



Water and Fish Scientist

fRI Research is an independent not-for-profit research institute that focuses on applied research. The position is based in Hinton, Alberta, 20 minutes east of Jasper National Park, and 3 hours west of Edmonton. Hinton, set amidst the stunning scenery of the Alberta Rockies, is a community of 10,000 in the heart of a four-season recreational paradise. Our region offers outstanding mountain biking, climbing, hiking, and skiing opportunities, as well as plenty of arts and cultural activities. For more information about fRI Research please visit our [website](#). The successful candidate will be joining 5 staff in the Water and Fish Program led by Dr. Benjamin Kissinger.

Job description

The successful candidate will be part of a team conducting applied research on aquatic ecosystems in Alberta. While the Water and Fish Program (WFP) focuses on both the biotic and abiotic components of aquatic environments, this position will focus predominantly on the abiotic environment: hydrology, stream surface water temperature, and the covariates influencing both. The three main components of this work that the successful candidate will be involved in are:

1. **Modelling surface water temperature in Eastern Slopes streams.** This project is being co-led by Dr. Ben Kissinger and Dr. Ryan MacDonald to develop a Spatial Stream Network (SSN) model for all watersheds in Alberta's Eastern Slopes. Much of the work has been completed for this model by Dr. Ryan MacDonald and MacHydro but the massive dataset collated by fRI Research of ~ 3024 unique locations, over + 30 years and +110,000,000 measurements provides an opportunity to dive into questions of climate change and watershed-specific interest. We expect the successful candidate to participate in regular meetings, model available data using SSN models, present finding, and assist in developing manuscripts and other data products (e.g., maps and shape files).
2. **Thermal sensitivity.** We are developing thermal sensitivity models utilizing the available water temperature data collected for the SSN model with air temperature data. Here we predict areas of low thermal sensitivity will be less vulnerable to climate change, should stay cooler throughout the year providing ideal habitat for native salmonids at risk, and may be indicative of locations with high groundwater outputs. Development of these models, first at small scales and then ideally for the Eastern Slopes, will provide linkages with component 3 below. We expect the successful candidate to participate in regular meetings, take the lead role in modelling available data, present finding, and assist in developing manuscripts and other data products (e.g., maps and shape files).



3. **Integration of surface water and ground water models.** A large proportion of the funds for this project were secured under a successful Alberta Innovates grant led by Dr. Tricia Stadnyk at the University of Calgary. As a collaborator on the grant, fRI Research aims to integrate products developed within the WFP with those of the grant members related to identifying and quantifying groundwater presence and quantity in Alberta. We believe the surface water SSN models and thermal sensitivity models could aid in pin-pointing areas of high cold-water input (groundwater, snow melt, and glacial melt) that may inform other models being developed by the larger team. Here we would expect the successful candidate to participate in regular meetings, coordinate data sharing, support collaborative modelling efforts, present findings, and assist in developing manuscripts.

In Addition, the WFP also coordinates funds and support for:

4. The development of a new high resolution synthetic stream layer for the eastern slopes (Lead: Dr. Lee Benda, Terrain Works),
5. Southern Rockies Watershed Project (Lead: Dr. Uldis Silins, University of Alberta),
6. Development of Raven models to guide forest management in the eastern slopes (Co-Leads: Dr. Ryan MacDonald, MacHydro and Dr. Kim Green, Apex Geoscience Consultants Ltd.),
7. Assessment of industry road crossings on water temperature (Co-Leads: Dr. Ryan MacDonald and Dr. Dan Moore).

For more information on these projects please visit the [WFP's webpage](#). While these projects are not a central part of this individual's work responsibilities, we will support and encourage the leveraging of the projects data for incorporation into the three components listed prior.

Specifically, the role of the successful candidate will be to:

- Assist in managing budgets and subsequently submitting reports and publications for grants.
- Lead analysis of available data using SSN and thermal sensitivity models.
- Lead on publishing outputs of these datasets.
- Develop advanced integrative models to combine outputs from the various data sources as part of the Alberta Innovates grant.
- Attend and present at conferences and workshops related to fish and hydrology.
- Organize information sharing through infographics, publications, presentations, webinars and web-based tools.

This position is based in Hinton, Alberta. Remote work may be considered in extenuating circumstances.

Essential Job Qualifications and Experience

- PhD in Biology or related discipline with a minimum of 4 years of work related experience in the above described project types or MSc in a related topic of study with 8 years of experience in the topics above.
- > 5 primary publications with at least 4 as lead author in journals related to water and hydrology.



- Proficiency in ArcGIS, QGIS and other geospatial software.
- Modelling skillsets in R statistics.
- Modelling experience with SSN models.
- Ability to meet strict production deadlines.
- Ability to work with large datasets.
- Strong organizational skills.
- Proven problem-solving skills and ability for independent decision making.
- Proven ability to work well as part of small and large teams.
- Valid First Aid and CPR by start date.
- Canadian citizen, permanent resident or currently in possession of a valid open work permit for a duration of the 2-year contract.
- Possess a valid Class 5 Alberta driver's licence or other provincial/territorial equivalency, with a minimum of 3-years driving experience and can provide a current driver's abstract that meets the requirements of our insurance provider.
- Familiarity with modelling approaches and literature within the fields for the above research.

Desirable Job Qualifications and Experience

- Successful grant writing experience.
- Experience modelling data related to industry activity (e.g., forestry, oil and gas, mining).
- Fieldwork experience.

Position Details

Salary: \$85,000 – \$95,000, dependent on education and experience

Hours of work: 37.5 hrs/week

Duration: 2-year term (possible extension of the term based on performance and funding)

Start date: October 1, 2026 (negotiable)

Location: Hinton, Alberta

Benefits

- Flexible work schedule and hybrid work
- Extended Medical, Dental, Vision, Life, Short & Long-Term Disability coverage
- Parental leave top-up
- 3 weeks paid vacation per year to start
- Paid leaves including personal days, sick days, bereavement leave, and a volunteer day
- RRSP/TFSA program
- Health spending account
- Support for professional development
- Moving allowance up to \$3,000



Salary levels for this position will be dependent on education and experience. Candidates who do not meet all requirements but believe they would be a good fit for the job description above are encouraged to apply.

fRI Research is committed to a diverse, equitable and inclusive workplace. We encourage applications from persons who may have been marginalized in the past including Indigenous Peoples, visible minorities, women, persons with disabilities, sexual and gender minorities and newcomers to Canada.

To apply

Applications should include:

1. Complete [application form](#) (in place of a cover letter)
2. A copy of your resume

Applications should be sent as a single email to Risa Croken (rcroken@friresearch.ca) and Ben Kissinger (bkissinger@friresearch.ca) with the subject line: "Application – Water Scientist" and attached files named as "surname_firstname_filename".

Closing date: July 31, 2026

While we appreciate the interest of all candidates for this position, only candidates that are invited to interview will be contacted.

