Manitoba Hydro
energy for life

EMPLOYMENT OPPORTUNITY

***Closing Date:*** 04.11.2024

# ECO-HYDRAULIC & PHYSICAL ENVIRONMENT ENGINEER (CIVIL)

# WINNIPEG, MB

Manitoba Hydro is consistently recognized as one of Manitoba's Top Employers!

***Great Benefits***

- Competitive salary and benefits package.
- Defined-benefit pension plan.
- Nine-day work cycle which normally results in every other Monday off, providing for a balanced approach to work, family life and community.
- Flex-time and partially remote work schedule (providing the option to work remotely 3 days per 2 week period), depending on nature of work, operational requirements and work location.

Manitoba Hydro is a leader among energy companies in North America, recognized for providing highly reliable service and exceptional customer satisfaction.  Join our team of Manitoba's best as we continue to build a company that supports innovation, commitment, and customer service, while actively supporting a diverse, equitable and inclusive workplace.

We are seeking an Eco-hydraulic & Physical Environment Engineer to work in Water Resources Department. Under the general direction of the Environmental Engineering & Geospatial Technology Services Section Head, you will be responsible for planning, coordinating, and performing hydrotechnical studies related to eco-hydraulics and physical environment processes. These responsibilities connect physical processes in aquatic and semiaquatic ecosystems with biological functions, as it relates to the development of new hydropower facilities, asset management (rehabilitation), renewal/maintenance of existing licenses (Water Power Act, Fisheries Act, etc.), and for the operation flexibility of existing facilities.

***Responsibilities:***

- Apply, develop, and maintain of state-of-the-art complex numerical/physical hydraulic/hydrological models (e.g., HEC-RAS, MIKE, Advanced Instream Flow Needs models, etc.) to solve and analyze eco-hydraulics and geomorphic fluvial processes, in liaison with aquatic ecology experts.
- Lead and/or assist in the analysis, design, construction, and monitoring of fish passage and stream crossing structures.
- Support and/or manage interactions with external consultants and other Manitoba Hydro divisions and departments on projects involving eco-hydraulics and physical environment studies.
- Conduct complex studies of eco-hydraulics and geomorphological engineering including sediment transport, water quality, and shoreline erosion process as required for future generation studies, the operation of reservoirs and mitigation measures.
- Support Manitoba Hydro's external engagement process as it relates to stakeholder concerns and reconciliation efforts in areas and on projects with eco-hydraulics, physical environment, and environmental engineering considerations.
- Support the Coordinated Aquatic Monitoring Program (CAMP) on system wide monitoring, its development of physical environment and shoreline monitoring programs, and development of regional monitoring committees.
- Maintain technical competency and awareness of new developments and applications in the hydrotechnical field and incorporate this knowledge in the day-to-day activities.
- Assist senior water resource engineers in identifying hydrotechnical data collection needs, field experiments, laboratory experiments in hydraulic flumes, and numerical simulations and modeling of aquatic ecosystem processes.
- Lead and/or assist in the planning and execution of monitoring to support eco-hydraulic and/or physical environment studies and analyses, meet regulatory commitments, and the adaptive management of mitigation and offsetting measures.
- Provide assistance and/or line advocacy for Corporate R&D projects, to develop practical solutions to fisheries related issues through research, data collection, and information management sponsored by Manitoba Hydro.

***Qualifications:***

- Graduate in Civil/Environmental Engineering from a university of recognized standing with a minimum of six years of progressive related engineering experience.
- A Graduate studies degree (M.Sc./Ph.D.) or recognized post-graduate level training in water resource engineering is an asset.
- Professional member in good standing with Engineers Geoscientists Manitoba (or willingness and ability to attain within a

specified amount of time).
- Must become familiar with, and be capable of operating computational hydraulic, hydrometric, and statistical computer models.
- Advanced computer aptitude, which includes knowledge of application software, water data/information management, programming languages and operating systems, and Microsoft software.
- Sound working knowledge and familiarity with GIS on water resources applications is an asset.
- Experience designing, implementing, and/or conducting field monitoring programs is an asset.
- Able to handle complex technical problems with minimal supervision.
- Willingness to travel as required.
- Possess and maintain a valid Province of Manitoba Driver's Licence, with appropriate class.

### *Salary Range*

Starting salary will be commensurate with qualifications and experience. The range for the classification is $46.06-$63.58 Hourly, $88,251.02–$121,841.46 Annually.

### *Apply Now!*

Visit www.hydro.mb.ca/careers to learn more about this position and to apply online.
The deadline for applications is **NOVEMBER 4, 2024.**

We thank you for your interest and will contact you if you are selected for an interview.

***This document is available in accessible formats upon request. Please let us know if you require any accommodations during the recruitment process.***
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