

PEHDZEH KI FIRST NATION QUESTIONS TO GNWT – INFRASTRUCTURE RE ROAD DESIGN AND ROUTING

PKFN undertook to provide some questions in writing to the GNWT because there was not time to pose them all during today’s technical sessions. Here are those questions.

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1. QUESTION: Project objective prevents meaningful route comparison, meaningful consultation, and meaningful accommodation

In Section 7.2.3.3, the developer states: “The GNWT’s preferred route is the Project Route, as it is the only route that makes use of all existing bridges constructed by the GNWT and meets the objective of following the MVWR as closely as possible.”

Why does the GNWT not use the objective “to build an all-weather road with the least environmental impact possible”?

Why does the GNWT not use the objective “to build an all-weather road with the least impact possible on Aboriginal and Treaty rights”?

2. QUESTION: Earlier alignment studies

At section 5.2.1, the developer states that the project highway route has been informed by previous routing studies completed by Public Works Canada in the 1970s.

PKFN requests that the developer provide these studies and show the alignments that were studied.

3. QUESTION: Proposed route does not meet archaeological and heritage criteria

At section 5.2.2, the developer states that the highway must avoid known archaeological and heritage resources “where practicable”.

How is this possible when the design criteria require the alignment to use the bridges which were installed in areas of archeological and heritage use?

4. QUESTION: Proposed route does not meet criteria re sensitive terrain

At section 5.2.2 the developer states that the highway must avoid known and potential ice-rich and unstable terrain where practicable.

How does the route achieve avoiding this kind of sensitive terrain when the chosen alignment travels through the highest concentration of permafrost in the Mackenzie valley, in the low areas close to the water source?

5. QUESTION: Proposed route does not meet criteria to avoid wetlands

At section 5.2.2, the developer states that the highway must avoid areas of wetlands, “to the extent possible.”

How is this achieved when the chosen alignment travels through the highest concentration of low wetlands in the Mackenzie Valley, close to the water source? This includes several existing bridge crossings that are constructed close to important wetlands.

6. QUESTION: Proposed route does not meet criteria to optimize natural topography to reduce material requirements

At section 5.2.2, the developer states that the highway must optimize the use of natural topography to reduce material requirements.

How is this achieved when the chosen alignment follows low lying terrain and so requires a fill only design? Fill only design requires frequent access to borrow sources for material. A different alignment would make it possible to use a cut and fill design. A cut and fill design would reduce material requirements and borrow sources needed.

7. QUESTION: Proposed route does not meet criteria to optimize natural topography to reduce material requirements

At section 5.2.2, the developer states that the highway must maintain cost-effectiveness in construction, operations, and maintenance.

It is useful to compare the costs of maintenance and the costs to control sediment and erosion after construction of the Yellowknife to Frank Channel highway, and the Edzo to Fort Providence highway. The YK-Frank Channel section was constructed over low-laying topography, permafrost and frost susceptible soils and the section south of Edzo was constructed over higher ground with less permafrost, better drainage which is similar to the route the Enbridge pipeline selected. The comparison is direct.

Has the developer made this comparison? If so, please share the results. If not, why not? Has this information incorporated this data into the DAR? If so, how and where?

8. QUESTION: A route on higher ground would reduce climate impacts

In section 5.2.2, Table 5.1, page 5-12, the developer states that climate change and sustainability issues are to be identified and addressed in the design report.

The largest concern of this project to climate change is permafrost degradation, ice lens melting, and sediment and erosion concerns.

Why is the design not considering alternate alignments where these concerns are reduced by selecting routes with less permafrost and less run off, which are on higher ground?

9. QUESTION: Highway footprint must take areas of importance into consideration

At section 5.2.2, the developer states that the project must reduce the footprint through areas of traditional, cultural, and ecological importance.

PKFN has consistently informed the developer that the proposed route goes directly through areas of high traditional, cultural and ecological importance, and that alternative routes to the east would travel through areas of less significance. GNWT has consistently disregarded this information.

What consideration was given to other alignments travelling through areas of lower importance?

10. QUESTION: Missing assessment of overflow and washout risks to allow route comparisons

In section 5.2.3, Table 5.2, “Summary of Consideration of Engagement Input on Design” there are numerous requests to consider the impacts of overflow and washouts along the winter road alignment.

What has been done to assess if this concern is reduced or eliminated on an alignment at a higher elevation or a different route?

11. QUESTION: Proposed route fails to limit interactions between public and construction

In section 5.4.6, the developer states that the road may be constructed year-round, with embankment (the coarsest material placed at the base) generally placed in winter, and the sub-base and base course (upper layers) placed and compacted in summer.

The DAR talks about the benefit of the all-season road following the winter road to support the project access and streamlining the work. Generally, road work is completed attempting to separate public access from construction activities. However, the winter

road alignment forces interaction with the public. Even more, the plan is to also to execute the largest volume of material movement in the winter when the winter road is being accessed by the public. The project is forcing the interaction of public with the construction fleet during the busiest time. An alternate route would allow the majority of the work to be completed in the summer months, with limited interaction with the public.

How has the developer compared options to separate the public from construction work? If this has not been done, why not?

12. QUESTION: Only the developer decides what is “practical”

In section 5.2.3, Table 5.2, “Summary of Consideration of Engagement Input on Design”, the developer states that “The GNWT is committed to ongoing engagement with Indigenous Governments, Indigenous Organizations, and other affected parties during advancement of project design and planning.” The phrase “if practical”, like “reasonable” is used many times in the DAR, including when referring to whether it will use information such as Indigenous knowledge.

Who decides what is practical? How?

13. QUESTION: Winter road(s) and comparing construction costs for different routes

In Section 7.1.3.2.2, the developer states: “The Inland Route Alternative will require the construction of a winter road each season to support construction, leading to increased construction costs.”

Can the Developer provide a quantitative estimate comparing winter road construction costs between the MVWR Project Route and the Inland Route Alternative?

And, why would the Inland Route Alternative require a winter road at all, if it were to be incrementally constructed between Wrigley and the Sahtu border?

14. QUESTION: Quantitative cost analysis to allow comparison of different routes

In Section 7.1.3.2.2, the developer states: “The Inland Route Alternative, however, may require fewer new culverts compared to the Project Route because the water courses to be crossed at the inland route location may be better defined, owing to the upland terrain location. A comparison of cost, however, is not possible without a more detailed route evaluation.”

Why did the developer not provide any kind of quantitative cost comparison between the Project Route and the Inland Route Alternative when the Terms of Reference state on pages 12-13: “The developer will identify and describe the alternative routes considered for the development including:

- A description of each alternative considered, how or why they are not environmentally, technically and/or economically feasible, and the rationale for rejecting any alternatives that are excluded from further assessment” [emphasis added]?

15. QUESTION: Information needed to compare environmental savings

The last question referred to the developer’s statement that fewer new culverts may be needed for an inland route.

At section 5.4.7.1, the developer estimates that the winter road route will need 85 large culverts, meaning culverts that are 1.5 metres in diameter or larger. It is likely that all the small diameter culverts will also need replacement.

The DAR talks about the benefit of using the existing winter road because uses existing culverts and water crossings, which has an environmental savings to the overall project.

There has not been any study of the number and size of culverts that would be needed on a route at a higher elevation with less run-off.

What is the developer’s evidence that there are environmental savings regarding culverts on the winter road compared to any other alignment?

16. QUESTION: Quantitative assessment of wetland habitats to allow route comparisons

In Section 7.2.3.2.3, the developer states: “An inland route will avoid some of the wetlands and habitats associated with wetlands used by wildlife species, such as waterbirds and moose. An inland route will encroach further into the annual range of boreal caribou and result in more direct and indirect habitat loss compared to the Project Route, as it will not follow the existing cleared ROW of the MVWR.”

PKFN has consistently expressed concerns to the developer regarding the proposed route’s proximity to key moose habitat.

On pages 12-13, the Terms of Reference state: “The developer will provide some level of environmental assessment of the alternative routes to substantiate their inclusion as viable alternatives, even if they are not being considered as the developer’s preferred route.”

Can the developer provide a quantitative assessment of the impacts of the Project Route on wetlands and habitats used by waterbirds and moose compared to the impacts on the annual range of boreal caribou from the Inland Route Alternative?

17. QUESTION: Quantitative assessment of water sources to allow route comparisons

In Section 7.2.3.2.3, the developer states: “A limiting factor for the inland route is the availability of water sources needed for construction and operations and maintenance. Related to this, due to the need to construct new crossings over major watercourses, there will be additional short to medium-term effects on water resources during construction of these structures.”

The winter road route also has challenging requirements for water. In section 5.4.6.1, the developer states that in winter, portions of the winter road will be used as a travel lane for moving equipment working to construct new embankment within the shared right of way of the winter road and the all-season road. Where the project right of way departs from the winter road, a winter travel lane may be constructed for the Project alongside the embankment to facilitate movement of equipment. Water for constructing the project winter travel lane, where needed, will be sourced from the Mackenzie River and other sources as authorized for water withdrawal.

So, the plan to build along the winter road has the same problem with access to water only in the winter. The developer expects to haul the water from the Mackenzie River.

Can the developer provide a quantitative assessment of the availability of water sources needed for construction and maintenance of the Inland Route Alternative compared to the Project Route?

18. QUESTION: Quantitative assessment of watercrossing requirements to allow route comparison

Can the developer provide a quantitative assessment of the need to construct new crossings of watercourses in the Inland Route Alternative compared to the Project Route?

19. QUESTION: Quantitative assessment of access roads to quarry sources to allow route comparison

In section 7.2.3.2.3, the developer states: “Generally, there may be fewer effects associated with constructing new access roads to quarry sources for the inland route alternative as there are likely to be more suitable material sources available closer to the route than the Project Route.”

Can the developer provide a quantitative assessment of effects of constructing access roads to quarry sources for the Inland Route Alternative compared to the Project Route?

20. QUESTION: Meaningful comparison of winter road right of way and any alternative right of way, and their impacts

In Section 7.2.3.3, the developer states: “Following existing cleared ROW [right of way] to limit new clearing is preferred to clearing new ROW [right of way]. This is a key mitigation measure for reducing effects of the Project on wildlife, including caribou and moose.”

How can the developer come to this conclusion when they have not provided a quantitative assessment of the impacts of the Project Route on wetlands and habitats used by waterbirds and moose compared to the impacts on the annual range of boreal caribou from the Inland Route Alternative as discussed in Section 7.2.3.2.3?

Further, most the inland alignment is alpine and has no clearing required. The winter road route is in the tree line and requires more clearing.

How has the developer compared tree clearing requirements and their impacts?

21. QUESTION: Wetland habitats and road drainage

At section 7.2.3.2.1, the developer states: “The Inland Route Alternative is situated at higher elevation along its length, on the long westward-facing slope of the Franklin Range. As such, the inland route generally has good drainage and avoids many of the lakes and wetlands located closer to the Mackenzie River (Deh Cho), which are present along the Project Route.”

In the design criteria in section 5, the developer states that the highway “will avoid wetlands to the extent possible.”

PKFN has repeatedly the developer about wetland habitats and drainage problems along the winter route, with specific examples.

Also, at section 7.2.3.2.2, the developer states that: “The inland route alternative, however, may require fewer new culverts compared to the project route because the watercourses to be crossed at the inland route location may be better defined, owing to the upland terrain location.” This is stating that the upland alternate route has better drainage which will result in less numbers and less severe water crossings.

So, technical comments in the DAR note that an alternate route has good drainage, fewer and less severe water crossings, and avoids many lakes and wetlands.

Why have higher elevation alternatives not been considered?

22. QUESTION: Lack of meaningful commitments or accommodations to mitigate route impacts

On page 11-115, “Assessment of Potential Effects on Culture and Traditional Land Use, Including Harvesting”, the developer lists the following recommendation from PKFN:

“Relocation of the project alignment 5 km inland (outside of the 5 km protection corridor) to increase distance from the Mackenzie River, and avoiding disturbing numerous traditional land use areas, traditional activities sites, and natural resources harvesting along the river (based on feedback provided on the optimized alignment of the Project proposed by Pehdzéh Kǫ First Nation) (Dessau, 2012 [PR#13]).”

The developer responded with the following commitment:

“The project highway alignment route follows the MVWR as much as possible and ties into existing bridges at Ochre River, White Sand Creek, Strawberry Creek (culvert), Vermillion Creek South, Bob’s Canyon Creek, Dam Creek, and Blackwater Creek. The GNWT is not proposing to relocate existing bridges. The GNWT is committed to ongoing engagement with Indigenous Governments, Indigenous Organizations, and other affected parties, such as renewable resources councils, during advancement of project design and planning.”

Why has the developer not accommodated any of PKFN’s concerns with, for example, the following potential commitments:

- Thorough evaluation of Alternative Inland Route and quantitative assessment comparing of technical, economic, and environmental aspects of Alternative Inland Route with Project Route
- Relocating the MVWR alignment beyond the 1 km corridor to avoid sensitive cultural and traditional land use sites?

23. QUESTION: Cumulative effects of the winter road and bridges

Table 26.2 sets out the projects that were considered in the cumulative effects assessment. The table includes Activity 6: the Mackenzie Valley Highway from the Alberta border to Wrigley, and Activity 7: the winter road from about km 794 to km 1093.

Where in the table is the winter road from Wrigley to km 794?