# JANUARY 2013 DROUGHT UPDATE


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***Activation of Phase 2 &3 of the State Drought Mitigation and Response Plan, and the activation of the Agricultural Impact Task Force remain in effect to respond to ongoing drought conditions throughout Colorado.***

While calendar year 2012 ended with a month of beneficial precipitation and average temperatures, the year as a whole will go down as the second warmest on record. Temperatures 3-5 degrees above normal for the year resulted in an average annual temperature of 48.6 degrees; a close second to 1934, the height of the dust bowl, which averaged 48.9 degrees. January 2013 has brought below average temperatures to much of the state, but limited precipitation, especially on the eastern plains. Typically this time of year the mountains receive an inch of moisture a week, yet to date January totals predominantly range between 0.1 to 1.0 inch along the western slope, with a few isolated pockets receiving 1-2 inches. While the short term forecast does show increased chances of precipitation for the remainder of January, it will not be enough to make up the monthly deficit.

- As of the January 22, 2013 US Drought Monitor, 100% of Colorado is experiencing some level of drought classification. D2 (severe) and D3 (extreme) cover 87% of the state, while 13% of the state is experiencing exceptional drought (D4), isolated to the eastern plains.

- Despite beneficial moisture in December that boosted snowpack to 70% of normal, a very dry January has resulted in snowpack declines in all of the state's major river basins since January 1.

- Municipalities and water providers are closely watching the situation and are preparing to respond should the drought conditions persist or worsen throughout the spring and summer. Many are reporting storage levels of roughly 40-60% of capacity.

- Statewide reservoir storage is at 68% of average and 38% of capacity. The highest storage levels are in the Yampa/ White River Basin, at 100% of average while the lowest storage in the state is the Rio Grande River basin at 50% of average. All other basins range from 56% to 77% of average and 14% to 76% of total capacity. Last year this time the state was at 105% of average reservoir storage.*

- Surface Water Supply Index values have improved in many areas of the state following December precipitation, yet all values remain negative. However, these values are expected to decline once January precipitation is factored in.

- 42% of the variance of Colorado River runoff is related to fall moisture, implying that the 2013 runoff season is more likely to be below average. NRCS streamflow forecasts also predict below average spring and summer streamflow statewide.*

- For the first time in nine years, ENSO-neutral conditions are likely to dominate through the winter months. Without El Nino or La Nina influencing weather patterns, it is difficult to determine when the current drought regime will be broken in Colorado. The latest long term experimental forecast, issued January 18th, shows below-normal chances of moisture from January to March throughout much of Colorado. This is based largely on other factors such as a cold north Pacific (PDO) and a warm North Atlantic (AMO).

** The Natural Resources Conservation Service (NRCS) uses a 30 year running average that is updated every ten years. This month marks the transition to the new "normal" period of 1981-2010 for all NRCS products (previous months used the 1971-2000 period). NRCS is also transitioning to the use of median rather than average to define normal for all SWE products. Average is still used for precipitation, reservoir and streamflow products. Please keep in mind that this transition will affect the data when presented as a percent of normal.*

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The US Drought Monitor illustrates current drought conditions across Colorado. Most of the state is experiencing severe or extreme drought conditions while the Arkansas River basin and a portion of the northern plains are facing exceptional drought conditions.

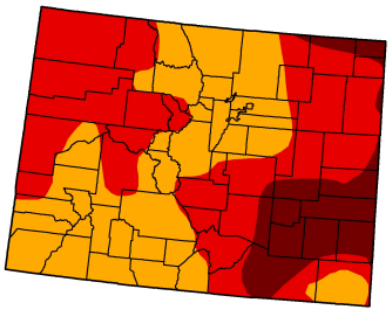
## U.S. Drought Monitor

**Colorado**

**January 22, 2013**
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|---|---|---|---|---|---|
| Current | 0.00 | 100.00 | 100.00 | 100.00 | 58.64 | 13.50 |
| Last Week (01/15/2013 map) | 0.00 | 100.00 | 100.00 | 100.00 | 58.64 | 13.50 |
| 3 Months Ago (10/23/2012 map) | 0.00 | 100.00 | 100.00 | 91.36 | 51.05 | 14.01 |
| Start of Calendar Year (01/01/2013 map) | 0.00 | 100.00 | 100.00 | 95.06 | 53.47 | 13.48 |
| Start of Water Year (09/25/2012 map) | 0.00 | 100.00 | 100.00 | 100.00 | 61.75 | 16.89 |
| One Year Ago (01/17/2012 map) | 39.42 | 60.58 | 24.98 | 10.60 | 0.20 | 0.00 |

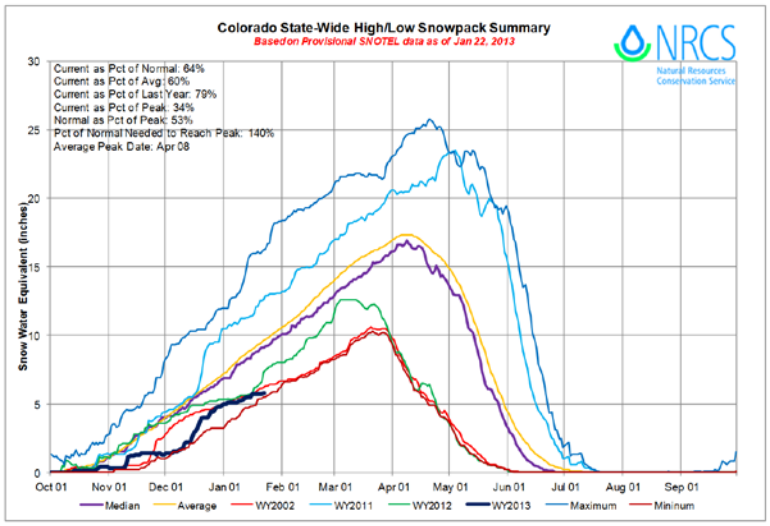


*Intensity:*
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

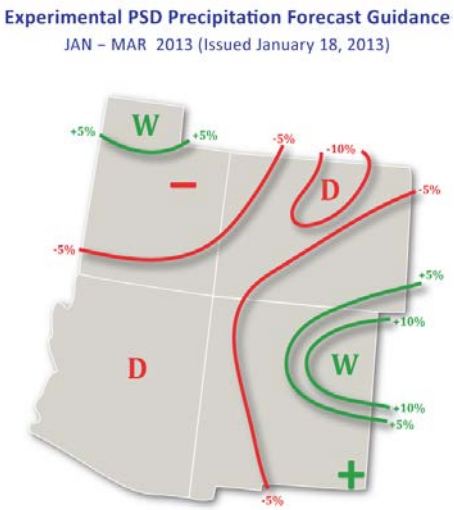
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

**http://droughtmonitor.unl.edu**

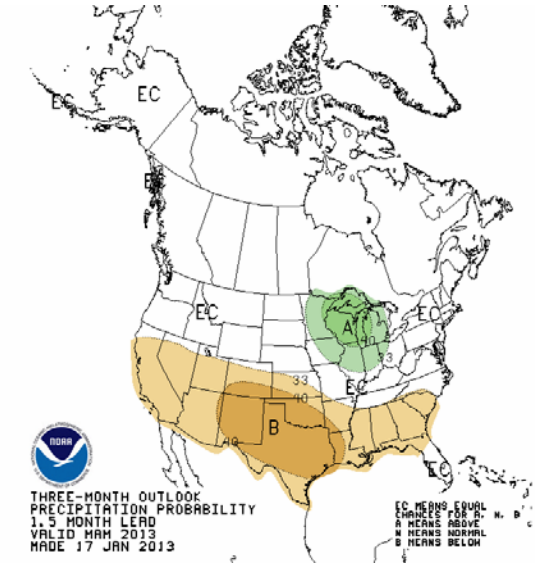
*Released Thursday, January 24, 2013*
*Mark Svoboda, National Drought Mitigation Center*




As of January 22, 2013 statewide precipitation remains well below normal at 64% (thick black line), and is currently tracking slightly below 2002, but above all time minimum levels. 140% of normal snowpack accumulation is necessary to reach the long term seasonal peak, which typically occurs in early April.




The long term experimental forecast (left) shows decreased chances of precipitation throughout much of the state during the January through March timeframe. The Climate Prediction Center also forecasts below average probability of precipitation during March, April and May (right).




NOTE: The next WATF meeting will be held February 14, 2013 at Colorado Park and Wildlife Headquarters, additional information can be found at www.cwcb.state.co.us or by contacting Ben Wade at Ben.Wade@state.co.us