

## ENGINEERING AND OPERATIONS

**Report:** 18. Peace River Site C Hydro Project - Reservoir Shoreline Impacts: Methodology and Criteria

**Prepared by:** Klohn Crippen Berger Ltd.  
SNC-Lavalin Inc.

**Summary:** The purpose of this report is to propose definitions of the reservoir impact lines that will be used to predict the impacts of the Site C reservoir and the methodology and criteria that will be used to establish these lines.

During Stage 2, the following reservoir impact lines were established: Flooding Impact Line, Stability Impact Line, Erosion Impact Line, Groundwater Impact Line, and Land, slope stability, wave erosion, groundwater, and slide-generated waves.

The main objectives of the new impact line approach are to:

- Use international best practice to define the different shoreline processes and provide estimates of the impacts of the reservoir, including time-dependent processes such as erosion.
- Allow flexibility for land use adjacent to the reservoir, such as allowing grazing in areas that would not be suitable for residential use.

The reservoir impact lines are still under development and will not be published until a subsequent stage of the project. Should the project move forward, the impact lines would be revised using the results of slope monitoring, additional regional geological investigations, wind data in the valley and, where appropriate, site-specific investigations such as drilling and trenching.