

MARCH 2009 DROUGHT UPDATE

Water Availability Task Force Co-Chairs

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Executive Summary

March 2009 continues to be warmer and drier than normal as a weak to moderate La Niña event persists. When La Niña events occur, the impact for Colorado results in warmer than average temperatures and below average precipitation. When La Niña persists over a long period, there is a tendency to have droughts. Due to persisting weather and drought conditions, the Water Availability Task Force has also been monitoring statewide wildfire dangers and its impact to future water supplies.

- The potential for significant fires across the foothills and grasslands of Eastern Colorado is above normal through April due to abundance of fine fuel loadings and below normal precipitation. Mountain pine beetle infected tree stands in the high country are particularly vulnerable to fires under these conditions, which could negatively impact water supplies for possibly decades.
- Statewide, the snowpack is 97% of average. The statewide snowpack as of February 25 was 113% of average highlighting a rapidly declining snowpack throughout Colorado. The lowest level of snowpack in the state continues to be the South Platte basin at 84% of average.
- Statewide, reservoir storage is 102% of average and 104% of average of last year. Storage is at 57% capacity. Irrigation season may start earlier in some basins if there is no significant moisture towards the end of March and in April.
- 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 80-97%. The Colorado Basin has the highest overall runoff forecast ranging from 104-114%.
- According to provisional Snow Telemetry (SNOTEL) data, the South Platte basin is 91% of average in precipitation for the current water year. Although December and January provided average precipitation, February and March are comparable to 2002 levels of precipitation.
- Surface Water Supply Index (SWSI**) values for the seven basins range from -0.1 to +1.7. 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 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.

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The Seasonal Significant Wildland Fire Potential Outlook map shows the eastern part of Colorado with an above normal significant fire potential. High fire potential is expected to persist or worsen in the future. Agricultural burns are common during the spring in eastern Colorado which increases the risk for wildfires during windy and dry conditions.

The adjacent map shows the U.S. Drought Monitor as of March 17, 2009. The Front Range and southeastern parts of Colorado are in a moderate drought. The Drought Impact type for the southeastern part of Colorado is an Agricultural impact as pastures and rangelands for cattle are poor. The highlighted areas in yellow represent the areas in eastern Colorado that are abnormally dry.



Colorado SNOTEL May 1 Snowpack Projection Map*

The Colorado SNOTEL May 1 Snowpack Projection Map predicts an 89% of average snowpack for the State, which is based on a projection that the state will receive average snowfall until May 1. If the forecast is accurate, the Colorado River basin will be the only basin to record a percentage above 100% in terms of snowpack. The San Miguel and the South Platte are predicted to record an 83% and 84% of snowpack.

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. La Niña springs do allow for wet spells in April which is encouraging news for a dry state.

NOTE: The maps and graphics depicted in this report were those presented at the March 20, 2009 meeting and may have been updated since the meeting.