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## Postdoctoral Position: Research Hydrology

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*PCIC is seeking to hire a postdoctoral in Research Hydrology.*

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### **Pacific Climate Impacts Consortium (PCIC)**

PCIC is a regional climate service centre at the University of Victoria that provides practical information on the physical impacts of climate variability and change. Through collaboration with climate researchers and regional stakeholders, PCIC produces knowledge and tools in support of long-term planning. [www.pacificclimate.org](http://www.pacificclimate.org)

### **Challenge**

The changing climate in British Columbia (BC) is expected to affect various hydrological factors (e.g. flow levels, timing and temperature) pertinent to salmon growth, survival, and habitat connectivity. It is therefore necessary to understand how ongoing and future effects of climate change on the freshwater environment may affect salmonid habitats at local, regional and watershed scales. This position will help to assess climate change induced hazards to salmon populations in space and time, which will involve an effort to combine hydrologic modelling with an assessment of flow and temperature exposure.

### **Nature of Work**

The Research Hydrologist will undertake hydrologic model development and application and related research to quantify future climate-driven changes in river discharge and temperature. The modelling will be undertaken at very high spatial resolution throughout a region spanning all Pacific-draining watersheds in BC. The Research Hydrologist will work at PCIC under the supervision of the Lead for the Hydrologic Impacts theme and will collaborate with other members of PCIC. PCIC offers a positive, supportive and collegial work environment that promotes collaboration and excellence. As a user and stakeholder driven organization, PCIC requires that candidates be flexible in order to adapt their research objectives to changing organizational and stakeholder priorities and needs.

### **Objectives**

The objectives of the position are to conduct research that seeks to address the following:

- Upgrade the Raven Hydrologic Modelling platform to accommodate realistic lake thermal modelling.
- Downscale existing 1/16-degree hydrologic fluxes and generate streamflow and temperature data on a highly resolved vector channel network.
- Quantify the impact of future climate change on river discharge and temperature.
- Quantify changes in flow and temperature indices relevant for salmonid hazard exposure assessment.

## Knowledge, Skills & Abilities

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### Knowledge and Experience

- PhD in the Hydrologic sciences
- Experience in the development and application of hydrologic models
- Experience working with high-performance computing systems
- Experience working on interdisciplinary projects and with interdisciplinary teams
- A high level of productivity for peer-reviewed publications is expected
- Experience with fluvial habitat or environmental flow assessments is desirable

### Skill

- Excellent data analysis and visualization skills
- Excellent statistical analysis skills
- Excellent communications skills
- Excellent programming skills
- Excellent multi-tasking skills

### Ability

- Work in a self-directed manner and within a team environment.
- Re-evaluate and adjust priorities and objectives in light of research findings and evolving requirements.
- Ability to find creative solutions to complex, open-ended problems.
- Operate with a professional demeanor while representing PCIC outside the organization.

### Employment period

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3-year term commitment.

#### Weekly working hours

Full time (37.5 hours per week)

#### Pay rate

Commensurate with education and experience.

**Additional information:** Address enquiries to Markus Schnorbus at [climate@uvic.ca](mailto:climate@uvic.ca).

**Application:** Please send your application including a cover letter, CV, and three professional references to Markus Schnorbus, [climate@uvic.ca](mailto:climate@uvic.ca), with “**ATTN: Research Hydrologist**” in the subject line. Please indicate whether you are legally able to work in Canada.

Review of applicants will start **immediately** and continue until suitable candidates are found.