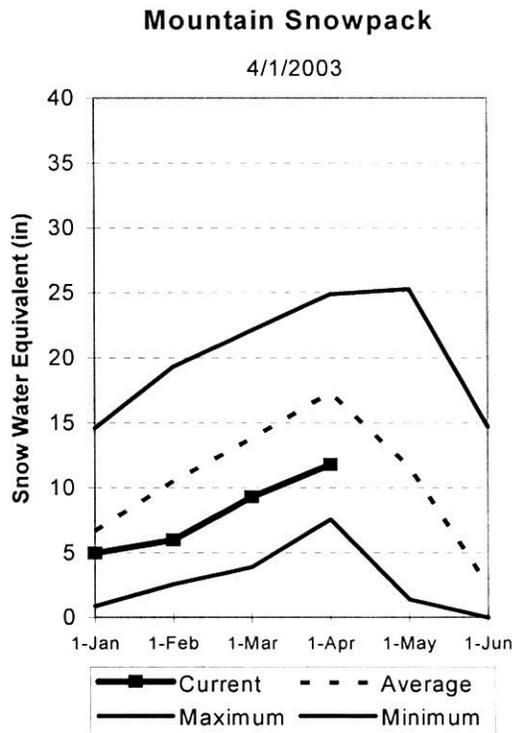
Mountain precipitation during March was below to near normal (86%-103%) in the north and below to above normal (81%-124%) in southern Utah. This brings the seasonal accumulation (Oct-Jan) to 77% of average statewide.

RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 53% 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 below to 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.

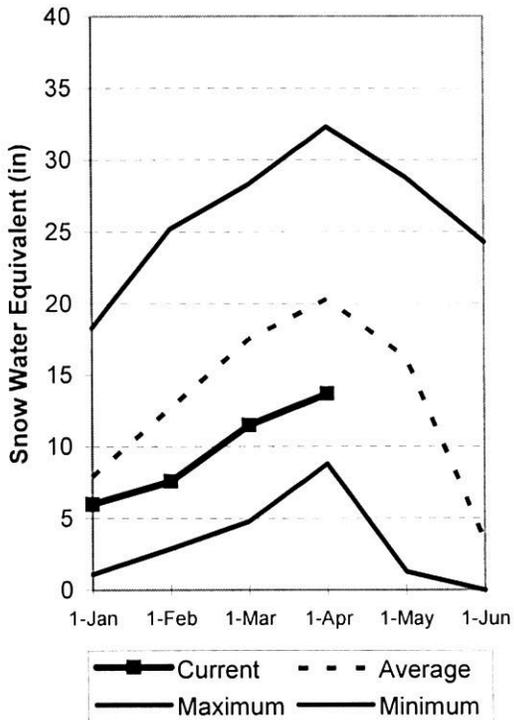


Bear River Basin Apr 1, 2003

Snowpacks on the Bear River Basin are much below average at 67% of normal, about 92% of last year and down 1% relative to last month. Water supply conditions are similar to last year. Specific sites range from 0% to 102% of normal. This is 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. March precipitation was slightly below average at 86%, which brings the seasonal accumulation (Oct-Mar) to 69% of average. Forecast streamflows are for much below normal volumes this spring. Reservoir storage is at 29% of capacity, 14% (211,000 AF) less than last year. Water supply conditions are much below normal due to low snowpack and low reservoir storage.

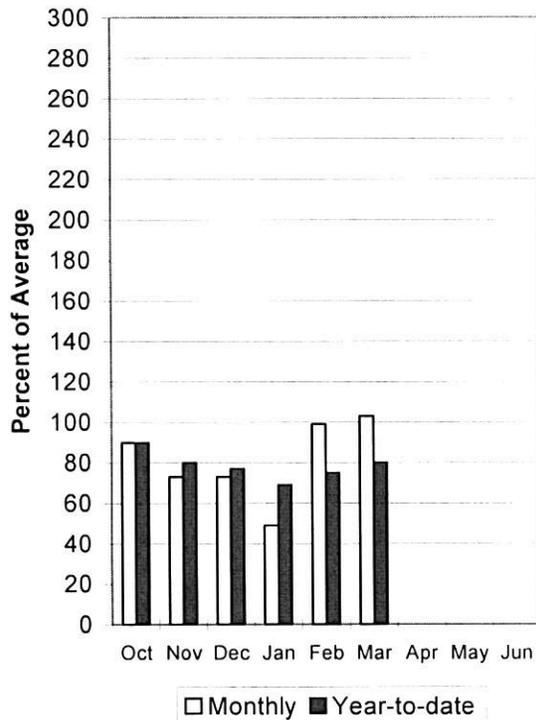
Bear River Snowpack

4/1/2003



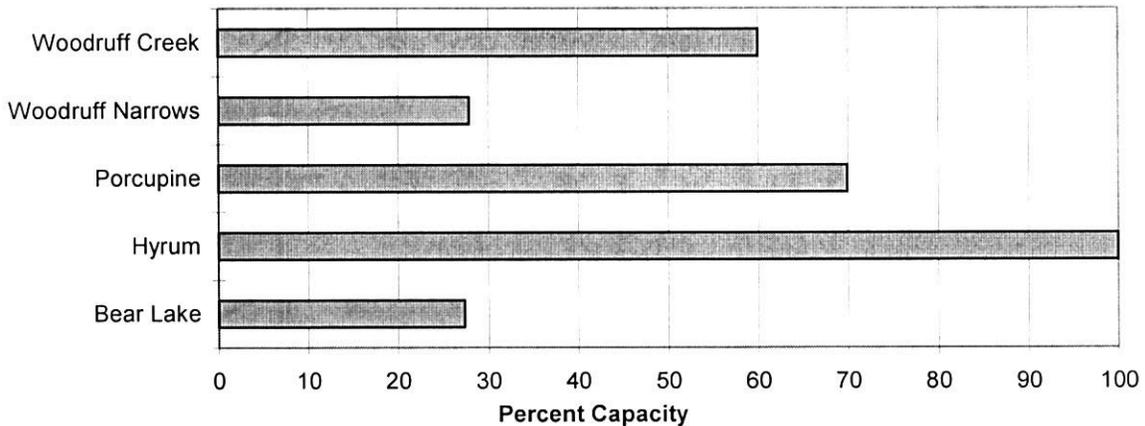
Bear River Precipitation

4/1/2003



Reservoir Storage

4/1/2003



BEAR RIVER BASIN
Streamflow Forecasts - April 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)	
Bear R nr UT-WY State Line	APR-JUL	55	64	70	60	77	89	116
Woodruff Narrows Res inflow	APR-JUL	28	42	53	39	65	86	136
Big Creek nr Randolph	APR-JUL	0.52	1.40	2.00	41	3.46	5.62	4.90
Smiths Fork nr Border	APR-JUL	46	56	63	61	71	86	103
Bear River blw Stewart Dam	APR-JUL	14.0	69	106	37	143	198	288
Little Bear River at Paradise	APR-JUL	10.2	12.6	14.5	32	16.7	21	46
Logan River nr Logan	APR-JUL	57	64	69	57	74	83	122
Blacksmith Fork nr Hyrum	APR-JUL	16.7	18.6	20	42	22	24	48

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of March					BEAR RIVER BASIN Watershed Snowpack Analysis - April 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	389.1	605.5	923.8	BEAR RIVER, UPPER (abv Ha	6	94	69
HYRUM	15.3	15.3	14.8	12.2	BEAR RIVER, LOWER (blw Ha	8	92	66
PORCUPINE	11.3	7.9	11.3	6.7	LOGAN RIVER	4	94	70
WOODRUFF NARROWS	57.3	16.0	9.3	32.7	RAFT RIVER	1	52	57
WOODRUFF CREEK	4.0	2.4	2.3	---	BEAR RIVER BASIN	14	93	67

* 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.

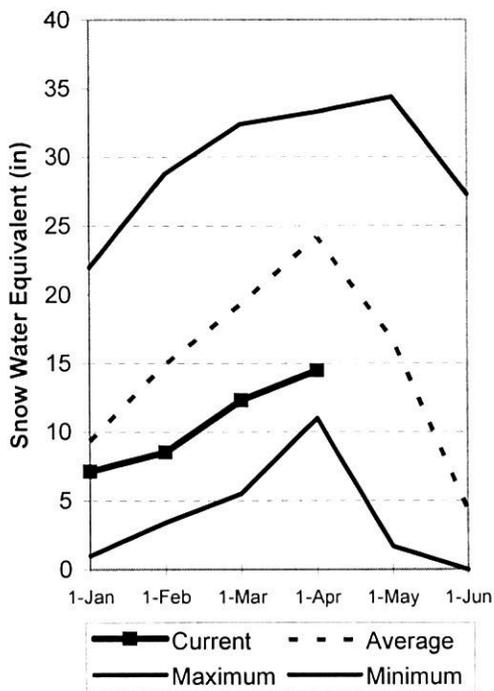
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

Weber and Ogden River Basins Apr 1, 2003

Snowpack on the Weber and Ogden Watersheds is much below normal at 60% of average, about 73% of last year and down 2% relative to last month. This is the lowest March 1 snowpack since 1992. Individual sites range from 15% to 93% of average. This is the fifth consecutive year of below normal April 1 snowpack for this watershed. Soil moisture conditions are somewhat improved from last year and may yield a higher runoff efficiency. Precipitation during March was slightly below normal at 86%, bringing the seasonal accumulation (Oct-Mar) to 69% of average. Reservoir storage is at 55% of capacity, about the same as last year. Streamflow forecasts are much below average. Overall water supply conditions are much below normal due to poor snowpack and low reservoir storage.

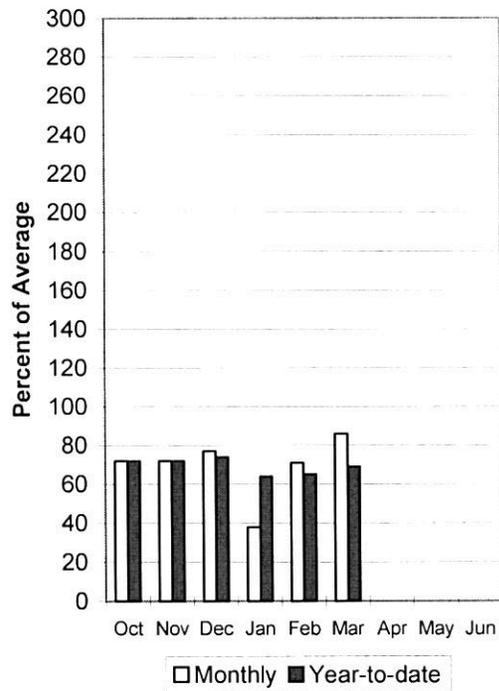
Weber River Snowpack

4/1/2003



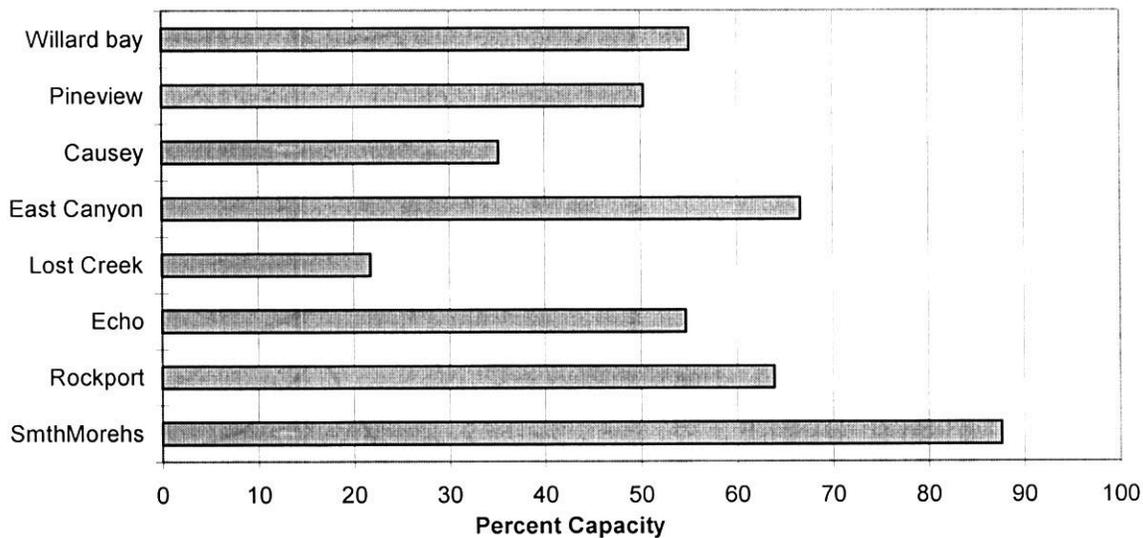
Weber River Precipitation

4/1/2003



Reservoir Storage

4/1/2003



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

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 & Morehouse Res inflow	APR-JUL	12.8	17.0	20	59	23	27	34
Weber River nr Oakley	APR-JUL	44	59	70	57	81	96	123
Rockport Reservoir inflow	APR-JUL	39	59	72	54	85	105	134
Weber River nr Coalville	APR-JUL	37	58	72	53	86	107	137
Chalk Creek at Coalville	APR-JUL	5.5	15.9	23	51	30	40	45
Echo Reservoir inflow	APR-JUL	48	77	97	54	117	146	179
Lost Creek Reservoir inflow	APR-JUL	1.9	3.7	5.3	30	7.2	10.4	17.6
East Canyon Reservoir inflow	APR-JUL	5.7	8.5	10.7	35	13.2	17.3	31
Weber River at Gateway	APR-JUL	49	107	146	41	185	245	355
SF Ogden River nr Huntsville	APR-JUL	5.5	15.9	23	36	30	40	64
Pineview Reservoir inflow	APR-JUL	11.0	31	44	33	57	77	133
Wheeler Creek nr Huntsville	APR-JUL	1.87	2.80	3.40	54	4.00	4.90	6.30

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

WEBER & OGDEN WATERSHEDS in Utah
Watershed Snowpack Analysis - April 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	2.5	2.9	2.6	OGDEN RIVER	4	66	50
EAST CANYON	49.5	33.0	29.0	36.5	WEBER RIVER	9	74	65
ECHO	73.9	40.4	42.4	51.5	WEBER & OGDEN WATERSHEDS	13	72	60
LOST CREEK	22.5	4.9	7.5	14.1				
PINEVIEW	110.1	55.4	59.9	61.7				
ROCKPORT	60.9	38.9	26.6	35.1				
WILLARD BAY	215.0	118.5	109.2	160.9				

* 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.

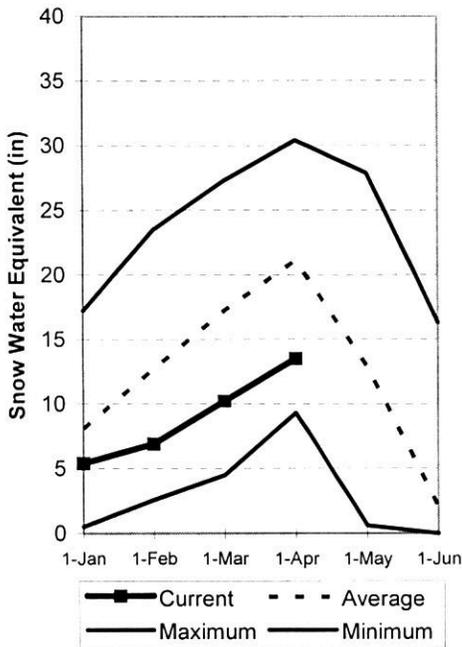
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Utah Lake, Jordan River & Tooele Valley Basins Apr 1, 2003

Snowpacks over these watersheds are at 64% of average, 79% of last year and up 5% relative to last month. Individual sites range from 38% to 86% of average. This is the third 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 March was near normal at 96%, bringing the seasonal accumulation (Oct-Mar) to 71% of average. Forecast streamflows are much below normal. Reservoir storage is at 70% of capacity, 8% (196,000 AF) less than last year. General water supply conditions are poor due to low snowpack and low reservoir storage.

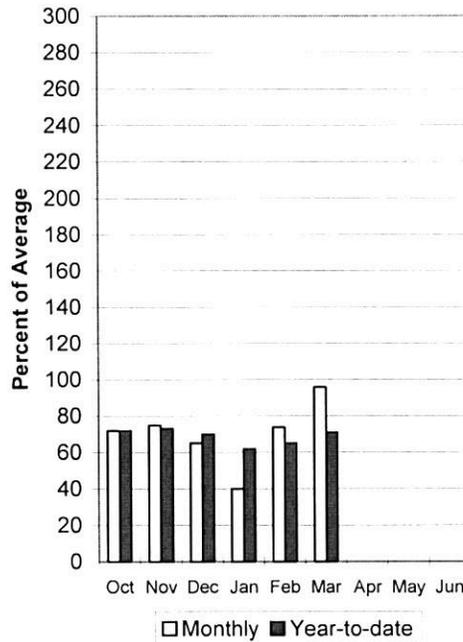
Provo River Snowpack

4/1/2003



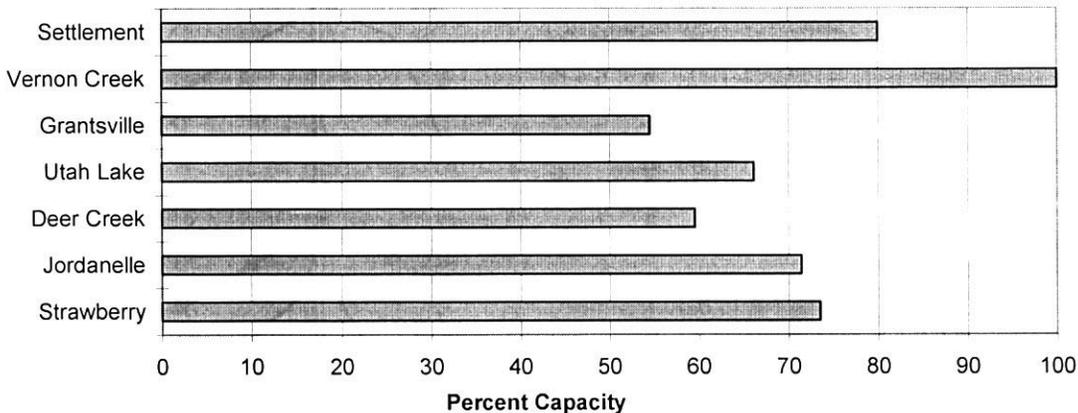
Provo River Precipitation

4/1/2003



Reservoir Storage

4/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====		===== Wetter =====>>				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Spanish Fork River nr Castilla	APR-JUL	6.2	14.2	34	44	54	74	77
Provo River nr Woodland	APR-JUL	25	40	52	51	64	79	103
Provo River nr Hailstone	APR-JUL	12.0	34	48	44	62	84	109
Provo R blw Deer Creek Dam	APR-JUL	11.0	43	63	50	83	113	126
American Fk R nr American Fk	APR-JUL	4.0	8.2	11.0	34	13.8	17.6	32
Utah Lake inflow	APR-JUL	6.0	90	143	44	196	280	325
Little Cottonwood Ck nr SLC	APR-JUL	14.0	17.2	20	50	23	26	40
Big Cottonwood Ck nr SLC	APR-JUL	8.7	14.6	18.0	47	21	25	38
Mill Creek nr SLC	APR-JUL	0.98	1.33	2.40	34	3.47	5.00	7.00
Parley's Creek nr SLC	APR-JUL	1.0	2.7	5.8	35	8.9	12.9	16.7
Dell Fork nr SLC	APR-JUL	0.00	0.94	2.40	35	3.86	6.00	6.80
Emigration Creek nr SLC	APR-JUL	0.00	0.10	1.30	29	2.50	4.10	4.50
City Creek nr SLC	APR-JUL	1.13	1.82	3.20	37	4.58	6.30	8.70
Vernon Creek nr Vernon	APR-JUL	0.30	0.41	0.51	35	0.63	0.86	1.48
Settlement Creek nr Tooele	APR-JUL	0.31	0.55	0.80	41	1.17	2.06	1.97
S Willow Ck nr Grantsville	APR-JUL	0.54	1.09	1.46	46	2.27	3.46	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, 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	89.2	103.2	113.0	PROVO RIVER & UTAH LAKE	7	98	63
GRANTSVILLE	3.3	1.8	2.0	2.7	PROVO RIVER	4	83	54
SETTLEMENT CREEK	1.0	0.8	0.8	0.7	JORDAN RIVER & GREAT SALT	6	66	67
STRAWBERRY-ENLARGED	1105.9	812.6	898.4	648.8	TOOELE VALLEY WATERSHEDS	3	84	58
UTAH LAKE	870.9	576.0	668.8	855.8	UTAH LAKE, JORDAN RIVER &	16	78	64
VERNON CREEK	0.6	0.6	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.

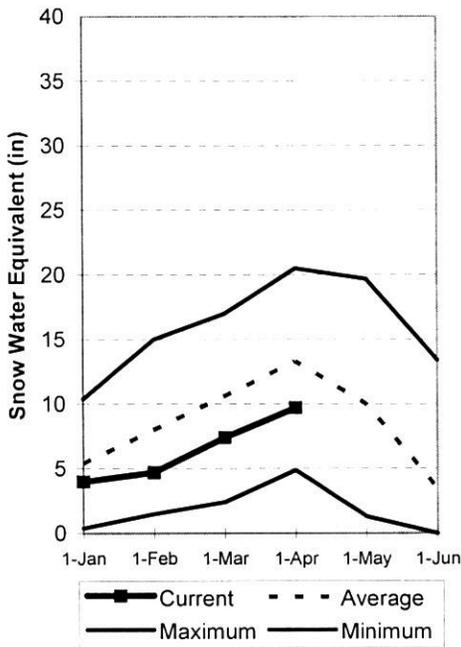
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Uintah Basin and Dagget SCD's Apr 1, 2003

Snowpacks across the Uintah Basin and North Slope areas are much below average at 73%, which is 118% of last year's snowpack and up 5% relative to last month. The North Slope ranges from 76% to 107% and the Uintah Basin ranges from 29% to 85% of average. This is the fifth consecutive below normal April 1 snowpack in the Uintah Basin. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during March was near normal at 98%, bringing the seasonal accumulation (Oct-Mar) to 74% of average. Reservoir storage is at 74% of capacity, 9% (124,000AF) less than last year. Springtime runoff conditions are much below normal due to low snowpack and low reservoir storage.

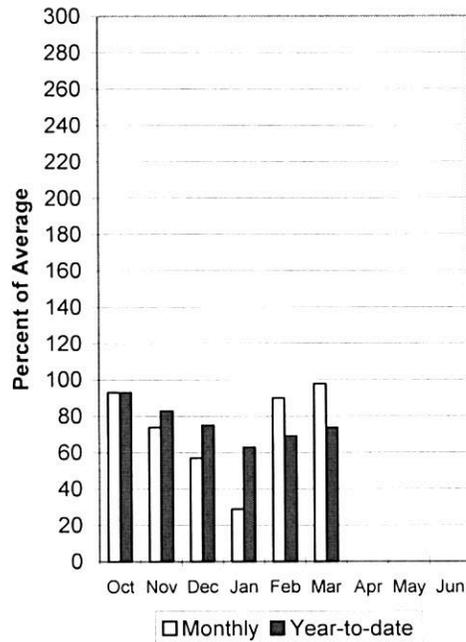
Uintahs Snowpack

4/1/2003



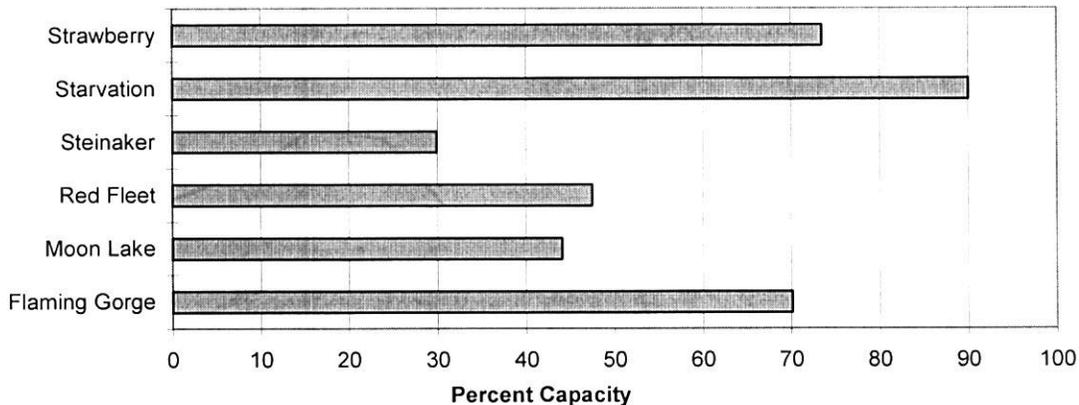
Uintahs Precipitation

4/1/2003



Reservoir Storage

4/1/2003



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		<<==== Drier =====		===== Wetter =====>>				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	39	53	62	65	71	85	95
EF of Smiths Fork nr Robertson	APR-JUL	14.9	17.1	18.8	61	21	24	31
Flaming Gorge Reservoir Inflow	APR-JUL	510	690	810	68	935	1115	1190
BIG BRUSH CK abv Red Fleet Resv	APR-JUL	9.8	13.8	16.5	79	19.2	24	21
Ashley Creek nr Vernal	APR-JUL	19.4	29	36	69	43	53	52
WF DUCHESNE RIVER nr Hanna	APR-JUL	5.5	8.6	11.0	46	13.7	18.3	24
DUCHESNE R nr Tabiona	APR-JUL	32	45	54	51	63	76	105
UPPER STILLWATER RESV inflow	APR-JUL	28	40	49	60	58	70	82
ROCK CK nr Mountain Home	APR-JUL	32	43	51	57	59	70	89
DUCHESNE R abv Knight Diversion	APR-JUL	46	77	98	52	119	150	188
STRAWBERRY RES nr Soldier Springs	APR-JUL	11.9	18.6	24	41	30	40	59
CURRENT CREEK RESV Inflow	APR-JUL	2.6	6.1	8.5	34	10.9	14.4	25
STARVATION RESERVOIR inflow	APR-JUL	11.0	34	49	41	64	87	121
Lake Fork River abv Moon Lake	APR-JUL	24	34	40	59	46	56	68
Yellowstone River nr Altonah	APR-JUL	17.0	28	36	58	44	55	62
DUCHESNE R at Myton	APR-JUL	18.0	37	78	30	119	179	260
Whiterocks River nr Whiterocks	APR-JUL	16.3	28	35	63	43	54	56
DUCHESNE R nr Randlett	APR-JUL	19.0	49	100	31	196	338	325

UINTAH BASIN & DAGGET SCD'S Reservoir Storage (1000 AF) - End of March					UINTAH BASIN & DAGGET SCD'S Watershed Snowpack Analysis - April 1, 2003			
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	2629.0	2828.5	2920.0	UPPER GREEN RIVER in UTAH	6	129	88
MOON LAKE	49.5	21.8	16.2	30.8	ASHLEY CREEK	2	146	88
RED FLEET	25.7	12.2	19.2	18.8	BLACK'S FORK RIVER	2	113	83
STEINAKER	33.4	10.0	20.9	24.2	SHEEP CREEK	1	128	90
STARVATION	165.3	148.8	166.7	138.6	DUCHESNE RIVER	11	112	67
STRAWBERRY-ENLARGED	1105.9	812.6	898.4	648.8	LAKE FORK-YELLOWSTONE CRE	4	114	67
					STRAWBERRY RIVER	4	107	59
					UINTAH-WHITEROCKS RIVERS	2	108	76
					UINTAH BASIN & DAGGET SCD	17	118	73

* 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.

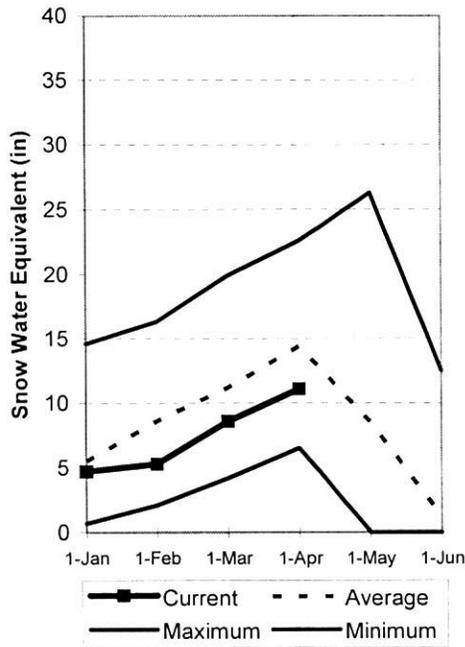
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

Carbon, Emery, Wayne, Grand and San Juan Co. Apr 1, 2003

Snowpacks in this region are below normal at 77% of average, about 143% of last year and up 5% relative to last month. Individual sites range from 64% to 107% of average. This is sixth consecutive below normal April 1 snowpack for this region. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during March was slightly above average at 114%, bringing the seasonal accumulation (Oct-Mar) to 84% of normal. Reservoir storage is at 38% of capacity, 16% (24,000AF) less than last year. General runoff and water supply conditions are much below normal due to low snowpack and low reservoir storage.

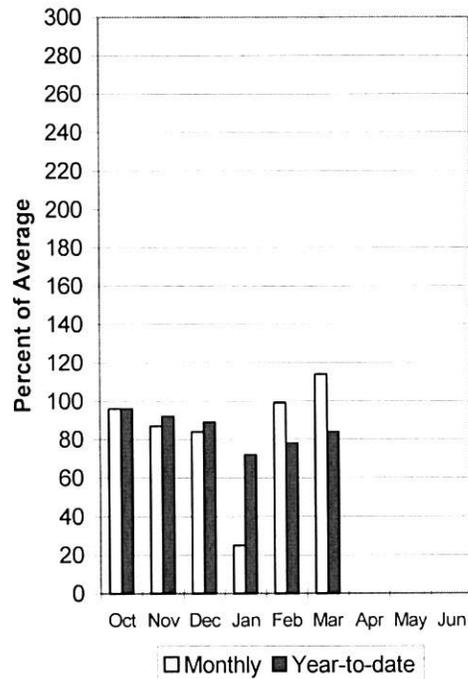
Southeast Utah Snowpack

4/1/2003



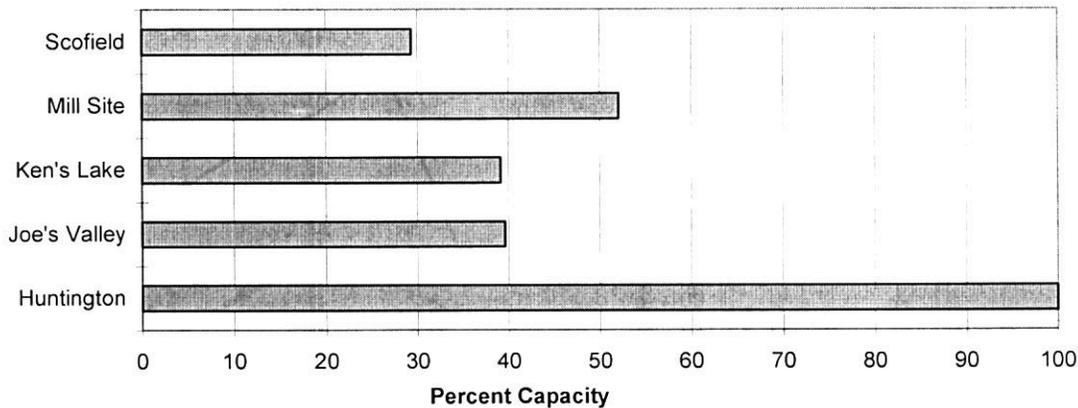
Southeast Utah Precipitation

4/1/2003



Reservoir Storage

4/1/2003



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

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

Forecast Point	Forecast Period	Future Conditions				Wetter		30-Yr Avg. (1000AF)
		Drier		Chance Of Exceeding *		30%	10%	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	10% (1000AF)	
Gooseberry Creek nr Scofield	APR-JUL	5.0	6.7	7.8	66	8.9	10.6	11.9
Scofield Reservoir inflow	APR-JUL	24	29	32	70	35	40	46
White River blw Tabbyune Creek	APR-JUL	5.1	7.6	9.6	55	11.8	15.5	17.4
Green River at Green River, UT	APR-JUL	1120	1730	2150	68	2570	3180	3170
Electric Lake inflow	APR-JUL	7.2	9.1	10.6	68	12.2	14.9	15.7
HUNTINGTON CK nr Huntington	APR-JUL	23	29	32	64	36	41	50
JOE'S VALLEY RESV Inflow	APR-JUL	16.7	27	34	59	41	51	58
Ferron Creek nr Ferron	APR-JUL	18.9	23	26	67	29	34	39
Colorado River nr Cisco	APR-JUL	2310	3080	3600	77	4120	4890	4650
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.50	3.00	4.00	80	5.00	6.50	5.00
Seven Mile Creek nr Fish Lake	APR-JUL	3.10	5.30	6.80	97	8.30	10.50	7.00
Muddy Creek nr Emery	APR-JUL	7.5	11.4	14.0	70	16.6	20	19.9
North Ck ab R.S. nr Monticello	MAR-JUL	0.01	0.34	0.83	62	1.54	2.98	1.35
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.23	0.53	0.80	61	1.12	1.70	1.31
Recapture Ck bl Johnson Ck nr Blandi	MAR-JUL	0.30	1.92	3.40	56	4.90	7.10	6.10
San Juan River nr Bluff	APR-JUL	215	430	580	47	730	945	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, 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	4.2	3.6	3.9	PRICE RIVER	3	122	75
JOE'S VALLEY	61.6	24.4	37.9	41.4	SAN RAFAEL RIVER	3	109	74
KEN'S LAKE	2.3	0.9	1.1	1.4	MUDDY CREEK	1	131	74
MILL SITE	16.7	8.7	8.4	86.2	FREMONT RIVER	3	199	85
SCOFIELD	65.8	19.3	30.0	34.7	LASAL MOUNTAINS	1	226	79
					BLUE MOUNTAINS	1	384	87
					WILLOW CREEK	1	189	64
					CARBON, EMERY, WAYNE, GRA	13	143	77

* 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.

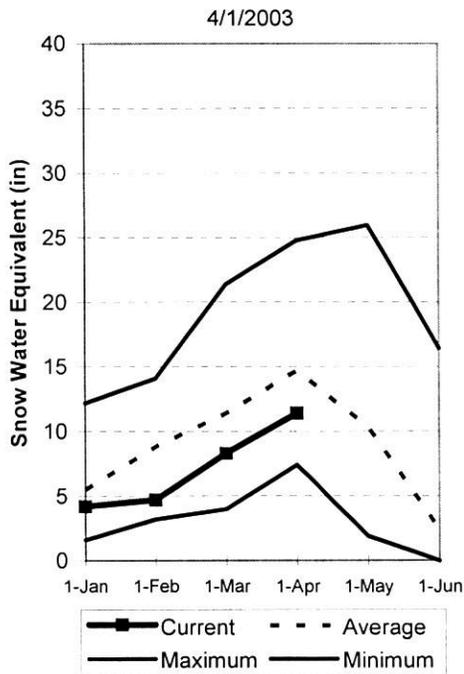
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Sevier and Beaver River Basins

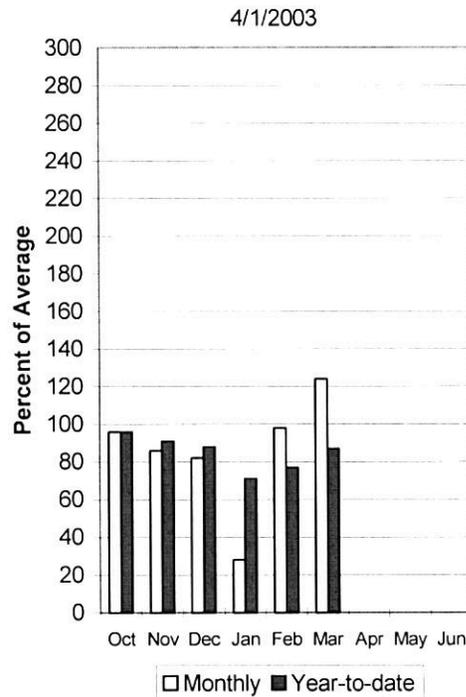
Apr 1, 2003

Snowpacks on the Sevier River Basin are below normal at 77% of average, about 156% of last year and up 9% relative to last month. Individual sites range from 0% to 123% of average. This is the fifth consecutive below normal April 1 snowpack year for the Sevier. The lack of low elevation snow may impact runoff. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during March was above average at 124% of normal, bringing the seasonal accumulation (Oct-Mar) to 87% of average. Reservoir storage is at 34% of capacity, 27% (109,000AF) less than last year. Water supply conditions and streamflow forecasts are much below normal due to low snowpack and low reservoir storage.

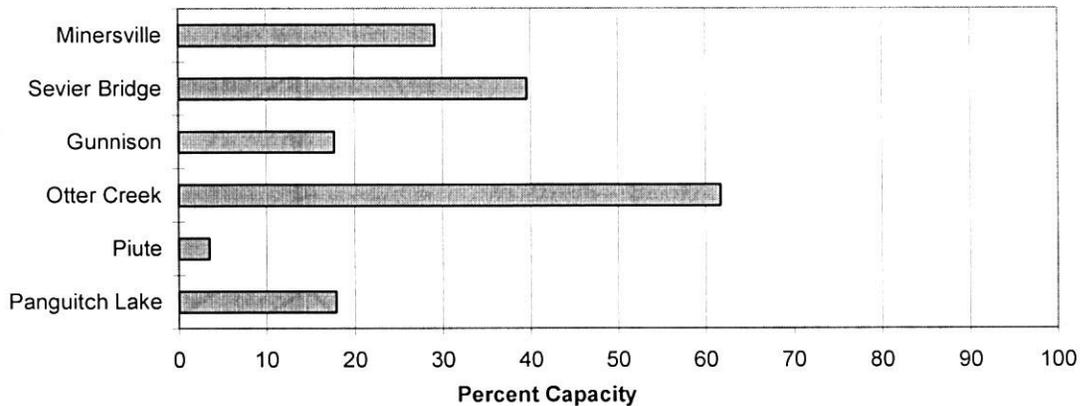
Sevier River Snowpack



Sevier River Precipitation



Reservoir Storage 4/1/2003



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

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)	
Sevier River at Hatch	APR-JUL	11.0	23	29	53	35	47	55
Sevier River nr Kingston	APR-JUL	16.9	39	45	51	51	73	89
EF Sevier R nr Kingston	APR-JUL	1.1	13.2	21	55	29	41	38
Sevier R blw Piute Dam	APR-JUL	5.0	37	58	46	79	111	126
Clear Creek nr Sevier	APR-JUL	4.0	10.6	14.0	64	17.4	24	22
Salina Creek at Salina	APR-JUL			7.4	38			19.7
Sevier R nr Gunnison	APR-JUL	56	92	123	44	197	325	280
Chicken Creek nr Levan	APR-JUL	1.00	1.27	1.50	33	1.77	2.25	4.50
Oak Creek nr Oak City	APR-JUL	0.53	0.67	0.79	49	0.93	1.18	1.63
Beaver River nr Beaver	APR-JUL	12.3	14.4	16.0	62	17.8	21	26
Minersville Reservoir inflow	APR-JUL	7.0	7.9	8.5	51	9.2	10.3	16.6

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of March					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - April 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	3.6	6.3	16.3	UPPER SEVIER RIVER (south	8	192	65
MINERSVILLE (RkyFd)	23.3	6.8	10.0	17.9	EAST FORK SEVIER RIVER	3	216	71
OTTER CREEK	52.5	32.4	41.8	43.5	SOUTH FORK SEVIER RIVER	5	177	62
PIUTE	71.8	2.5	50.1	58.5	LOWER SEVIER RIVER (inclu	6	137	88
SEVIER BRIDGE	236.0	93.5	134.9	189.7	BEAVER RIVER	2	174	80
PANGUITCH LAKE	22.3	4.0	11.9	152.9	SEVIER & BEAVER RIVER BAS	16	159	77

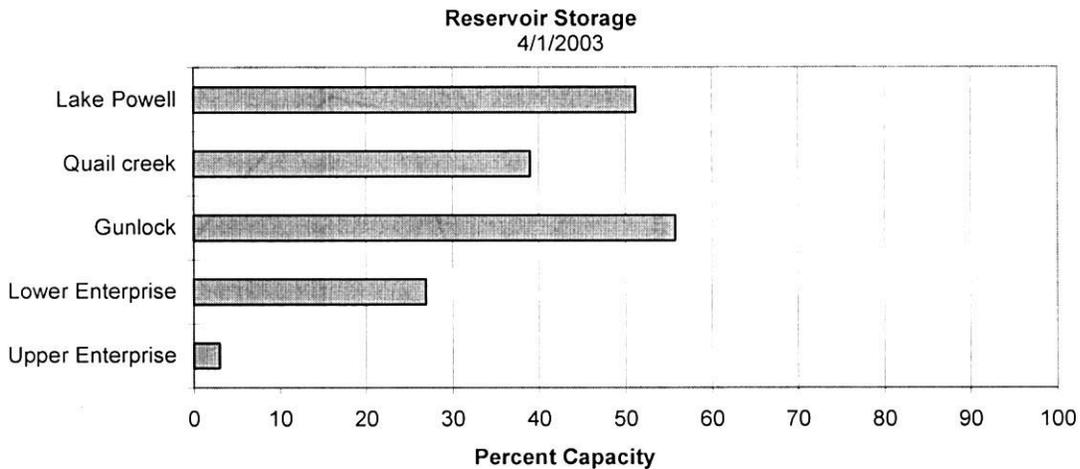
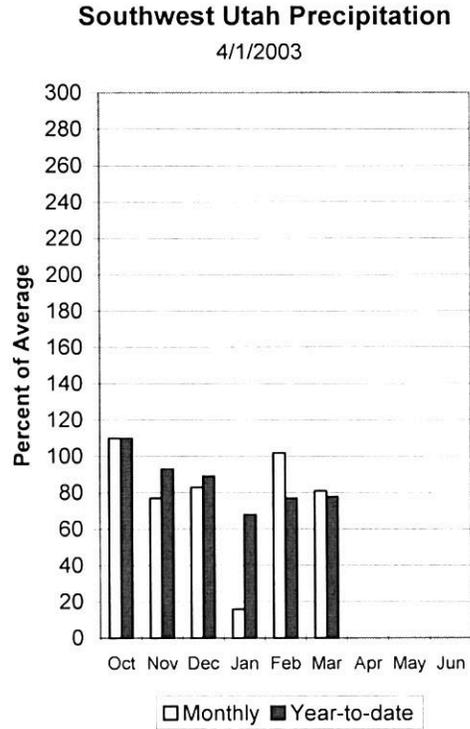
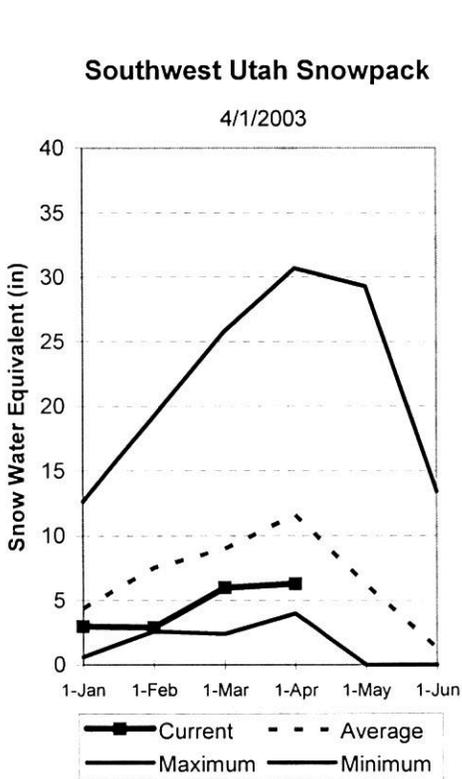
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The average is computed for the 1971-2000 base period.

- (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. Apr 1, 2003

Snowpacks in this region are at 54% of average, about 226% of last year and down 5% relative to last month. Individual sites range from 0 to 107% of average and it is the second consecutive below normal April 1 snowpack year. Snowmelt may last only through mid to late May in this area. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation was below normal during March at 81% of average, bringing the seasonal accumulation (Oct-Mar) to 78% of normal. Reservoir storage is at 36% of capacity, 37% (23,000AF) less than last year. General water supply conditions and streamflow forecasts are much below normal.



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

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	2690	4180	5200	66	6220	7710	7930
Virgin River nr Virgin	APR-JUL	19.2	28	34	53	41	53	64
Virgin River nr Hurricane	APR-JUL	19.3	25	32	46	39	49	69
Santa Clara River nr Pine Valley	APR-JUL	0.88	1.60	2.20	40	2.90	4.11	5.50
Coal Creek nr Cedar City	APR-JUL	4.2	6.5	8.4	44	10.5	14.1	19.3

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

E. GARFIELD, KANE, WASHINGTON, & IRON Co.
Watershed Snowpack Analysis - April 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	5.8	7.3	4.5	VIRGIN RIVER	5	211	51
LAKE POWELL	24322.0	12458.0	16927.0	---	PAROWAN	2	170	65
QUAIL CREEK	40.0	15.6	37.7	31.0	ENTERPRISE TO NEW HARMONY	2	0	0
UPPER ENTERPRISE	10.0	0.3	0.5	---	COAL CREEK	2	255	61
LOWER ENTERPRISE	2.6	0.7	0.3	137.1	ESCALANTE RIVER	2	263	85
					E. GARFIELD, KANE, WASHIN	9	230	54

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

UTAH SURFACE Snow Surveys Basin or Region	WATER NRCS SWSI/%	SUPPLY USDA Percentile	INDEX Years with Similar SWSI
Bear River	-4	2%	92,93,2002
Ogden River	-3.5	8%	88,77,92,87
Weber River	-3.7	5%	77,92,88,02
Tooele Valley	NA		
Provo	-2.9	15%	62,56,55,59
North Slope	NA		
West Uintah Basin	-0.2	48%	94,88,95,87
East Uintah Basin	-2.9	15%	02,94,92,88
Price River	-2.1	24%	02,59,89,98
San Rafael	-2.3	22%	92,02,81,01
Moab	-2.1	25%	99,81,01,91
Upper Sevier River	-2.43	21%	91,90,02,92
Lower Sevier River	-2.9	16%	91,66,67,92
Beaver River	-3	14%	63,90,72,76
Virgin River	-2.5	20%	89,02,91,96

**Snow Surveys
245 N Jimmy Doolittle Rd
Salt Lake City, UT**

**SWSI Scale: -4 to 4
Percentile: 0 - 100%**



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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/>

Snow Survey, NRCS, USDA
245 North Jimmy Doolittle Road
Salt Lake City, UT 84116
(801) 524-5213



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



STATE OF UTAH GENERAL OUTLOOK

May 1, 2003

SUMMARY

April showers bring May flowers the saying goes. This year April brought extremely windy conditions and the wind, put a nail in this snowpack coffin. Sublimation is the scientific term for changing a solid to a gas bypassing the liquid phase. It requires phenomenal energy, 8 times more than to just melt snow. Lots of steady, strong wind with warm temperatures is the primary mechanism to deliver that energy to a snowpack. In a normal melt season, Utah loses 10 to 20% of its snowpack to sublimation, it is a natural process with very little we can do to prevent it. From about the 10th of April to the 14th, there were steady 10 to 40 mph winds with extremely warm temperatures. During this time, what was left of the low elevation snowpack disappeared. Nearly 50% of the mid elevation snowpack, consistently a big water producer, also disappeared. That is a significant amount of snow over a vast geographic region and that kind of snowloss would normally produce a lot of streamflow, but not in this case. An analysis of the event showed that many SNOTEL sites lost between 4 and 6 inches of snow water equivalent over the 5 day period. Most sites gained about 1 to 2 inches of soil moisture during the same period indicating about 1/3 of the snow lost, melted and infiltrated the soil. Calculating runoff from streamflow values indicated that a paltry 0.2 to 0.35 inches of loss made it to the stream. The remaining 2 to 4 inches of snow loss was due to sublimation. To put it simply, a third or more of our snowpack is now completely lost from the system and will not contribute to runoff. In the meantime, the other normal loss rates must still be satisfied, such as the soil moisture deficit. Now the soil moisture deficit becomes a big issue again, because there is only marginally enough snow left to fill it to saturation at most locations. This is being reflected in observed streamflows across the state with most areas still well below average. It is difficult to quantify just how much water was lost across the state during that wind episode. For example, on the Weber River above Oakley, between one quarter and one third (25,000 to 35,000 AF) of the normal April-July runoff was lost during those 4 days. In a year when runoff was expected to be extremely low already, that loss is devastating. As a consequence of that loss combined with struggling streamflows across the state, water supply forecasts have tumbled. Snowpacks now range from 40% to 50% in the north and from 50% to 70% in southern Utah. Precipitation for April was much below to below normal in northern Utah (50%-75%), in the south it was below to near average (65%-90%), bringing seasonal precipitation, (Oct-Apr) to 75%. Reservoir storage in 41 major reservoirs across the state is at 55% of capacity, up only a meager 2% from last month and down 601,000 acre feet from last year, out of a total capacity of 5, 470,000, or about 11 %. Reservoir storage is down 1,200,000 acre feet (22%) from 2001 levels, reflecting the persistent nature of this drought.

SNOWPACK

March first snowpacks as measured by the NRCS SNOTEL system range from 50% to 68% of average in southern Utah. The Sevier has the highest snowpacks at 68% of average and southeast Utah has the lowest at 50% of average. In northern Utah, snowpacks range from a low of 40% on the Weber to 49% on the Provo. Low elevation snowpacks have melted out. Mid elevation snowpacks are nearly gone. Snowmelt is 4 to 6 weeks ahead of average melt and this will simply lengthen summer by a commensurate amount. Statewide, snowpacks are at 50% of average.

PRECIPITATION

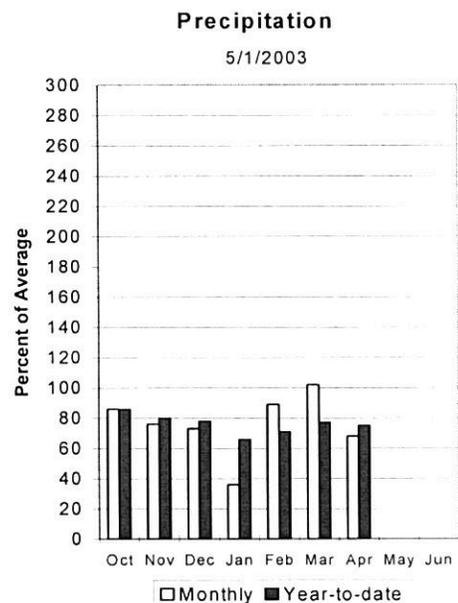
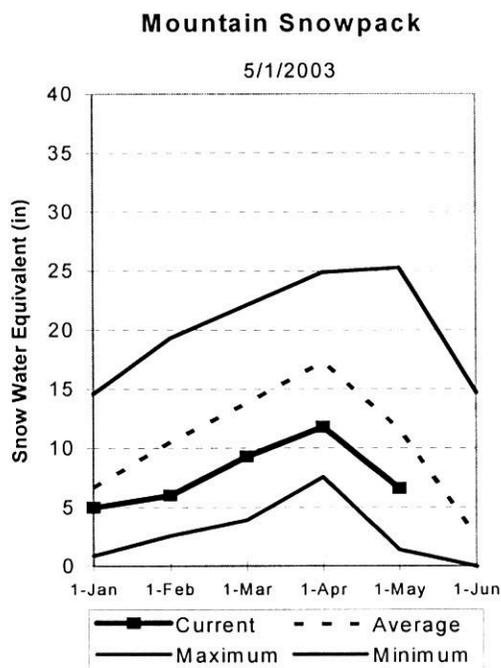
Mountain precipitation during April was much below to below normal (50%-80%) in the north and much below to near normal (65%-90%) in southern Utah. This brings the seasonal accumulation (Oct-Apr) to 75% of average statewide.

RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 55% 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 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.

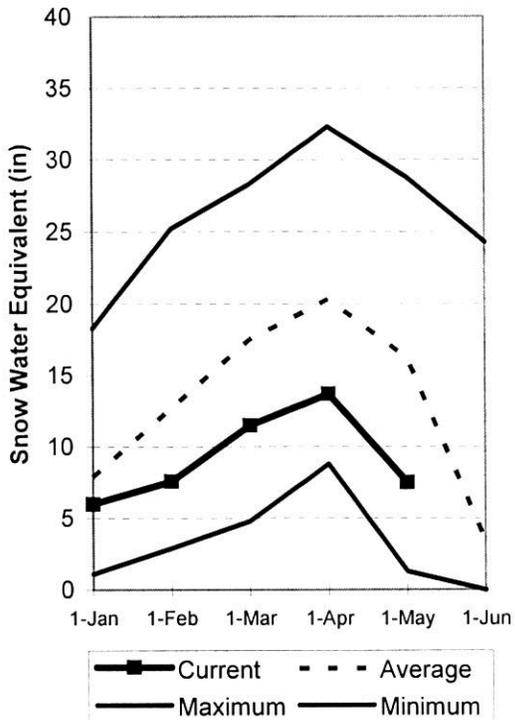


Bear River Basin May 1, 2003

Snowpacks on the Bear River Basin are much below average at 46% of normal, about 86% of last year and down 21% relative to last month. Water supply conditions are similar to last year. Specific sites range from 0% to 75% of normal. Bear lake was only able to store 7,000 acre feet this past month. April precipitation was much below average at 54%, which brings the seasonal accumulation (Oct-Apr) to 75% of average. Forecast streamflows are for much below normal volumes this spring. Reservoir storage is at 29% of capacity, 16% (241,000 AF) less than last year. Water supply conditions are much below normal due to low snowpack and low reservoir storage.

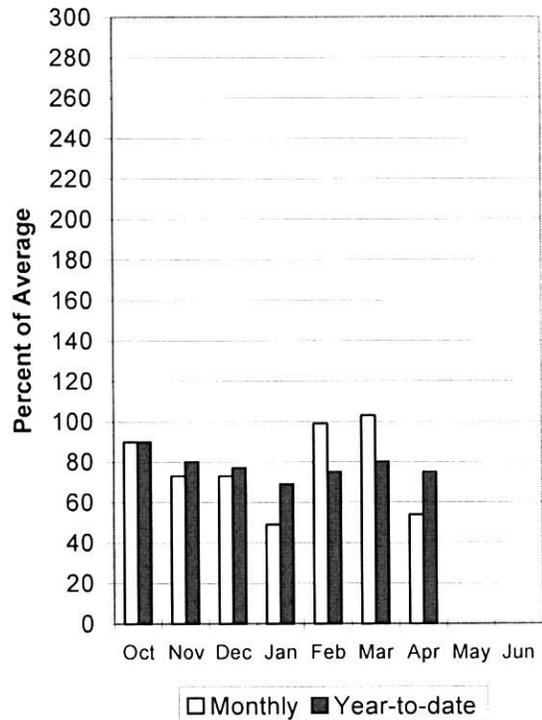
Bear River Snowpack

5/1/2003



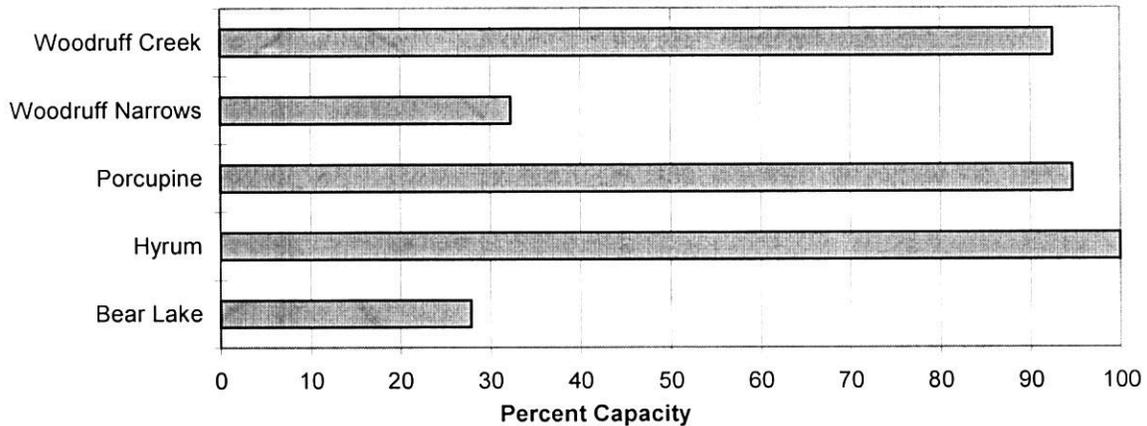
Bear River Precipitation

5/1/2003



Reservoir Storage

5/1/2003



BEAR RIVER BASIN
Streamflow Forecasts - May 1, 2003

Forecast Point	Forecast Period	<<==== Drier ==== Future Conditions ==== Wetter ====>>						30-Yr Avg. (1000AF)		
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * (1000AF) (% AVG.)			30% (1000AF) 10% (1000AF)	
Bear R nr UT-WY State Line	APR-JUL	54	59	62	53	65	70	116		
Woodruff Narrows Res inflow	APR-JUL	15.0	25	32	24	40	55	136		
Big Creek nr Randolph	APR-JUL	0.34	0.91	1.30	27	2.73	4.84	4.90		
Smiths Fork nr Border	APR-JUL	35	41	45	44	50	57	103		
Bear River blw Stewart Dam	APR-JUL	22	27	30	10	64	109	288		
Little Bear River at Paradise	APR-JUL	9.7	11.3	12.5	27	13.8	16.1	46		
Logan River nr Logan	APR-JUL	51	55	58	48	61	66	122		
Blacksmith Fork nr Hyrum	APR-JUL	15.3	17.1	18.4	38	19.8	22	48		

Reservoir	BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of April				BEAR RIVER BASIN Watershed Snowpack Analysis - May 1, 2003			
	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	396.7	---	---	BEAR RIVER, UPPER (abv Ha	6	77	41
HYRUM	15.3	15.3	15.1	13.2	BEAR RIVER, LOWER (blw Ha	8	88	50
PORCUPINE	11.3	10.7	11.3	9.5	LOGAN RIVER	4	90	65
WOODRUFF NARROWS	57.3	18.5	18.5	38.5	RAFT RIVER	1	67	65
WOODRUFF CREEK	4.0	3.7	3.8	---	BEAR RIVER BASIN	14	83	46

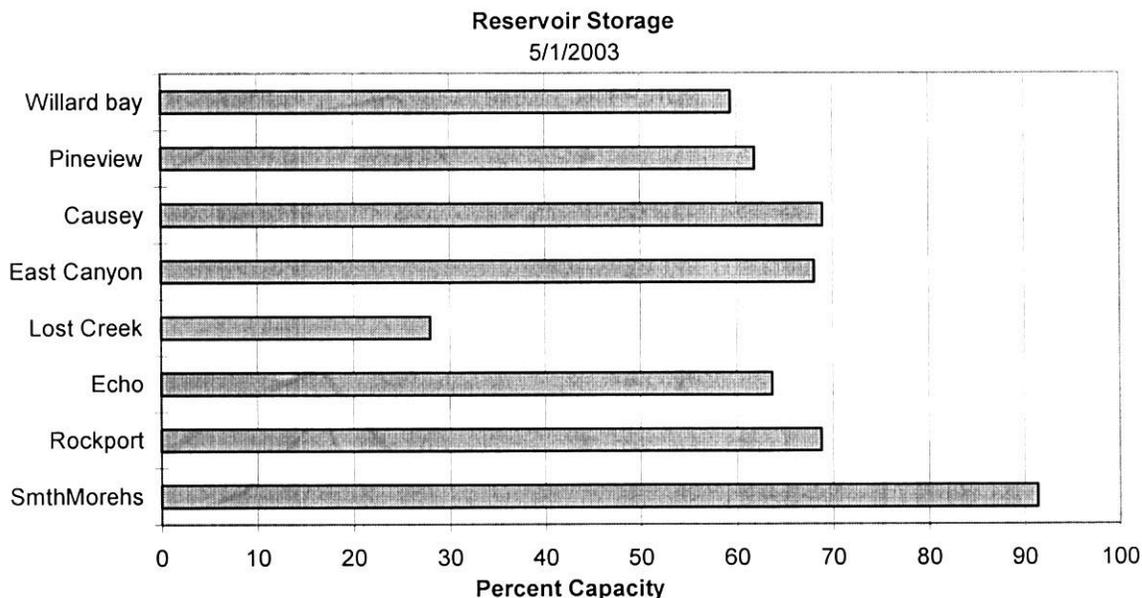
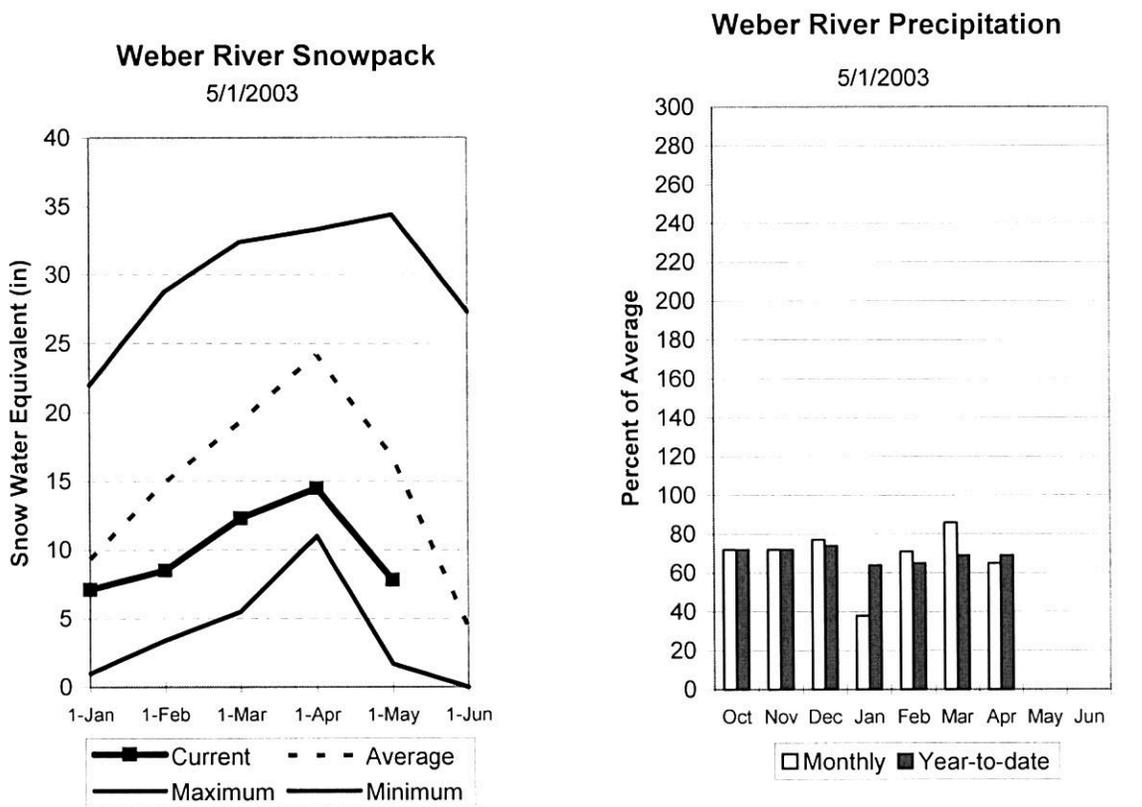
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Weber and Ogden River Basins May 1, 2003

Snowpack on the Weber and Ogden Watersheds is much below normal at 40% of average, about 67% of last year and down 20% relative to last month. This is the lowest May 1 snowpack since 1992. Individual sites range from 0% to 71% of average. Soil moisture conditions are somewhat improved from last year and may yield a higher runoff efficiency. Precipitation during April was much below normal at 65%, bringing the seasonal accumulation (Oct-Apr) to 69% of average. Reservoir storage is at 62% of capacity, about 6% (33,000 acre-feet) less than last year. Streamflow forecasts are much below average. Overall water supply conditions are much below normal due to poor snowpack and low reservoir storage.



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

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)
		Drier		50% (Most Probable)		Wetter		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Smith & Morehouse Res inflow	APR-JUL	13.9	16.0	18.0	53	20	22	34
Weber River nr Oakley	APR-JUL	46	55	61	50	67	76	123
Rockport Reservoir inflow	APR-JUL	43	54	62	46	70	81	134
Weber River nr Coalville	APR-JUL	44	55	62	45	69	80	137
Chalk Creek at Coalville	APR-JUL	2.7	10.0	15.0	33	20	27	45
Echo Reservoir inflow	APR-JUL	51	68	80	45	92	109	179
Lost Creek Reservoir inflow	APR-JUL	2.9	4.0	4.8	27	5.7	7.2	17.6
East Canyon Reservoir inflow	APR-JUL	7.4	9.3	10.7	35	12.2	14.6	31
Weber River at Gateway	APR-JUL	55	89	113	32	137	171	355
SF Ogden River nr Huntsville	APR-JUL	12.0	16.0	19.0	30	22	26	64
Pineview Reservoir inflow	APR-JUL	17.0	29	37	28	45	57	133
Wheeler Creek nr Huntsville	APR-JUL	0.19	1.10	1.80	29	2.50	3.40	6.30

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

WEBER & OGDEN WATERSHEDS in Utah
Watershed Snowpack Analysis - May 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	4.9	6.9	4.0	OGDEN RIVER	4	48	31
EAST CANYON	49.5	33.7	35.3	40.5	WEBER RIVER	9	75	46
ECHO	73.9	47.1	50.0	52.9	WEBER & OGDEN WATERSHEDS	13	66	40
LOST CREEK	22.5	6.3	9.8	15.6				
PINEVIEW	110.1	68.2	91.6	77.7				
ROCKPORT	60.9	41.9	32.8	38.6				
WILLARD BAY	215.0	127.8	140.8	168.0				

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

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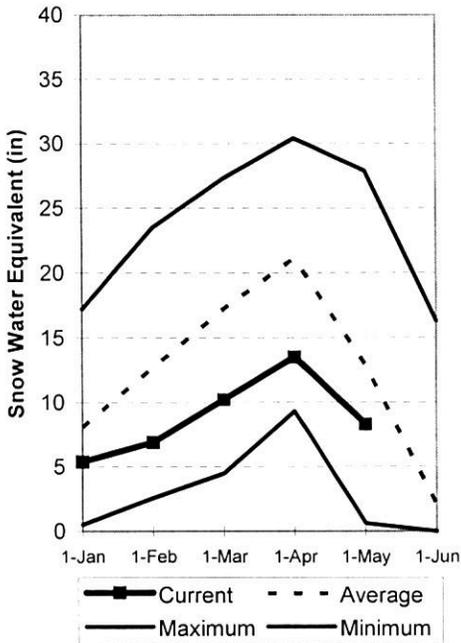
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- (2) - The value is natural volume - actual volume may be affected by upstream water management.

Utah Lake, Jordan River & Tooele Valley Basins May 1, 2003

Snowpacks over these watersheds are at 49% of average, 87% of last year and down 15% relative to last month. Individual sites range from 0% to 77% of average. This is the lowest May 1 snowpack since 1992. Soil moisture is somewhat improved from last year and may yield a higher runoff efficiency. Precipitation during April was below normal at 78%, bringing the seasonal accumulation (Oct-Apr) to 72% of average. Forecast streamflows are much below normal. Reservoir storage is at 71% of capacity, 8% less than last year. General water supply conditions are poor due to low snowpack and low reservoir storage.

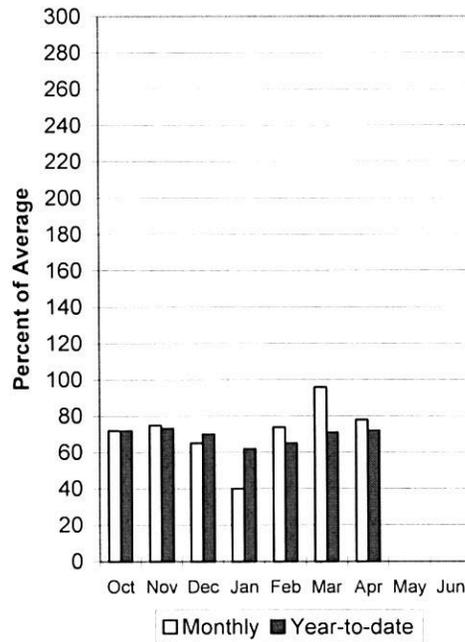
Provo River Snowpack

5/1/2003



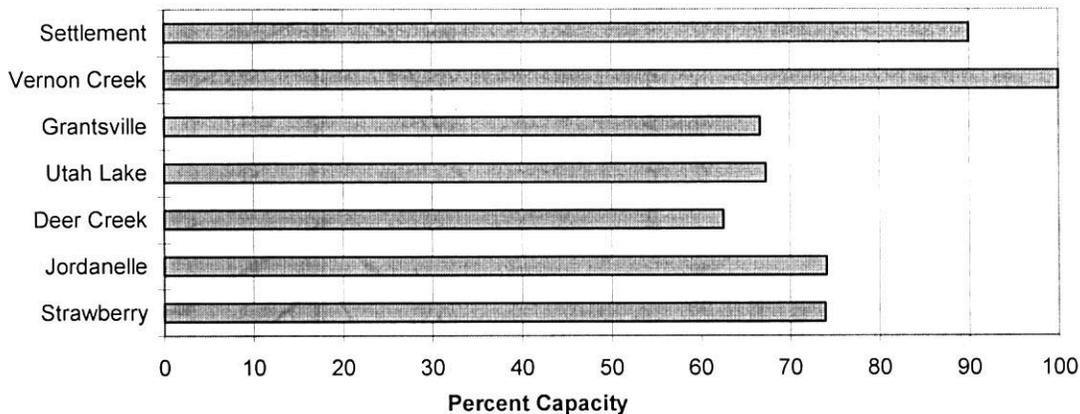
Provo River Precipitation

5/1/2003



Reservoir Storage

5/1/2003



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY
Streamflow Forecasts - May 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)	
Spanish Fork River nr Castilla	APR-JUL	6.9	19.9	26	34	45	68	77
Provo River nr Woodland	APR-JUL	29	36	45	44	54	69	103
Provo River nr Hailstone	APR-JUL	15.0	30	41	38	52	76	109
Provo R blw Deer Creek Dam	APR-JUL	23	38	55	44	72	95	126
American Fk R nr American Fk	APR-JUL	4.5	7.2	9.5	30	11.8	15.7	32
Utah Lake inflow	APR-JUL	6.0	64	117	36	170	245	325
Little Cottonwood Ck nr SLC	APR-JUL	14.4	17.5	20	50	23	26	40
Big Cottonwood Ck nr SLC	APR-JUL	11.0	15.3	18.0	47	21	25	38
Mill Creek nr SLC	APR-JUL	0.35	1.40	2.40	34	3.40	4.40	7.00
Parley's Creek nr SLC	APR-JUL	0.2	3.0	5.7	34	8.4	11.2	16.7
Dell Fork nr SLC	APR-JUL	0.00	0.75	2.00	29	3.25	5.10	6.80
Emigration Creek nr SLC	APR-JUL	0.00	0.25	1.30	29	2.35	3.80	4.50
City Creek nr SLC	APR-JUL	0.26	1.95	3.20	37	4.45	6.10	8.70
Vernon Creek nr Vernon	APR-JUL	0.19	0.26	0.32	22	0.39	0.53	1.48
Settlement Creek nr Tooele	APR-JUL	0.32	0.45	0.60	31	0.75	1.06	1.97
S Willow Ck nr Grantsville	APR-JUL	0.63	1.12	1.46	46	2.19	3.27	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, 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	93.6	111.0	119.4	PROVO RIVER & UTAH LAKE	7	175	34
GRANTSVILLE	3.3	2.2	2.8	2.8	PROVO RIVER	4	99	25
SETTLEMENT CREEK	1.0	0.9	0.9	0.7	JORDAN RIVER & GREAT SALT	6	66	55
STRAWBERRY-ENLARGED	1105.9	817.7	906.7	663.7	TOOELE VALLEY WATERSHEDS	3	122	52
UTAH LAKE	870.9	585.9	679.4	872.6	UTAH LAKE, JORDAN RIVER &	16	88	47
VERNON CREEK	0.6	0.6	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.

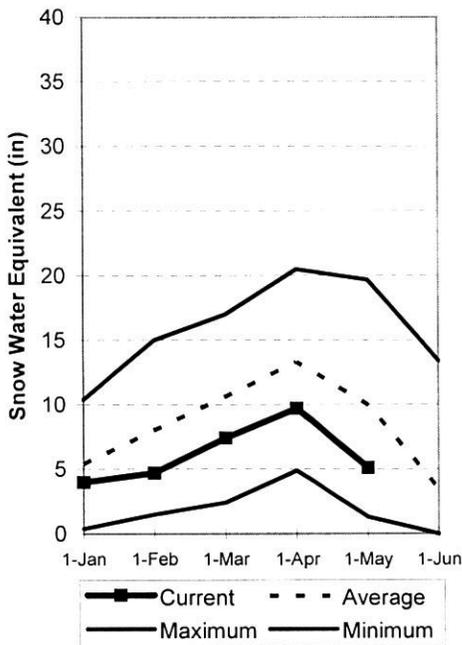
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

Uintah Basin and Dagget SCD's May 1, 2003

Snowpacks across the Uintah Basin and North Slope areas are much below average at 47%, which is 173% of last year's snowpack and down 26% relative to last month. The North Slope ranges from 0% to 85% and the Uintah Basin ranges from 0% to 73% of average. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during April was much below normal at 61%, bringing the seasonal accumulation (Oct-Apr) to 72% of average. Reservoir storage is at 75% of capacity, 8% (110,000AF) less than last year. Springtime runoff conditions are much below normal due to low snowpack and low reservoir storage.

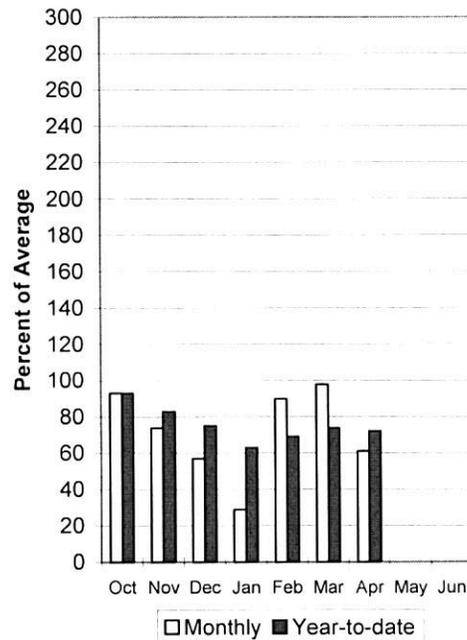
Uintahs Snowpack

5/1/2003



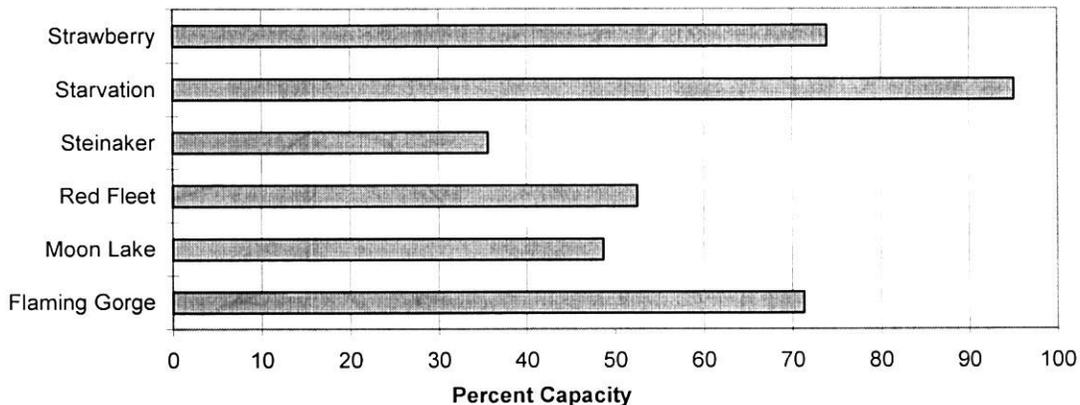
Uintahs Precipitation

5/1/2003



Reservoir Storage

5/1/2003



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

Forecast Point	Forecast Period	<<==== Drier ==== Future Conditions ==== Wetter =====>>						30-Yr Avg. (1000AF)				
		90%		70%		50% (Most Probable)			30%		10%	
		(1000AF)	(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)		(1000AF)	(1000AF)	(1000AF)	(1000AF)
Blacks Fork nr Robertson	APR-JUL	40	50	56	59	62	72	95				
EF of Smiths Fork nr Robertson	APR-JUL	14.6	16.1	17.2	56	18.4	20	31				
Flaming Gorge Reservoir Inflow	APR-JUL	365	515	620	52	725	880	1190				
BIG BRUSH CK abv Red Fleet Resv	APR-JUL	5.4	9.3	12.0	57	14.7	19.1	21				
Ashley Creek nr Vernal	APR-JUL	15.9	24	29	56	34	42	52				
WF DUCHESNE RIVER nr Hanna	APR-JUL	4.2	6.8	9.0	38	11.5	15.6	24				
DUCHESNE R nr Tabiona	APR-JUL	35	44	50	48	56	65	105				
UPPER STILLWATER RESV inflow	APR-JUL	27	38	45	55	52	63	82				
ROCK CK nr Mountain Home	APR-JUL	32	42	49	55	56	66	89				
DUCHESNE R abv Knight Diversion	APR-JUL	49	75	92	49	109	135	188				
STRAWBERRY RES nr Soldier Springs	APR-JUL	8.9	13.7	17.5	30	22	29	59				
CURRENT CREEK RESV Inflow	APR-JUL	3.8	4.6	6.8	27	9.0	12.3	25				
STARVATION RESERVOIR inflow	APR-JUL	10.0	28	40	33	52	70	121				
Lake Fork River abv Moon Lake	APR-JUL	22	30	36	53	42	50	68				
Yellowstone River nr Altonah	APR-JUL	15.0	25	32	52	39	49	62				
DUCHESNE R at Myton	APR-JUL	13.0	22	60	23	98	154	260				
Whiterocks River nr Whiterocks	APR-JUL	9.3	19.3	26	46	33	43	56				
DUCHESNE R nr Randlett	APR-JUL	13.0	42	75	23	166	303	325				

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

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

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	2673.0	2820.0	2952.0	UPPER GREEN RIVER in UTAH	6	179	45
MOON LAKE	49.5	24.1	18.1	30.8	ASHLEY CREEK	2	0	18
RED FLEET	25.7	13.5	19.2	19.9	BLACK'S FORK RIVER	2	145	71
STEINAKER	33.4	11.9	21.5	25.0	SHEEP CREEK	1	0	0
STARVATION	165.3	157.2	163.5	139.7	DUCHESNE RIVER	11	169	48
STRAWBERRY-ENLARGED	1105.9	817.7	906.7	663.7	LAKE FORK-YELLOWSTONE CRE	4	154	68
					STRAWBERRY RIVER	4	0	9
					UINTAH-WHITEROCKS RIVERS	2	214	37
					UINTAH BASIN & DAGGET SCD	17	172	47

* 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.

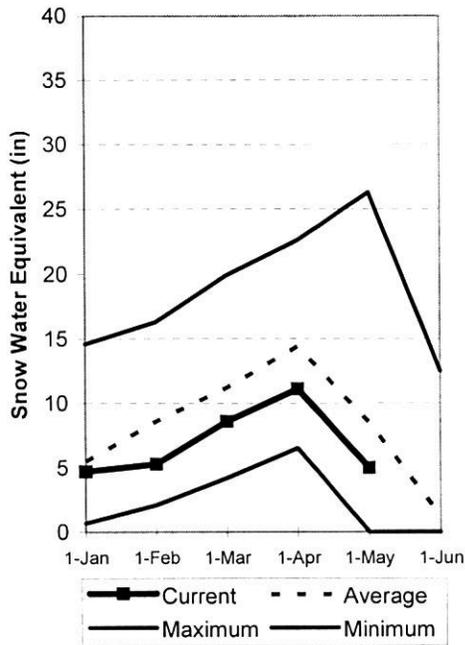
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

Carbon, Emery, Wayne, Grand and San Juan Co. May 1, 2003

Snowpacks in this region are much below normal at 50% of average, about 531% of last year and down 27% relative to last month. Individual sites range from 0% to 94% of average. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during April was much below average at 65%, bringing the seasonal accumulation (Oct-Apr) to 82% of normal. Reservoir storage is at 40% of capacity, 16% (24,000AF) less than last year. General runoff and water supply conditions are much below normal due to low snowpack and low reservoir storage.

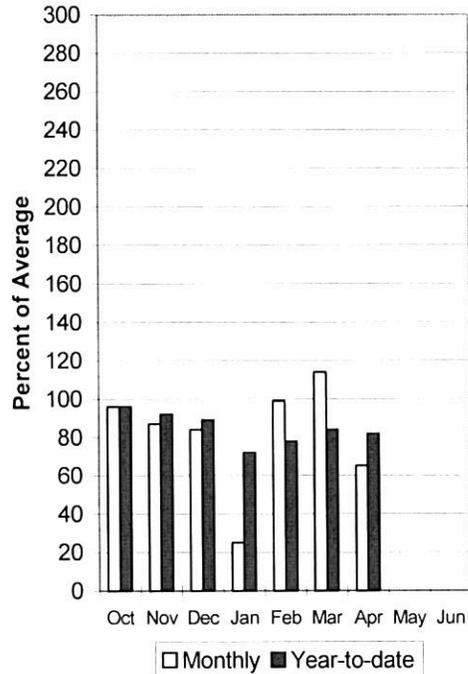
Southeast Utah Snowpack

5/1/2003



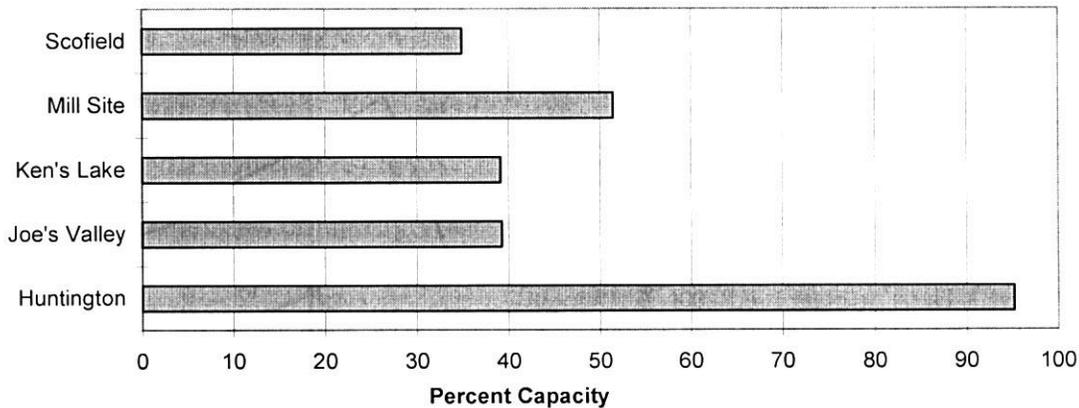
Southeast Utah Precipitation

5/1/2003



Reservoir Storage

5/1/2003



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

Forecast Point	Forecast Period	Drier		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	4.2	5.9	7.0	59	8.1	9.8	11.9
Scofield Reservoir inflow	APR-JUL	23	27	30	65	33	37	46
White River blw Tabbyune Creek	APR-JUL	4.8	6.8	8.4	48	10.1	13.0	17.4
Green River at Green River, UT	APR-JUL	1100	1610	1950	62	2290	2800	3170
Electric Lake inflow	APR-JUL	5.8	7.3	8.5	54	9.8	11.9	15.7
HUNTINGTON CK nr Huntington	APR-JUL	24	29	32	64	35	40	50
JOE'S VALLEY RESV Inflow	APR-JUL	12.0	22	29	50	36	46	58
Ferron Creek nr Ferron	APR-JUL	17.4	20	22	56	24	27	39
Colorado River nr Cisco	APR-JUL	2620	3200	3600	77	4000	4580	4650
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	0.50	1.25	2.00	40	2.80	3.90	5.00
Seven Mile Creek nr Fish Lake	APR-JUL	3.90	5.10	6.00	86	6.90	8.10	7.00
Muddy Creek nr Emery	APR-JUL	7.8	10.9	13.0	65	15.1	18.2	19.9
North Ck ab R.S. nr Monticello	MAR-JUL	0.02	0.16	0.33	24	0.57	1.04	1.35
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.07	0.18	0.33	25	0.52	0.89	1.31
Recapture Ck bl Johnson Ck nr Blandi	MAR-JUL	0.24	0.61	1.25	21	2.45	4.15	6.10
San Juan River nr Bluff	APR-JUL	235	375	475	39	575	715	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, 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	4.0	3.5	4.1	PRICE RIVER	3	381	62
JOE'S VALLEY	61.6	24.2	37.7	41.9	SAN RAFAEL RIVER	3	461	62
KEN'S LAKE	2.3	0.9	1.1	1.6	MUDDY CREEK	1	0	39
MILL SITE	16.7	8.6	9.2	99.7	FREMONT RIVER	3	0	41
SCOFIELD	65.8	23.0	33.5	37.4	LASAL MOUNTAINS	1	0	20
					BLUE MOUNTAINS	1	0	0
					WILLOW CREEK	1	0	0
					CARBON, EMERY, WAYNE, GRA	13	533	50

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

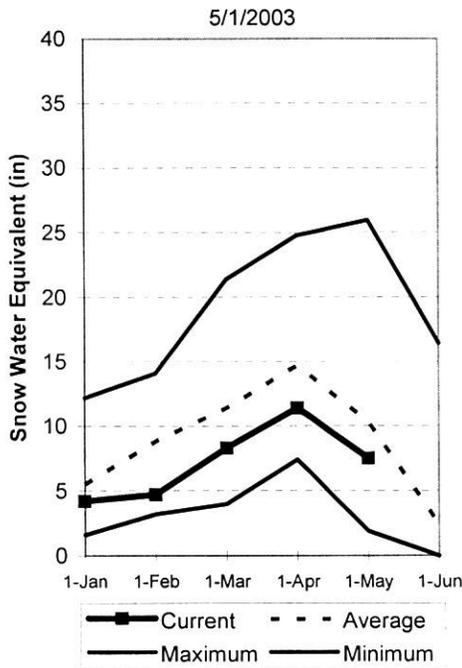
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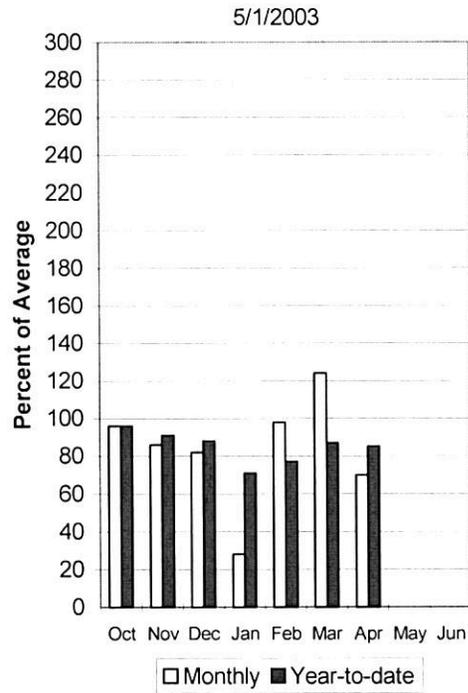
Sevier and Beaver River Basins May 1, 2003

Snowpacks on the Sevier River Basin are much below normal at 68% of average, about 473% of last year and down 9% relative to last month. Individual sites range from 0% to 114% of average. The lack of low elevation snow may impact runoff. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation during April was below average at 70% of normal, bringing the seasonal accumulation (Oct-Apr) to 85% of average. Reservoir storage is at 42% of capacity, 15% (61,000AF) less than last year. Water supply conditions and streamflow forecasts are much below normal due to low snowpack and low reservoir storage.

Sevier River Snowpack

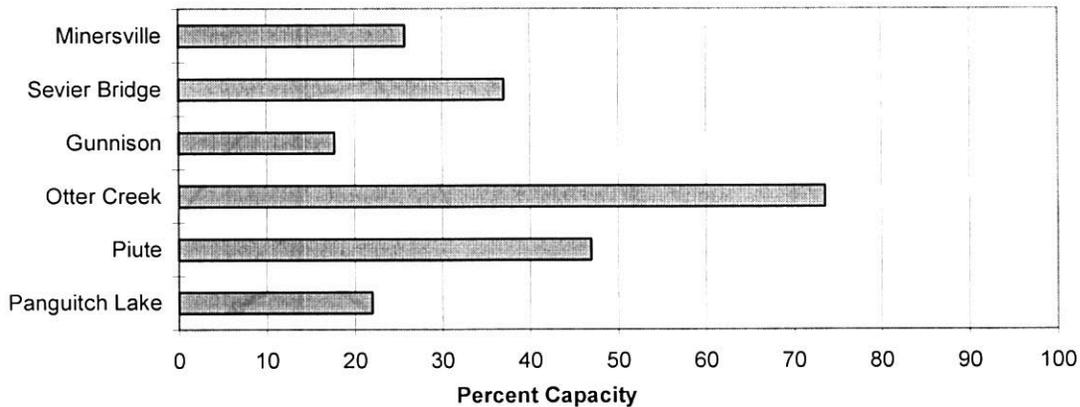


Sevier River Precipitation



Reservoir Storage

5/1/2003



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

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)	
Sevier River at Hatch	APR-JUL	12.6	23	29	53	35	45	55
Sevier River nr Kingston	APR-JUL	14.2	35	45	51	55	76	89
EF Sevier R nr Kingston	APR-JUL	0.8	12.6	20	53	27	39	38
Sevier R blw Piute Dam	APR-JUL	1.0	38	58	46	78	115	126
Clear Creek nr Sevier	APR-JUL	3.5	9.5	12.0	55	14.5	21	22
Salina Creek at Salina	APR-JUL			MUCH BELOW AVERAGE				19.7
Sevier R nr Gunnison	APR-JUL	50	38	123	44	208	340	280
Chicken Creek nr Levan	APR-JUL	0.67	0.81	0.93	21	1.07	1.30	4.50
Oak Creek nr Oak City	APR-JUL	0.46	0.56	0.63	39	0.71	0.86	1.63
Beaver River nr Beaver	APR-JUL	10.7	12.5	14.0	54	15.6	18.4	26
Minersville Reservoir inflow	APR-JUL	4.6	6.1	7.5	45	8.8	11.0	16.6

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of April					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - May 1, 2003				
Reservoir	Usable Capacity	*** This Year	Usable Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr Average		
GUNNISON	20.3	3.6	5.8	15.7	UPPER SEVIER RIVER (south	8	0	57	
MINERSVILLE (RkyFd)	23.3	6.0	9.1	18.0	EAST FORK SEVIER RIVER	3	0	42	
OTTER CREEK	52.5	38.6	40.1	46.0	SOUTH FORK SEVIER RIVER	5	0	65	
PIUTE	71.8	33.7	44.3	55.5	LOWER SEVIER RIVER (inclu	6	359	76	
SEVIER BRIDGE	236.0	87.4	127.3	183.6	BEAVER RIVER	2	248	71	
PANGUITCH LAKE	22.3	4.9	12.3	164.6	SEVIER & BEAVER RIVER BAS	16	484	68	

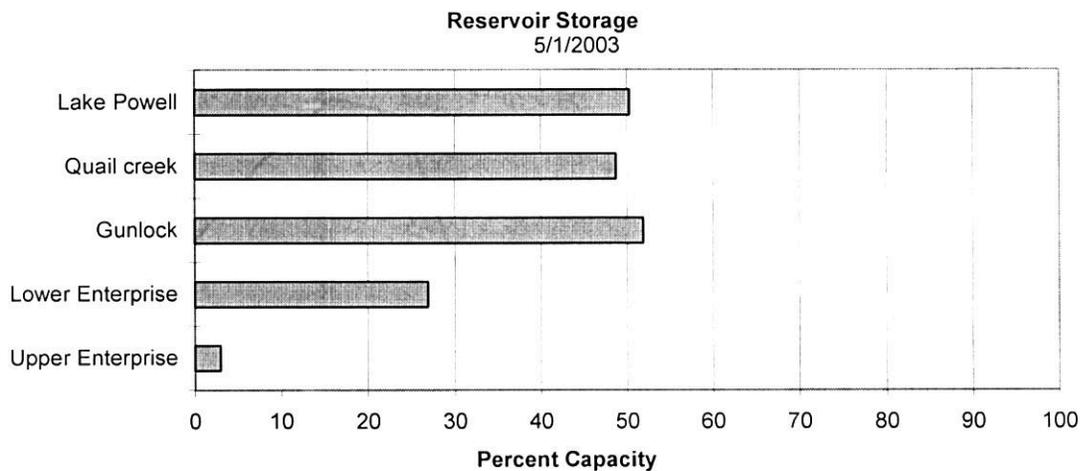
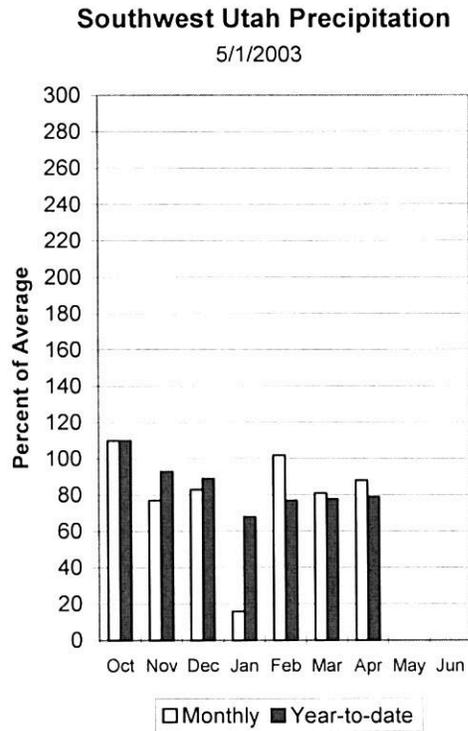
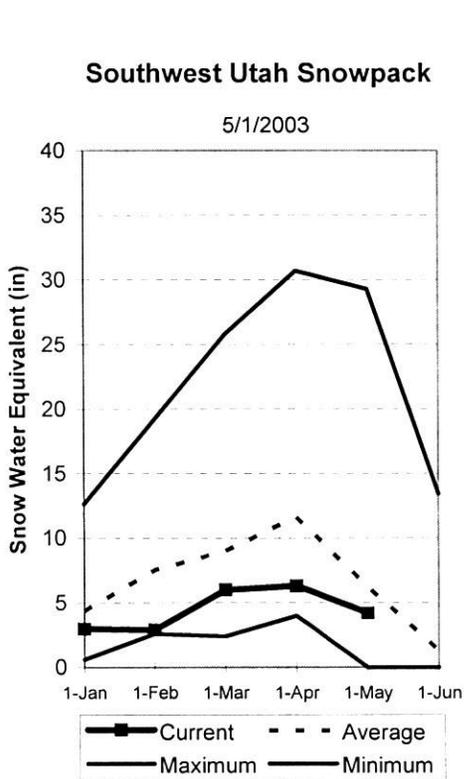
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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. May 1, 2003

Snowpacks in this region are at 58% of average, up 4% relative to last month. Last year at this time snowpacks were completely melted out. Individual sites range from 0 to 80% of average. Snowmelt may last only through mid to late May in this area. Soil moisture is somewhat improved over last year and may yield a higher runoff efficiency. Precipitation was slightly below normal during April at 88% of average, bringing the seasonal accumulation (Oct-Apr) to 79% of normal. Reservoir storage is at 41% of capacity, 22% (14,000AF) less than last year. General water supply conditions and streamflow forecasts are much below normal.



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

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	2560	3710	4500	57	5290	6440	7930
Virgin River nr Virgin	APR-JUL	16.8	22	25	39	29	45	64
Virgin River nr Hurricane	APR-JUL	7.8	13.9	18.0	26	22	30	69
Santa Clara River nr Pine Valley	APR-JUL	1.17	1.74	2.20	40	2.71	3.55	5.50
Coal Creek nr Cedar City	APR-JUL	1.5	7.1	8.4	44	9.8	15.2	19.3

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

E. GARFIELD, KANE, WASHINGTON, & IRON Co.
Watershed Snowpack Analysis - May 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	5.4	6.3	4.3	VIRGIN RIVER	5	0	61
LAKE POWELL	24322.0	12238.0	16704.0	---	PAROWAN	2	0	61
QUAIL CREEK	40.0	19.5	32.5	31.6	ENTERPRISE TO NEW HARMONY	2	0	0
UPPER ENTERPRISE	10.0	0.3	0.5	---	COAL CREEK	2	0	62
LOWER ENTERPRISE	2.6	0.7	0.5	115.5	ESCALANTE RIVER	2	0	51
					E. GARFIELD, KANE, WASHIN	9	0	58

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

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