

Ian McDowell (he/him)

I am a PhD student in the Graduate Program of Hydrologic Sciences at the University of Nevada, Reno. Prior to starting my PhD, I received a B.A. in Earth & Oceanographic Science and Government & Legal Studies from Bowdoin College and a M.S. in Geology from the University of Wyoming.

My doctoral research broadly aims to improve estimates of ice sheet mass balance in Greenland. Specifically, I study how the physical structure of near-surface ice, called firn, affects surface meltwater movement and storage. Meltwater storage in firn breaks the direct link between surface melting and runoff into the oceans, which can buffer against sea level rise and ice sheet mass loss for years to decades. My project funded by the NV NASA Space Grant will combine field data and modeling to examine how temporal changes in firn structure introduces elevation biases during repeat laser altimetry surveys by ICESat-2, a satellite launched by NASA to quantify changes in ice sheet mass.

After my PhD, I hope to continue to advance our understanding of ice sheets as a postdoctoral researcher and professor.