



### Two MSc and PhD Positions:

#### Process-based Evaluation of Streamflow Vulnerability to Climate Change Across North America

We invite applications for **two fully-funded MSc and PhD positions** on “Process-Based Evaluation of Streamflow Vulnerability to Climate Change Across North America” in the Earth, Ocean, and Atmospheric Sciences Department at the University of British Columbia (Vancouver).

#### Project Aim:

The successful candidate(s) will work under the supervision of Dr. Ali Ameli to determine the impacts of climate change on shallow and deep subsurface hydrologic processes, and their linkages to flood-rich, drought-rich, and drought-driven wildfire periods. In doing so, the successful candidate(s) will work with a recently-developed database. In addition to scientific achievements, this project will provide management authorities in Canada and the United States with science-based decision-making tools to support climate-informed watershed management and land-use development.

#### The Ideal Candidates Will Have:

- Knowledge of catchment hydrology
- Competence in GIS tools and programming in a GIS environment
- Experience with model scripting/programming
- Excellent communication skills in English
- Strong quantitative skills
- Basic knowledge of data science and statistical modelling (an asset, but not necessary)
- Basic knowledge of process-based modelling (an asset, but not necessary)

Students from disciplines including, Civil, Geological or Environmental Engineering, Geology, Earth Sciences, Environmental Sciences, Physical Geography, Forestry and similar disciplines are encouraged to apply.

#### Research Group:

HydroGeoScience for Watershed Management (HG-WM) is an interdisciplinary research group that uses mechanistic and statistical modelling approaches to generate scientific evidence required to inform watershed management and to regulate the environmental impacts of climate change. The research group is lead by Dr. Ali Ameli and is a part of UBC’s Geological Engineering program - a program with over 100 years of rich history.

For more information, please visit: [www.hydrogeosciencewatershedmanagement.com/](http://www.hydrogeosciencewatershedmanagement.com/)

Applications should include: i) a cover letter with detailed explanations on how the applicant meets the requirements for the position, ii) a curriculum vitae, iii) unofficial academic transcript(s), and iv) the names and contact information of two professional references. Application materials should be combined into a single PDF document and be sent to [Hg.wm.contact@gmail.com](mailto:Hg.wm.contact@gmail.com), by **Monday, January 4, 2021**.