



JANUARY 2011 DROUGHT UPDATE

Water Availability Task Force Co-Chairs

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Executive Summary

Despite a warm and dry start to December, large storms later in the month helped 2010 end with above average snowpack statewide. However, east of the continental divide remains drier than normal with D2, severe drought conditions, persisting in the Arkansas Basin and D1, abnormally dry conditions, in much of the rest of the eastern plains. Reservoir storage is strong across most of the state with the majority of basins near average; the Rio Grande Basin is the lowest at 78%. While precipitation in the mountains is off to a good start, water managers and agriculturalists remain cautious. Continued warm temperatures could result in high early season demand for water; however, should precipitation on the eastern plains rebound, demand would likely be eased. The next 2-3 months will give a better indication of what conditions can be expected throughout the spring and early irrigation season.

- The eastern plains of Colorado have received below normal precipitation in December and January and remain below normal for the 2011 water year, which began in October 2010.
- After receiving heavy precipitation in December, the Rio Grande is below normal for January precipitation and near normal for the water year. With recent storms failing to cross the mountains, snowpack in the Rio Grande is above average (110-129 %) in the western portions of the basin and below average (50-89%) in the eastern portions of the basin.
- Statewide snowpack is 125% of average. Individually, six of the eight basins are well above 100% of average. The Gunnison has the highest percent snowpack at 140% of average; the Colorado, North Platte, Yampa/White and South Platte sit at 138%, 136%, 133%, and 118% of average, respectively. The basins in the southwest corner of the state: the San Miguel, Dolores, Animas, and San Juan are experiencing a 120% of average. The Arkansas and the Rio Grande basins are both near normal with 99% and 93% respectively.
- According to the U.S. Drought Monitor, 59% 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 D0, D1 and D2 covering much of Colorado east of the divide.
- The January 1st traditional SWSI values¹ range from +1.3 in the Arkansas Basin to +3.7 in the Yampa/ White/ North Platte Basin. All other basin show positive values. The traditional SWSI values are partly influenced by reservoir storage and may not fully represent conditions in the region.
- The revised SWSI values for the west slope,² which rely on stream flow forecasts and a smaller spatial scale, show a range of values -1.04 to +2.63 and represent near normal to abundant supplies.

¹ Traditional SWSI values are based on streamflow, reservoir storage and precipitation for the summer period (May-October). 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. Traditional SWSI values will be presented alongside the Revised SWSI as the transition to the new calculation is completed.

² 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 spring 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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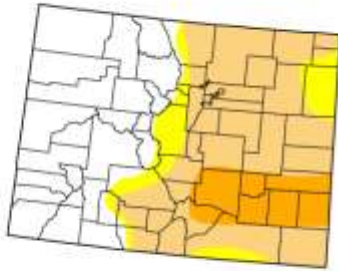
U.S. Drought Monitor

January 11, 2011

Valid 7 a.m. CST

Colorado

	Drought Conditions (Percent Area)				
	None	D0-D1	D2-D3	D4-D5	D6
Current	41.48	58.52	48.57	10.13	0.00
Last Week (1/04/2011) week	41.48	58.52	48.57	10.13	0.00
3 Month Ago (10/10/2010) week	26.31	71.69	13.76	0.00	0.00
Start of Calendar Year (1/1/2011) week	40.40	59.60	46.57	10.13	0.00
Start of Water Year (10/1/2010) week	26.08	71.94	10.70	0.00	0.00
One Year Ago (1/11/2010) week	66.22	30.78	7.52	0.00	0.00



Intensity:



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

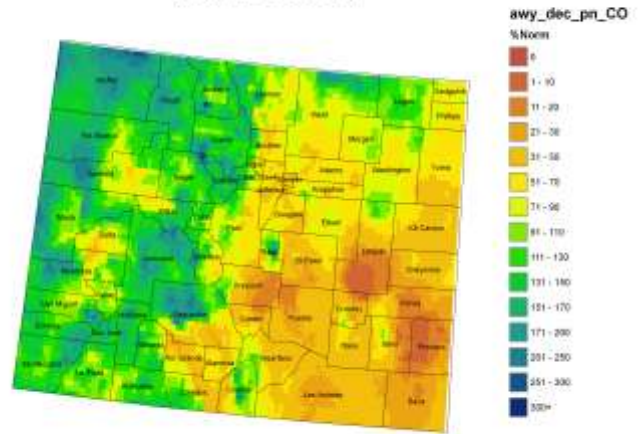
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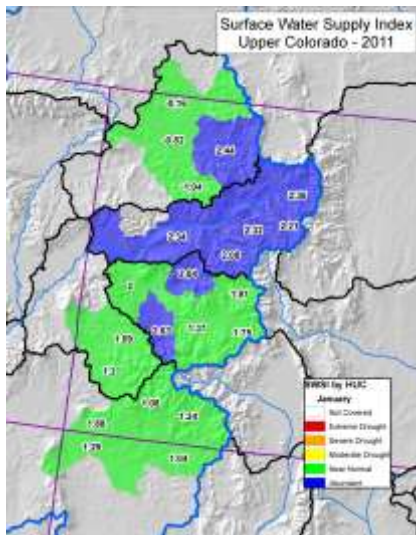
Released Thursday, January 13, 2011
B. Fuchs, National Drought Mitigation Center

The adjacent map shows the U.S. Drought Monitor for Colorado as of January 11, 2010. The plains region of Colorado continues to experience sustained D0- D1 (abnormally dry - drought severe) drought conditions for the tenth month in a row, with D2 conditions continuing in portions of Bent, Huerfano and Pueblo counties for the second month.

Colorado Water Year Precipitation as Percentage of Normal (Oct 10 - Dec 10)



The adjacent map shows precipitation for the water year thus far (October 2010-December 2011). The eastern plains of Colorado, which have seen little precipitation this water year, are well below normal. Continued monitoring of this region will be critical as irrigation season approaches.



The map to the left shows a comparison of the traditional versus the revised SWSI. This illustrates the finer spatial resolution in the revised surface water supply index and how it can pinpoint which areas of each basin are projected to have more or less water available. The revised SWSI for the entire state will be complete in the first half of 2011.

NOTE:

The next WATF meeting is scheduled for February 16th, 2011 from 9-11am. Meetings will also be held March 17th from 9:30-11:30am and April 14th from 9:30-11:30am. All meetings will be held at the Colorado Division of Wildlife, 6060 Broadway in Denver.