



WATER RESOURCES

Drinking Water Protection

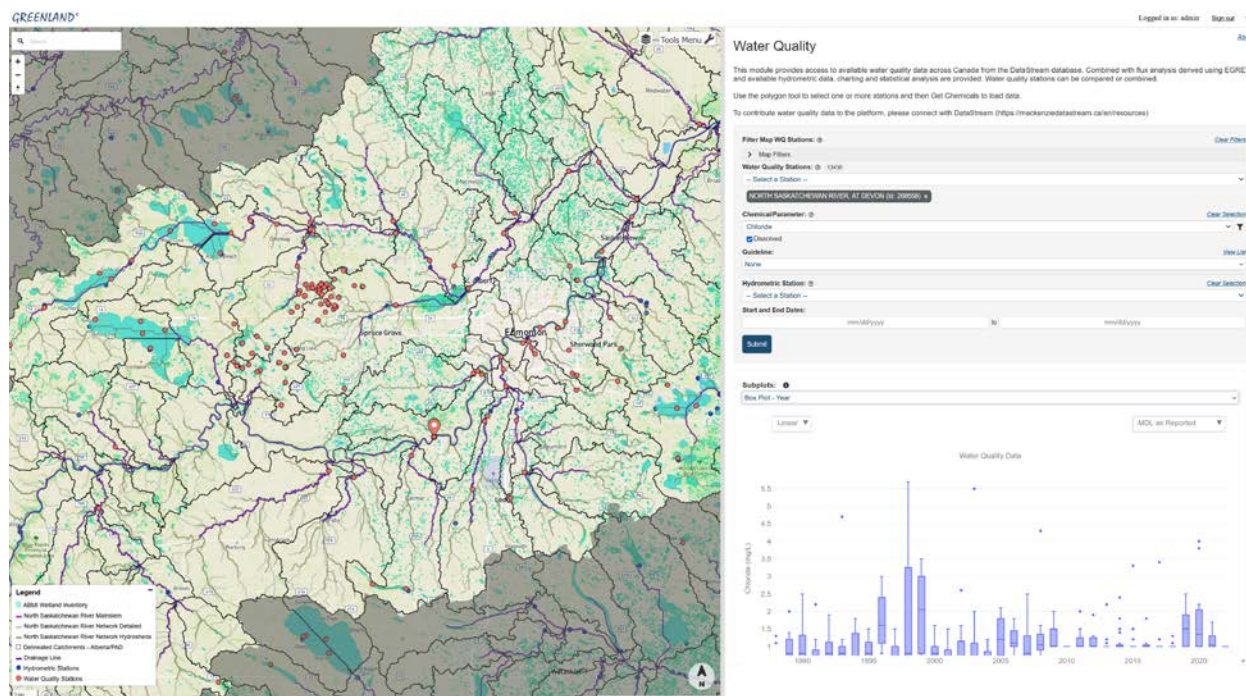


Web-Based Source Water Protection Assessment Tool

Client: Alberta Water Council (AWC)

Location: Province of Alberta (Canada)

Project Timeline: On-going



Greenland Consulting Engineers (GREENLAND®) was retained initially by Alberta Water Council (AWC) **in 2022** to provide a state-of-the-art web-based Source Water Protection (SWP) assessment tool in support of AWC's 'Guide to Source Water Protection Planning'. AWC is an umbrella organization and includes governments, industry and non-governmental organizations.

GREENLAND® built features and relevant dataset layers into its available **The Healthy Rivers Ecosystem Assessment System (THREATS™)**. THREATS™ is a secure, client-facing, cloud-based platform employing a web interface, and is built and maintained by GREENLAND®. This specialized, real-time technology includes (and only a few of many more) a water quality module, delineate and flow trace feature, spatial analysis, remote sensing functionality, hydrometric and groundwater analysis modules and climate parameters and change analysis for SWP.

In 2024, GREENLAND® finalized the web-based assessment tool user guide and presented interactive tutorials to AWC's stakeholder groups in September 2024. This launch of the public facing SWP tool has also now improved the public's decision-making and risk assessment tool's use to protect drinking water into the future.

In 2025, more machine learning enhancements were successfully completed at the request of the AWC – SWP team and in response to all feedback from the 2024 stakeholder consultations. **In 2026**, further platform functionality were also initiated as part-of a new "Model Keeper" contract.