

# **APRIL 2009 DROUGHT UPDATE**

## Water Availability Task Force Co-Chairs

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# **Executive Summary**

The last four weeks have produced above average precipitation to Colorado. The moisture has eased drought conditions along the Front Range and in parts of southeastern Colorado. Despite the recent moisture, Colorado is still experiencing a La Niña event, which produces above average temperatures and below average precipitation and La Niña conditions are predicted to linger through May and June.

- Statewide, the snowpack is 107% of average. Recent storms have helped to increase snowpack averages but as the temperatures increase, the snowpack will rapidly decrease. As of April 22, the lowest level of snowpack in the state is the San Miguel/Dolores basin at 92% of average. The Arkansas basin recorded the highest snowpack at 113% of average.
- The runoff forecast across the state ranges from 70%-129% of average. The South Platte basin is recording the lowest forecasted streamflow in the state ranging from 75-87%. The Colorado Basin has the highest overall runoff forecast ranging from 100-109%. The San Miguel/Dolores/San Juan River basin experienced the largest decrease in forecasted streamflow. In March, the basin recorded 102-106% of average and in April recorded 84-88% of average.
- Statewide, reservoir storage is 103% of average and 105% of last year's average. Overall, storage is at 58% of average capacity. Reservoir storage and the percentage of capacity have increased slightly from March totals.
- According to provisional Snow Telemetry (SNOTEL) data, precipitation levels for all seven basins during the month of April are higher than the levels of precipitation received in April 2002.
- Surface Water Supply Index (SWSI\*\*) values for the seven basins range from -0.8 to +1.1. All seven basins experienced a loss from the previous month's values which is a result of rapidly decreasing snowpack amounts. From November to April, snowpack is given the most weight in determining SWSI values.
- Recent moisture in the South Platte basin has improved the prospects for the winter wheat crop; had dry conditions continued, the crop would have been damaged severely. The WATF will continue to monitor the condition of drought concerns along the Front Range and Southeast Colorado and the impact drought has on agriculture.
- \* 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.

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#### Colorado SNOTEL May 1 Snowpack Projection Map\* Percent of Average

The adjacent map shows the U.S. Drought

improvement. At this time in March, the Front Range was in a moderate drought and now is

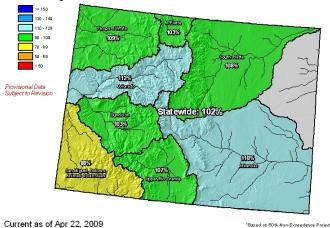
categorized as being abnormally dry. A portion

experience moderate drought and the Drought

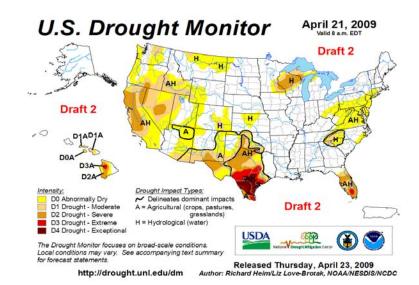
of southeastern Colorado continues to be

Impact Type is hydrological.

Monitor as of April 21, 2009. Drought conditions along the Front Range and southeastern parts of Colorado have shown



The Colorado SNOTEL May 1 Snowpack Projection Map shows the snowpack levels across the state should Colorado receive an average amount of precipitation. By May 1, with average precipitation, the statewide snowpack is predicted to be 102% of average. Should conditions be wetter than average by May 1, the projection is 114% of average. If conditions are drier than average by May 1, the projection statewide falls to 99% of average. In all projections, the San Miguel/Dolores/San Juan basin will have the lowest snowpack.



Cocorahs 4-day Precipitation Totals 16-19 Apr 2009

The CoCoRaHS 4-day Precipitation Totals map shows the amount of moisture recorded from April 16-19, 2009. The dark blue areas recorded the most moisture, between 5-6 inches. CoCoRaHS is a Community Collaborative Rain, Hail, Snow network made up of volunteers who measure daily precipitation levels around the state.

### Long Term Forecast Summary

La Niña conditions are predicted to continue through June 2009, after which, climate forecasters predict there is a possibility of a return to near normal conditions or even El Niño conditions, which will bring more moisture for Colorado. Forecasters project a decent monsoon season but say the monsoon season will start later than usual.

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