

## Project Profile

<b>Project Name:</b>	Cumulative Effects on Stream Health and Riparian Function
<b>Project Number:</b>	ER-Water-2020-01
<b>Proponent:</b>	Integra Forest Consulting Ltd.
<b>Funding Envelope:</b>	Environmental Research—Water
<b>Timeframe:</b>	August 1, 2019, to December 31, 2019

### Project objectives

The objective of this project is to document stream health indicator data at strategic sample locations across selected high risk water management basins in Northeast B.C.

This project links to the BC Government’s Scientific Review of Hydraulic Fracturing in B.C. (February 2019)

- Section 3.2.5 Recommendations (Baseline Water Quality Data)—development of methods for quantifying cumulative effects of resource development and land use change on water quantity and quality.

### Project description

This project comprises strategic field-data collection activities in selected watersheds using the BC Forest and Range Evaluation Program (FREP) Riparian Protocol. The findings will be used as a science-based field methodology to validate the riparian risk ratings of the Area-based Analysis desktop tool used in managing land disturbance and associated potential cumulative impacts to riparian reserve zones in Northeast B.C.

### Project approach

The project will capture stream health data using the FREP protocol at approximately 40 sample locations in select high-risk water management basins in Northeast B.C. In each watershed, approximately 5 sets of paired locations will be identified using GIS analysis to select locations based on accessibility, spatial distribution, industrial activity, land disturbance and stream class. A control paired sample location will also be identified for each watershed.

### Project deliverables

The deliverables from this project include the following:

1. Final Report summarizing the approach, findings and implications.
2. FREP system—loaded with data collected in project.