

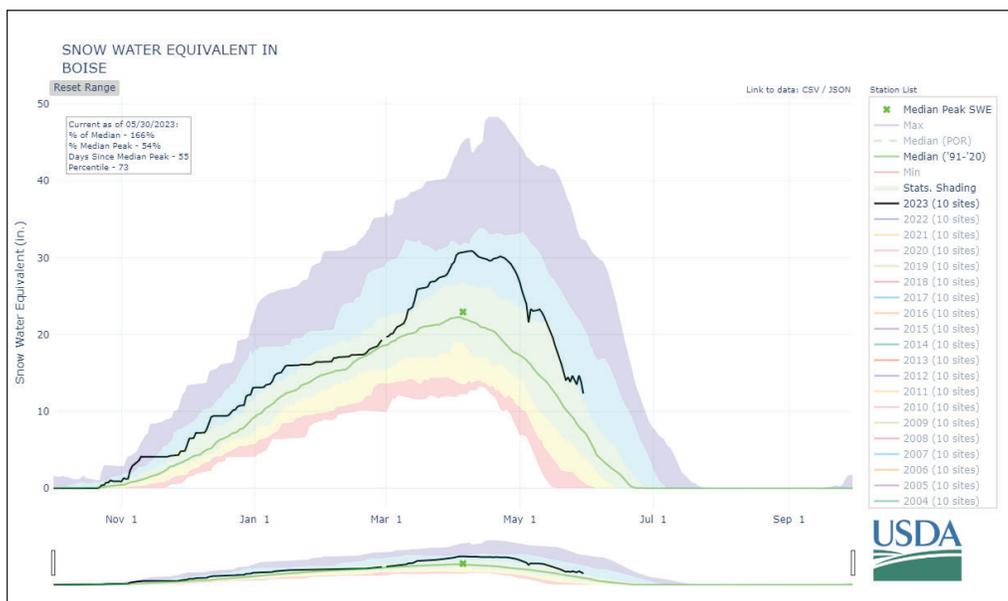


How do hydrologists measure snow?

The NRCS Idaho Snow Survey team maintains a network of automated weather stations across Idaho that provide snowpack information to the public and partner agencies. These SNOTEL weather stations are part of a vast network to measure and predict water supply across the West each year. Idaho Snow Survey staff maintain and collect data at 129 SNOTEL sites. Additional manual snowpack measurements are made from January through the end of winter at 129 snow course sites. The snow course data provide insights into snowpack conditions at lower elevations in our mountains. They also extend the snowpack record back 94 years in Idaho. Long snowpack records are valuable because historic data can help water managers predict how to best use the water in the current year's snowpack. Many volunteers and partner agency employees carry out these monthly snowpack measurements across our state.

What is snow water equivalent?

An important term to describe the relationship between snowpack depth and water supply is called 'snow water equivalent' or SWE for short. Snow water equivalent describes how much water is contained within the snowpack. If you imagine filling a pot with snow from your backyard and melting it, the amount of water left in the pot is how much water (SWE) was contained in that amount of snow. Snow scientist's use snow water equivalent rather than snow depth to predict water supply because the snowpack's water content can vary drastically depending on the local climate. For example, 12 inches of very light, dry snow that's typically found in colder, interior regions like Montana, Utah and Colorado will contain less water when melted compared to the heavy, wet, dense snow often found in wetter, warmer climates like the Sierra Mountains, Western Washington and Oregon.



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