

## MAY 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

Recent storms have produced average precipitation to most of Colorado. The recent moisture has eased drought conditions in parts of southeastern Colorado and if conditions continue, it will keep drought concerns low. Prior to the recent moisture, Colorado was experiencing average temperatures for May following a cool April. Warmer temperatures combined with dust events in several basins caused the snow to melt at a faster rate than in previous years.

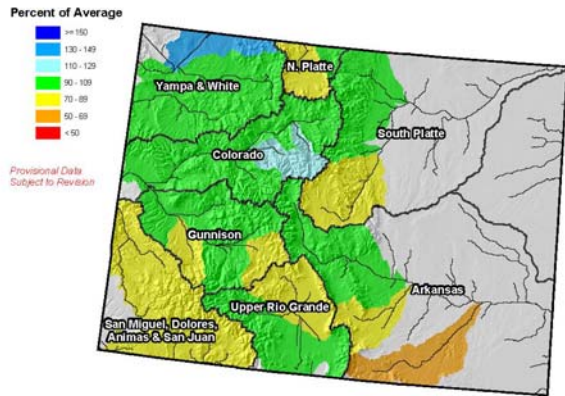
- As of May 27, statewide snowpack is 38% of average. The highest level is in the South Platte basin at 65% of average. The lowest recorded snowpack is in the San Juan/Dolores basin at 18%. Snowpack averages have declined due to warmer temperatures and an earlier runoff season.
- The runoff forecast across the state ranges from 62%-134% of average. The melt off has come sooner in all basins due in part to warmer temperatures. In addition to temperature, the Rio Grande, Gunnison and San Juan Dolores Basins have experienced greater than normal dust events that have caused the melt to occur earlier and more rapidly than normal.
- The affects of dust layers on snow is that “dirty snow” attracts more sunlight causing rapid melt rates and a condensed runoff season.
- Statewide, reservoir storage is 106% of average and 112% of last year’s average. Overall, storage is at 60% of capacity. Reservoir storage and the percentage of capacity have increased slightly from April totals.
- According to the State Forest Service, fire danger statewide is relatively low due to the moisture received and the greening of fine fuels. An average fire season is expected which is approximately 2,300 fires on non-federal land. 96% of those fires are extinguished at less than 10 acres. Only 3 to 4 fires are expected to burn more than 1,000 acres. Resources are available when needed for local fire departments, federal state, and local agencies.
- Surface Water Supply Index (SWSI\*\*) values for May 1 for the seven basins range from -1.3 to +1.4. The South Platte had the highest value at +1.4. From November to April, snowpack is given the most weight in determining SWSI values except in the South Platte where reservoir storage is given the most weight in determining their SWSI value. The Yampa/White basins recorded the lowest value which is a result of rapidly 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.*

# MAY 2009 DROUGHT UPDATE

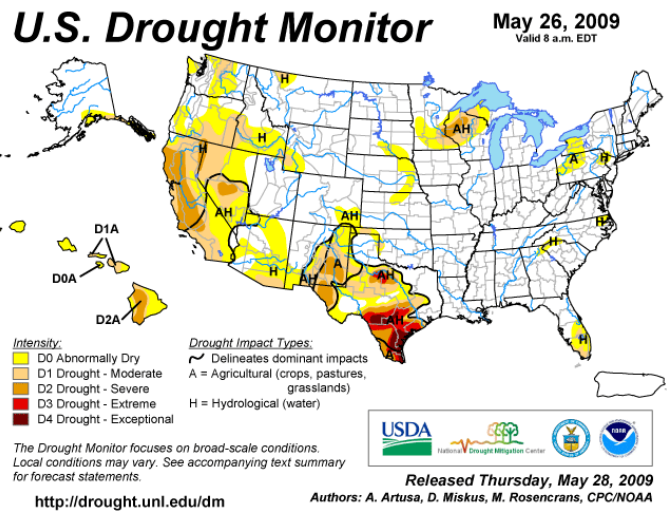
Colorado Streamflow Forecast Map



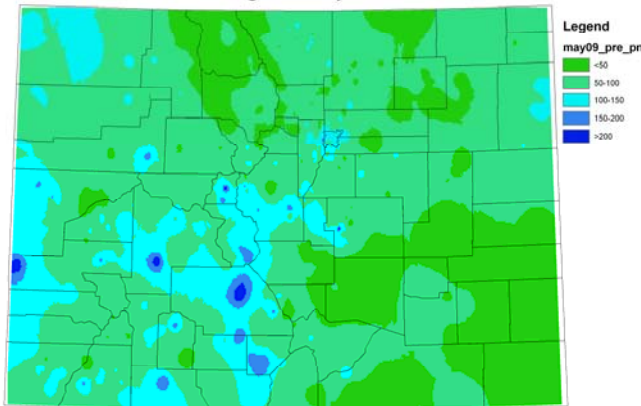
Current as of May 1, 2009

The Colorado Streamflow Forecast Map as of May 1 shows the streamflow forecasts across the state. Runoff has occurred early statewide due to warmer May temperatures compared to last year. The Rio Grande, Gunnison and San Juan/Dolores basins reported increased dust events which resulted in early and intense runoff. Rio Grande basin officials reported wind-borne dust from Utah and Arizona on the snowfields of the San Juan Mountains.

The adjacent map shows the U.S. Drought Monitor as of May 26, 2009. Drought conditions in southeastern parts of Colorado have shown improvement and have gone from a D1 Moderate drought to a D0 Abnormally Dry condition. The Drought Impact Types in southeastern Colorado is agricultural and hydrological.



May 1 -26, 2009 Preliminary Precipitation as Percentage of May Normal



The May 1-26, 2009 Preliminary Precipitation as Percentage map shows the amount of moisture recorded throughout the state. The majority of the state has received below average precipitation. Portions of northwest Colorado, the West Slope and the southern central mountains have received average or above average precipitation. The southeastern part of the state remains the driest. These totals are taken from CoCoRaHS gauges throughout the state. 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

Forecasters are uncertain at this time whether La Niña conditions will continue through the summer months or if there will be a switch to El Niño conditions as more observation in the next few weeks is needed to allow forecasters to provide an accurate prediction. El Niño conditions would provide increased precipitation for Colorado. Colorado caught a brief glimpse of the monsoon season over Memorial Day weekend and forecasters predict slightly enhanced chances for precipitation during the monsoon season, July through September.

**NOTE:** The maps and graphics depicted in this report were those presented at the May 27, 2009 meeting and may have been updated since the meeting.