



APRIL 2011 DROUGHT UPDATE

Water Availability Task Force Co-Chairs

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Executive Summary

La Niña conditions are forecasted to weaken into June, which is expected to bring dry conditions for the eastern plains and southern Colorado, while recent average to above average moisture in north western Colorado may linger despite this overall set-up. The Yampa, Gunnison and Colorado basins snowpack remains well above average. Conversely, the southern portion of the state has seen a reduction in precipitation over the last few months, with the Southwest and Rio Grande Basins reporting below average snowpack. Streamflow in the northern half of the state is forecasted to be above average. The streamflow forecasts in the southern half of the state are average or below average, and recent dust on snow events in the Rio Grande may accelerate runoff. Statewide reservoir storage is above average statewide but some water providers have reported strong demand already. Recent April precipitation will not make up for a dry March but should curb the wildfire danger in the short term.

- The eastern plains are experiencing D2, severe drought conditions, and this has negatively impacted the winter wheat crop and livestock. About 80% of the winter wheat crop is deemed fair to very poor. About 68% of the pasture & range lands are deemed fair to very poor and of the 68%, about 40% is deemed poor to very poor. No counties have asked for drought declarations, but agricultural officials anticipate that will change once crop adjusters get in the field.
- According to the U.S. Drought Monitor, 60% of the state is now experiencing D0, D1 or D2 status, which represents abnormally dry, drought moderate and drought severe conditions respectively. The drought conditions that have covered the eastern plains of the state throughout the fall have continued to deteriorate with D2 covering much of Colorado east of the divide. D2 conditions have expanded in northern Colorado and D0 has now been expanded to the four corners area.
- The Yampa/White, Colorado, South Platte and Gunnison basins are forecasted to experience above average streamflow while the Southwest, Rio Grande is forecasted to be below average. Recent dust on snow events in the San Luis Valley may accelerate the runoff. The Arkansas basin is forecasted to experience an above average runoff in the northern portion of the basin and below average runoff in the southern portion.
- Potential for wildfire remains high in the east and southeast parts of the state. Recent moisture, cooler temperatures and the start of the growing season in these areas may have curbed fire dangers for a short period of time. This year has already seen larger wildfires than is typical for this time of year.
- Statewide snowpack is 113%, with five of eight basins above 100% of average which is slightly higher than last month's average. The North Platte has the highest percent snowpack at 138% of average; the Colorado, Gunnison, and Yampa/White sit at 124%, 114%, and 132% of average, respectively. The South Platte and the Arkansas basins have experienced above average snowpack in the northern portions of the basin and below than average snowpack in the southern portions. The basins in the southwest corner of the state: the San Miguel, Dolores, Animas, and San Juan, and the Arkansas basin are all near normal at 87% and 91% of average respectively. The Rio Grande has the lowest snowpack at 78% of average.
- The revised SWSI values for the west slope,¹ which rely on stream flow forecasts and a smaller spatial scale, show a range of values -1.37 in the southwestern part of the state to +3.91 in the Yampa/ White river basin and represent near normal to abundant supplies.

¹ Colorado was the first state to develop a methodology for calculating the Surface Water Supply Index (SWSI) in the 1980's but in the early 1990s the Natural Resource Conservation Service (NRCS) refined the SWSI calculation to address the subjectivity of the original computation. The use of streamflow forecasts in the NRCS updated SWSI is an objective, statistical assessment of the data relating to snowmelt runoff. Additionally, the revised methodology provides a more stable month to month transition and utilizes a higher spatial resolution improving from four digit hydrologic units (seven values statewide) to eight digit hydrologic units (37 values statewide). This shift enables more detailed evaluation of the regions that are most effected by drought at any given time. The revised SWSI calculations are now available for western Colorado and will be presented in drought updates. Statewide figures will be available on a monthly basis beginning in the summer 2011, when the State of Colorado will fully adopt the new methodology. The scale of +4.0, which indicates an abundant supply to a low of -4.0, which indicates severe drought will remain the same.

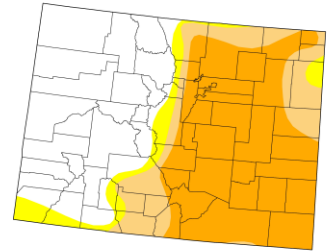
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U.S. Drought Monitor

April 12, 2011
Valid 7 a.m. EST

Colorado

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	39.57	60.43	54.13	40.86	0.00	0.00
Last Week (04/05/2011 map)	40.11	59.89	54.20	41.58	0.00	0.00
3 Months Ago (01/11/2011 map)	41.48	58.52	49.57	10.13	0.00	0.00
Start of Calendar Year (12/28/2010 map)	40.40	59.60	49.57	10.13	0.00	0.00
Start of Water Year (09/29/2010 map)	28.86	71.14	10.70	0.00	0.00	0.00
One Year Ago (04/06/2010 map)	81.63	18.37	2.90	0.00	0.00	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://drought.unl.edu/dm>

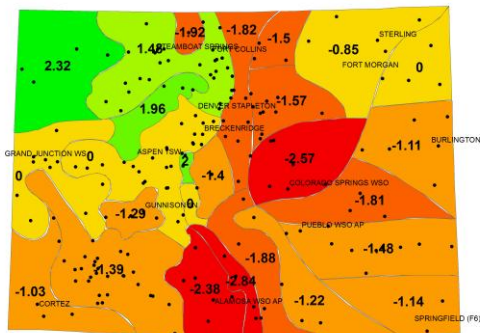


Released Thursday, April 14, 2011
Anthony Artusa, NOAA/NWS/NCEP/CPC

The adjacent map shows the U.S. Drought Monitor for Colorado as of April 12, 2011. The plains region of Colorado continues to experience sustained D1- D2 (moderate drought – drought severe) drought conditions, with D2 conditions have expanded north throughout Weld and Larimer counties.

The experimental long term forecast calls for La Niña conditions to most likely disappear during the summer, but quite possibly return later this year. This opens the door for Colorado to see near normal or even wet conditions in the summer.

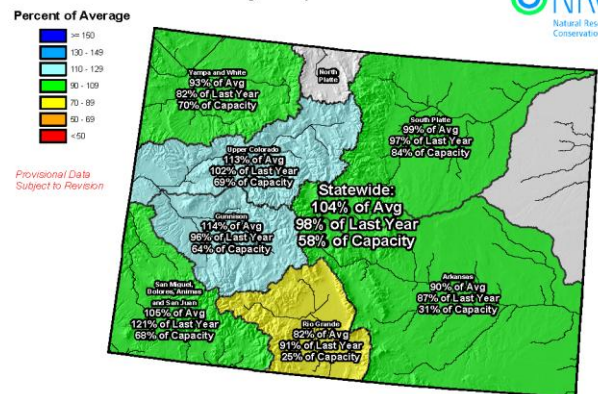
Modified Palmer Drought Severity Index for Colorado
March 2011



The adjacent map shows the Modified Palmer Drought Severity Index for Colorado in March 2011. The map shows values of 1.48-2.32 in the northwest portion of the state meaning those sub regions are slightly wet to moderately wet. The values for the rest of the state range from 0 to -2.84, classifying those sub regions as in a dry spell to moderate drought.

The map to the right shows the Colorado Reservoir Storage Map. Reservoir Storage state wide is 104% which is the same as March 2011. The Colorado and Gunnison basins have the highest percentage of average at 113% and 114% respectively. The Rio Grande basin has the lowest percent of average at 82%.

Colorado Reservoir Storage Map



End of March 2011

NOTE: The next WATF meeting is scheduled for May 11, 1:30-3:30pm at the Colorado Division of Wildlife, 6060 Broadway, Denver, CO.