

Graduate and Postdoctoral Opportunities in Groundwater Recharge Study University of Calgary, Canada

We are recruiting new students and a postdoctoral fellow for a major research project called Groundwater Recharge in the Prairies (GRIP). Funded by several departments of the Government of Alberta, the objective of the GRIP project is to understand groundwater recharge processes in unique environments of the Canadian prairies, develop practical tools for quantifying recharge fluxes, and use the new understanding and tools to support sustainable water resources policy development.

We are recruiting **two Ph.D. students, one M.Sc. student, and one postdoctoral fellow (PDF)** to conduct the following components of this interdisciplinary research project.

- Field observation and numerical modelling of groundwater recharge processes focussing on the effects of land-use practices (Ph.D.).
- Development of an integrated, watershed-scale groundwater flow model incorporating the recharge model developed in this study, and model testing using baseflow analysis and environmental tracers (Ph.D.).
- Field observation and numerical modelling of groundwater recharge processes under irrigation and their effects on the watershed-scale water balance (M.Sc.).
- Regional-scale estimates of groundwater recharge by integrating the field-based understanding of small-scale processes together with an applied GIS and remote-sensing approach (PDF).

Ideal candidates for these positions will have a strong background in hydrology and/or hydrogeology, excellent oral and written communication skills, and depending on the topic of research, experience in field-based hydrological studies or numerical simulation studies. Skills in GIS and remote sensing will be a major asset. Applicants should send a current CV, academic transcripts, and the name and contact information of three references to:

Dr. Masaki Hayashi

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The postdoctoral fellow will be hired immediately. Ph.D. and M.Sc. students will preferably start the program in January 2017, but a later start will be considered as well.

Calgary is a bustling city of more than 1.2 million, located near the foothills of the Canadian Rocky Mountains. The University of Calgary is a leading Canadian university where students thrive in programs made rich by research and hands-on experiences. The Department of Geoscience is one of the largest geoscience departments in North America, recognized for research strengths in energy and environmental geoscience. Students and PDF will have excellent opportunities to interact with the hydrological research community on campus as well as the broader community through the Changing Cold Regions Network (www.ccrnetwork.ca) and the CREATE for Water Security (research-groups.usask.ca/createwater/).