

**Federal Authority Advice Record (FAAR)**

**The FAAR must be submitted to the Registry by March 18, 2024.**

Summit Lake PG LNG Project – JX LNG Canada Ltd.

Agency File : 005908

Department/Agency	<a href="#">Health Canada</a>
Lead contact	<a href="#">Herbert Antill</a>
Full address	<a href="#">757 W Hastings Street, Vancouver, BC V6C 1A1</a>
Email	<a href="mailto:herbert.antill@hc-sc.gc.ca">herbert.antill@hc-sc.gc.ca</a>
Telephone	<a href="#">604-809-7652</a>
Alternate Contact	<a href="#">Yota Hatziantoniou, <a href="mailto:yota.hatziantoniou@hc-sc.gc.ca">yota.hatziantoniou@hc-sc.gc.ca</a></a>

- 
1. a) Is it probable that your department or agency may be required to exercise a power or perform a duty or function related to the Project to enable it to proceed?

If yes, specify the Act of Parliament and that power, duty or function.

b) Please describe any Indigenous or public consultation that will be undertaken in relation to the exercise of that power, duty or function, including when it would take place.

[Not applicable \(N/A\)](#)

- 
2. Is your department or agency in possession of specialist or expert information or knowledge in one of your fields of expertise that may be relevant to the conduct of an impact assessment of the Project?

Specify the specialist or expert information or knowledge.

[As a federal authority, Health Canada \(HC\) will provide specialist or expert information and knowledge in the Department's possession \(expertise\) to support the assessment of impacts on human health from projects considered individually or cumulatively under the Impact Assessment Act \(IAA\). It should also be noted that expertise related to assessing human health that is relevant to impact assessment \(IA\) may be held by other federal, provincial, and municipal partners, reflecting the shared jurisdiction for environmental and human health within Canada. For example, the Public Health Agency of Canada \(PHAC\) has expertise in the social determinants of health approach and health equity, and may provide that expertise through HC, upon request from the reviewing body\(ies\). How the expertise provided by HC and PHAC will be used in the IA process will ultimately be determined by the reviewing body\(ies\).](#)

HC can provide human health expertise in the following areas:

- Air quality;
  - Recreational and drinking water quality;
  - Traditional foods (country foods);
  - Noise;
  - Methodological expertise in human health risk assessment (HHRA);
  - Methodological expertise in health impact assessment (HIA);
  - Electromagnetic fields;
  - Radiological emissions; and
  - Public health emergency management of toxic exposure events
- 

3. Has your department or agency exercised a power or performed a duty or function under any Act of Parliament in relation to the Project; or taken any course of action that would allow the Project to proceed in whole or in part?

Please specify if applicable.

N/A

---

4. Has your department or agency had previous contact or involvement with the proponent or other party in relation to the Project (for example: an enquiry about methodology, guidance, or data; introduction to the Project)?

Please provide an overview of the information or advice exchanged.

No

---

5. Does your department or agency have additional information or knowledge about the project not specified above, including information about its geographic, environmental, economic or social context (for example, location of protected or sensitive areas, history between local communities and proponent or similar projects, local or regional social or economic concerns)?

Please specify if applicable.

No

---

6. From the standpoint of your department's mandate and expertise, what are the main issues concerning the project?

For each key issue, please:

- describe the effect or the nature of the issue, including any relevant context;
- provide the rationale and/or evidence for why it is a key issue;
- briefly provide solutions to the issue, including information or studies that, if applicable, should be requested to the proponent in the Tailored Impact Statement Guidelines, potential mitigation measures, or regulatory requirements relevant to the issues;
- provide a concise, plain-language summary of the issue for inclusion in the Summary of Issues.

The information provided will be taken into consideration by the Agency to formulate an opinion on whether an impact assessment is required and, if applicable, will be taken into account in developing project-specific Tailored Impact Statement Guidelines in the next steps of the impact assessment process.

Please use Table 1 to answer this question.

(See HC responses provided in Table 1.)

---

7. If applicable, specify any additional information the proponent could provide in the Detailed Project Description or in its response to the Summary of Issues that:
- would make it possible to verify whether certain minor issues could be addressed and managed by clear measures, existing guidelines, other regulatory processes or other existing tools;
  - help the Agency to provide an opinion if an impact assessment is required, or
  - would support the tailoring of the Impact Statement Guidelines if the Agency is of the opinion that an impact assessment is required.

These clarifications and additional information will be included as specific questions/issues in the Summary of Issues provided to the proponent.

Please use Table 2 to answer this question.

(See HC responses provided in Table 1.)

---

[Health Canada](#)

Name of department or agency involved

[Herbert Antill – Regional Manager,  
Environmental Health Programs - BC](#)

Speaker title

[March 07, 2024](#)

Date

**Table 1: Key issues to inform the impact assessment process**

The Agency asks that federal authorities guide expert advice on the Agency's approach to project specific tailoring, if the Agency is in the opinion that an impact assessment is required. This approach aims to focus the assessment on the Project's key issues, with an emphasis on the prevention of adverse environmental effects in areas of federal jurisdiction. In determining key issues, federal authorities should be mindful of the Project's context (size, scope, location), Indigenous knowledge and perspectives, and public concerns.

Potential effects that are considered minor, or that can be mitigated through clear measures, existing guidance or other regulatory processes, may be subject to simplified information requests or be disregarded. Advice from federal authorities on key issues and solutions - and on the scope and detail of the studies and information requested - will enable the Agency to focus the analysis on those issues that are important for the impact assessment process.

Comment ID	Relevant section of the initial project description	Valued Component or Factor to Consider	Description of key issue (context and rationale)	Advice	Plain-language summary for inclusion in Summary of Issues
<p><i>Please present comments by organization and comment number</i>  <i>e.g.: IAAC-01</i></p>	<p><i>If the comment relates to a specific section of the initial project description, please provide the reference.</i></p>	<p><i>Identify valued component(s) or factor to consider—within the mandate of your department or agency—to which the potential effect or issue applies.</i></p>	<p><i>Please provide a brief description of the issue and rationale for being a key issue. Include, where relevant:</i></p> <ul style="list-style-type: none"> <li><i>• the sequence of potential effects;</i></li> <li><i>• the relevant context that specifies why this is a key issue;</i></li> <li><i>• key uncertainties that should be addressed in the impact assessment;</i></li> <li><i>• Indigenous or public concerns or perspective;</i></li> <li><i>• scientific data or traditional knowledge, including from previous projects, that justifies the inclusion of the key issue in the project assessment.</i></li> </ul>	<p><i>If applicable, please provide brief solutions/advice to address the issue or potential effect, including:</i></p> <ul style="list-style-type: none"> <li><i>• studies or information relevant to describing and characterizing the potential effect, including any guidance for data collection or analysis or existing data sources to inform the assessment;</i></li> <li><i>• any powers your department or agency has that may mitigate, manage or set conditions related to the issue;</i></li> <li><i>• advice or policies to frame and mitigate the potential effect;</i></li> <li><i>• standardized mitigation or monitoring measures that could manage potential effects, including follow-up on monitoring activities;</i></li> <li><i>• Commitments the proponent could make to respond to the issue.</i></li> </ul>	<p><i>For issues to be included in the Summary of Issues, provide a concise, plain language synopsis of the key issue and any questions or directions for the proponent, if applicable.</i></p>
<p>HC-01</p>	<p>Location &amp; Health, Social and Economic Context (general comment)</p>	<p>Human Health Valued Component (VC) (e.g., Air Quality, Noise, Traditional Foods, Community Health/HIA)</p>	<p>The Project will be located on undisturbed land, approximately 30 kilometers (km) north of Prince George at the Hart North Industrial Site. The initial Project Description (iPD) identifies that the regional area hosts hunting, outfitting, and trapping activities, recreation and tourism focused on the natural environment, including opportunities related to regional and provincial parks and natural areas, and heritage sites. The iPD also identifies that the Lheidli-T'enneh First Nation (LTN) is located approximately 20 km from the proposed Project site, as well as a number of other Indigenous Nations that will be engaged for the Project.</p>	<p>HC recommends that the iPD clearly indicate the locations of sensitive human receptor locations, such as traditional use sites, temporary camps, care homes, places of worship etc. (e.g., using a map). Additionally, HC recommends that the distances between human receptor locations and the key components of the Project that may have potential impacts on these receptors be identified.</p> <p>Finally, the iPD does not specify whether Project activities (e.g., construction) would occur 24 hours a day/7 days a week per year. Assuming there may be at least some continuous use of the temporary worker camp and/or continuous operation of</p>	<p>Provide the locations and distances of all sensitive human receptor locations (including temporary facilities) that may be affected by the Project.</p>

				the Project, HC also recommends that potential health effects for off-duty workers residing in the worker camp also be assessed.	
HC-02	Scope/Process Overview (PDF p. 11)	Human Health VC (e.g., Air Quality, Noise, Traditional Foods, Community Health/HIA)	The iPD indicates that “in order to align with the Phase 1 pipeline capacity of the current Westcoast Pipeline, a pipeline loop of under 40 km could be required upstream of Compressor Station 4A within the existing Westcoast Pipeline system.” The iPD further states that this new Enbridge pipeline loop will be done as an independent project from the proposed JX LNG Project (the Project).	To the extent that the proposed Project will rely upon the construction of a new 40 km pipeline loop, HC recommends that the Proponent consider any (cumulative) environmental effects from the construction of this ancillary project component, and its ability to adversely affect the health of Indigenous peoples in the area.	Confirm whether the construction of a new 40 km pipeline loop will be considered for its potential to contribute to any cumulative health effects.
HC-03	Scope/Process Overview (PDF p. 12)	Human Health VC (e.g., Air Quality, Noise, Community Health/HIA)	The iPD states that the Liquefied Natural Gas (LNG) product will be stored in International Organization Standardization (ISO) containers for transportation. The LNG within the ISO containers will be loaded onto rail cars on the Project lease, where it will be transported to the BC west coast and loaded onto cargo ships for delivery overseas to international consumers of LNG.	HC recommends that all transportation routes into and out of the Project site (e.g., carrying workers, supplies, LNG etc.) be scoped into all relevant assessments, including those for air quality, human health, accidents and malfunctions, and noise, to a spatial extent that is appropriate. This would allow a full understanding of potential health impacts from Project activities, including transportation.	It would be useful to assess all transportation routes (e.g., rail road) in the area that would be required to support the Project.
HC-04	Indigenous Nations (PDF p. 16) & Table 6-1 Project Components (PDF p. 49)	Human Health VC (e.g., Community Health/HIA)	<p>The iPD lists some potential interactions with, and effects on, Indigenous interests associated with Project components and activities. HC recommends that the Proponent also assess any effects from the influx of temporary workers that will be housed in a worker camp to be constructed near the Project, or in Prince George area hotels.</p> <p>HC notes that, according to Manning et al., 2018, work camps can have serious impacts on Indigenous women, but these are not always discussed as part of the impact assessment (IA) process. Increased traffic impacts on local roads from camps are often considered in IA, but little attention is given to the influx of new and foreign workers and their impact on communities - especially Indigenous women.</p>	<p>HC recommends that a detailed Health Impact Assessment (HIA) be undertaken in collaboration with Indigenous peoples, to capture the Project’s potential effects on the social, economic and health conditions of Indigenous peoples (this would be in addition to the biophysical conditions typically included in an impact assessment). An HIA emphasizes that physical, mental, and social well-being is determined by a broad range of conditions, or factors, from all sectors of society known as the determinants of health (HC, 2022). An HIA would consider Indigenous community concerns (e.g., employment, training, cultural transmission etc.) and incorporate Gender-Based Analysis Plus to reflect how Project activities (e.g., the temporary worker camp) could affect subgroups of the population in different ways.</p> <p>HC notes that the temporary work force would be an important factor to consider in an HIA. As part of this, it would</p>	<p>An HIA would be useful to identify and assess important socio-economic factors (i.e., determinants of health) that can influence the health of Indigenous community/ies.</p> <p>Confirm the work scheduling requirements of the temporary worker camp.</p>

			Manning, Susan, Patricia Nash, Leah Levac, Deborah Stienstra, and Jane Stinson. 2018. <i>Strengthening Impact Assessments for Indigenous Women</i> . Canadian Research Institute for the Advancement of Women.	be useful to understand the work scheduling arrangements (e.g., rotational schedule) and drive-in and drive-out requirements for the peak workforce of 400 to 550 workers anticipated during Phase 1 construction.  HC. 2022. <i>Interim Guidance Document for the Health Impact Assessment of Designated Projects under the Impact Assessment Act. Draft for review</i> . June 30, 2022.	
HC-05	Health, Social and Economic Context (PDF p. 18)	Human Health VC (e.g., Noise)	The iPD indicates that human health can be affected by increases in noise levels, among other biophysical changes.	HC recommends a noise assessment (to include consideration of annoyance and sleep disturbance) be conducted in accordance with HC guidance. The noise assessment would identify and describe human receptors who may have a heightened sensitivity to noise exposure (e.g., Indigenous peoples, child care centers etc.). It should be noted that human receptors in rural areas could have a greater expectation of “peace and quiet”. Particular attention will need to be given to the potential for sleep disturbance to local residents, including off-duty workers residing in, or near, the Project area.  HC. 2023. <i>Guidance for Evaluating Human Health Effects in Impact Assessment: Noise</i> . Available at: <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf</a> .	Undertake a complete assessment of potential noise effects (including annoyance and sleep disturbance) to Indigenous peoples who practise traditional activities or live near the Project area (e.g., seasonal residents, off-duty workers) and other identified sensitive receptors using noise guidance available from HC (2023).
HC-06	Emissions and Waste (PDF p. 20)	Human Health VC (e.g., Air Quality)	The iPD indicates that some of the emissions from the Project would include nitrogen oxides (NOx), carbon monoxide (CO), particulate matter (PM), and volatile organic compounds (VOC) from vehicles, diesel-powered portable electricity generators (back up) and construction equipment emissions.	Given that the Project is located on LTN territory, extensive traditional and recreational activities take place in the regional area, and off-duty workers may reside near the Project, HC recommends that an air quality assessment be conducted to assess scenarios such as: baseline, Project alone, baseline plus Project, and cumulative or future development, as appropriate.  In addition to considering emissions of NOx, CO, PM*, and VOCs from the use of vehicles and equipment, HC recommends that emissions of sulphur dioxide, polycyclic aromatic hydrocarbons, and diesel particulate matter (DPM)	Undertake a complete assessment of potential air quality health effects for the Project, using the most recent air quality guidance available from HC (2023).

				<p>also be considered. It may also be important to consider the release of any other chemicals resulting from combustion in the acid gas incinerators, direct fired process heaters, and from vented, flared and fugitive sources (e.g., during Project operations). Finally, HC recommends that there be consideration of emissions during construction and operations for all transportation-related activities that may be scoped into the Project assessment.</p> <p>* Of note, the Canadian Ambient Air Quality Standards (CAAQS) for PM, nitrogen dioxide (NO<sub>2</sub>) and ozone (O<sub>3</sub>) recognize that there is no population health threshold for human health effects; therefore, any increase in exposure will result in an incremental population risk (HC, 2023).</p> <p>HC. 2023. <i>Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality</i>. Available at: <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf</a>.</p>	
HC-07	6.4 Components (PDF p. 47)	Human Health VC (e.g., Air Quality, Noise)	The iPD identifies “flare systems” as being an essential component of the Project without providing information regarding their location, whether they would be used for emergencies only, and whether they would be enclosed or not.	HC recommends that more information be provided regarding the Project’s required flare system, since the flare(s)’ proximity to sensitive human receptor locations, as well as the frequency of the flare(s)’ operation, may cause changes to air quality and noise that could influence human health.	Provide more information on the Project’s required flare system and its contribution to potential human health effects near the Project.
HC-08	Table 6-1 Project Components (PDF p. 49)	Human Health VC (e.g., HHRA)	<p>The emerging concern regarding per- and polyfluoroalkyl substances (PFAS)* may need to be considered for assessment, and included in future Tailored Impact Statement Guidelines or Application Information Requirements for this Project.</p> <p>The iPD indicates that a fire suppression system will be required as one of the components of the LNG containment storage tank. HC is aware that PFAS may be present in Aqueous Film Forming Foams for fire suppression/</p>	HC notes that it is unclear if PFAS or PFAS containing materials/products etc. may be used as part of any activities (e.g., fire suppression systems) related to this Project. If any PFAS-containing products will be used or produced as a result of the Project, HC recommends that PFAS be assessed as part of a Human Health Risk Assessment (HC, 2021). A future site management plan for PFAS may also be warranted, given the concerns associated with these “forever chemicals”.	Confirm if PFAS (i.e., “forever chemicals”) will be used in any aspect of the Project. If so, a human future health risk assessment and/or site management plan may be needed to reduce potential exposure.

			<p>firefighting activities. Additionally, PFAS may be used as fluoropolymer in pipes, cables, hoses and conveyor belts, among other uses.</p> <p>* PFAS, sometimes referred to as “forever chemicals”, are a large group of extremely persistent human-made substances used in a wide range of everyday products. They are also used in industrial products and specialized applications including firefighting foams, lubricants, and oil/water repellants. PFAS are found nearly everywhere in the environment.</p> <p>For more information, refer to the May 19, 2023 Government of Canada news release: <a href="https://www.canada.ca/en/environment-climate-change/news/2023/05/government-of-canada-taking-next-step-in-addressing-forever-chemicals-pfas.html">https://www.canada.ca/en/environment-climate-change/news/2023/05/government-of-canada-taking-next-step-in-addressing-forever-chemicals-pfas.html</a>.</p>	<p>HC. 2021. <i>Federal Contaminated Site Risk Assessment in Canada: Guidance on Human Health Preliminary Quantitative Risk Assessment (PQRA) Version 3.0</i>. Available at: <a href="https://publications.gc.ca/collections/collection_2021/sc-hc/H129-114-2021-eng.pdf">https://publications.gc.ca/collections/collection_2021/sc-hc/H129-114-2021-eng.pdf</a></p>	
HC-09	References (PDF pp. 91-94)	Human Health Valued Component (VC) (e.g., Air Quality, Noise, Traditional Foods, Community Health/HIA)	<p>HC recommends the Proponent reference HC's recently updated impact assessment guidance (6 documents) in all future Project documentation, as applicable:</p> <p>HC. 2023. <i>Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality</i>. Available at: <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf</a></p> <p>HC. 2023. <i>Guidance for Evaluating Human Health Effects in Impact Assessment: Country Foods</i>. Available at: <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-5-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-5-2023-eng.pdf</a></p> <p>HC. 2023. <i>Guidance for Evaluating Human Health Effects in Impact Assessment: Drinking and Recreational Water Quality</i>. Available at: <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-2-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-2-2023-eng.pdf</a></p>		



			<p>HC. 2023. <i>Guidance for Evaluating Human Health Effects in Impact Assessment: Human Health Risk Assessment</i>. Available at: <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-6-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-6-2023-eng.pdf</a></p> <p>HC. 2023. <i>Guidance for Evaluating Human Health Effects in Impact Assessment: Noise</i>. Available at: <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf</a></p> <p>HC. 2023. <i>Guidance for Evaluating Human Health Effects in Impact Assessment: Radiological Impacts</i>. Available at: <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-4-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-4-2023-eng.pdf</a></p>	
--	--	--	---	--

**Table 2. Details or additional information the proponent could include in the Detailed Project Description or in the response to Summary of Issues**

<b>Comment ID</b>	<b>Relevant section of the Initial Project Description</b>	<b>Description of the Issue, Concern or Uncertainty</b>	<b>Clarifications or additional information</b>	<b>Plain-language summary for inclusion in Summary of Issues</b>
<p><i>Please identify comments by organization and comment number.</i></p> <p>e.g. AEIC-01</p>	<p><i>If the comment is related to a specific section of the Initial Project Description, please provide a reference.</i></p> <p><i>You may also choose to copy the relevant text here.</i></p>	<p><i>Provide a description of the issue, concern or uncertainty that the proponent could include in its Detailed Project Description, which could be framed and managed by clear measures, existing guidelines, regulatory processes or other existing tools, and thus be the subject of a simplified information request in the guidelines, or simply be disregarded.</i></p>	<p><i>Specify what additional information the proponent could provide in the Detailed Project Description to address the issue, concern or uncertainty, for example:</i></p> <ul style="list-style-type: none"> <li><i>Clarifications to elements of Project Description (e.g. components, activities, locations or alternatives);</i></li> <li><i>Proposals on Project design changes that could avoid effects;</i></li> <li><i>Evidence that could demonstrate that the effects will be negligible;</i></li> <li><i>Evidence that standard mitigation measures will reduce or eliminate potential effects;</i></li> <li><i>Commitments the proponent could make to respond to the question/issue, including the implementation of federal operational policies or guidance documents.</i></li> </ul>	<p><i>For issues to be included in the Summary of Issues, provide a concise, plain-language synopsis of the issue and any questions or instructions for the proponent, if applicable.</i></p>
<p><b>See HC comments provided in Table 1 above.</b></p>				