

2021 Early Achievement Award

Jacqueline MacLennan, P.Eng.



Jacqueline MacLennan completed her BSc in Civil Engineering from the University of Manitoba in 2014. She started working as a geotechnical intern (EIT) at KGS Group immediately after graduation, achieved her full professional engineer designation (P.Eng.) in 2018, and has continued to work as a geotechnical engineer since. While working full-time at KGS Group, she also completed a master's of business administration degree at the University of Manitoba in 2021.

Jacqueline is passionate about dams and has focussed most of her career on ensuring dam safety of ageing infrastructures in seven provinces across Canada. Her work involved advanced site investigation and assessment techniques to address seepage, stability, and settlement problems. This work involved coupled seepage and slope stability modelling using GeoStudio software, natural earthquake analyses, and induced seismicity due to hydraulic fracturing. Her work extended to three dams across Manitoba, 11 dams across Saskatchewan, 11 dams across Alberta, 15 dams across Ontario, and at least one dam each in Quebec, British Columbia, and Yukon. Some of her noteworthy projects as a design engineer include the PTH59/101 interchange design and construction, Canada Diversity Gardens at Assiniboine Park, Lake St. Martin channel design project, Cockburn and Calrossie sewer project, Qu'Appelle River Slope stability project in Lumsden, Saskatchewan, and Bruce Oak Addiction Recovery Centre foundation investigation and design.

Jacqueline has also been involved in various other geotechnical projects involving foundation investigations and design, erosion protection works, geotechnical services for municipal infrastructures, and flood control and water resources projects in both Winnipeg and parts of Saskatchewan. She is an active member of the Canadian Dam Association and has presented a paper titled, "Systematic Approach to Selecting Geotechnical Instrumentation Data Management System for Dam Owners" in 2017.

Jacqueline is an active member of Engineers Geoscientists Manitoba's Women in Engineering and Geoscience Mentorship initiative and is currently mentoring three engineering students and interns. She has volunteered at the Manitoba Robot Games annual competition, promoting engineering and robotics to students from grades 1 to 12. She is also active in several community service organizations like Big Brothers and Big Sisters Winnipeg and Habitat for Humanity.

In recognition of exceptional achievement at the early part of their career, Engineers Geoscientists Manitoba is pleased to present the 2021 Early Achievement Award to Jacqueline MacLennan, P.Eng.