

## MARCH 2012 DROUGHT UPDATE

### Water Availability Task Force Co-Chairs

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### Executive Summary

***Activation of Phase 2 of the State Drought Mitigation and Response Plan, and the activation of the Agricultural Impact Task Force remain in effect to respond to drought conditions in southeastern Colorado.***

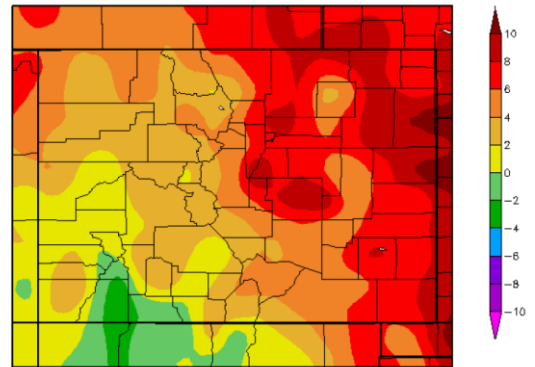
Despite decent precipitation in February, the month of March has been warm and dry across most of the state. Little to no precipitation is forecast through the end of the month and some places, like Ft. Collins, are on track to have the driest March on record. All major basins of the state have seen a decline in snow water equivalent since March 1<sup>st</sup>, and all continue to be below normal. Severe drought conditions remain in southeastern Colorado, while lesser drought intensities have been introduced and expanded elsewhere in the state. Water providers are watching the situation in the mountains closely, but most feel they have sufficient storage at this time.

- March temperatures, to date, have been 6 to 8 degrees above average for most of Colorado, with pockets on the northeastern plains experiencing temperatures 10 degrees above normal. The San Juan Mountains have been the coolest region of the state with near normal temperatures.
- Typically by this time of the year Colorado has reached 92% of its average peak snow water equivalent for the season, however, to date the state has only achieved 67% of the peak and 72% of average statewide.
- Reservoir storage remains above average in the Yampa/White, Gunnison, Colorado, South Platte Basins, and San Miguel/ Dolores/ Animas/ San Juan. Statewide, reservoir storage is 107% of average. The Rio Grande and the Arkansas River basins continue to be the regions with the lowest reservoir storage levels in the state at 69 and 98% of average, respectively.
- As of March 20, 2012 US Drought Monitor, D1, moderate drought, conditions remain in the northern and central mountains, while D2, Severe drought, conditions remain over much of the southeast and south central portions of the state. D0, abnormally dry, conditions account for much of the rest of the impacted areas of the state. Expansion of D0 on the northeastern plains and an introduction of D2 in the Yampa/White river basin is expected within the next few weeks unless conditions drastically improve.
- Surface Water Supply Index (SWSI) values range from -2.96 in the East Taylor Park sub-basin to +2.59 in the Big Thompson sub-basin of the South Platte. The remainder of the state is near normal, in part due to sufficient reservoir storage. The higher value in the Big Thompson is due to high storage levels and the fact that reservoirs in this basin are more heavily weighted. The Arkansas Headwaters, -2.22, is lower, due to operational drawdown of Homestake Reservoir. Other basins with a SWSI indicating moderate drought are the result of low stream flow forecasts. Streamflow forecasts have declined roughly 5-10% since March 1<sup>st</sup> and early runoff is expected.
- La Niña conditions are weakening, which is somewhat typical for this time of year, but there is still a greater than 40% chance that this will be a three year La Niña event. Three year La Niña events have been associated with some of the driest periods on record for Colorado.
- The long-term seasonal forecast for late spring (April-June) shows a tilt towards dryness covering much of the state, with the exception of the eastern plains which 'lean' towards near-normal moisture. This coupled with below average snowpack will likely result in earlier runoff. The best chance for increased moisture might derive from a sudden transition to El Niño, but there is only a 20% chance that this will occur.

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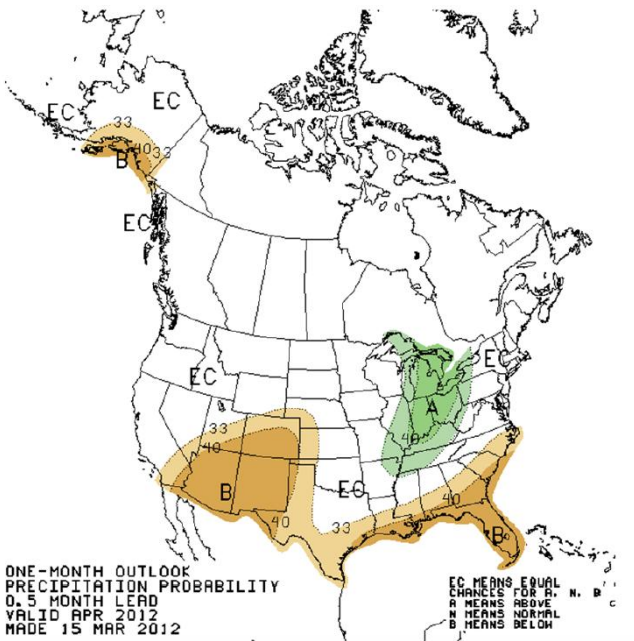
The adjacent map shows the departure from normal temperature for Colorado for March to date. Most of the state experienced well above normal temperatures for the first part of the month and these temperatures are forecast to continue into April. Warm and dry conditions can result in a decrease in soil moisture and water availability.

Departure from Normal Temperature (F)  
3/1/2012 – 3/19/2012



Generated 3/20/2012 at HPRCC using provisional data.

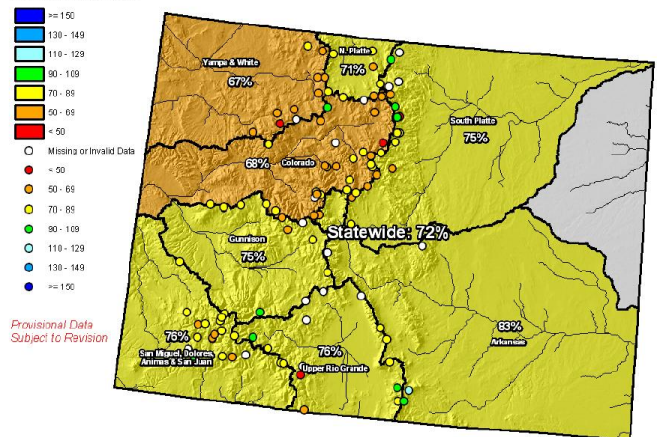
Regional Climate Centers



The adjacent map shows the one month precipitation forecast made March 15, 2012 by the Climate Prediction Center (NOAA). This indicates that Colorado has below normal chances for precipitation in April. Although not shown on this map, the Climate Prediction Center is also forecasting above normal chances for temperature for April.

The map to the right shows the SNOTEL snowpack data by basin and statewide as of March 21, 2012. Statewide snowpack at SNOTEL sites is 72% of the long term average, a decrease from 81% on March 1, 2012. The Yampa/ White basin is reporting the lowest snowpack in the state at 67% with the Colorado reporting only slightly higher at 68% of average.

Colorado SNOTEL Snowpack Update Map with Site Data  
Percent of Average



Current as of Mar 21, 2012

\*Data may not provide a valid measure of conditions

**NOTE:** The next scheduled WATF meeting will be April 18, 2012 at the Colorado Parks & Wildlife Headquarters. Additional information can be found at [www.cwcb.state.co.us](http://www.cwcb.state.co.us), or by contacting Ben Wade at [ben.wade@state.co.us](mailto:ben.wade@state.co.us).