

Your Name: Tay Powrie

Tentative title of your thesis: Investigating the future of glacier ice and melt processes in the North Shuswap

Supervisor's name or names if co-supervised: Dr. Tom Pypker

Committee member's names: Dr. David Hill, Crytal Huscroft, Dr. Brian Heise

Abstract of your research:

There is limited information and data acquired on the glaciers that drain into the Adams River watershed, in Interior British Columbia. Climate change may affect the quantity, timing, and duration of glacial melt, thereby affecting community water utilization, as well as anadromous and native riverine fish habitat, through changes in stream morphology, temperature, and magnitude of spring and fall flows. This research project will integrate community priorities of the Adams Lake Indian Band, Shuswap Watershed Alliance, and Shuswap Environmental Action Society, through an analysis of climate change induced glacier recession and water contribution to the Adams River watershed. This project will utilize photogrammetry and ice penetrating radar methods to calibrate a dynamic model of glacier melt and runoff processes from all the glaciers encompassed in the watershed. These methodologies will allow us to identify and quantify changes in the rate of glacier recession, and thus glacier induced changes to stream processes within the watershed that may impact community and fish utilization.

