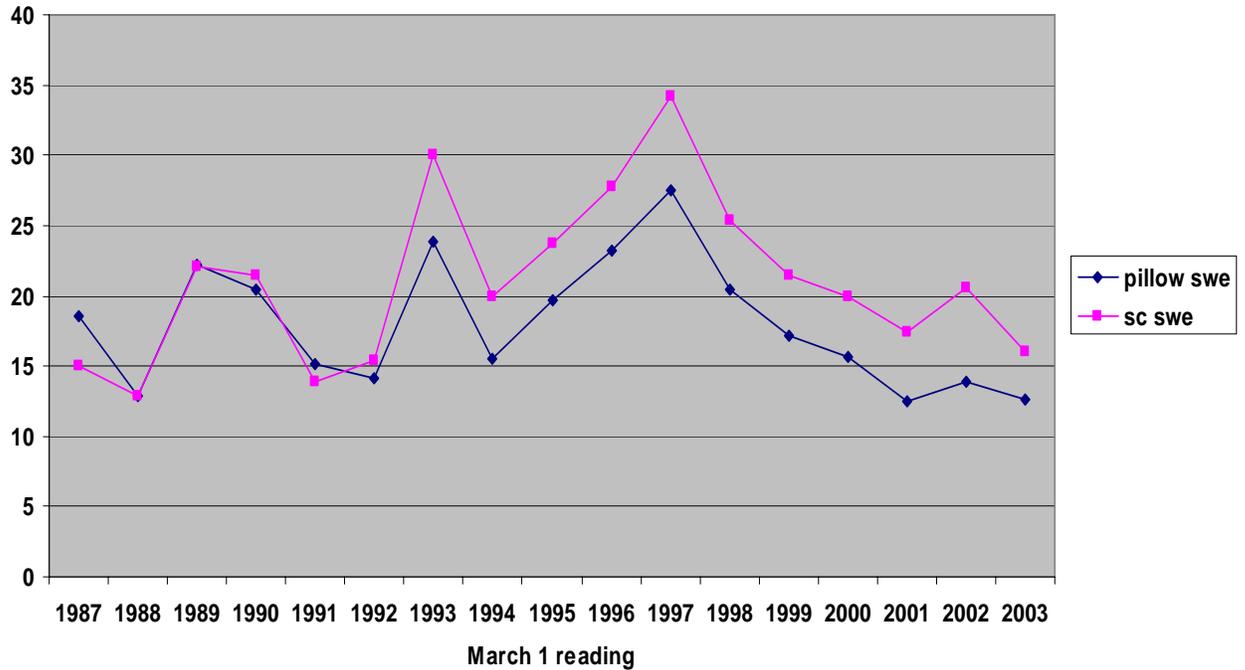


Brighton SNOTEL

The Brighton SNOTEL site is at the head of Big Cottonwood Canyon near Salt Lake City, Utah at an elevation of 8750 feet msl. It was originally located adjacent to Brighton Ski Resort but as a result of the resort expansion, it is now on the Brighton Ski Resort.

Brighton Snotel vs. Brighton Cabin



This chart is a plot of the March 1 SWE reading for Brighton SNOTEL versus the Brighton Cabin snow course. One can clearly see that the early portion of the record is nearly identical until 1993 when there was a clear deviation from the pattern, indicating an event that impacted one of the sites.



This event correlates with the expansion of Brighton Ski Resort, a new high speed quad was installed directly above the precipitation gage and as such, the gage was moved to the west of the snow pillow. In this photo, it is off to the left of the snow mound (which is the snow pillow) on the left side of the chairlift. The snow pillow was not moved but has suffered a 20% decline in catch due to vegetation changes at the site.



The current location of the precipitation gage and shelter, pillow is to the right.



The original location of the shelter and precipitation gage was down hill from the pillow to the right in this photo.



The precipitation gage location is not the only change that this site has gone through. This site originally had steel pillows which have been found to accumulate more snow than the hypalon pillows (pictured here). The steel pillows failed and were replaced by a hypalon pillow with a white cover which may reduce/minimize the difference between steel and hypalon pillows. It has been found that just replacing steel with hypalon can reduce snowpack by between 0% and 25%, with an average of about 14% less snow. This is a dramatic difference due solely to a change in sensor. Combine that with the 20% change due to vegetation removal and we are faced with a station that should not be used in long term comparisons or for much of anything until there are sufficient years of data in its current state. This is essentially a brand new site for SWE data with a baseline year of 2005. Baseline for precipitation would be 1993.

R Julander
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