

STATE OF UTAH GENERAL OUTLOOK

January 1, 2012

SUMMARY

Wow! Does not begin to describe the snowpack and general watershed runoff conditions of water year 2011 – record high snowpacks and streamflows. That, Water User Friends, was last year's fond memories. This year's adjective is Wow! Could it get any worse? Record or near record low snowpacks at 19 SNOTEL sites in central and northern Utah. Snowpacks are in the 40% to 70% of average range with nary a decent storm in sight and wolves howling at the door. So, how do we put a positive spin on such a miserable condition? When a water year starts out this poorly, there is a high probability (note that is not a 100% certainty) that snowpacks will improve before April 1. 1980 started out nearly as bad as current conditions and ended up with an April 1 above average (120%-180%), however 1990 started out poorly and ended up poorly plus a smidgeon (50%-90%). So, the bottom line is that any outcome – high or low, is still possible and we have 3+ months of winter snow accumulation yet to come. The next positive/negative is that soil moisture conditions are near average in southern Utah but below average in the north– not great but at least not exceptionally dry. Third, current streamflow is still riding the wave from last year's phenomenal runoff season with many sites flowing above or much above average. Many reservoirs across the state can fill with winter streamflow alone. Causey Reservoir is an example – going from essentially near empty (due to valve repairs and maintenance) to 61% of capacity in the last month. Lastly and most critical of all is reservoir storage – with an agricultural season last year that was cool and wet through spring and early summer we were able to bank significant stores of carryover water last season. Current statewide reservoir storage is at 84% of capacity leaving only 16% to fill. With current snowpack conditions – water managers should be closely assessing reservoir outflows through the winter months considering the high potential of a poor runoff season. La Nina conditions generally favor northern Utah with greater snowpacks whereas southern Utah normally goes dry. December precipitation was much below normal (17%-37%) in northern Utah and below normal (62%-88%) in the south which brings the year to date precipitation to below normal statewide at 80%. Current soil moisture saturation levels in runoff producing areas are: Bear – 49%, Weber – 48%, Provo – 35%, Uintah Basin – 44%, SE Utah – 45%, Sevier – 46% and SW Utah – 42% of saturation. Wetter soils mean that watersheds are primed and ready for runoff, dry soils indicate higher losses and less runoff. Reservoir storage is currently at 84% of capacity statewide compared to 66% last year. General water supply conditions are much below average across the state.

SNOWPACK

January first snowpacks as measured by the NRCS SNOTEL system are as follows: Bear – 57% (34% of last year), Weber - 52% (28% of last year), Provo - 46% (23% of last year), Uintahs - 75% (38% of last year), southeast Utah - 61% (32% of last year), Sevier - 63% (28% of last year), southwest Utah - 76% (27% of last year) and the statewide figure is 58% of average. With January, February and March remaining in the snow accumulation season, the range of potential outcomes is still reasonably large and any outcome is possible depending on future climatic conditions. If drought prevails, snowpacks could range between essentially 0% (Sevier and southwest Utah) to 50% over the Uintahs. Given maximum accumulations, April 1 snowpacks could range between 130% on the Bear and Weber to 220% over southwest Utah. With normal accumulations, April 1 snowpacks will be between 80% and 90% of average statewide.

PRECIPITATION

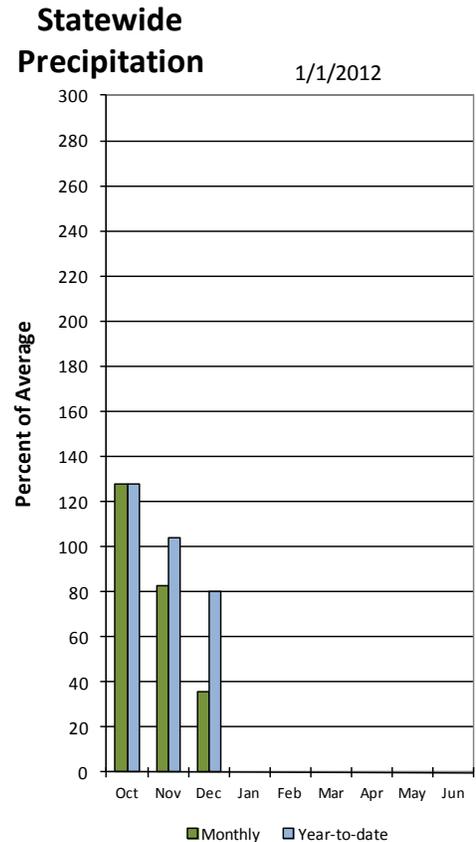
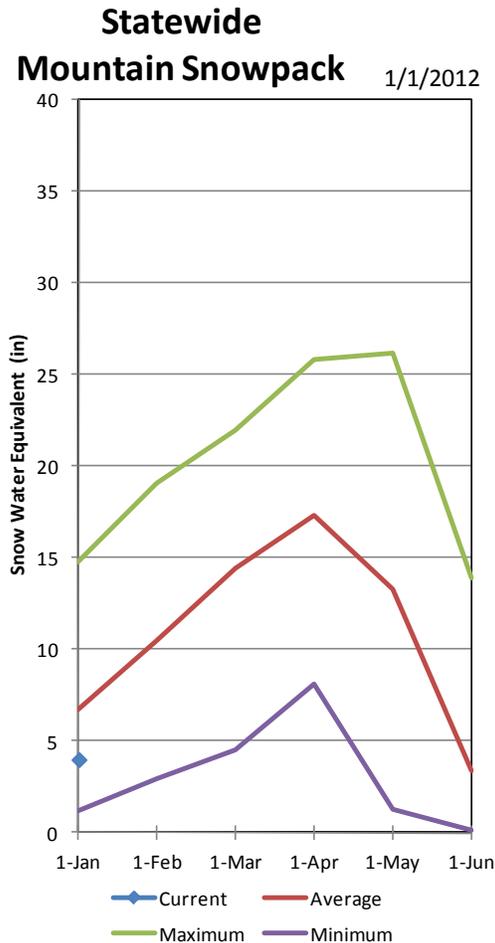
Mountain precipitation during December was: Bear – 25%, Weber – 17%, Provo – 20%, Uintahs – 37%, SE Utah – 64%, Sevier – 62%, SW Utah – 88% and the statewide figure is 36% of average. This brings the seasonal accumulation (Oct-Dec) to 80% of average statewide.

RESERVOIRS

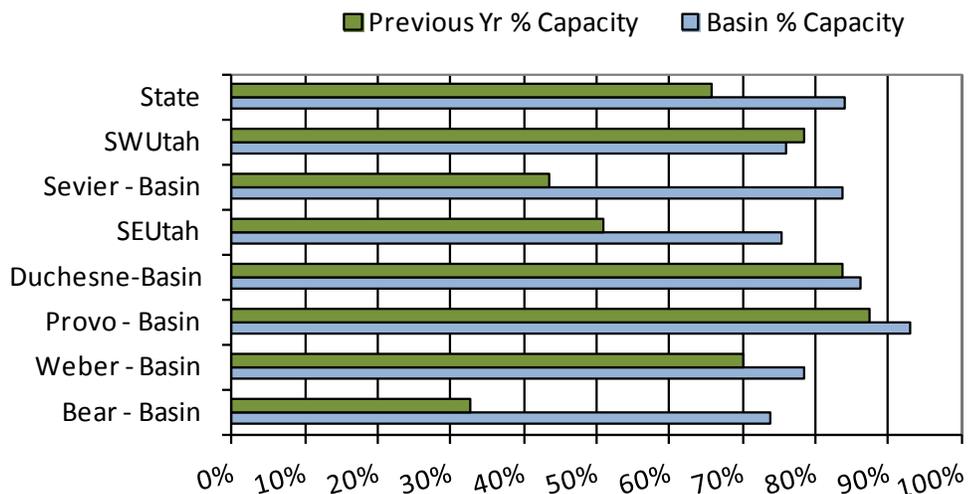
Storage in 41 of Utah's key irrigation reservoirs is at 84% of capacity compared to 66% last year. Reservoir storage by Basin: Bear – 74%, Weber – 78%, Provo – 93%, Uintah Basin – 86%, SE Utah – 75%, Sevier – 84%, SW Utah – 76% of capacity.

STREAMFLOW

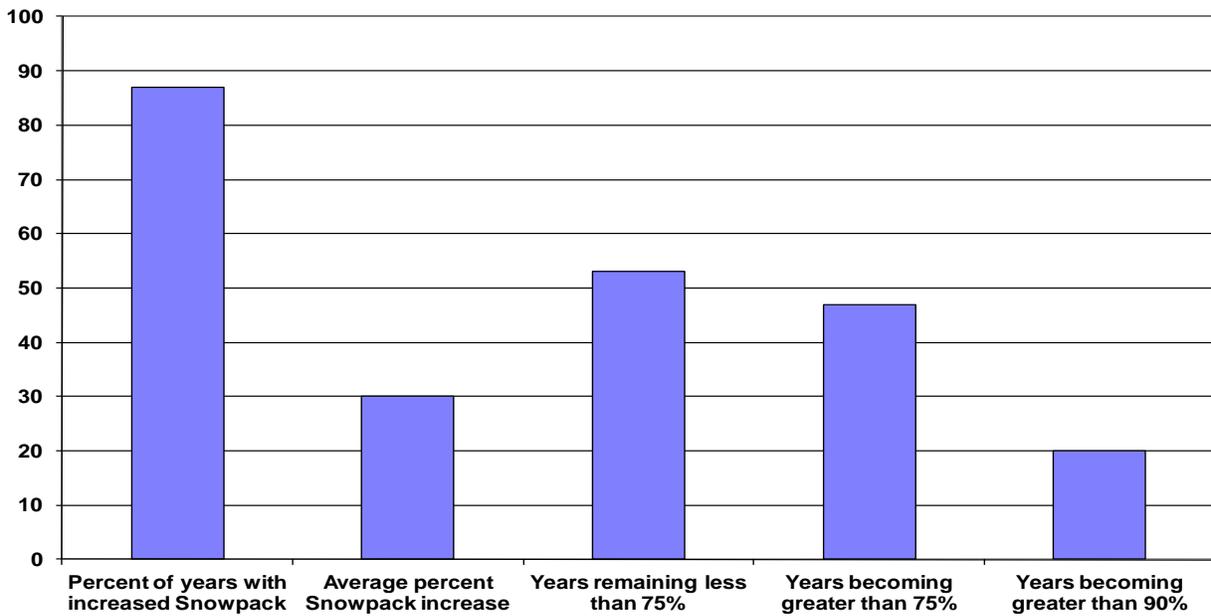
Snowmelt streamflows are expected to be below to much below average across the state this year. Forecast streamflows range from 42% West Canyon Creek nr Cedar Fort to 100% on the Whiterocks River in the Uintah Basin. Most flows are forecast to be in the 50% to 80% range.



January Statewide Reservoir Storage

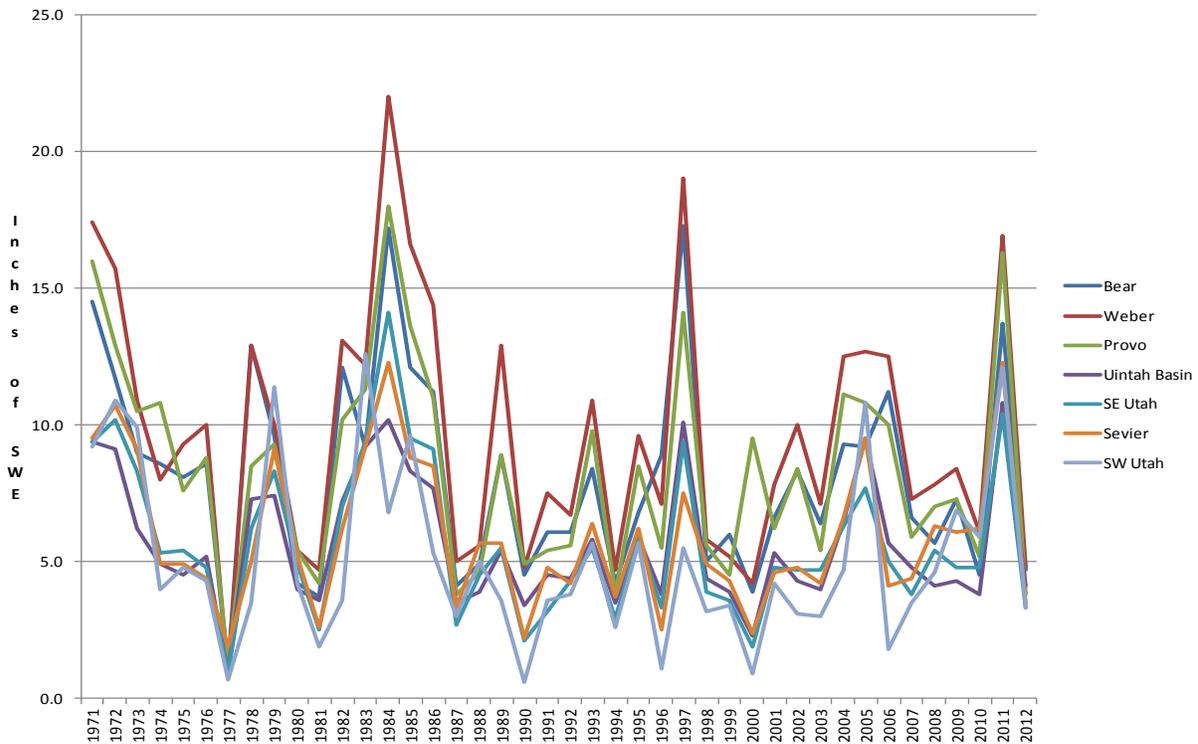


If Statewide Snowpack less than 75% on Jan 1, outcome on April 1



This graph shows that given a low snowpack (less than 75% of average) on January 1, (our current condition of 58%), that nearly 90% of the time, conditions improve. The average improvement is about 30% which would put our snowpacks near 90% of average by April 1. Also noted is a 50/50 chance of actually getting past that 75% of average level and only a 20% probability of any given low snowpack year reaching 90% of average or greater.

January 1 Snowpack for the Basins of Utah



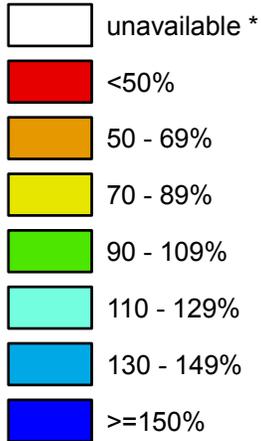
This graph is the January 1 basin snowpack averages for each year starting in 1971 to current and included here to show that there have been multiple years in the past 40 that are similar: 1977, 1980, 1981, 1990, 1996, 2000 and 2006 with 1977 being by far the worst.

Utah

SNOTEL Current Snow Water Equivalent (SWE) % of Normal

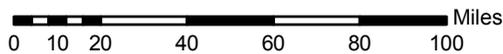
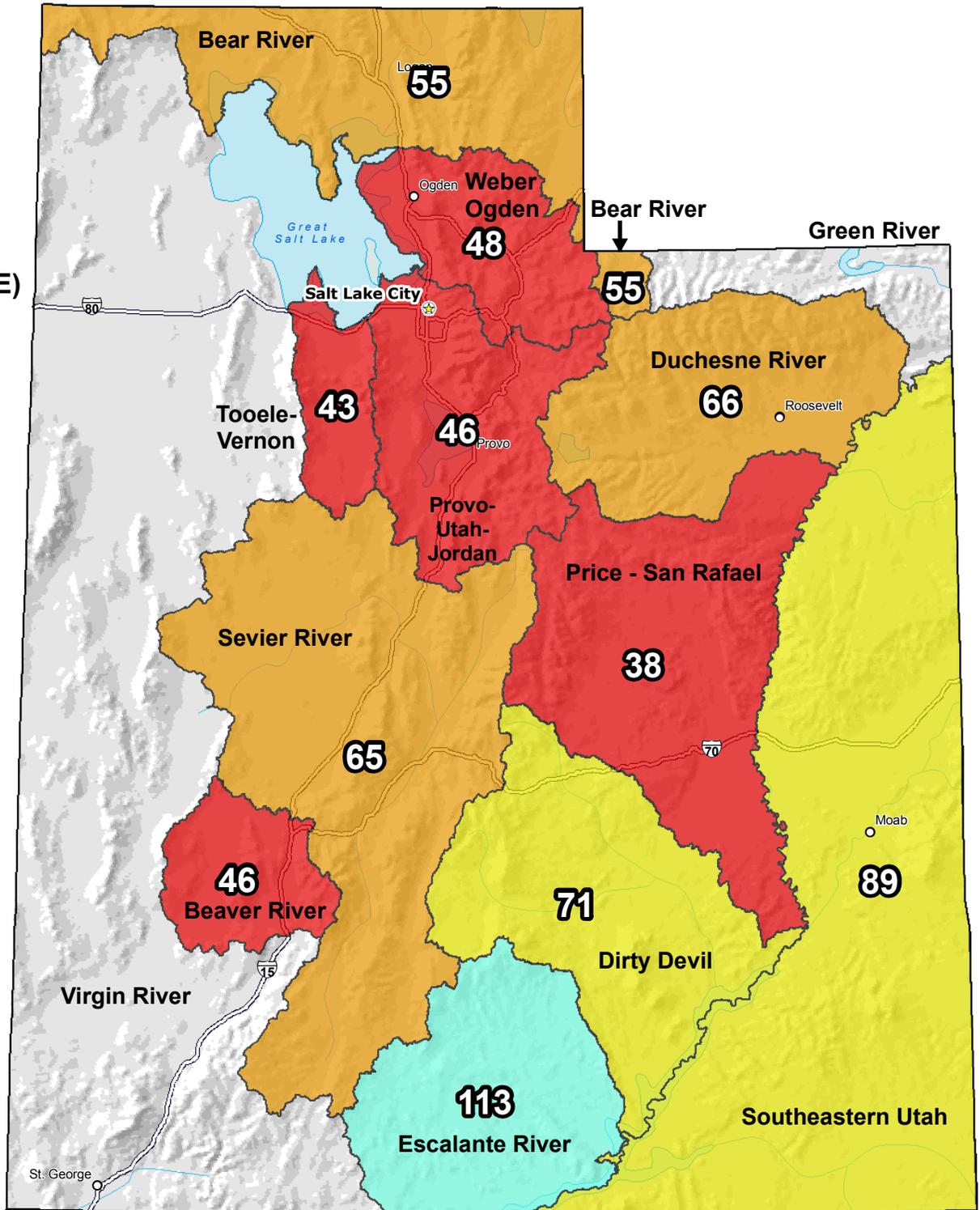
Jan 01, 2012

**Snow Water Equivalent (SWE)
Basin-wide
Percent of
1971-2000
Normal**



* Data unavailable at time of posting or measurement is not representative at this time of year

**Provisional Data
Subject to Revision**



The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

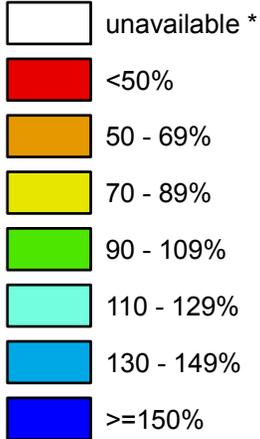
Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
Science contact: Jim.Marron@por.usda.gov 503 414 3047

Utah

SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

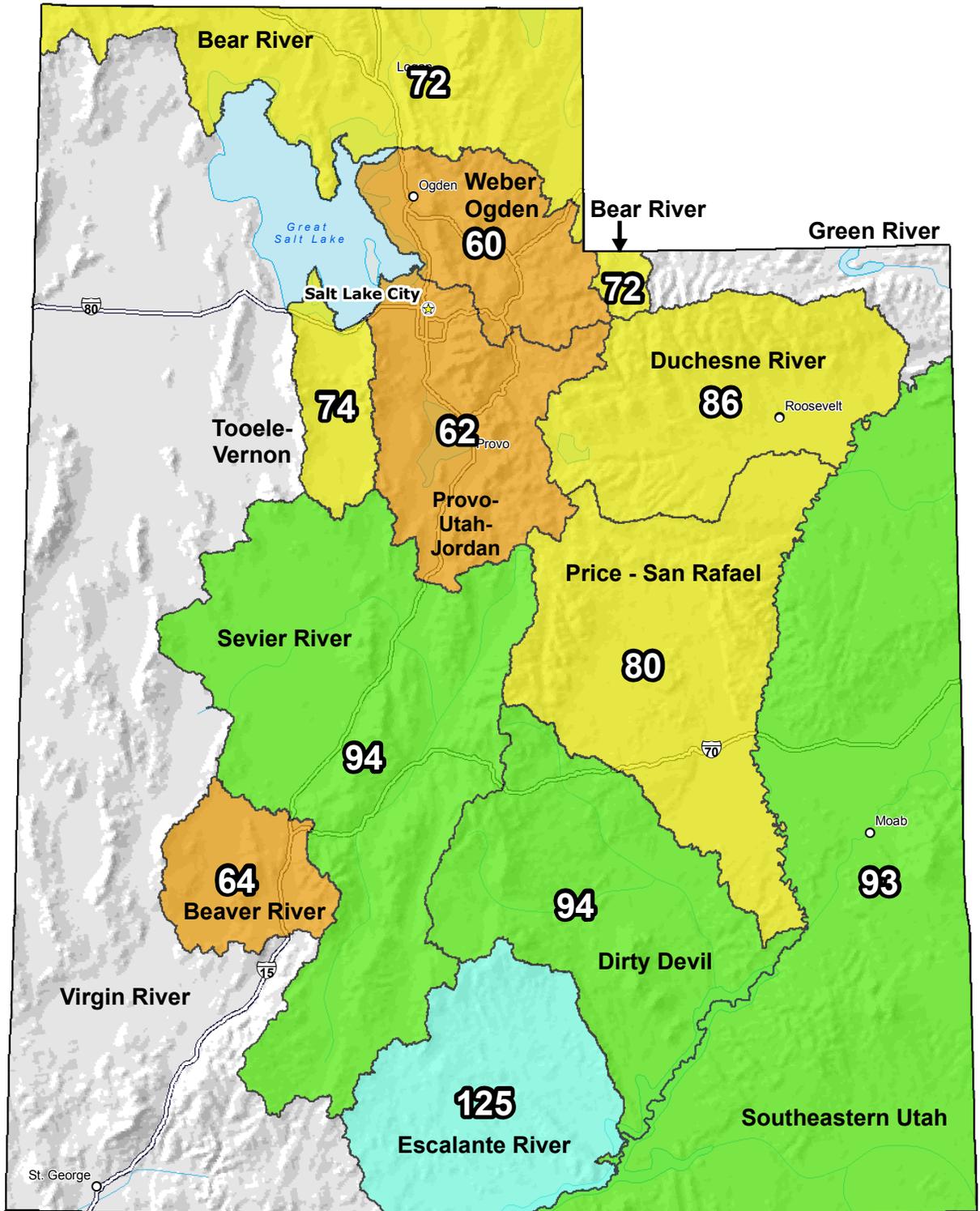
Jan 01, 2012

**Water Year
(Oct 1) to Date
Precipitation
Basin-wide
Percent of
1971-2000
Normal**



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**Provisional Data
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The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
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