# FEBRUARY 2009 DROUGHT UPDATE


Water Availability Task Force Co-Chairs

Veva Deheza, CWCB - 303-866-3441 ext. 3226
Email - veva.deheza@state.co.us

Kevin Rein, DWR - 303-866-3581 ext. 8239
Email – kevin.rein@state.co.us


## Executive Summary


February 2009 has been warmer than normal as a weak to moderate La Niña event persists due to above normal trade winds. When La Niña events occur, the impact for Colorado results in warmer than average temperatures and below average precipitation, although northeast Colorado benefits from more precipitation in the spring. When La Niña persists over a long period, there is tendency to have droughts which occurred in the 1950s, the late 1990s and early 2000s. Historically, La Niña conditions have had a tendency to last for three years. With the lack of snowfall in the fall and precipitation overall, combined with frequent winds and warmer temperatures, wildfire danger is a major concern.

- Despite the lack of average precipitation, drought conditions in eastern Colorado have not progressed in intensity. A majority of eastern Colorado remains abnormally dry and the southeastern part of the state is experiencing moderate drought conditions.

- Over the next two weeks, forecasters predict a combination of wet and dry spells that should be sufficient to keep snowpack numbers at near normal levels.

- Statewide, the snowpack is 113% of average. The highest snowpack as of February 25 is the Arkansas Basin with 120% of average. The lowest level of snowpack in the state continues to be the South Platte basin at 98% of average. Each basin has seen snowpack levels decrease since the beginning of February which emphasizes the need for March precipitation statewide.

- Statewide, reservoir storage is 99% of average and 100% of average of last year. Storage is at 56% capacity. In the South Platte basin, warm conditions helped in storage as there were no limitations due to icing conditions and overall flow was average or above average throughout the basin.

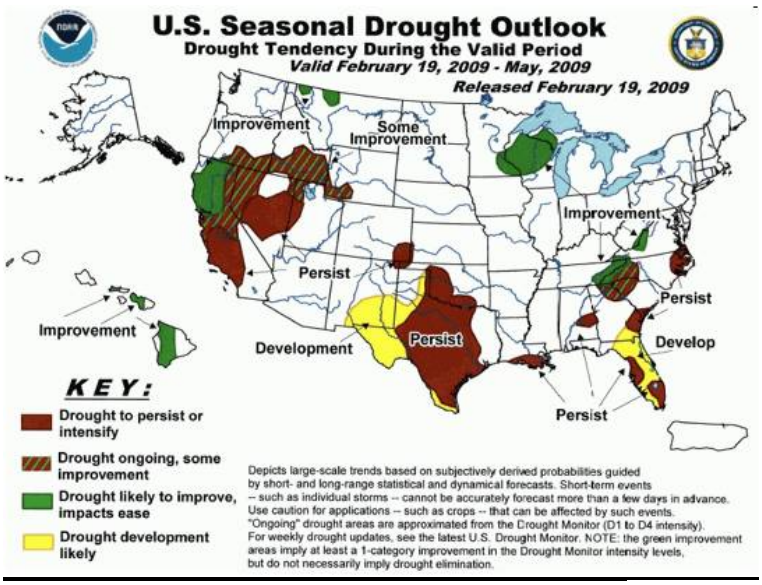
- The runoff forecast across the state ranges from 70%-129% of average. The Upper and Lower South Platte headwaters are recording the lowest streamflow forecast ranging from 70-99% average. The Upper Rio Grande and the Colorado Basins have the highest runoff forecast range from 110-129%.

- Surface Water Supply Index (SWSI**) values for the seven basins range from +0.3 to +2.2. Five of the basins (Arkansas, Rio Grande, Gunnison, Colorado and San Juan/Dolores) experienced a loss from the previous month's values which is a result from decreasing snowpack amounts.


* *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.*

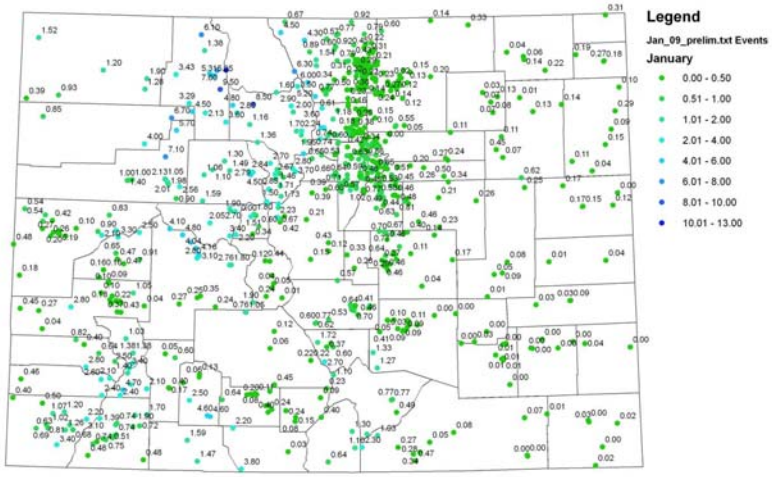
** *SWSI values are based on snowpack, reservoir storage and precipitation for the winter period (Nov-April). The values range from a high of +4.0, which indicates an abundant supply to a low of -4.0, which indicates severe drought. A value of 0.0 indicates a near normal supply.*

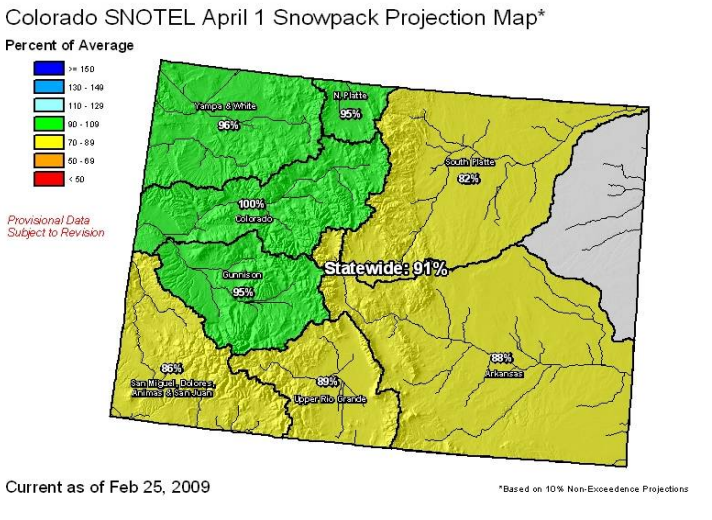
# FEBRUARY 2009 DROUGHT UPDATE




NOAA's U.S. Seasonal Drought Outlook map shows the southeastern part of Colorado continues to be abnormally dry and will persist or intensify. Southeastern Colorado is categorized as experiencing moderate drought conditions agriculturally and hydrologically according to the U.S. Drought Monitor.

The adjacent map shows the lack of total precipitation at various recording stations around Colorado for the month of January in areas most affecting by drought conditions. Most of the eastern side of the state recorded 0-0.5 inches of precipitation. Many locations in the Arkansas Basin have recorded 0.0 in terms of precipitation. With snowpack declining, March is a critical month to receive precipitation.




The Colorado SNOTEL April 1 Snowpack Projection Map predicts a 91% of average snowpack for the State, which is based on a projection that the state will receive less than average snowfall 10% of the time. NRCS forecasters project if the State receives average snowfall by April 1st, the snowpack statewide is projected to be 107% of average.

## Long Term Forecast Summary

La Niña conditions are predicted to continue through the late spring season, April through June 2009, after which, climate forecasters predict there is a possibility of a return to near normal conditions, which will allow for a wetter than average summer season for eastern Colorado.

**NOTE:** The maps and graphics depicted in this report were those presented at the February 25, 2009 meeting and may have been updated since the meeting.