

# COLORADO WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES  
 ROOM 818, 1313 SHERMAN ST., DENVER, CO 80203  
 303-866-3581; [www.water.state.co.us](http://www.water.state.co.us)

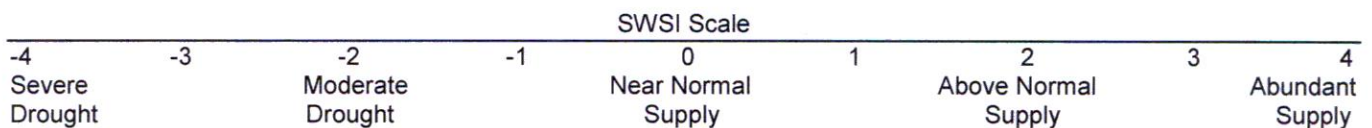
May 2013

The Surface Water Supply Index (SWSI) developed by this office and the U.S.D.A. Natural Resources Conservation Service (NRCS) is used as an indicator of mountain-based water supply conditions in the major river basins of the state. It is based on snowpack, reservoir storage, and precipitation for the winter period of November through April (December 1 through May 1). During the winter period, snowpack is the primary component in all basins except the South Platte basin, where reservoir storage is given the most weight. The enclosed narratives are provided by the Division Office in each stream basin.

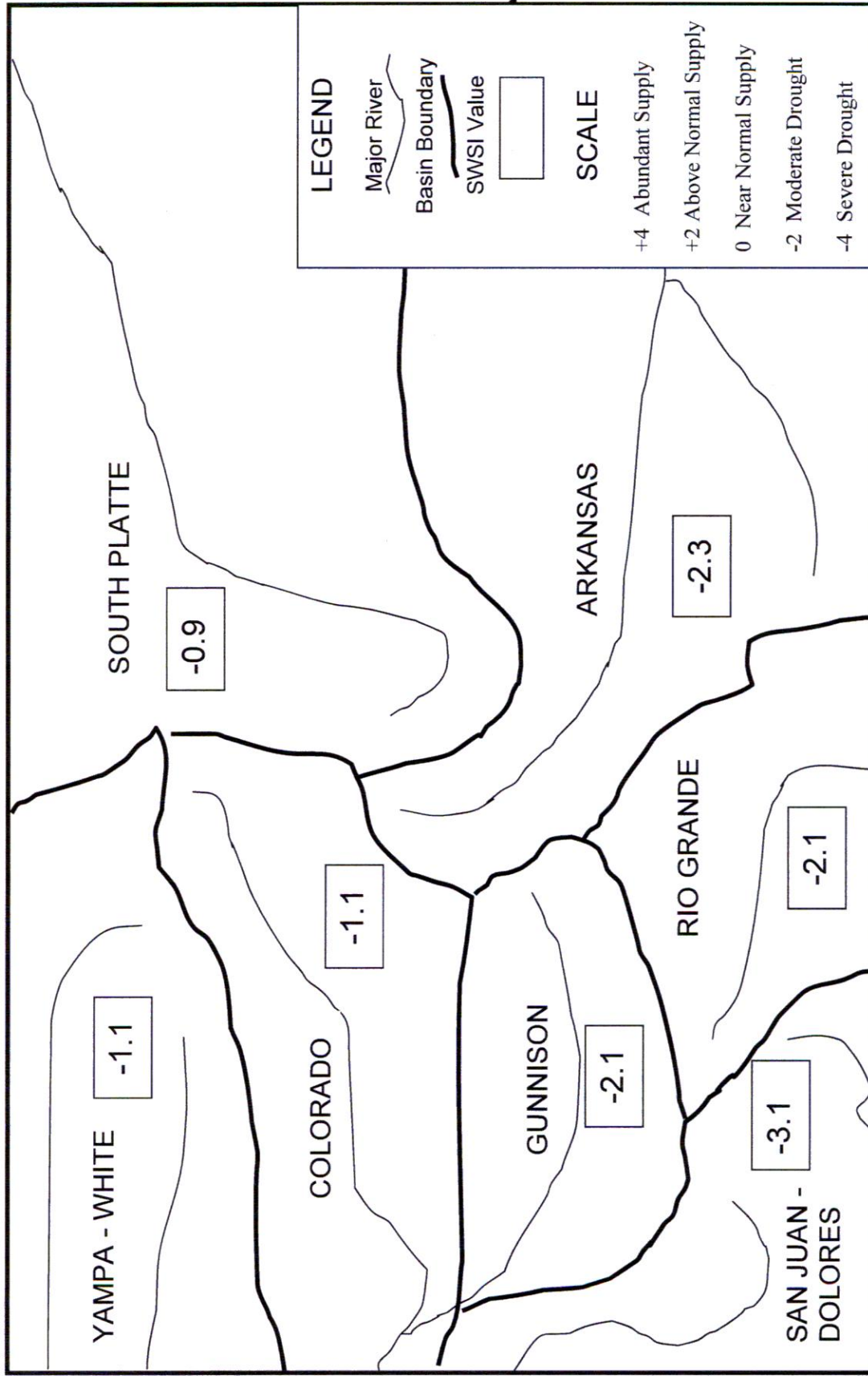
The statewide SWSI values for April (May 1) range from a high value of -0.9 in the South Platte Basin to a low value of -3.1 in the San Juan/Dolores Basin. Drought conditions continue to be widespread throughout the state, although conditions in the north have improved over previous months. The southern half of the state continues to have low surface water availability. Even with substantial snowfall in Northern Colorado in April, all of the snowpack and water year-to-date precipitation levels are below normal for May 1.

The following SWSI values were computed for each of the seven major basins for May 1, 2013. Additional information about SWSI calculations and the NRCS National Water and Climate Center SWSI by HUC are included on Page 10.

Basin	May 1 SWSI	Change from Previous Month	Change from Previous Year
South Platte	-0.9	1.2	-1.2
Arkansas	-2.3	0.9	0.8
Rio Grande	-2.1	-0.3	0.5
Gunnison	-2.1	0.8	0.6
Colorado	-1.1	1.9	1.7
Yampa/White	-1.1	1.8	2.9
San Juan/Dolores	-3.1	-0.7	-1.0



# SURFACE WATER SUPPLY INDEX FOR COLORADO



May 1, 2013

Basinwide Conditions Assessment

April continued and even increased the cool and wet conditions than began in late February in the South Platte basin. This provided a “double bonus” by not only reducing or eliminating direct flow irrigation demand at lower elevations and allowing storage to continue, but also by increasing the South Platte snow pack to 91% of average snow water equivalent by April 29. This late surge in moisture will not negate the effects of the lack of snow earlier in the season, but it will provide a much better (though probably short duration) runoff than previously expected.

Stream flows at both the Kersey and Julesburg index gages remained below average for April. The Kersey gage monthly mean stream flow was 612 cfs or 72% of the historic mean of 846 cfs. The April 2003 mean flow was 584 cfs. The April Julesburg gage monthly mean stream flow value was 146 cfs or 28% of the historic mean of 523 cfs. The April 2003 mean flow was 113 cfs.

Overall reservoir storage in the basin was at 87% of the end of April average. This compares with an end of April 2003 reading of 64% of average and an end of April 2002 reading of 81% of average. However, all of the large reservoirs east of Kersey were basically full by the end of April. This is a huge turn-around from what was expected at the end of March.

As is typical in April, the mainstem and tributary river calls bounced between direct flow and storage rights. However, even with the improved conditions discussed above, the lower than average stream flows did result in several much more senior than normal direct flow calls. Also of significance, the South Platte Compact call (either directly or as a bypass) was on for the first 8 days and last 4 days of April. Thus, even though the average flow for April was above the required 120 cfs at the state line, the compact call was on for over 1/3 of the month. This does not bode well for the 2013 irrigation season.

Outlook

The increased precipitation also significantly improved drought conditions. As of April 30, most of the South Platte basin was categorized in moderate (D1) or severe (D2) status with only the far northeastern border region still in extreme drought (D3) conditions. While this may not sound like much of an improvement, on March 26 the entire basin was in the severe (D2) or extreme (D3) drought categories. However, the drought ratings do show that the eastern portion of the basin received significantly less precipitation than the Front Range in April.

