

## JANUARY 2009 DROUGHT UPDATE

### Water Availability Task Force Co-Chairs

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### Executive Summary

Since the Water Availability Task Force (WATF) last met in July 2008, the eastern plains of Colorado received much needed precipitation in August and October avoiding a severe drought. Currently, the month of January has been warmer than normal with strong winds contributing to dry conditions. The mountains have received normal precipitation but the eastern plains remain dry. Persistently strong trade winds have set the stage for a La Niña “encore performance”. When La Niña events occur, spring, summer and fall seasons are dry which leaves winter as the season to catch up to average precipitation. Overall, if the winter season is dry, and 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.

- The WATF members began discussion on the comprehensive revision of the State’s Drought Plan, which will begin this year with expected completion in 2010. WATF members made up of multiple state and federal agencies, provided valuable feedback and will continue to be involved in the process through subcommittee meetings and further discussion at future WATF meetings. An outline for the Drought Plan revision was provided and can be accessed at <http://cwcb.state.co.us/Conservation/DroughtPlanning/WaterAvailabilityTaskForce/MeetingAgendasPresentations/>. The Colorado Drought Mitigation & Response Plan can be found on the CWCB’s website at <http://cwcb.state.co.us/Conservation/DroughtPlanning/ColoradoDroughtMitigationResponsePlan/>
- January has had some decent precipitation followed by a period of above normal temperatures. Short term forecasts predict more snowfall in the next two weeks into February to help the snowpack in the mountains.
- Statewide, the snowpack is 108% of average. The highest snowpack as of January 22 is the Arkansas Basin with 126% of average. The lowest level of snowpack in the state is the South Platte basin at 94% of average. Forecasters predict if average snowfall continues, statewide snowpack will be 102% of average by April 1.
- Statewide, reservoir storage is 99% of average and 101% of average of last year. Storage is at 56% capacity. The Rio Grande reservoirs are the least full, at 22% of total capacity, however the reservoirs in the Rio Grande basin are smaller than other reservoirs in the state and percent of capacity is therefore a smaller volume of water.
- The runoff forecast across the state ranges from 70%-129% of average. Overall, the South Platte basin has the lowest streamflow forecast ranging from 85-99% average. The Yampa/White/North Platte Basin also shows some indication of below average. All other basins have streamflow forecasts that are above average.
- Surface Water Supply Index (SWSI\*\*) values for the seven basins range from +0.2 to +2.6. Due to above average precipitation in December, the Rio Grande has a SWSI value of +2.6 and the San Juan/Dolores basin has a value of +2.2. The South Platte basin has the lowest value of +0.2 due to drier conditions.

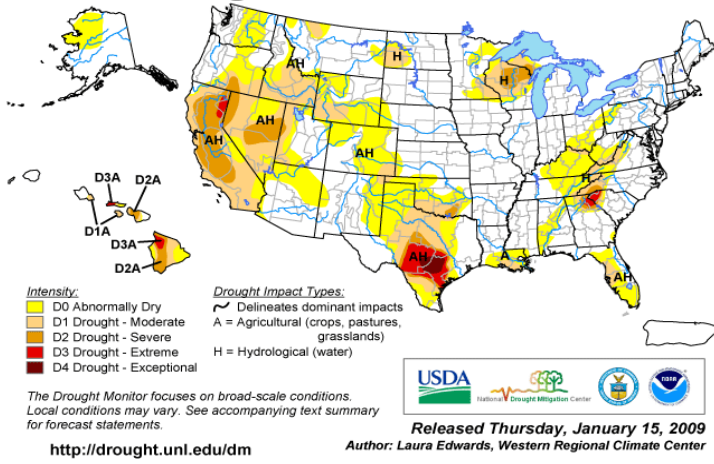
\* *Sea surface temperatures at the Equator in the Pacific Ocean impact global climate patterns. Depending on these patterns, Colorado could be experiencing El Niño or La Niña conditions.*

\*\* *SWSI values are based on snowpack, reservoir storage and precipitation for the winter period (Nov-Jan).*

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## U.S. Drought Monitor

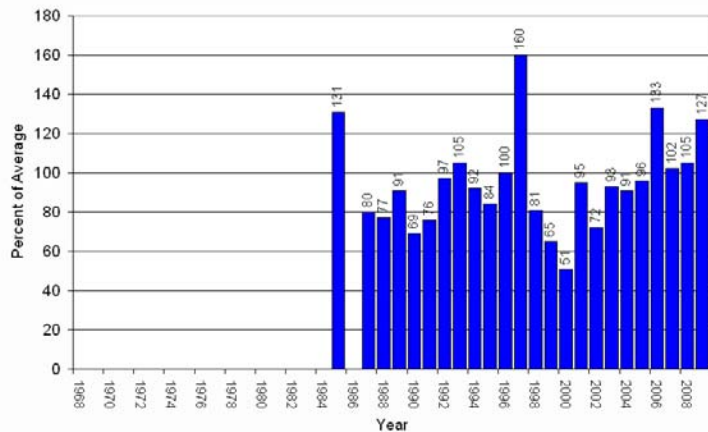
January 13, 2009  
Valid 8 a.m. EST



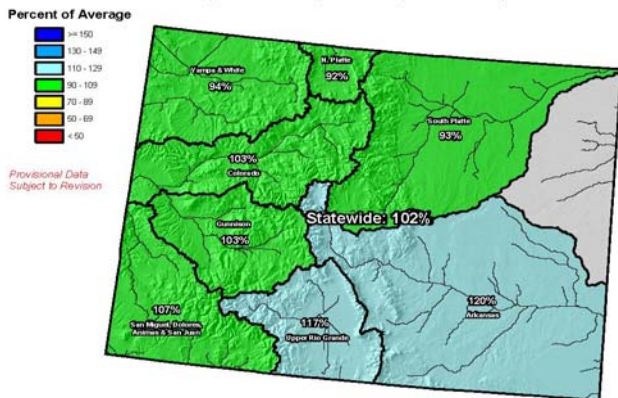
The U.S. Drought Monitor map shows the eastern part of Colorado continues to be abnormally dry and extends to the northern part of the state into Wyoming. Southeastern Colorado is categorized as experiencing moderate drought conditions agriculturally and hydrologically. Windy conditions continue to dry out the soil.

The adjacent map shows total snowpack for the Colorado River basin. To date, the basin is at 127% of average. Since 1997, only 2006 was higher in terms of percentage of snowpack. 1997 was the highest percentage of snowpack at 160%. The streamflow for the basin ranges from 102-116% of average.

January 1 Total Colorado River Basin Snowpack



Colorado SNOTEL April 1 Snowpack Projection Map\*



Current as of Jan 22, 2009

\*Based on 50% Non-Exceedence Projections

The Colorado SNOTEL April 1 Snowpack Projection Map shows a 102% of average snowpack statewide if the state receives the average amount of snowfall until April 1<sup>st</sup>. The lowest percentages among the basins are the South Platte and the Yampa/White/North Platte basins at 92-94%.

## Long Term Forecast Summary

La Niña conditions are predicted to continue at least through February. Climate Prediction Center models for late winter are predicting a wet season for the north-central mountains while northeastern Colorado will remain dry. Forecasters are optimistic La Niña conditions will weaken or even switch to El Niño, in the spring to give the eastern plains above normal moisture.

**NOTE:** The maps and graphics depicted in this report were those presented at the January 22, 2009 meeting and may have been updated since the meeting.