User Engagement Specialist Position

Context and Purpose:

Global Water Futures (GWF) is a transformative pan-Canadian research programme, led by the University of Saskatchewan's (U of S) Global Institute for Water Security (GIWS), which aims to place Canada as a global leader in water science for the world's cold regions and to address the strategic needs of the Canadian economy in adapting to change and managing the risks of uncertain water futures, including extreme events. GWF is transdisciplinary, working with a wide range of users and integrating the natural, social, health and engineering sciences to provide disaster warning, improved prediction of climate and water futures, and the decision support tools needed to inform adaptation to change and risk management. This 7 year, $143million program builds on the expertise of the U of S and 3 key partner universities (McMaster, Waterloo, Wilfrid Laurier), faculty from 14 other universities, and 8 federal agencies, with strong international collaboration.

Integrated Modelling Program for Canada's major river basins (IMPC) is a sub-project of GWF that aims to develop a pan-Canadian integrated modelling platform to diagnose, simulate, and predict interactions amongst natural and human-driven water-resource components of the changing Earth and environmental systems, and to deliver optimal decision making tools and solutions for uncertain future water resources, considering the range of stakeholder needs in Canada's major river basins (Nelson-Churchill, Columbia, Fraser, Yukon, and Mackenzie, Great Lakes). IMPC includes specialists from climatology, hydrology, ecology, economics, computer science, and social science who seek to develop new modelling tools to predict future droughts and floods. Partners include Agriculture and Agri-Food Canada, Saskatchewan Water Security Agency, Prairie Privinces Water Board, International Joint Commission, Manitoba Hydro, the City of Calgary, Alberta Environment and Parks, and Partners for the Saskatchewan River, the Delta Stewardship Committee, etc. The IMPC aims to work in close collaboration with these and other partners from government, business, and civil society to develop new scientific tools for drought and flood prediction and adaptation. Close collaboration between the interdisciplinary science teams and user communities is required to define specific research problems and methods and identify strategies to translate findings into tools for decision makers. Relationship building and regular feedback between science teams and participatory user groups is required for successful knowledge mobilization (KM) in GWF.

The larger GWF has invested heavily in a cross-site KM team. The University of Saskatchewan recently hired a full-time KM specialist to oversee site activities. The successful candidate for the User Engagement (UG) specialist position described below will work as a member of the IMPC transdisciplinary team led by Drs. Saman Razavi, Pat Gober, Howard Wheater, Al Pietroniro, and John Pomeroy, and under the direct supervision of Dr. Gober will coordinate activities for the IMPC team through its four working scientific groups: (A) Integrated Earth Systems Modelling, (B) Water Management Modelling, (C) Decision Making under Uncertainty, and (D) Knowledge Mobilization and Decision Support. Each science team and its participatory user group will collaborate on framing research questions, model selection, feedback and reporting, and communication of results. Theme C will produce scenarios of future development and conduct stress tests of governance agreements, development strategies, and potential regulatory action. Theme D will develop new web-based and

app-based decision support systems that allow researchers, communities, and end users to easily control models, visualize model outputs in ways that are relevant to the decisions at hand, and collaborate (both in real time and asynchronously) over model and simulation workspaces. The User Engagement Specialist will coordinate the activities of the participatory user groups, ensure there is early and ongoing engagement between science and user groups, and develop a plan for effective KM over the life of the project.

Responsibilities

User Engagement Strategy Development

- Support researchers in identifying relevant knowledge users for the participatory user groups,
- Manage the Project's relationships with the user community,
- Coordinate two-way knowledge transfer between scientists and users,
- Ensure that participatory users groups have produced plans and reports as required.
- Coordinate two-way knowledge transfer between scientists and users,
- Coordinate with the UofS KM Specialist to ensure that the Integrated Modelling Project efforts correspond with GWF goals and the UofS's outreach plans, and
- Ensure effective communication of user and KM activities through GWF's Communications Office.

Model Development

- Coordinate with UofS Knowledge Mobilization Specialist to ensure that user needs are included in model development,
- Integrate policy and other social science variables such as governance, markets, cultural values, and development strategies into modelling efforts,
- Organize scenario development activities in Theme C and certify that alternative visions of the future are integrated into simulation modeling efforts,
- Work with user groups to ensure that stress tests and vulnerability analyses capture user-defined views of potential stressors on basins water systems,
- Ensure that end users are actively engaged in model development and testing via the Web applications developed in Theme D, and
- Elicit user support for visualization tools developed in Theme D, including a Decision Theater, Web applications, and decision support notebooks.

Best Practices in Knowledge Mobilization

- Certify that Integrated Modeling Project adheres to GWF's commitment to KM,
- Organize reporting of KM activities of the participatory user groups,
- Ensure that users are part of not external to the research teams,
- Plan for knowledge mobilization at the outset by building it into the research design, paying particular attention to the kinds of research outputs that end users need and can use (e.g., format, language), and when the knowledge will be useful (e.g., during certain points in a planning cycle).

- Determine how members of the end user communicate with each other, and then create opportunities for active, inclusive and iterative communication between team members and end users using their preferred communication channel.

Qualifications

Education

- Graduate degree with relevance to water policy, water modelling, environmental modelling, decision analysis, or computer science
- Familiarity with mathematical modelling as a tool for decision support

Experience

- Demonstrated experience working with user groups
- Experience in scenario and/or futures planning is desired but not required.
- Experience working on Web-based applications is desired but not required.
- Experience in graphic interfaces and visualizations is desired but not required.

Knowledge

- Basic knowledge of water resource system modeling and management
- Basic quantitative skills commensurate with the need to integrate planning and policy variables into model design and implementation
- Familiarity with best practices in stakeholder engagement and KM
- Understanding of Canadian or international water issues, particularly with respect to climate change and adaptation

Skills

- Excellent verbal and listening communication skills
- Good organizational skills needed to coordinate science teams and participatory user groups, ensure that reports are produced in a timely fashion, and that partner needs are integrated into modeling efforts
- Meeting organization skills
- Ability to work with GWF Communications office to certify that scientific results are communicated in “plain language” and accessible to users groups and inter-disciplinary science audiences.
- Excellent critical thinking and analytical skills to enable assessment of complex issues and decision problems.

Salary Information:

The salary offered will be in the range of $40,000-$50,000 CAD, and will be based on training, education, and experience.

Duration: This term position will be for up to three years, commencing as soon as possible.

Application Procedure:

To be considered for this opportunity, please submit the following documents via email to Dr. Amin Haghnegahdar, IMPC program manager, at amin.haghnegahdar@usask.ca:

- a cover letter (1-2 pages) that details relevant academic excellence, communication, interpersonal and leadership qualities.
- an updated curriculum vitae (max. 10 pages)
- names of three referees

Applications will be considered as they come in. We thank all applicants for their interest; however, only candidates selected for an interview will be contacted.