

## **JANUARY 2008 DROUGHT UPDATE**

Water Availability Task Force Co-Chairs

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## **Executive Summary**

As predicted, La Niña\* conditions continue throughout Colorado. La Niña usually produces warmer and drier than average winters. The exception is the Northern & Southern Mountains and the parts of the Front Range, where this winter is expected to be wetter. The Arkansas Valley will experience a dry winter. Statewide, La Niña conditions will result in a dry spring and summer. The current La Niña is the eighth strongest since 1950. Forecasts show there are tendencies for bigger La Niña's to continue past 2008.

- Statewide, Colorado's snowpack is 122% of average. The southern half of the state is recording close to 140% of average or better. Average snowpack declines slightly in the South and North Platte basins and also in the Yampa/White basin.
- With 52% of the snow season behind us, Colorado is at 123% of average in terms of reaching its snowfall peak. Overall, Colorado needs 76% of average of future snowfall to reach peak.
- Statewide, reservoir storage is at 98% of average and 105% of last year. Reservoir storage statewide is at 55% capacity. Statewide, reservoir storage has recovered from 2002 drought levels.
- Cumulative storage in the major South Platte basin agricultural reservoirs is at 71% capacity. Major upper-basin municipal reservoir storage is at 90% capacity. Present flow & storage conditions give hope that all major irrigation reservoirs on the plains will fill this spring.
- According to the Colorado Water Supply Index (SWSI)\*\*, all of the river basins have experienced a gain in their value from last month due to the amount of snow received in the month of December. The Yampa/White basin's SWSI value is the lowest at -0.1, which is near normal.
- Colorado's streamflow forecast statewide ranges from 70-129% of average. The northwest part of the state is averaging 90% of average. The Rio Grande, Gunnison & San Miguel basins range from 90-129% of average, while the northwestern half of Colorado ranges from 90-109% of average. The North and South Platte basins are the lowest ranging from 70-89% of average.
- Municipalities, attending this meeting, included Denver Water, Aurora, and Golden. All reported normal reservoir capacities at this time.
- The Army Corp of Engineers reported concerns over future potential flooding events in the Rio Grande due to excellent, higher than average snowpack conditions (156% of average). This basin has far exceeded what snowpack was accumulated in 2002 just from 2 storms in Dec and Jan.
- \* Sea surface temperatures at the Equator in the Pacific Ocean impact global climate patterns. Depending on these patterns, Colorado could be experiencing El Niño or La Niña conditions.
- \*\* SWSI values are based on snowpack, reservoir storage and precipitation for the winter period (Nov-Jan).

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Colorado SNOTEL April 1 Snowpack Projection Map\*



As of January 18, statewide SNOTEL snowpack is 122% of average. The NRCS Snowpack Projection Map, which illustrates a scenario of a wet future from January to April 1, where precipitation would be exceeded 30% of the time, statewide SNOTEL snowpack would be 112% of average. The southern half of Colorado would range from 122% to 136% of average. Northern Colorado would range from 98% to 101% of average. The South Platte basin would be the lowest average among the river basins.

Current as of Jan 18, 2008

\*Based on 70% Non-Exceedence Projection:

In contrast, the adjacent NRCS Snowpack Projection Map illustrates a scenario, under future dry conditions, where future precipitation would typically exceed this amount 70% of the time. This scenario forecasts 105% of average snowpack statewide, with the North and South Platte basins, and the Yampa/ White basin recording 88% of average. The southern half of the State would record well over 100% of average.



Colorado SNOTEL April 1 Snowpack Projection Map\*



Current as of Jan 18, 2008

Based on 30% Non-Exceedence Projections



The U.S. Drought Monitor shows the eastern part of Colorado to be abnormally dry. Due to La Niña predictions, it is expected to be a dry spring and summer and drought concerns will be high. The Southwest and eastern regions of the country are also experiencing drought conditions.

## **Long Term Forecast Summary**

Forecasters believe that it is too soon to predict long term conditions. There is agreement that the current La Niña is likely to persist for the next three months, possibly through the summer. The recent surplus of moisture, via snowpack, may be sufficient enough to avoid an outright return to drought conditions. However, because of the predicted strength and persistence of La Niña, the odds of long term moisture relief is not very optimistic.