

Agricultural Land Management in Prairie Landscapes

The Global Institute for Water Security is launching a field and model-based program to address issues of agricultural land management in prairie landscapes. The goal of this research program is to develop hydrological and process-based biogeochemical models suited to prairie environments. We will then use these models to develop monitoring programs to characterize the effects of agricultural beneficial management practices on hydrology, biogeochemistry, and indicators of ecosystem health.

We are seeking **3 masters students, 1 PhD student and 1 postdoctoral fellow** to be a part of a project team, led by Drs. Howard Wheeler, John Pomeroy, Cherie Westbrook and Helen Baulch.

This project will provide excellent opportunities for interdisciplinary collaboration with researchers in both academia, and government, and will build upon existing, long-term monitoring programs at two prairie research sites. Applicants should have a background in a relevant science or engineering discipline.

To apply, please send a cover letter outlining your background and interests (including which position you are applying for), your CV, and a list of three references (with their contact information) to water.security@usask.ca. Review of applications will begin January 15, 2012. The anticipated start date is May or Sept 2012. Informal inquiries are welcome – please contact Helen Baulch (helen.baulch@usask.ca) for additional information.

Hydrological and biogeochemical modelling positions:

Postdoctoral fellow (3 years funding available)

We are seeking a postdoctoral fellow with strong programming and numerical modelling skills and experience in water quality modelling or hydrological modelling.

PhD student (3 years funding available)

The PhD student should have strong numerical modelling and programming skills, and ideally will have some experience in water quality or hydrological modelling.

1 Masters student (2 years funding available)

The masters student will be responsible for setting up and running hydrological models, and should have strong quantitative skills, ideally with some experience in programming.

Biogeochemistry & aquatic ecosystem health positions:

We are seeking two enthusiastic masters students interested in stream biogeochemistry, and indicators of aquatic ecosystem health. Students will gain a strong understanding of stream biogeochemistry, experience in several laboratory techniques, as well as expertise in the use of aquatic sensors. Applicants should have strong field and laboratory skills. Two years of funding is available.