TRICIA STADNYK



Biography

Dr. Tricia Stadnyk is a Tier II Canada Research Chair in Hydrologic Modelling and an Associate Professor with the Department of Geography at the University of Calgary, and a Professional Engineer registered in the Provinces of Manitoba and Alberta. Her research looks at continental scale water supply under climate change through three main foci: development of enhanced data networks to support hydrologic modelling, development of integrated modelling tools for climate change and risk-based uncertainty assessment, and pan-Arctic system science using Earth System Models. Internationally, she is the Chief Scientific Investigator (CSI) on a United Nations Coordinated Research Project to improve global water balance estimation and is the newly elected Vice President of the International Association for Hydrological Sciences Tracer Commission. She is a lead investigator responsible for projects within the Global Water Futures, FloodNet and BaySys Research Networks, contributing to the development of new tools for simulating continental Canadian water supply, and a National Director and Alberta branch President for the Canadian Water Resources Association.

What +1.5°C Average Global Warming Means: Canada's Water Supply under a Changing Climate

Abstract

Canada is under-going some of the most accelerated climate-driven changes in the world, which have direct impacts to our water supply and water security, and in turn economic stability. With more extreme and intense floods and drought, sustainable management and distribution of water depends on accurate a priori knowledge of changes in the water cycle as well as human control over regional water distribution. For this, models are required to accurately predict and project changes in runoff and water balance, and the associated environmental impacts of local-scale change on continental supply. In this seminar I will discuss the current state of climate changes across Canada and



implications for the Arctic, recent approaches used to detect long-term implications for Canada's water supply, and the implications for Canadian water governance and policy. With more than 60% of Canada's water draining North, understanding the cumulative downstream impacts of continental-scale change are crucial for ecosystems, water security, and the Canadian economy.

SPEAKER SERIES

DEPARTMENT OF Geography & Environment

Open to all interested individuals

Date: Friday, October 22nd, 2021 Time: 3-4pm Location: SSC 2032 & Zoom Meeting ID: 920 1911 8555 Passcode: SPEAKER