

# 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.

