



## TECHNICAL MEMORANDUM

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TO: Pacific Northern Gas Ltd.

FROM: Khtada Environmental Services LP

DATE: February 9, 2021

FILE#/NAME: WPT-5563

RE: PNG Reactivate Capacity Project – Revised 4B North Route

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This technical memorandum is being submitted in relation to the *Environmental Constraints Analysis and Cost Estimate* (document reference: WPT-4971) produced by Khtada Environmental Services LP (Khtada) in April of 2018 for the Prince Rupert Capacity Study (PRCS).

Pacific Northern Gas Ltd. (PNG) has undergone a route refinement of their proposed 4B North Route in the Prince Rupert area, and as such the scope of interacting environmental features and potential constraints has changed. This memo provides a high-level account of the key changes that the 4B route refinement has on the PRCS, and those changes are summarized below:

- The number of proposed stream crossings will be reduced from 13 to 5. Three of these crossings have been documented as fish-bearing as the estimated gradients from the trim map are <20 %. The remaining two watercourses are also likely to be fish bearing. The number of documented watercourse crossings assumes the route will end at the north-east boundary of the current Metlakatla development and may change depending on the specific terminus of PNG's 4B North Route.
- Undocumented stream and potential amphibian habitat may exist within the proposed route which could not be identified in the desktop study review. It is likely that these unmapped streams exist, especially in the Prince Rupert area, but these would be captured during a future Environmental Assessment.
- Constraints associated with the presence of rare plants, ecosystems and high priority wildlife remain low and consistent with initial constraints in the PRCS given the route will still follow an existing ROW.
- Connection to the existing pipeline at the Ridley Island Road and Hwy 16 intersection will eliminate the constraints associated with the Galloway Rapids crossing and avoid interactions with marine species and species at risk.
- The change will result in a reduction of the proposed route from ~11 Km to ~2.6 Km.

- Permitting for the revised route would remove the requirement for submission to Transport Canada under the *Canadian Navigable Waters Act* (with the removal of the Galloway Rapids crossing).
- Permitting for the revised route would remove a review trigger by Fisheries and Oceans Canada (DFO) associated with the removal of the crossing at Galloway Rapids. However, the review screening requirements as it relates to the *Fisheries Act* remain unchanged regarding other stream crossings and interface with freshwater aquatic habitat.

The limitations described in the PRCS apply to the statements in this document, and the judgements presented herein rely on desktop-based information provided by PNG or third-party sources which has not been field-verified. It is expected that following detailed environmental assessment, specific scoping of effects to environmental resources can be performed. This document has been prepared in accordance with acceptable professional practices and we trust this document meets the requirements by applicable regulatory agencies.

Sincerely,

**Khtada Environmental Services LP**

A handwritten signature in black ink, appearing to read 'K. Doddridge', with a long horizontal flourish extending to the right.

Kevin Doddridge, B.Sc., R.P.Bio.  
Project Manager