

## Surface Water Supply Index by Basin Data Dictionary

This document describes the Surface Water Supply Index by Basin dataset in the Colorado Information Marketplace.

The Surface Water Supply Index (SWSI) is used as an indicator of surface water supply conditions in Colorado. The SWSI compares the total volume of water in a basin or sub-basin against the volume available in the same month of historical years. Depending on the month, the volume is a combination of streamflow, streamflow forecast, and reservoir storage. The SWSI is calculated for Colorado's river basins and sub-basins; this data set provides information on the Colorado's basin-level SWSI calculation. More information is available at <http://water.state.co.us/DWRDocs/Reports/Pages/SWSIReport.aspx>.

### Data Dictionary

Field Name	Description	Data Type
Basin	Major river basin that the SWSI is being calculated for. There are seven major river basins in Colorado.	Text
Report Year	Year of SWSI.	Number
Report Month	Month of SWSI.	Number
SWSI	Surface Water Supply Index. The SWSI value is used as an indicator of water supply conditions in Colorado's basins/sub-basins; it is developed based on the NEP. The value ranges between 4.16 and -4.16: <ul style="list-style-type: none"><li>• <math>\geq +3</math>, Abundant Supply</li><li>• +2 to +2.9, Very Wet</li><li>• +1 to +1.9, Wet</li><li>• -0.9 to +0.9, Near Normal</li><li>• -1 to -1.9, Dry</li><li>• -2 to -2.9, Very Dry</li><li>• <math>\leq -3</math>, Extreme Drought</li></ul>	Number

NEP	Non Exceedance Probability. The NEP indicates how often the current volume of water in the basin/sub-basin has been exceeded during the same month of the historical period. A value of 0 indicates that the volume of water has always been exceeded in the past and therefore represents extreme drought; a value of 100 indicates that the volume of water has never been exceeded in the past and therefore indicates an extremely abundant water supply. A value of 50 is considered normal. The NEP is calculated using natural flow, forecasted natural flow, and active storage data over a historical period of record.	Number
SWSI Previous Month	SWSI value for previous month.	Number
Change from Previous Month	SWSI value change from previous month.	Number
SWSI Previous Year	SWSI value for the same month during the previous year.	Number
Change from Previous Year	SWSI value change from previous year.	Number