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April 15, 2021

**VIA BCUC e-filing**

British Columbia Utilities Commission  
Suite 410, 900 Howe Street  
Vancouver, BC  
V6Z 2N3

**Attention: Patrick Wruck, Commission  
Secretary**

Dear Mr. Wruck:

**Re: FortisBC Energy Inc. (FEI)  
Project No. 1599152  
Application for Approval of a Certificate of Public Convenience and Necessity (CPCN) for  
the Okanagan Capacity Upgrade Project (OCU Project)**

Further to the British Columbia Utilities Commission's ("BCUC") Order of No. G-97-21, please find enclosed Information Request No. 1 on behalf of Penticton Indian Band ("PIB") for filing. We thank the BCUC for the extension of time granted. We look forward to receiving FEI's responses on May 13, 2021.

With respect to further process, we anticipate likely needing at least one additional round of information responses further to FEI's responses. We will also be submitting requests to review the confidential information requests and responses from the BCUC to FEI and possibly other interveners.

With respect to the hearing process, PIB anticipates seeking opportunities to file its own written evidence; potentially the need for cross-examination of FEI; potentially presenting indigenous knowledge and use and occupancy evidence through oral testimony and presenting final argument. We ask for an opportunity to provide input on the timing of such process once we have a chance to review FEI's responses to PIB's Information Request No. 1.

We can also advise that PIB intends to submit a Participant Assistance Cost Award form. We submit that it is most appropriate to wait to submit such form once we have had a chance to review FEI's responses to PIB's Information Request No. 1 for an assessment of likely costs. We ask that the commission confirm the timing of this PACA form submission.

Thank you for the consideration.

Yours truly,

MANDELL PINDER LLP

A handwritten signature in blue ink, appearing to read "T. Razzaghi".

Tarlan Razzaghi

TR/ea

cc: Diane Roy <gas.regulatory.affairs@fortisbc.com>

REQUESTOR NAME: **Penticton Indian Band**

INFORMATION REQUEST ROUND NO: **1**

TO: **FortisBC Energy Inc.**

DATE: **April 15, 2021**

PROJECT NO: **1599152**

APPLICATION NAME: **FortisBC Energy Inc. (FEI) - Application for a Certificate of Public Convenience and Necessity (CPCN) for the Okanagan Capacity Upgrade Project**

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**1.0 Topic: Gas Demand**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application; pdf pg. 29**

*Section 3.3 - Peak Demand is Expected to Increase Resulting in Capacity Shortfall*

**QUESTION 1:** Please provide the information that FEI bases its statements about past and forecasted population growth in section 3.3, including any spreadsheets produced or relied upon.

**QUESTION 2:** Please provide the assumptions FEI is making with respect to future building construction over the course of the Project's lifespan.

**QUESTION 3:** Please provide the assumptions FEI is making with respect to future coldest weather events.

**2.0 Topic: Gas Demand**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 31**

*In simple terms, current peak demand is determined by extrapolating the observed variation of existing customers' daily consumption versus temperature to the region's system design temperature.*

**QUESTION 1:** How has FEI accounted for climate change in its demand forecasting over the Project's lifespan?

**QUESTION 2:** How has FEI accounted for government climate policy, such as changes to building codes, subsidies for heat pumps, carbon pricing, or other policy that may have a substantial effect on gas demand?

**3.0 Topic: Project Economic Impacts**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg.84**

*The Project is expected to result in an overall positive impact to residents and businesses through the creation of additional employment, the procurement of local materials, and the use of local services, such as lodging and dining. Further, the Project will benefit the*

*Okanagan region, by helping to meet long-term capacity requirements for a reliable and safe gas system, as population is forecast to increase for the next 20-year period as described in Section 3.3 of the Application.*

**QUESTION 1:** Please provide the analysis undertaken by FEI to make this conclusion, and the data and assumptions relied upon.

**QUESTION 2:** How have the impacts to Penticton Indian Band been taken into account in this analysis of economic impacts?

**4.0 Topic: Project Economic Impacts**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 84**

*Throughout the Project, FEI will endeavor to track the following: Project investment in local Indigenous communities, Project investment in municipalities/regional districts, local employment opportunities, and other community investment activities.*

**QUESTION 1:** What does “endeavour” mean, in this context, and what will FEI do in the course of “endeavouring” to track investment and employment?

**5.0 Topic: Project Economic Impacts**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg.119-120**

*FEI is committed to building strong working relationships with Indigenous groups guided by FEI’s Statement of Indigenous Principles (Appendix I-1). FEI recognizes that the potential impacts of the Project on the title, rights, and interests of affected Indigenous groups must be identified and avoided or mitigated as appropriate. To achieve this, FEI recognizes that its engagement approach will need to be thorough, timely, and meaningful. 1 FEI also endeavors to create project benefits for local Indigenous groups, through capacity building and economic opportunities.*

**QUESTION 1:** Does FortisBC acknowledge that this application to the BCUC has proceeded before reaching agreements with Penticton Indian Band regarding whether and how to avoid and mitigate project impacts to Syilx title, rights and interests?

**QUESTION 2:** What does “endeavour” mean, in this context, and what will FEI do in the course of “endeavouring” to create project benefits?

**6.0 Topic: Project Economic Impacts**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg.126**

*FEI will incorporate feedback from Indigenous groups into the Project’s procurement plans to identify socio-economic opportunities of mutual interest. FEI will garner detailed reporting on Indigenous employment and socio-economic impacts during this Project lifecycle. Follow-up meetings will be scheduled with Indigenous groups as additional information around employment opportunities, contracting and procurement becomes available.*

**QUESTION 1:** What are the Project’s procurement plans?

**QUESTION 2:** What does “garner” mean, in this context, and what will FEI do to undertake this?

**QUESTION 3:** Please identify the potential economic costs of the Project and who FEI expects to incur these costs?

**QUESTION 4:** Please list the economic costs that the rate increase is intended to cover?

## **7.0 Topic: Screening and Evaluation of Alternatives**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 46**

*FEI evaluated all five alternatives on their technical merits and on the basis of high level cost estimates, to screen out those that did not accomplish the objectives of the OCU Project as identified in Section 4.1.*

**QUESTION 1:** How were the screening criteria selected?

**QUESTION 2:** Why did the screening process rely on these criteria and not other criteria, such as those used in the alternatives evaluation (pg. 48), the pipeline selection process (p.63), or other criteria?

**QUESTION 3:** How were the technical and cost criteria developed?

**QUESTION 4:** Who was involved in developing these criteria?

**QUESTION 5:** How were Indigenous groups and/or stakeholders involved in developing the criteria?

**QUESTION 6:** Were impacts on the exercise of Indigenous title, rights and interests considered when reviewing the alternatives? If so, how? If not, why not?

## **8.0 Topic: Screening and Evaluation of Alternatives**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 46**

*Evaluation criteria were grouped into three primary categories:*

- *Asset Management Capability;*
- *Project Execution and Lifecycle Operation; and*
- *Financial.*

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf. pdf pg.50**

*Weightings were assigned to the overall categories of evaluation criteria as shown in Table 4-3. Asset Management Capability was weighted the most heavily to reflect the importance of meeting FEI’s overall technical objectives. Weighting was split evenly between the other two categories. Both are considered important as they measure various types of impact to the communities affected by the OCU Project. Weightings were also assigned to the criteria within each category, also as summarized in Table 4-3.*

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf. Pg. 49**

*The sole criterion within this category measures the financial impact of the project on FEI's 24 customers. FEI considered the long term rate impact to FEI's non-bypass customers in order to 25 financially compare all three feasible alternatives. This was completed by evaluating the present 26 value of the incremental revenue requirement as well as the levelized delivery rate impact over 27 the 70 year analysis period for each alternative based on the estimated capital cost and 28 operating cost.*

**QUESTION 1:** How were these criteria selected?

**QUESTION 2:** Why did the screening process rely on these criteria and not other criteria, such as those used in the alternatives evaluation (p48), the pipeline selection process (p63), or other criteria?

**QUESTION 3:** How were the technical and cost criteria developed?

**QUESTION 4:** Who was involved in developing these criteria?

**QUESTION 5:** How were Indigenous groups and/or stakeholders involved in developing the criteria?

**QUESTION 6:** How were the weights derived, and who was involved in determining the weights of the criteria?

**QUESTION 7:** Why do "Environmental, Public, and Indigenous Impacts" receive the lowest weight of all criteria?

**QUESTION 8:** Please clarify what the financial criterion is, given the variety of financial topics raised in the description.

**9.0 Topic: Screening and Evaluation of Alternatives**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg.61**

*Based on these considerations, FEI has determined that the final route selected must meet the following objectives:*

- *Safe (to construct and to operate);*
- *Minimize impacts to the community, stakeholders and Indigenous groups;*
- *Minimize environmental impacts;*
- *Maximize the use of modern standard pipeline construction techniques; and*
- *Mitigate rate impacts to customers.*

**QUESTION 1:** Please explain the conditions, situations, and factors under which the Project will not use modern standard pipeline construction techniques.

**10.0 Topic: Screening and Evaluation of Alternatives**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg.62:**

*Section 5.3.2. Step 2: Feasible Route Options Determination and Evaluation*

**QUESTION 1:** Why did the screening of the five alternatives and the evaluation of the three remaining alternatives rely on different criteria?

**QUESTION 2:** Why did the pipeline selection process rely on these criteria listed on p63 and not other criteria?

**QUESTION 3:** How were the pipeline selection criteria developed?

**QUESTION 4:** Who was involved in developing these criteria?

**QUESTION 5:** How were Indigenous groups and/or stakeholders involved in developing the criteria?

**QUESTION 6:** How did FEI address or adjust for any overlaps among criteria (e.g., between the Socio-Economic, Cultural Heritage, and the Human Environment criteria)?

**QUESTION 7:** How were the weights shown at Table 5-2 derived, and who was involved in determining the weights of the criteria? For example, why did engineering receive the same weight (5%) as cultural heritage (5%)?

**QUESTION 8:** Why did the environmental category receive the lowest overall weight (25%) of the three categories?

**QUESTION 9:** Please explain further how the segment evaluation scores in Table 5-5 (p67 of the application) were calculated.

**11.0 Topic: Screening and Evaluation of Alternatives**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 20**

*The information presented in this Application accords with the guidelines set out in the BCUC's 2015 Certificate of Public Convenience and Necessity Application Guidelines (the CPCN Guidelines).*

**QUESTION 1:** Section 2 (ii) of the Guidelines states that applications should include a "comparison of the costs, benefits and associated risks of the project and feasible alternatives, including estimates of the value of all of the costs and benefits of each alternative or, where these costs and benefits are not quantifiable, identification of the cost area or benefit that cannot be quantified." Please indicate where this information was provided in the application.

**QUESTION 2:** Section 2 (v) of the guidelines states that applications should include a “schedule and supporting discussion comparing the project and feasible alternatives in terms of social and environmental factors, and the applicant’s assessment regarding the overall social and environmental impact of the project relative to the overall impact of the feasible alternatives”. Please indicate where this information was provided in the application.

**QUESTION 3:** Section 2 (vi) of the guidelines states that applications should include “[i]nformation relating the project to the applicant’s approved long-term resource plan filed pursuant to section 44.1 of the UCA, including the extent to which the project was considered in the plan, and, if applicable, a discussion explaining how the plan provides support and justification for the need for the project”. Please indicate where this information was provided in the application.

**QUESTION 4:** Section 3 (Public Consultation (i)) of the guidelines states that applications should include an “[o]verview of the community, social and environmental setting in which the project and its feasible alternatives will be constructed and operated, and of the public who may be directly impacted by the project and its feasible alternatives.” Please indicate where this information was provided in the application.

**QUESTION 5:** Section 3 (Public Consultation (ii)) of the guidelines states that applications should include a “[d]escription of the issues and concerns raised during consultations, the measures taken or planned to address issues or concerns, or an explanation of why no further action is required to address an issue or concern.” Please indicate where this information was provided in the application.

**QUESTION 6:** Section 4 (iv) of the guidelines states that applications should include “Human capital resources required to undertake the project.” Please indicate where this information was provided in the application.

**12.0 Topic: Public Interest**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg.18**

*Based on the information in the Application, which is summarized above, FEI believes it has demonstrated that the Project is in the public interest and should be approved as set out in the Application.*

**QUESTION 1:** Please identify the specific public interest factors FEI relies upon to reach this conclusion.

**13.0 Topic: Public Interest**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf. Pg. 127**

*Section 46 (3.1) of the UCA states that in considering whether to issue a CPCN, the BCUC must consider:*

*(a) the applicable of British Columbia’s energy objectives,*

*(b) the most recent long-term resource plan filed by the public utility under section 44.1, if any, and*

*(c) the extent to which the application for the certificate is consistent with the applicable requirements under sections 6 and 19 of the Clean Energy Act (CEA).*

**QUESTION 1:** Please explain how the Project serves BC energy objective (b), i.e., “to take demand-side measures and to conserve energy”?

**QUESTION 2:** Please explain how the Project serves BC energy objective (d), i.e., “to use and foster the development in British Columbia of innovative technologies that support energy conservation and efficiency and the use of clean or renewable resources”?

**QUESTION 3:** Please explain how the Project serves BC energy objective (g), i.e., “to reduce BC greenhouse gas emissions... by 2020 and for each subsequent calendar year to at least 33% less than the level of those emissions in 2007” and “by 2050 and for each subsequent calendar year to at least 80% less than the level of those emissions in 2007”?

**QUESTION 4:** Please explain how the Project serves BC energy objective (h), i.e., “to encourage the switching from one kind of energy source or use to another that decreases greenhouse gas emissions in British Columbia”?

**QUESTION 5:** Please explain how the Project serves BC energy objective (i), i.e., “to encourage communities to reduce greenhouse gas emissions and use energy efficiently”?

**QUESTION 6:** Please explain how the Project serves BC energy objective (j), i.e., “to reduce waste by encouraging the use of waste heat, biogas and biomass”?

**QUESTION 7:** Please explain how the Project serves BC energy objective (l), i.e., “to foster the development of first nation and rural communities through the use and development of clean or renewable resources”?

**QUESTION 8:** What incremental volume of natural gas consumption will be attributed to the Project?

**QUESTION 9:** What will be the incremental greenhouse gas emissions associated with the Project?

**QUESTION 10:** How will air quality in the service region’s communities be affected by the increased natural gas combustion associated with the Project?

#### **14.0 Topic: Project Lifespan**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application**

**QUESTION 1:** What is the lifespan of the project?

**QUESTION 2:** What is the expected service life of the Project once construction is completed and the Project is commissioned?

**15.0 Topic: Project Economics**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf. Pg. 17**

*A summary of the total forecast capital costs and average cost of service, is as follows:*

*Total Capital Cost (as-spent dollars) is \$271.3 million (including AFUDC and tax offset credit of \$0.7 million); and*

*Average Annual Delivery Rate Impact over the Project duration is \$0.026 / GJ.*

**QUESTION 1:** Please explain the tax offset credit.

**QUESTION 2:** Historically, what rates of return has FEI been provided for other projects, what factors have shaped these rates of return, and how does the rate of return and factors shaping this for the Okanagan Capacity Upgrade Project compare with other projects?

**16.0 Topic: Risks**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application**

**QUESTION 1:** What safety risks does the project pose, and how have these been considered and accounted for in this public interest application?

**17.0 Topic: Project Footprint**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 14**

*In summary, as further described in Section 5.2, FEI requests that the BCUC grant a CPCN for the construction and operation of a new approximately 30 km section of 406 mm pipeline and associated facilities.*

**QUESTION 1:** Is the precise length of the new proposed pipeline currently known? If so, what is it? If not, why not?

**18.0 Topic: Project Timeline**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 14**

*If the Project is approved, FEI will commence construction of the Project in Q1 of 2022. The new pipeline and stations are scheduled to be in service by Q3 of 2023, with Project completion and close-out activities to be completed by Q1 of 2024.*

**QUESTION 1:** What is FEI's plan if the Project is not approved or not approved within this timeline?

**19.0 Topic: Project Alternatives**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 38**

*DESCRIPTION AND EVALUATION 1 OF ALTERNATIVES*

**QUESTION 1:** Please provide the assessments conducted by FEI on alternatives to carrying out the project, including such things as alternative local power and price increases to reduce demand.

**20.0 Topic: Long Term Gas Resource Plan**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 36**

*The need to address a future capacity shortfall in the Okanagan area was previously identified in FEI's December 14, 2017 Long Term Gas Resource Plan (LTGRP) filing:<sup>13</sup> The ITS peak demand will reach pipeline capacity when the system cannot maintain minimum system pressures near the high load centres in the central Okanagan region. Expected load growth will cause an expansion requirement to address this constraint in 2022. For each regional system, higher or lower than expected load growth could shift the timing of system expansion requirements either ahead or further out in time. The potential for additional new, large industrial demand could create a step change in load delivery requirements and a corresponding advancement of system expansion requirements. Further, the Project was also identified as a potential major project in Section 3.3.3.3 of the FEI 2020-2024 Multi-Year Rate Application filing. In that section it was noted that: FEI forecasts that by 2022 inlet pressure to Kelowna Gate Station will drop below 2400 kPa and this will result in a shortage of supply to the Kelowna distribution system and the IP pipeline serving West Kelowna.*

**QUESTION 1:** Please confirm FEI did not undertake any consultation with PIB on this LTRP and whether or not you were none was directed by a Crown entity or regulatory decision maker to consult with PIB on this Plan?

**21.0 Topic: Project Route and Right of Way**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application - pdf pg. 83**

*The proposed alignment of the preferred alternative is located within or directly adjacent to existing rights of way as much as possible. The proposed route overlaps with watercourses, patches of mature trees, and areas with potential for plant communities at risk. Habitat for wildlife or plant species at risk was identified along the proposed alignment of the preferred alternative and surrounding area. Invasive plants are present in the vicinity of the proposed alignment.*

*The proposed alignment of the preferred alternative was assessed for potential impacts or effects on the ecological environment. Final routing will be selected to minimize disturbance to sensitive environmental features. Best management practices will be applied to minimize any remaining potential negative impacts or effects on the environment. Invasive plant management will be applied throughout construction to minimize the potential spread or introduction of invasive plants. Some vegetation removal will be required during site preparation and construction.*

**QUESTION 1:** Please provide a more detailed description of the new right of way required for the Project, including how much of the line is non-contiguous with adjacent right of way and how much new clearing there will be and quantify the vegetation clearing of the Project.

**QUESTION 2:** What is the right of way of the whole ITS system; and the clearing of the whole ITS system?

**QUESTION 3:** Please detail the potential for final routing differ from what is proposed?

**22.0 Topic: Fisheries Act Authorizations**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 84**

*Federal permits, notifications and approvals may be required to comply with the provisions of the Fisheries Act, Species at Risk Act (SARA), and Explosives Act. Notifications and authorizations to comply with the provisions of the Fisheries Act may be required for works associated with geotechnical investigation and construction activities. Fisheries and Oceans Canada is responsible for permitting any federally-regulated waterbody where there is potential for fish and fish habitat alteration disruption and destruction.*

**QUESTION 1:** How many federal authorizations will be required from DFO for water crossings and what is the proposed timeline to seek such authorizations?

**QUESTION 2:** Have you had any preliminary discussions with DFO regarding these works and required authorizations?

**23.0 Topic: PIB Rights and Title**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 18**

*Consultation, engagement and communication with public, local government, residents, landowners, businesses, Indigenous groups and other stakeholders are important components of FEI's development plan for the OCU Project.*

**QUESTION 1:** What communication has FEI had and received from any Crown entity or statutory decision-maker regarding the aboriginal consultation and accommodation requirements for this Project?

**24.0 Topic: PIB Rights and Title**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 18**

*To date, FEI has adequately consulted and engaged with key stakeholders including Indigenous groups.*

**QUESTION 1:** Please confirm this statement reflects FEI's view that Indigenous groups are stakeholders and not the view of PIB or any Crown entity or statutory decision-maker.

**QUESTION 2:** Please confirm that this conclusion is FEI's view and not the conclusion of PIB or any Crown entity or regulatory decision-maker.

**25.0 Topic: PIB Rights and Title**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 84**

*5.9 REQUIRED PERMITS AND APPROVALS*

**QUESTION 1:** Why is the free prior and informed consent from PIB not listed?

**26.0 Topic: PIB Rights and Title**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 120**

*At this time, there are no known outstanding issues or concerns with regard to the Project, which cannot be addressed through planned future engagement. FEI continues to engage Indigenous groups on the Project.*

**QUESTION 1:** Please identify the outstanding issues or concerns that FEI proposes to address through planned future engagement? Please detail FEI's proposed schedule for such engagement?

**QUESTION 2:** Please confirm Fortis has not been provided with PIB's consent to the Project.

**27.0 Topic: PIB Rights and Title**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 120**

*While the constitutional duty to consult rests with Crown agencies, FEI's engagement activities with Indigenous groups will aid the appropriate Crown agency in fulfilling its responsibilities. FEI is committed to working with Crown agencies and Indigenous groups to identify, avoid, and mitigate potential impacts on Indigenous title, rights and interests.*

**QUESTION 1:** What communication has FEI sent or received from any Crown entity or decision-maker regarding the aboriginal consultation and accommodation requirements on this Project?

**28.0 Topic: PIB Rights and Title**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 120**

*During early engagement with Indigenous groups, the area of the Project was identified as being historically and culturally significant. As outlined in Section 8.3.3, FEI has developed an agreement in collaboration with the PIB to identify and mitigate issues raised. Under the agreement with PIB, an interim report on its findings along the route was received on October 30, 2020, as per the agreement. FEI is currently working on a similar agreement with WFN.*

*Concerns raised by Indigenous groups during FEI's engagement can be broadly characterized as relating to two themes, outlined in the following table. Table 8-4: Summary of Engagement with Indigenous Groups*

*Section 8.3.6 FEI's Indigenous Engagement Process to Date Has Been Appropriate*

**QUESTION 1:** Please confirm that engagement with PIB on avoidance and mitigation has not been completed and that FEI is currently awaiting receipt of PIB's assessment of Use and Occupancy and Traditional and Ecological Knowledge Keeper Reports.

**QUESTION 2:** How did FEI incorporate the results of the Penticton Indian Band UOMS INTERIM Report: Fortis BC Okanagan Capacity Upgrade Project into the Project design and application submitted to the BCUC?

**QUESTION 3:** How did FEI incorporate the results of the Penticton Indian Band CHRA Report: Fortis BC Okanagan Capacity Upgrade Project (dated July 2020) into its Project design and application submitted to the BCUC?

**QUESTION 4:** Is FEI in agreement that FEI still needs to work closely with PIB to better understand the significance of this distinctive landscape for PIB, including its high use for cultural, educational, subsistence, habitation, medicinal, spiritual and ceremonial purposes in order to avoid and mitigate potential impacts of the Project on PIB.

**29.0 Topic: PIB Rights and Title**

**Reference: pdf pg. 17**

*FEI Has Estimated the Project Costs and Rate Impact in Accordance with the BCUC CPCN Guidelines A summary of the total forecast capital costs and average cost of service, is as follows:*

- *Total Capital Cost (as-spent dollars) is \$271.3 million (including AFUDC and tax offset credit of \$0.7 million);and*
- *Average Annual Delivery Rate Impact over the Project duration is \$0.026 / GJ. For a typical FEI residential customer consuming 90 GJ per year, this would equate to approximately \$9.00 per year.*

**QUESTION 1:** Please advise whether FEI's estimated costs and consequent rate impact calculations considers PIB's inherent, including aboriginal rights and title to economic benefits from Syilx lands and resources proposed to be taken and used by FEI, including those recognized by S. 35(1) of the Constitution Act, the United Nations Declaration of the Rights of Indigenous People and the *Declaration of the Rights of Indigenous People Act*?

**30.0 Topic: Environmental and Archeological Assessments**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 17**

*FEI has assessed the environmental and archaeological impacts for the OCU Project. Based on the assessments undertaken, FEI expects that the Project will have minimal environmental and archaeological impacts. FEI anticipates that potential environmental impacts of the Project can be mitigated through the implementation of FEI's standard environmental protection and mitigation measures.*

**QUESTION 1:** Confirm these are preliminary assessments based on the Environmental Overview Assessment attached as Appendix F and the Archeological Overview Assessment attached to the application as Appendix G.

**31.0 Topic: Environmental and Archeological Mitigation**

**Reference: FortisBC Energy Inc. Okanagan Capacity Upgrade Application pdf pg. 100**

*FEI is committed to delivering safe, reliable energy in an environmentally responsible manner to all the communities that it serves. Based on its preliminary assessment, FEI expects minimal environmental and archaeological impacts for the OCU Project. Potential environmental impacts of the Project can be mitigated through the implementation of standard best management practices and mitigation measures.*

**QUESTION 1:** Please specify what standard best management practices and mitigation measures are referred to here.

**QUESTION 2:** Please provide data and all other information used to support conclusion that environmental impacts can be mitigated through the implementation of these management practices.

**32.0 Topic: Archeological Resources**

**Reference: Appendix G: 5.4.3 Archaeological Potential Modelling pdf pg. 285**

*The purpose of predictive modelling in archaeology is to identify areas that have higher potential to contain archaeological remains than areas selected randomly. Predictive models use environmental and cultural variables to make their predictions. Some models use a wide range of mapped environmental variables (e.g., slope, slope direction, vegetation classes, soil types, distance to various water bodies, trails) to determine archaeological site potential.*

**QUESTION 1:** Confirm that Archaeological sites identified as “rock shelters”, “rock art”, and “petro-forms” (rock alignments or rock cairns) are frequent indicators of Indigenous use and occupation in the Okanagan Valley area and are associated with rocky or steeply sloping lands.

**QUESTION 2:** Please describe the limitations of existing GIS-based models used in the Archeological Assessment Overview Assessment Report in identifying rocky or steeply sloping lands.

**33.0 Topic: Archeological Resources**

**Reference: Appendix G: 5.4.3 Archaeological Potential Modelling pdf pg 286**

*Preliminary Field Reconnaissance (PFR) was conducted by Golder within portions of the Project area in summer of 2020<sup>4</sup> to ground-truth modelled archaeological potential within the study area and help inform the HCA permit application for the AIA phase.*

**QUESTION 1:** What is the status of the Preliminary Field Reconnaissance (PFR) summary report?

**QUESTION 2:** When will it be provided to the British Columbia Utilities Commission for consideration?

**QUESTION 3:** What were the results of the PFR?

**QUESTION 4:** Confirm that the PFR conducted by Golder was limited to a route which has since been partially redesigned, and that ancillary components such as access roads and workspaces were not included in the survey coverage.

**34.0 Topic: Archeological Resources**

**Reference: Appendix G: 5.4.3 Archeological Potential Modelling pdf pg 287**

*It is recommended that additional PFR be completed of the entire Project Area (about 53 hectares) once snowfree conditions are available. The purpose of the additional PFR would be to meaningfully include Indigenous communities in the assessment of archaeological potential and to accurately define the boundaries of high potential areas that will require subsurface testing during the AIA phase. Should the archaeological potential model that is currently under development by the Archaeology Branch become available prior to the PFR, potential mapping for the Study Area and Project Area should be updated prior to undertaking field work. Following the PFR, an AIA will be conducted under an HCA Section 12.2 permit. The objectives of the AIA will include the following:*

- 1) identify, record, and assess archaeological sites located within the Project Area;*
- 2) identify and evaluate possible impacts by the proposed development to these archaeological sites, if present; and*
- 3) recommend appropriate impact management actions, including mitigation actions where significant archaeological deposits are encountered in unavoidable conflict with proposed developments. The AIA will consist of a visual inspection and subsurface testing program within areas identified as high archaeological potential by the qualified Field Director and field crew during the PFR.*

**QUESTION 1:** Has FEI completed the recommended additional PFR for the entire Project area, and if not, when will it be completed and will it be completed before an Archeological Impact Assessment is undertaken?

**QUESTION 2:** How will further archeological assessments incorporate and account for Syilx cultural use areas and values in carrying, including with respect to identifying the appropriate study area size?

**35.0 Topic: Land Use**

**Reference: Appendix F, Table 4.1 pdf pg.170**

*The selected alignment is located in the City of Penticton along its eastern extent of city limits, and the whole alignment is located entirely within the Regional District of Okanagan-Similkameen. Land ownership through the southern half of the selected alignment is primarily private, with intermittent sections of overlapping unknown, Crown, and municipal lands. The majority of alignment sections north of Naramata are Crown land with some areas of private and municipal lands. The general study area encroaches into 0.17 ha of ALR*

*(soil capability class of 7) located south of Strutt Creek on the west side of the selected alignment. Several Development Permit Areas and planning areas are located over the portion of the selected alignment and general study area within the City of Penticton.*

**QUESTION 1:** Is it your understanding that the selected alignment is within Syilx Territory, and in particular the Area of Responsibility of the Penticton Indian Band? If so, why no mention of that here?

**36.0 Topic: Land Use**

**Reference: Appendix F, Section 5.3.1 pdf pg.195**

*The Project is located entirely within the Regional District of Okanagan Similkameen (RDOS), with approximately 8 km south of Turnbull Creek and northwest of Penticton Creek located within the municipality of Penticton. Both regional and municipal bylaws that will be pertinent to the Project have been noted in the following sections.*

**QUESTION 1:** Please confirm that the southern terminus of the selected alignment overlaps Development Permit Area (Hillside / Steepslope) identified in the RDOS Official Community Plan Area E and this area is within the Environmentally Sensitive Development Permit (ESDP) Area.

**QUESTION 2:** Please provide development restrictions for the ESDP area.

**QUESTION 3:** Confirm the selected alignment overlaps an area identified as “aquifer vulnerability - moderate” in the Okanagan-Shuswap Land and Resource Management Plan.

**QUESTION 4:** Confirm the selected alignment overlaps an area identified as “intermediate biodiversity emphasis option” in the Okanagan-Shuswap Land and Resource Management Plan.

**QUESTION 5:** Please confirm that the Okanagan-Shuswap Land and Resource Management Plan notes that future maintenance of biodiversity is dependent on:

- the protection and connectivity of representative ecosystems as ecological benchmarks at the provincial and regional level;
- the maintenance and connectivity of representative habitats and seral stages at the landscape or watershed level;
- management for important attributes at the stand (site) level; and
- protection of rare and endangered species and ecosystems.

**QUESTION 6:** Please provide how these attributes have been and will be considered and incorporated into the Project design and planning.

**37.0 Topic: Surface Water Quality and Quantity**

**Reference: 5.8.1.1 pdf pg.82**

*Possible impacts to the physical environment include the potential for discharge of deleterious substances to water and soil during the installations of the [Horizontal*

*Directional Drill] HDDs, and directional boring or open cuts for shorter crossings. Hazardous and non-hazardous wastes generated will be managed appropriately including storage, containment, labelling, transport and disposal.*

**QUESTION 1:** Please provide FEI's Accidents and Malfunctions Management Plan that includes information on spill prevention and response for storage and leaks of hazardous and non-hazardous material or other accidental emissions from machinery or equipment; and information on how to manage and/or mitigate unexpected impacts that may be identified in low-risk Areas of Potential Concern (APECs).

**QUESTION 2:** Please provide the site-specific management plans for APECs that are classified as medium-risk or high-risk.

**38.0 Topic: Surface Water Quality and Quantity**  
**Reference: 5.8.1.2 pdf pg.83**

*Contaminated sites may be present along the proposed alignment of the preferred alternative. Preliminary studies identified the location and nature of potential contaminated sites. Further studies will be completed prior to construction to identify appropriate handling and disposal techniques.*

**QUESTION 1:** Please provide detailed information on the types of assessment to be conducted (e.g., installation of monitoring wells; collection of soil samples) to support characterization of risks of the Areas of Potential Concern and what investigations will be done to support characterization of risks.

**39.0 Topic: Surface Water Quality and Quantity**  
**Reference: 7.2.1.2 pdf pg.103**

*FEI will undertake further assessment of the high risk APEC during the detailed engineering phase of the Project to minimize the risk of this APEC on the Project costs and timelines.*

**QUESTION 1:** Please provide more detailed information on the types of assessment to be conducted (e.g., installation of monitoring wells; collection of soil samples) to support characterization of risks.

**40.0 Topic: Surface Water Quality and Quantity**  
**Reference: Appendix F; 3.2 pdf pg. 164**

*Hemmera conducted a desktop assessment for the selected alignment to identify APECs where contaminated soil and groundwater may be encountered during the proposed construction activities.*

**Reference: Appendix F; Section 4.2 pdf pg. 173**

*To the north of Penticton is the Campbell Mountain Landfill, which is located to the east of the selected alignment. The landfill is currently in operation, having opened in 1972.*

**QUESTION 1:** Please detail any investigation or search of existing data on the nature and extent of contamination in either groundwater or soils in the vicinity of the Campbell Mountain Landfill, collected by the operator, to determine preliminary evaluation of the potential interaction between the Project and contaminated material.

**41.0 Topic: Surface Water Quality and Quantity**

**Reference: Appendix F; 6.0 pdf pg.198**

*The list of Risk Areas for each lateral was further refined by removing identified APECs where contaminated soil, if encountered, will likely be reused as fill or spread within the ROW, resulting in a reduced risk to the Project.*

**QUESTION 1:** This language requires clarity. Is this intended to say that the route was altered to avoid APECs with greater likelihood that contaminated soils could be used as fill/spread? If not, what is FEI intending to say?

**42.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 2.0 Project Scope and Area pdf pg.160**

*The alignment will be installed primarily via open cut construction, where practical. Horizontal directional drilling has been chosen as the preferred method for the Penticton Creek crossing as conditions are not favourable for open cut construction.*

**QUESTION 1:** How will FEI determine the need for HDD of other water crossings?

**QUESTION 2:** Please provide the conceptual design plan of the Penticton Creek crossing?

**43.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 3.0 Methods pdf pg.162**

Table 3.1 Sources of Desktop Information and Section 3.3 Fish and fish Habitat

**QUESTION 1:** How is FEI intending to incorporate Indigenous Knowledge into the fish and fish habitat assessment?

**QUESTION 2:** What Department of Fisheries Oceans' sources of information has FEI considered for salmon?

**44.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 3.1 Land Use pdf pg.164**

*Land use data sources from Table 3.1 were reviewed within the general study area. Desktop studies identified the following features within the general study area for the selected alignment:*

- *General ownership of land (e.g., federal, provincial Crown, municipal, private, unknown)*
- *Regional districts and municipalities encompassed by the general study area*

- *Parks and protected areas within the general study area*
- *Agricultural Land Reserve (ALR) areas overlapped by the general study area and the number of properties within the ALR intersected by selected alignment.*

**QUESTION 1:** Please confirm FEI is committed to being informed by the Sylix land and resources information provided by PIB.

**45.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 3.3 Fish and Fish Habitat pdf pg.165**

*For the purposes of this report, fish species of concern were defined as species that are listed under the federal Species at Risk Act, SC 2002, c. 29 (SARA); species afforded protection by the BC Wildlife Act, RSBC 1996, c. 488; and species that fall under the BC Oil and Gas Commission (OGC) High Priority Wildlife species list (as outlined in the OGC Environmental Protection and Management Guideline Ver 2.7 (OGC 2018)).*

**QUESTION 1:** Please provide rationale for why COSEWIC listings are not considered.

**QUESTION 2:** Please provide a listing of all COSEWIC listed species within the project area.

**46.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 3.3 Fish and Fish Habitat pdf pg.166**

*Active fish sampling within the watercourses was not conducted during the PFR or follow-up field reconnaissance. Where fish presence was unknown, the stream was conservatively classified as fish bearing.*

**QUESTION 1:** Please provide rationale for why fish sampling was not conducted?

**QUESTION 2:** How does FEI propose to develop effective mitigation measures without sampling information?

**47.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 4.3.1 Fish and Fish Habitat pdf pg.175**

*Table 4.4 Mapped Watercourses Overlapping the General Study Area, Classifications, and Riparian Setbacks*

**QUESTION 1:** Please update this table to include known or presumed fish species present within each watercourse and within the 200m study area upstream and downstream of the centre line or even further downstream (what distance) of the crossing.

**48.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 4.3.1 Fish and Fish Habitat**

**QUESTION 1:** There is no information provided on the fish habitat present within the 200m study area of each crossing. Please update with at minimum, the potential use of the

crossing area for spawning, migration and rearing should be indicated along with the basic habitat features such as gradient, wetted width, bank structure, riparian habitat etc.

**49.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 5.2.5 Water Sustainability Act pdf pg.193**

*For changes in and about a stream, an application for a Change Approval or submission of a Notification is required under Section 11 of the WSA. Under the WSA, a stream is defined as “(a) a natural watercourse, including a natural glacier course, or a natural body of water, whether or not the channel of the stream has been modified, or (b) a natural source of water supply, including, without limitation, a lake, pond, river, creek, spring, ravine, gulch, wetland or glacier, whether or not usually containing water, including ice, but does not include an aquifer.”*

**QUESTION 1:** Is a Water Sustainability Act approval or notification triggered by the Project?

**50.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 6.1 Biophysical Receptors pdf pg.200; Reference: Appendix F: 7.2.3 Fish and Wildlife Salvage pdf pg.206**

Table 6.1 Overview of Potential Effects and Risks to Biophysical Receptors Associated with the Selected Alignment

**QUESTION 1:** Please detail FEI’s plans for habitat restoration and fish salvage.

**51.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: Section 7.1.1. Guiding Documents and Best Management Practices pdf pg.204**

**QUESTION 1:** Please explain why the current and new interim Codes of Practice from Department and Fisheries Ocean’s Fish and Fish Habitat Protection Branch are not listed?

**52.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 7.2 Mitigation Measures pdf pg. 205**

**QUESTION 1:** Please provide detailed information about the mitigation measures proposed for stream crossings.

**53.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: 7.2.6 Site Restoration pdf. Pg. 207**

Areas disturbed during construction should be restored to meet or improve upon pre-construction conditions, particularly for work within the ALR, in and around fish habitat, and near important wildlife habitat features. Project-specific restoration plans should be developed that outline how to stabilize any disturbed areas while maximizing the resultant conditions and habitat values for environmental receptors.

**QUESTION 1:** Please detail how riparian areas will be restored and maintained after construction.

**54.0 Topic: Fish and Fish Habitat**

**Reference: Appendix F: Figures, pdf. pg. 214**

**QUESTION 1:** Please update figures to provide fish bearing status at each watercourse crossing on the relevant figures along with habitat use if known (e.g., spawning, rearing, migration)

**55.0 Topic: Vegetation**

**Reference: ES p.ii, Table ES.1 - Overview of Potential Effects and Risks to Biophysical Receptors Associated with the Selected Alignment, pdf pg. 151**

*Vegetation project risk: "moderate"*

**QUESTION 1:** How was this risk level determined given that the Project has a high potential to impact at least one red-listed ecological community?

**56.0 Topic: Vegetation**

**Reference: ES p.ii, Table ES.1 - Overview of Potential Effects and Risks to Biophysical Receptors Associated with the Selected Alignment, pdf pg. 151**

*Develop and implement an Environmental Management Plan and conduct environmental monitoring*

**QUESTION 1:** Please provide details of FEI's proposed monitoring, including specific information about what will be monitored, frequency and methods.

**57.0 Topic: Vegetation**

**Reference: ES p.ii, Table ES.1 - Overview of Potential Effects and Risks to Biophysical Receptors Associated with the Selected Alignment, pdf pg. 151**

*Conduct surveys for plant species of concern and at-risk ecological communities with a high or medium potential to be present in areas to be affected by Project activities.*

**QUESTION 1:** Please provide details of survey plans, including timing, methods/approach, and standards to be applied.

**58.0 Topic: Vegetation**

**Reference: ES p.ii, Table ES.1 - Overview of Potential Effects and Risks to Biophysical Receptors Associated with the Selected Alignment, pdf pg. 151**

*Develop an invasive vegetation management plan to be implemented during construction*

**QUESTION 1:** Please detail the specific objectives/goals of this plan.

**QUESTION 2:** Please provide an invasive plan management plan that includes mitigation for proximity of the project to Okanagan Mountain Provincial Park.

**59.0 Topic: Vegetation**

**Reference: ES p.ii, Table ES.1 - Overview of Potential Effects and Risks to Biophysical Receptors Associated with the Selected Alignment, pdf pg. 151**

*Site restoration activities.*

**QUESTION 1:** Please detail specific actions to be taken by FEI to avoid impacts and the activities to be taken to restore vegetation values or compensate for impacts to vegetation (e.g., at-risk communities).

**60.0 Topic: Vegetation**

**Reference: 3.4 Vegetation, pdf pg. 168**

*During the PFR, the field crew collected data on vegetation community assemblage along the general study area. Areas of invasive or noxious weeds within or immediately adjacent to the selected alignment were recorded and geographically referenced. Because the PFR was conducted in late November (November 19 to 20, 2019), visibility and identification of species were limited. Areas of unique habitats encountered along the ROW that were considered to have potential to support at-risk plant species (e.g., areas of old growth forest, rocky outcrops, and seeps) were recorded and geographically referenced. Additional data on vegetation conditions along the selected alignment was collected during the follow-up field assessment in August 2020.*

**QUESTION 1:** Please provide details of the specific data collected and the methods during PFR.

**QUESTION 2:** Please provide data results collected on August 2020 field assessment and details of collection including, condition, what survey methods, detailed floristic list compiled, attempts to survey for at-risk plants or confirm reported occurrences of ecological communities such as Black Cottonwood – Douglas fir / Douglas Maple – Common Snowberry.

**QUESTION 3:** Please provide rationale why the second field assessment was conducted in August (following the initial one in November, when there was already snow on the ground), especially given that August is also quite late in the season for many plants in that habitat?

**61.0 Topic: Vegetation**

**Reference: 4.3.2 Vegetation pdf. pg. 181**

The southern half of the selected alignment, approximately 16.5 km, is within the Ponderosa Pine Very Dry Hot Okanagan (PPxh1) subzone, which occurs at low elevations along very dry valleys of the Southern Interior Plateau of BC, and is typically dominated by ponderosa pine (*Pinus ponderosa*) canopy and an understory of bluebunch wheatgrass

(*Agropyron spicatum*) (Hope, Lloyd, et al. 1991a). Approximately 6 km of the central section of the selected alignment is located within the Interior Douglas-fir Very Dry Hot Okanagan (IDF<sub>vh1</sub>) subzone, which occurs in the lower elevations of the Okanagan valley south of Enderby and is characterized by the presence of Douglas-fir (*Pseudotsuga menziesii*) canopy cover, ponderosa pine, and grassland communities comprised of bluebunch wheatgrass together with Idaho fescue (*Festuca idahoensis*) (Hope et al. 1991b).

**QUESTION 1:** Please update with current taxonomy.

**62.0 Topic: Vegetation**

**Reference: 4.3.2 Vegetation pdf. pg. 181**

*Vegetation densities and species composition along the PFR study area was consistent with BEC zone characterization...Data from the follow-up field reconnaissance confirmed that vegetation was consistent with the BEC zone characterization. The existing FortisBC ROW had encroachment of non-native and invasive plant species periodically throughout.*

**QUESTION 1:** The vegetation descriptions are very high level, making it difficult to ascertain what additional information, if any, was collected during the follow-up (August) field assessment. Please provide further detailed information from follow-up field reconnaissance.

**63.0 Topic: Vegetation**

**Reference: 3.4 Vegetation pdf pg. 167**

Hemmera reviewed vegetation data resources from Table 3.1 within the general study area for the selected alignment. Desktop studies identified the following features within the general study area:

- Biogeoclimatic (BEC) zones and subzones
- Areas of old growth forest stands, specifically legal vs. non-legal old growth management areas (OGMAs)
- Federally identified critical habitat for plant species at risk
- Known locations of invasive plants.

**QUESTION 1:** Was the VRI data, which indicates 147.6 ha of old growth age class 8 and 9 stands in the 100m wide pipeline corridor rather than 33.1 ha of OGMAs, reviewed? If not, why not?

**64.0 Topic: Vegetation**

**Reference: 4.3.2 Vegetation pdf pg. 181**

*A summary of documented invasive plant species recorded in the general study area is provided in Table 4.6 and show on Figure 4.*

**QUESTION 1:** In light of significant existing provincially regulated, noxious weed infestation in the proposed alignment area, what assessment has been conducted on the potential implications of increased indigenous plant spread in this area related to pipeline construction would be beneficial here, including for encroachment to adjacent ecosystems and/or affect the ecological integrity of the adjacent Okanagan Mt. Prov. Park.

**65.0 Topic: Vegetation**

**Reference: 4.3.2 Vegetation pdf pg. 182**

*There are no CDC occurrences for at-risk plants located in or adjacent to the general study area...Desktop studies identified one plant species of concern (Thurber's needlegrass) with medium potential to occur within the general study area.*

**QUESTION 1:** This information appears incorrect; the CDC database indicates that there are, in fact, several provincial red- or blue-listed (and OGC-listed) species in the nearby area or immediate vicinity, including:

- Pale evening primrose, *Oenothera pallida* ssp. *pallida* (above Penticton at project terminus)
- The Dalles milk-vetch, *Astragalus sclerocarpus* (Skaha Lake just south of Penticton)
- Small-flowered lipocarpa, *Lipocarpa micrantha* (directly on the opposite side of Okanagan Lake)
- Short-rayed Aster, *Symphyotrichum frondosum*, (Skaha Lake)
- Columbian carpet moss, *Bryoerythrophyllum columbianum* (along lakeshore north of Naramata)
- Tiny tassel, *Crossidium seriatum* (Johnson Spring Creek)
- Nugget moss, *Microbryum vlassovii* (Penticton)
- Toothcup, *Rotala ramosior* (directly across the lake at Sun-Oka).
- Prairie gentian, *Gentiana affinis* (Summerland)

Moreover, Thurber's needlegrass does not range particularly close to this area, the closest recorded locations being Oliver/Osoyoos – hence it is unclear why this species is being singled out for mention here over other species.

Please update the desktop review pertaining to at-risk plants.

**66.0 Topic: Vegetation**

**Reference: 4.3.2 Vegetation pdf pg. 182**

*Three CDC occurrences for Black Cottonwood – Douglas fir / Douglas Maple – Common Snowberry at-risk ecological communities overlap the general or wildlife study area.*

**QUESTION 1:** CDC iMap also maps the followings at-risk community occurrences as possibly within, or near to, the study area:

- Trembling Aspen / Common Snowberry (possibly overlapping with project's south terminus)

- Common Cattail Marsh
- Baltic Rush – Common Silverweed
- Hard-stemmed Bulrush Deep Marsh
- Big Sagebrush / Bluebunch Wheatgrass

Please update the desktop review pertaining to at-risk ecological communities to reflect these other medium to high likelihood occurrences with a ranking of occurrence potential.

**67.0 Topic: Vegetation**

**Reference: 4.3.2 Vegetation, Table 4.7, pdf pg. 183**

*Table 4.7 Plant Species of Concern and At-risk Ecological Communities with Potential to Occur in the General Study Area.*

**QUESTION 1:** The table only lists plant species. Please update to include ecological communities as well (as per the table caption).

**68.0 Topic: Vegetation**

**Reference: Appendix B Table B.2, pdf. pg. 268**

Table B.1 Wildlife Species of Concern Identified with the Potential to Occur Within Study Area

...

*Calochortus lyallii, Shchoenoplectiella saximontana*

**QUESTION 1:** This table is inconsistent with the information provided in the analogous table in the text (Table 4.1, pdf. pg 170) and mentions four species (two vascular plants, two non-vascular plants) not mentioned previously in the text. The two vascular species additions, *C. lyallii* and *S. saximontana*, are not known from the area and are unlikely to occur there (*C. lyallii*, a very well studied species, is restricted to South Okanagan Grasslands Prov. Park, while *S. saximontana* is known from Osoyoos and Shuswap Lake).

**QUESTION 2:** Provide the rationale for indicating these two species (along with the similarly out-of-range Thurber's needlegrass) as opposed to other, more local species.

**69.0 Topic: Wildlife**

**Reference: Application Section 4 - Description and Evaluation of Alternatives**

General - Pipeline alignment (general)

**QUESTION 1:** Please provide the environmental values of other project alternatives and the specific criteria used to dismiss them.

**70.0 Topic: Wildlife**  
**Reference: Appendix F Table ES.1 pdf. pg. 151**

General - datasets

**QUESTION 1:** Please explain why historical datasets like the BC CDC were used without any stated bias.

**71.0 Topic: Wildlife**  
**Reference: Appendix F Table ES.1 pdf. pg. 151**

*Wildlife: Follow-up Activities... To the extent practicable, undertake construction within the least risk timing windows for applicable species*

**QUESTION 1:** Please provide the timing windows that will be applied including for clearing, construction, and remediation activities in consideration of critical periods for species at risk or other sensitive species, bird nesting periods and amphibian salvage surveys.

**72.0 Topic: Wildlife**  
**Reference: 3.5 Wildlife, pdf pg. 169**

During the PFR and the follow-up field reconnaissance, the field crew recorded, described, and geographically-referenced incidental observations of wildlife of concern and wildlife habitat features (e.g., raptor or heron nests, bird colonies, mineral licks, wallows, dens, burrows, and wildlife trees). Activity, behaviour, and species abundance, where evident and relevant, were also noted. Due to the timing of the PFR (late November) and weather conditions, wildlife observations at that time were limited. The follow-up

field reconnaissance took place in August 2020 and provided more robust wildlife observations.

**QUESTION 1:** Please provide details of protection measures for Wildlife Trees.

**73.0 Topic: Wildlife**  
**Reference: Appendix F, pdf pg. 184**

Table 4.10 summarizes the at-risk wildlife species occurrences documented within the wildlife study area. This study area overlaps seven recorded occurrences of at-risk wildlife for American badger, flammulated owl, Great Basin spadefoot, Nuttall's cottontail, white-headed woodpecker, and two mapped masked (i.e., confidential) CDC occurrences. The masked occurrences overlap only the outer edge of the wildlife study area for the selected alignment and are not expected to be impacted by the Project.

**QUESTION 1:** Please explain why some species (e.g., American Badger, Nuttall's cottontail, White-headed Woodpecker) identified as having occurrences that overlap the study area are not discussed in detail with respect to mitigation.

**QUESTION 2:** Please identify the species associated with the masked occurrences.

**QUESTION 3:** Please identify the potential impacts to Common Nighthawk, which are a threatened ground nesting species in Canada and were observed in the Project area.

**74.0 Topic: Wildlife**

**Reference: 4.3.3 Wildlife pdf pg.184**

**QUESTION 1:** Please provide a habitat balance table that summarizes: (i) the cleared area [i.e., project footprint broken down into meaningful categories such as forested (by age class), grassland, UWR (by species), WHA (by species), wetland, etc., (ii) temporary disturbance areas that will be reclaimed, (iii) the area of the right of way within which vegetation will be managed throughout the life of the project [i.e., vegetation clearing during operations that will preclude the growth of conifers]. These values should be compared with the values within the study area (e.g., the 500-m-wide wildlife study area).

**75.0 Topic: Wildlife**

**Reference: 4.3.3 Wildlife pdf. pg. 184**

The wildlife study area is predominantly overlapped by multiple ungulate winter ranges (UWRs) including multiple polygons for U-8-001 (mule deer; M-ODHE), the northernmost section overlaps U-8-006 (moose; M-ALAL), and the southern terminus of the selected alignment overlaps a polygon for U-8-005 (Mountain Goat; M-ORAM) along Ellis Creek.

**QUESTION 1:** FEI correctly identifies the Approved Ungulate Winter Ranges that are near to or intersected by the project footprint. Each of the three UWRs have been established by a legal Order under the authority of sections 12(1) and 9(2) of the Government Actions Regulation. Accordingly, each of those Orders describes the UWR and General Wildlife Measures that prescribe forest harvesting and silviculture practices intended to conserve the habitat value for the species so covered by the Order.

Most of the length of the project is in the core of a Mule Deer UWR; other parts are within a Moose UWR and the southern end is near Mountain Goat UWR. Clearly, the project area is situated in important and valuable ungulate winter habitat.

Please update Appendix F (including Table 6.1) to provide (i) mapping showing the overlap between UWR, (ii) a discussion of the general or specific contents of any UWR Order, (iii) a discussion of any exemptions from the UWR Order that the proponent may be contemplating, (iv) an interpretation of potential impacts [both during construction and operations] of the project on the ungulate species that might manifest via impacts to UWR, and (v) a discussion of measures to be taken to avoid or mitigate impacts of the project on UWR; such measures would be contained within a construction environmental management plan (assuming the proponent is not planning to proceed as exempt from the UWR Orders.

**QUESTION 2:** Please detail reclamation practices and operational vegetation management that will prevent additional (unauthorized) vehicular access and reduce sight lines (from a height below 3 m) to less than 100 m and maintaining a vegetation cover in that part of the right-of-way directly over the pipeline that comprises forbs and low-growing shrubs

(including berry-producing plants that can provide food and cover for a wide range of wildlife species).

**76.0 Topic: Wildlife**

**Reference: 4.3.3 Wildlife, pdf pg. 184**

*Amphibians were observed at multiple watercourses. A western toad adult and juveniles were observed at OCU03-19 (Chute Creek) and Pacific tree frogs were observed at NCD-07, NCD-05, and OCU02-12 (Turnbull Creek) (Figure 4). Numerous tadpoles (species unknown) were observed at the crossing of OCU03-18 (Trust Creek).*

**QUESTION 1:** Please explain why aside from being mentioned in the text, listed in Table 4.8, and Table B-1 in Appendix B, Western Toad is not considered and assessed relative to other amphibian species at risk.

**QUESTION 2:** Please confirm that the observation of juveniles suggests there may be a breeding pond nearby.

**QUESTION 3:** Please confirm Western Toads spend much of their time in upland habitat and that consideration of habitat impacts in both upland and aquatic habitats is required for this species.

**77.0 Topic: Wildlife**

**Reference: Table 4.8, pdf. pg. 185**

**QUESTION 1:** Explain why Little brown myotis (*Myotis lucifugus*) is excluded from table despite known occurrences within the proposed project area with a high probability of occurrence.

**QUESTION 2:** Explain why Western Skink (*Plestidon skiltonianus*) excluded from table despite known occurrences within the proposed project area with high probability of occurrence.

**QUESTION 3:** Please update table to reflect habitat requirements particularly given the emphasis on critical habitat assessments as a means of mitigating potential impacts to species at risk resulting from the proposed project.

**78.0 Topic: Wildlife**

**Reference: Table 4.8 pdf pg. 185**

Footnote 4 Medium: Hemmera's current understanding of the species range and known species habitat associations suggests that the species is expected to occur in the study area on a temporary or regular (i.e., predictable) seasonal basis and in densities that facilitate persistence of a functional population within the study area. High: Hemmera's current understanding of the species' range and known species habitat associations suggests that the species is expected to occur in the study area regularly, and in densities that would be expected to occur in provincial benchmark habitats.

**QUESTION 1:** Please detail how a species was determined to have a medium or high potential to occur and how data collected during the two field visits (one in November and one in August) or during the desktop exercise support these designations.

**79.0 Topic: Wildlife**  
**Reference: 5.2.7 pdf pg. 194**

### **5.2.7 Wildlife Act**

In general, the BC Wildlife Act provides a regulatory framework for the management of wildlife and, in very limited circumstance and limited to a few specifically designated species, wildlife habitat (i.e., bird nests) in the province. The Wildlife Act protects most native vertebrates from direct harm or harassment, regulates hunting, trapping and sport fishing, protects nesting birds and active nests that are occupied by a bird or its egg(s). The nests of some bird species are afforded specific consideration under Section 34b of the Wildlife Act regardless of whether they are occupied. These protected nests, as relevant to this Project, include those used seasonally by peregrine falcon, burrowing owl, bald eagle, osprey, and great blue heron.

**QUESTION 1:** Detail the nest assessments conducted and the planned assessments for the construction period, including for habitat used by ground nesters such as Common Nighthawk.

**80.0 Topic: Wildlife**  
**Reference: Appendix F - 6.1 Biophysical Receptors; Table 6.1, pdf pg. 201**

*Destruction of wildlife habitat features (including nests and dens) and disturbance of wildlife using these features during construction*

**QUESTION 1:** Please detail how FEI will provide for restoration or compensation for the destruction of wildlife habitat features.

**81.0 Topic: Wildlife**  
**Reference: Appendix F - 6.1 Biophysical Receptors; Table 6.1, pdf pg. 201**

*Conduct detailed follow-up assessments to determine if critical habitat features or attributes for the following species are present, disturbed or destroyed:*

- *Lewis's woodpecker*
- *Great Basin spadefoot*
- *Desert nightsnake*
- *Western rattlesnake*
- *Great Basin gopher snake*

**QUESTION 1:** Please provide when this detailed assessment will be provided and how the results will be presented to Penticton Indian Band and the BCUC?

**82.0 Topic: Wildlife**

**Reference: Appendix, F, Section 7.2, Mitigation Measures pdf pg. 205**

*Project-specific and site-specific mitigation measures are typically developed once the project design, timing, footprint, and construction method have been finalized. They are developed to minimize or reduce an anticipated adverse effect.*

**QUESTION 1:** Why have these mitigation measures not been developed at this time given the proposed design, timing, footprint and method proposed in the Application? When will the line be considered finalized enough by FEI for the purpose of developing mitigation?

**QUESTION 2:** Please detail the mitigation measure for impacts to wildlife habitat, wildlife habitat features, and old-growth forests that occur in the proposed project area and compensatory measures for habitats degraded as a result of the project.

**83.0 Topic: Wildlife**

**Reference: Appendix F, 7.2.2.3, Amphibians and Turtle General Least-risk Periods pdf pg. 206**

*In areas where amphibians and turtles are expected, construction should be avoided during hibernation, breeding, and migration periods, as determined by a QEP.*

**QUESTION 1:** Please provided the relevant construction avoidance periods.

**84.0 Topic: Wildlife**

**Reference: Appendix F, 7.2.6, Site Restoration pdf pg. 207**

*Areas disturbed during construction should be restored to meet or improve upon pre-construction conditions, particularly for work within the ALR, in and around fish habitat, and near important wildlife habitat features. Project-specific restoration plans should be developed that outline how to stabilize any disturbed areas while maximizing the resultant conditions and habitat values for environmental receptors*

**QUESTION 1:** Will FEI commit to develop a project wide restoration plan to address habitats impacted by the project and identify additional habitat enhancement actions to enhance habitat for species of management concern including ungulates and species at risk.