

Submarine Hydrogeology Postdoctoral Position

The Department of Civil & Resource Engineering at Dalhousie University (Canada) in partnership with the University of Delaware (USA), is seeking applications for a two-year postdoctoral researcher with a focus in submarine hydrogeology.

Project description: This position is part of the project [SOURCE](#), a multidisciplinary research consortium focused on freshened groundwater resources in the Gulf of St. Lawrence, north of the province of Prince Edward Island (PEI). Dr. Barret Kurylyk (Dalhousie University) and Dr. Holly Michael (University of Delaware) are co-leading a work-package focused on numerical modeling of the submarine groundwater system(s) in the Gulf of St. Lawrence and their connections to the coastal aquifers of PEI, Canada's only province 100% reliant on groundwater for drinking water.

Project objectives: The postdoctoral researcher will develop a hydrogeological model to investigate onshore-offshore connections in aquifers, simulate the response of groundwater system(s) to past (glaciation) and future climate change, and estimate the impact of water exploitation. The candidate will have opportunities to consider different models, including HydroGeoSphere, and will access unique geophysical datasets collected in recent months to constrain the hydrogeological models. The ideal candidate must have excellent communication skills; a PhD in geoscience, civil engineering, or a related field; experience with coding and numerical modeling; and a track record in leading high-quality journal articles. Research expertise focused in coastal or offshore hydrogeology and variable-density groundwater flow and solute transport modeling would be an asset.

Location and synergy: The postdoctoral researcher will be based out of the [Dalhousie Coastal Hydrology Lab](#), but opportunities for cross-border travel and engagement with Dr. Michael at the University of Delaware will be provided. Dalhousie University is one of Canada's 15 research-intensive universities and is located in the coastal city of Halifax, Nova Scotia, which is a rapidly growing urban centre with a deeply rooted Canadian Maritimes history.

Application documents: CV, Statement of motivation (1 page), 2 sample publications, names and contact information for two referees.

Conditions of employment: Full-time, fixed-term contract for 24 months. The research will receive a competitive salary and benefits, office space, and workstation.

We value diversity and inclusion and encourage all qualified people to apply. Applications should be emailed to Dr. Barret Kurylyk (barret.kurylyk@dal.ca) and Dr. Holly Michael (hmichael@udel.edu). Please note that only applicants to be interviewed will be contacted. Review of applications will commence on **March 31, 2023**, and continue until the position is filled. The anticipated start date is September 2023, but that can be revised based on the needs of the selected candidate.