Water Quality & Aquatic Ecology



Trinity Consultants Canada is a leading environmental consultancy that brings together trusted advisors, scientists and engineers to help clients solve their most complex challenges. With deep local roots and the strength of a global organization, Trinity Consultants Canada delivers innovative, scientifically sound and future-ready solutions that help industry, government and Indigenous Communities navigate complex regulatory landscapes, secure project permits and approvals to achieve better environmental outcomes. They are internationally respected leaders with decades of proven expertise in Water & Ecology, Environmental Health and Safety (EHS), Built Environment and Life Sciences.

Our Water & Ecology teams are recognized leaders in environmental assessment, permitting and monitoring, offering key services to sectors including renewables, mining, ports and terminals, marine shipping, linear development, liquefied natural gas (LNG), ecological restoration, municipal wastewater, energy, and forestry.

Our Expertise

Trinity Water & Ecology has a broad range of expertise in disciplines relating to Water Quality & Aquatic Ecology, including water chemistry, fisheries science, aquatic invertebrates, water temperature, sediment geochemistry, ecotoxicology, freshwater restoration, wetland science, plankton/periphyton ecology, and aquatic ecosystem modelling. We provide integrated services to clients by collaborating across disciplines, including with experts in fisheries science and water resources engineering. In the field, we have extensive experience collecting high quality data in challenging environments, from alpine lakes to large dynamic rivers. Our field experience includes fish community assessment, deploying in situ sensors, collecting water/sediment/ macroinvertebrate/plankton/periphyton samples following best practice guidelines, tissue chemistry studies, working with accredited laboratories to meet quality assurance requirements, training partner organizations in field activities, and developing novel sampling techniques to meet specific project needs.

In the office, our team is highly proficient in study design, statistical analysis, modelling, and preparing a range of deliverables, including compliance reports, environmental assessments, scientific manuscripts, aquatic environmental monitoring plans, technical reports, and data systems that link remote sensors with data management software to efficiently screen and report water quality data in real-time.

Our Services

- Water/sediment quality monitoring
- Fish community assessment
- Macroinvertebrate/plankton/periphyton sampling
- Water temperature monitoring
- Aquatic restoration and offsetting
- Ecotoxicological studies
- Water quality and aquatic ecosystem modelling
- Compliance monitoring and reporting
- Automated data collection/management systems
- Automated screening of water and sediment quality data against customizable criteria
- Expert witness testimony
- Methylmercury bioaccumulation monitoring
- Environmental DNA studies
- Aquatic environmental assessments
- Environmental training
- Aquatic ecological surveys
- Designing measures to mitigate water quality impacts
- Developing aquatic monitoring guidelines
- Invasive species risk assessments
- Food web studies
- Wetland mapping and surveys
- Total dissolved gas risk assessments
- Working with Indigenous groups and provincial and federal regulators
- Developing Site-Specific Water Quality Objectives
- Riparian and aquatic habitat assessments

CONTACT OUR TEAM!

For more information about how we can help your organization, please contact us.

Trinity Consultants Canada | Water & Ecology bd.wecanada@trinityconsultants.com

SCAN THE OR CODE TO LEARN MORE

