

Impact Assessment and Toxicology



CANADA

Trinity Consultants is a leading global environmental consulting firm with 50 years of experience providing services and solutions in the Water & Ecology, EHS Regulatory Compliance, Built Environment, and Life Sciences markets. Trinity has the technical expertise, industry depth, and specialized capabilities to help clients achieve their goals across natural and built environments.

Trinity Consultants' Water & Ecology teams, Ecofish Research and Minnow Environmental, are recognized leaders in environmental assessment, permitting and monitoring offering key services to industry, all levels of government, not-for-profit organizations, and First Nations. Our teams have extensive experience gained from thousands of successful project engagements and a unique perspective gained by writing environmental guidelines on behalf of government. We provide proven complex problem-solving expertise 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 Consultants Water & Ecology provides expertise in the design and implementation of aquatic toxicity and supporting studies that consider applicable guidelines, policies, and client-specific and industry-specific permitting requirements to ensure accurate and clearly communicated assessments. Our aquatic toxicologists are experts in evaluating contaminant-specific effects on aquatic algae, invertebrates, fish, amphibians, and birds. We draw on experience in specialized fields of ecotoxicology and water quality modelling to evaluate the potential for project-related influences on biota.

The bioavailability (and therefore toxicity) of compounds can be substantially modified by site-specific physical, chemical, and biological factors (e.g., chemical complexation and competition, specific biota sensitivities). Our expertise includes knowledge of these modifying factors and their complex interactions, and the design of bioavailability/toxicity evaluations that provide multiple lines of evidence to efficiently support a site-specific assessment of the actual or potential for adverse effects in the aquatic environment. Our



Impact Assessment and Toxicology specialists also provide expertise in the characterization of overall impacts to aquatic ecosystems in response to stressors, both small and large-scale. Our experience with aquatic impact assessment includes both planning and implementing immediate post-impact responses as well as managing ongoing monitoring programs that assess temporal changes.

Our Services

- ▶ Effluent and receiving water toxicity evaluations
- ▶ Sediment toxicity evaluations
- ▶ Sediment chemistry and geochemistry evaluations
- ▶ Site-specific water quality objective development
- ▶ Organism-specific toxicity evaluations
- ▶ Ecological risk assessment for aquatic biota
- ▶ Assimilative capacity / impact assessment studies
- ▶ Receiving water-based effluent limit development
- ▶ Tissue chemistry evaluations
- ▶ Permit applications for water use, consumption, and waste discharge

For more information about our services, contact us today!

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