

## FEBRUARY 2010 DROUGHT UPDATE

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### Executive Summary

Across the state, all basins will continue to monitor conditions to see if March precipitation can make up for a very dry November and January. Snow storms in February have helped to slightly boost snowpack averages in five of the seven basins. Late January snow storms in the southwest have eased drought conditions, shifting drought concerns to the northwest part of the state in the Yampa/White/North Platte and Colorado basins, which continue to experience below average precipitation for the water year. As El Niño conditions continue into April, wetter conditions are expected.

- El Niño conditions have historically resulted in more precipitation in the southwestern portion of the state and less in the northwest. While precipitation may increase in March & April it may not be enough to bring snowpack levels to normal in many basins. The Water Availability Task Force will continue to monitor the situation closely.
- As of February 25, the statewide snowpack is 90% of average. The basins with the highest snowpack average are the Rio Grande and San Miguel/Dolores at 110% and 108% of average respectively. The Yampa/White & North Platte basin reported the lowest snowpack at 77% of average.
- Snowpack in the Colorado basin has improved slightly from 73% in January to 81% of average as of February 25, which is slightly ahead of where precipitation levels were at this time in 2002. Reservoir storage levels exceed storage levels at this time in 2002, which may help offset below average snowpack levels.
- Statewide reservoir storage was 102% of average at the end of January and is 101% of average compared to 2009. Individually, five of seven basins are at or above 100% of average storage. The Upper Rio Grande is near average at 93% and the San Miguel/Dolores basin is the lowest in the state at 88% of average.
- Statewide, streamflow range forecasts from 62-112% of average. The highest anticipated streamflow is in the lower part of the Arkansas basin with forecasted ranges of 108-112% of average. The Colorado and Yampa/White basins have recorded the lowest streamflow averages in the state at 75%-83% and 62%-80% of average respectively.
- Surface Water Supply Index (SWSI\*) values for February for the seven basins range from -2.6 to +1.5. The Rio Grande had the highest value at +1.5. The Yampa/White/North Platte basin recorded the lowest value, of -2.6. The Rio Grande and San Juan/Dolores basins experienced an increase in their SWSI value from the previous month while the other basins all experienced a decrease.

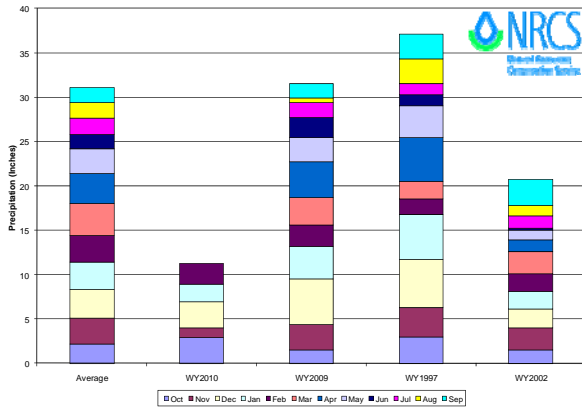
\* SWSI values are based on snowpack, reservoir storage and precipitation for the winter period (November-April). The values range from a high of +4.0, which indicates an abundant supply to a low of -4.0, which indicates severe drought. A value of 0.0 indicates a near normal supply.

### Long Term Forecast Summary

Forecasters expect El Niño conditions to continue with moderate strength through April. Most of Colorado is predicted to experience a wet spring. Areas that did not receive much moisture during the winter months, such as the northwest part of the state, will benefit from spring moisture as the storm track is predicted to move north. Forecasters predict lingering spring moisture which will benefit most of Colorado through June.

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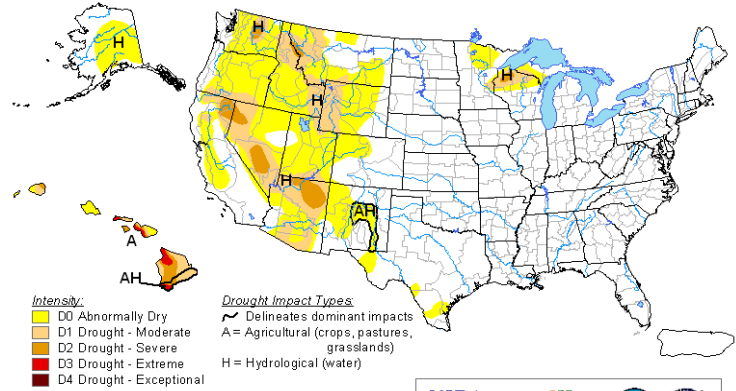
Upper Colorado River Basin High/Low Monthly Precipitation Summary  
Based on Provisional SNOTEL data as of Feb 25, 2010



The adjacent map shows the U.S. Drought Monitor as of February 23, 2010. Late January snow storms & February moisture in the southwest helped reduce the drought concerns in the region. Dry conditions have continued for the northwestern part of the state and are at D0, "Abnormally Dry" conditions. The Northwest part of the state could greatly benefit from predicted spring moisture.

The Upper Colorado River Basin High/Low Monthly Precipitation Summary graph to the left shows the amount of moisture recorded for the water year in the Colorado River Basin. The precipitation level for the basin is 81% of average, which is slightly ahead of where precipitation levels were at this time in 2002 (far right bar). NRCS predicts there is only a 10% chance the basin will reach normal precipitation levels by its annual peak in April.

## U.S. Drought Monitor February 23, 2010 Valid 7 a.m. EST



**Intensity:**  
 D0 Abnormally Dry  
 D1 Drought - Moderate  
 D2 Drought - Severe  
 D3 Drought - Extreme  
 D4 Drought - Exceptional

**Drought Impact Types:**  
 ~ Delineates dominant impacts  
 A = Agricultural (crops, pastures, grasslands)  
 H = Hydrological (water)

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*



<http://drought.unl.edu/dm>

Released Thursday, February 25, 2010  
 Author: Brad Rippey, U.S. Department of Agriculture

Colorado SNOTEL Snowpack Update Map



Current as of Feb 25, 2010

\*Data may not provide a valid measure of conditions

The Colorado SNOTEL Snowpack Update Map as of February 25 shows the statewide snowpack at 90% of average. The highest snowpack in the state is in the Rio Grande basin at 110% of average. The lowest snowpack average is in the Yampa/White at 77% of average. El Niño winters typically result in more precipitation for southern Colorado and decrease snowfall chances in the northern half of the state.

**NOTE:** The maps and graphics depicted in this report were those presented at the February 25, 2010 meeting and may have been updated since the meeting.

The next meeting will be a Joint Meeting of the Flood & Water Availability Task Forces and will be on March 25, 2010 at the Colorado Division of Wildlife.