fRI Research
Informing Land & Resource Management

# Employment Opportunity

# Water & Fish Program Junior Forest Hydrologist

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.

The successful candidate will be joining four staff in the Water and Fish Program led by Dr. Benjamin Kissinger. Find more information about fRI Research and the Water and Fish Program on our website.

## Job Description

The successful candidate will be part of a team conducting research on hydrology in Alberta. A large portion of this position will be focused on managing four large grants that fRI Research is coordinating with partners. These projects include:

### Modelling applications to guide forest management in the eastern slopes

The objective of this project is to develop a scientifically robust and easy-to-use web-hosted hydrological modelling application that can be used by foresters, forestry consultants, Watershed Planning and advisory councils and government planners. The resulting tool seeks to further one's understanding of the cumulative effects of proposed forest development and climate change on hydrological indicators of concern including the timing and magnitude of peak and low flows. This is led by Dr. Kim Green (Apex Geoscience Consultants Ltd./Selkirk College) and Dr. Ryan MacDonald (MacHydro).

### Assessment of forestry stream crossings effect on water temperature

This study uses detailed monitoring at relevant spatial and temporal scales to quantify the effects of stream crossings on stream thermal regimes. There is a near-term goal to understand the primary drivers and likely effects of stream crossings on temperature and a comprehensive study will be used to quantify stream crossing effects on temperature in the study area. This is being led by Dr. Ryan MacDonald (MacHydro) and Dr. Dan Moore (Professor Emeritus UBC).

## A definitive study of the impact of forest management practices and severe wildfires on water quality, water quantity and flow regimes, flooding and aquatic habitats.

This program builds on the Southern Rockies Watershed Project (SRWP) which is a globally unique watershed observatory. This comprehensive, award-winning study entails the measurement of coupled climatic/hydrological/water quality/aquatic health data on forests following severe natural disturbances (two major wildfires: 2003 Lost Creek and the 2017 Kenow Mtn. wildfires), the 2013 southern Alberta flood, and three alternate forest harvesting strategies (clear-cut with retention, shelterwood, and partial cut harvesting) in Alberta's upper Eastern slopes. This project is led by Dr. Uldis Silins at the University of Alberta.

## Development of a new stream layer for the eastern slopes using high density LiDAR

Here we are developing North America's most advanced stream network using high density LiDAR for much of the range of Alberta's threatened trout species in the eastern slopes, an area under active management by our Forest Resource Improvement Association of Alberta (FRIAA) partners. Using high density LiDAR we produce synthetic stream networks that also describe key features of the river scape that are important for foresters and fisheries managers, namely accurate predictions of stream location, width, gradient, and stream channel morphology. This project is led by Lee Benda and Dan Miller from Terrainworks.

The role of the successful candidate will be to:

- Managing budgets and submitting reports for these grants.
- Organizing workshops and engagement sessions with shareholders, partners, academics, and indigenous communities.
- Organizing information sharing through infographics, publications, webinars and web-based tools.
- Act as a conduit between fRI Research and project leads for information sharing and project updates.
- Act as a conduit for information sharing between fRI Research and project sponsors (West Fraser, Canfor, and Weyerhaeuser).
- Assist in field work on other fRI Research WFP projects (mainly linked to water temperature monitoring) or project partners listed above.
- Assist with planning and coordination of fieldwork activities related to hydrology projects.
- Position based in Hinton, Alberta.
- Assist in funding applications that support fRI Research WFP.



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## Essential job qualifications and experience

- A minimum of a BSc degree in a related discipline with a minimum of 4 years of related experience in the above described project types or MSc in a related topic of study with two year of experience in the topics above.
- Publication of a thesis or lead author on a primary publication.
- Strong public speaking skills.
- Experience with ArcGIS and spatial data.
- Experience with common hydrological equipment and datasets.
- Ability to meet strict production deadlines.
- 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.
- Experience writing reports and technical information.
- Experience analyzing hydrological data.
- Valid First Aid and CPR by start date.
- Canadian citizen, permanent resident or currently in possession of a valid work permit.
- 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.
- Grant management experience.
- Familiarity with the literature on the above project topics.

## Desirable job qualifications and experience

- 1 year field experience working in remote locations.
- Field experience in the Foothills or boreal forest, or in areas with active forestry, oil and gas, or mining activity.
- Grant writing experience.

### Employment Details

**Salary:** $62,000 – $85,000

**Hours of work:** 37.5 hrs/week

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

**Start date:** July 18th, 2025

**Location:** Hinton, Alberta

**Benefits:**

- Flexible work schedule and hybrid work when no fieldwork is conducted



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- 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
- 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. Filled out this application form (in place of a cover letter).
2. A copy of your resume.

Applications should be sent to Risa Croken, rcroken@friresearch.ca and Dr. Kissinger, bkissinger@friresearch.ca with the subject line: “Application – Hydrologist” and attached files named as “Hydrologist_surname_firstname_filename”. Any questions about the position can be directed to Dr. Kissinger.

This position will remain open until filled. Review of applications will begin on May 19th, 2025.

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