## Federal Authority Advice Record (FAAR)

FAAR Response must be submitted by August 12, 2024

Big Bear Camp Aerodrome Project - Big Bear Contracting Ltd.

Registry File: 88735

Department/Agency	Health Canada
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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?

## Not Applicable

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

2. Is your department or agency in possession of specialist or expert information or knowledge in its area of expertise that may be relevant to the conduct of an impact assessment of the project?

## Yes

Specify the specialist or expert information or knowledge.

As a federal authority, Health Canada 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 Health Canada, upon request from the reviewing body(ies). How the expertise provided by Health Canada and PHAC will be used in the IA process will ultimately be determined by the reviewing body(ies).

Health Canada can provide human health expertise in the following areas:

- Air quality health effects;
- Contamination of country foods (e.g. fish, wild game, garden produce, berries, etc.);
- Drinking and recreational water quality;
- Radiological effects;
- Electric and magnetic fields;
- Noise impacts;
- Methodological expertise in human health risk assessment;
- Methodological expertise in conducting Health Impact Assessment (HIA); and Public health emergency management of toxic exposure events.
- 3. Has your department or agency considered the project; 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?

No

Specify.

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)

No

Provide an overview of the information or advice exchanged.

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

No

Specify as appropriate.

6. Based on the mandate and area(s) of expertise of your department or agency, what are the key issues related to the project

For each key issue:

- Describe the potential effect or the nature of the issue, including any relevant context;
- Provide the rationale and/or evidence for why it is a key issue;
- Provide advice on how to address the issue, including any information or studies that should be required in the Tailored Impact Statement Guidelines, potential mitigation measures, and/or regulatory requirements relevant to the issue;
- Provide a concise, plain-language summary of the issue for inclusion in the Summary of Issues.

The information provided will be considered by the Impact Assessment Agency of Canada (IAAC) and may be used to inform its decision on whether an impact assessment is required and, where appropriate, for next steps in the impact assessment process including to develop project-specific draft Tailored Impact Statement Guidelines.

Please use Table 1 to respond to this question.

Health Canada did not comment on Table 1.

- 7. Where possible, identify any additional information the proponent could include in the response to the Summary of Issues and, if IAAC requires it, in their Detailed Project Description, that would:
  - Give confidence that minor issues or effects could be addressed and managed by clear measures, existing guidelines, other regulatory processes or other existing tools;
  - Inform the decision as to whether an impact assessment is required; or
  - Aid in tailoring the Tailored Impact Statement Guidelines, if IAAC decides an impact assessment is required.

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

Please use Table 2 to respond to this question.

Health Canada provides its responses in Table 2 based on the information available in the Proponent's Initial Project Description.

David Kitchen			
Name of Departmental / Agency Responder			
Regional Manager (MB/SK/NU)			
Title of Responder			
August 12, 2024			
Date			

## Table 1: Key Issues to inform the impact assessment process

The IAAC asks that federal authorities align expert advice with IAAC's approach to tailoring by project, which focuses on key project issues, clearly focused on the prevention of adverse effects within federal jurisdiction. In identifying key issues, federal authorities should be mindful of the project's context (size, scope, location), Indigenous Knowledge and perspectives, and public concerns. Key issues that may be relevant to the decision include:

- adverse effects within federal jurisdiction and direct or incidental adverse effects that may be to some extent significant, based on federal experts' knowledge and experience with past projects;
- potential impacts on Indigenous Peoples and their rights, based on Indigenous Knowledge and perspectives or experience with past projects;
- effects on key species or habitats (e.g. at risk, important to Indigenous communities, commercial importance, provide important ecosystem function);
- issues or effects that may result from novel project activities, components or technology;
- effects with large uncertainties, including in the effectiveness of mitigation measures;
- adverse effects within federal jurisdiction or direct or incidental adverse effects where mitigation measures are limited;
- positive effects, including where project may support other governmental priorities, including reconciliation with Indigenous Peoples; and
- key concerns raised by Indigenous groups or local communities.

Effects that are anticipated to be minor or which can be managed using well understood mitigation, existing guidance, and/or other regulatory processes may have simplified information requirements or may be removed entirely. Measured advice from federal authorities on key issues and solutions —and on the scope and detail of any required information and studies — will enable IAAC to focus assessments on issues that are important to participants and to decision-makers.

Comment ID	Relevant section of the Initial Project Description		Description of Key Issue (Context and Rationale)	Advice	Plain language summary for inclusion in Summary of Issues
Please identify comments by organization and comment number. e.g.: IAAC-01	If the comment is related to a specific section of the Initial Project Description, please include that reference.	Identify valued component(s) or factor to consider—within the mandate of your department or agency—to which the potential effect or issue applies.	Provide a brief description of the issue and rationale for being a key issue.  Include, where relevant,:  • the pathway of effects;  • relevant context on why it is a key issue;  • key uncertainties that should be addressed in the impact assessment;  • Indigenous or public concerns or perspective;  • potential for differential effects among diverse subgroups;  • scientific evidence or Indigenous Knowledge, including from past project experience, which supports inclusion as a key issue.	<ul> <li>Where applicable, briefly provide solutions on how to address the potential issue or effects including:</li> <li>Information or studies required to describe and characterize the potential effect; including any guidance for data collection and/or analysis or existing data sources to inform the assessment;</li> <li>Any means, including any powers, duties or functions, that your department or agency has that may mitigate, manage, or set conditions related to the issue or effect;</li> <li>Guidance or policies for mitigating effects or any standard and well-understood mitigation measures that would address the effect, including follow-up monitoring activities; and/or</li> <li>Commitments the proponent could make to respond to the issue.</li> <li>Where available, please refer to existing text in the Tailored Impact Statement Guidelines template.</li> </ul>	Summary of Issues, provide a concise, plain language synopsis of the key issue and any questions or directions for the proponent.

Please insert additional rows as necessary.

Table 2. Clarifications or additional information the Proponent could include in the response to Summary of Issues

Comment ID	Relevant section of the Initial Project Description	Description of Issue, Concern or Uncertainty	Clarification or additional information	Plain language summary for inclusion in Summary of Issues
Please identify comments by organization and comment number. e.g.: IAAC-01	If the comment is related to a specific section of the Initial Project Description, please provide a reference.  You may also choose to copy the relevant text here.	Provide a description of the issue, concern or uncertainty the proponent could address in their response to Summary of Issues and, if IAAC requires it, in their Detailed Project Description that would give confidence that the issue will be addressed and managed, by clear measures, existing guidelines, regulatory processes or other existing tools, and thus be the subject of simplified information requests in the guidelines, or simply be removed.	Provide recommended clarification or additional information to be included in their response to the Summary of Issues and, if IAAC requires it, in their Detailed Project Description to address the issue, concern or uncertainty, for example:  • Clarifications to elements of the project description (e.g. components, activities, locations or alternatives);  • Proposed project design changes that could avoid effects;  • Evidence that could be presented to demonstrate there is no effect, pathway of effect or that effects would be negligible;  • Evidence that standard mitigations will address potential effects  • Commitments the proponent could make to respond to the issue, including the implementation of federal operational policies or guidance documents.	For issues to be included in the Summary of Issues, provide a concise, plain language synopsis of the issue and of the question or direction for the proponent.
HC-01	Human Health – General  Table 2.3 PDF pg. 13-14  Section 2.4 PDF pg. 14-16  Table 2.4 PDF pg. 15-16  Section 2.5 PDF pg. 16-17  Section 4.1.4 PDF pg. 26-30  Table 4.1 PDF pg. 28  Table 4.2 PDF pg. 30  Section 6.3 PDF pg. 55-56	Uncertainty with the characterization of current and future land use (i.e., human receptors) may underestimate potential health risks from potential project impacts.  The Initial Project Description (IPD) provides limited information on current and potential future land use near the Project area (e.g., the Big Bear Camp, existing cabins/cottages, seasonal camps, traplines, hunting, fishing, and other traditional land use in the area). The Proponent, which is part of the Clearwater River Dene Nation (CRDN), reports that members of the CRDN do not practice traditional land use near the Project site.  The Proponent informed Indigenous groups in the region of their intention to develop the Project; however, it is unclear if information on whether these groups practice traditional activities near the Project was requested. While one contacted Indigenous group reported no such land use, responses from other groups were not received (Table 2.4). Furthermore, while the IPD states that communities shown on Figure 4.4 "have the potential of being affected in both negative and positive ways from a socio-economic and traditional land and resource use perspective through Project development and operations", it is unclear if all of these communities were contacted (i.e., unclear if they correspond to the ones listed in Table 2.4).  Section 2.5 of the IPD indicates that recently completed Indigenous knowledge and traditional land use studies were completed as part of mining projects located 20 kilometres southeast of the proposed aerodrome but acknowledges that they were not available and did not inform the IPD. It is also unclear whether these studies cover the areas surrounding the Project.	<ol> <li>following information in the Detailed Project Description (DPD):</li> <li>Consult with all the communities identified in Figure 4.4 that are not listed in Table 2.4, if applicable, and continue engaging with contacted communities regarding information on their traditional land use. Update the assessment documents if and when additional information about traditional land use is obtained. If additional information reveals that traditional activities are taking place within the study areas of the Project including Project area, local and regional study areas (LSA and RSA), assess the impacts from the Project on traditional land users. The effects assessment should consider community members or off-duty workers if they may be participating in traditional harvesting or other land use activities in the local study area at any given frequency (e.g., seasonally).</li> <li>When updating the assessment document, identify all land users (e.g., recreational, hunting, trapping, harvesting and ceremonial sites used by human receptors) that may be impacted by changes to air, water, and country food quality and noise levels associated with the Project activities, including current or potential future receptors (e.g., due to increase in regional tourism). Provide a map showing approximate locations of all land users as well as the spatial</li> </ol>	There is insufficient information provided on traditional land use activities potentially taking place near the Project. Additional consultation with potentially impacted Indigenous communities is recommended.

HC-02	Human Health - Air quality  Section 4.2.6.2 PDF pg. 44  Table 4.8 PDF pg. 44  Section 6.5 PDF pg. 57-63  Section 6.7.1 PDF pg. 65	There is insufficient information provided on air quality at baseline and for different phases of the Project as well as the air quality standards that will be used for comparison.  The IPD states that "No site-specific air quality assessment was completed" and that "With no industrial sources nearby, the air quality in the area is considered quite good", presumably based on information from nearby projects such as the historical Cluff Lake project or the NexGen Rook I Environmental Impact Assessment (Section 4.2.6.2). However, there is no detail regarding what air contaminants were considered, their concentrations and how recent the data are from these two other projects.  Based on Section 6.7.1, anticipated air emissions during the construction, operations or decommissioning phases include: (i) emissions from earthworks and heavy equipment during construction and; (ii) emissions from aircraft and from use and maintenance of the gravel airstrip during operation, with much of the construction equipment expected to be diesel powered (Table 6.5). However, the IPD does not discuss air pollutants other than fugitive dust (Table 4.8) and projected GHG emissions (Section 6.5). For example, heavy equipment emits fine particulate matter (PM <sub>2.5</sub> ), nitrogen dioxide (NO <sub>2</sub> ) and diesel exhaust (DE), which are considered non-threshold contaminants. Diesel emissions are a complex mixture of gaseous and particulate compounds, including diesel particulate matter (DPM), polycyclic aromatic hydrocarbons (PAHs), and volatile organic carbons (VOCs), and considered a highly toxic air contaminant associated with cancer and adverse health problems such as respiratory illnesses and increased risk of heart disease.  Additionally, the IPD does not discuss any air quality criteria (e.g., Canadian Ambient Air Quality Standards or World Health Organization Global Air Quality Guidelines) for common air pollutants that could be used to compare to baseline or predicted air pollutants levels.  Table 4.8 only identifies mitigation measures for	<ol> <li>Information in the DPD:         <ol> <li>Provide additional information on the air quality data that was used to characterize the baseline conditions for the proposed Project.</li> <li>Consider all sources of emissions from each project phase (construction, operation, and decommissioning), for each contaminant of potential concern (COPC), including Project-related processes, on-site vehicle usage, and fugitive emissions</li> </ol> </li> <li>Provide a complete inventory of all potential COPCs including, but not limited to: NO<sub>2</sub>, sulphur dioxide (SO<sub>2</sub>), PM<sub>2.5</sub>, coarse particulate matter (PM<sub>10</sub>), PAHs, VOCs, DPM and metals. Provide additional evidence-based rationale to justify excluding any emissions and/or specific COPCs from further assessment.</li> </ol> <li>Compare all baseline and predicted air quality results, for all COPCs, to the most stringent and up-to-date federal and provincial air quality criteria, including the CAAQs.</li> <li>Consider identifying potential mitigation measures for air quality impacts during all phases of the Project.</li>	There is insufficient information regarding baseline and predicted air quality and mitigation measures for different phases of the Project.
HC-03	Human Health – Noise Section 4.2.6.1 PDF pg. 44 Table 4.8 PDF pg. 44	There is insufficient information provided regarding noise effects and related mitigation measures for all phases of the Project.  While human receptors have been identified in surrounding Indigenous and non-Indigenous communities with physical distances of over 50 km, it would be important to consider the noise effects to traditional land users (e.g., hunting, fishing, trapping, etc.) near the Project site (should they be identified in response to comment HC-01).  While the IPD notes that "Noise sources in the area are minimal", Section 4.2.6.1 identifies the existing generators and equipment at the Big Bear Camp as noise sources and anticipates loud, but short and intermittent noise from aircrafts using the aerodrome during operation. Additional noise can be expected from heavy equipment during construction.	<ol> <li>Information in the DPD:         <ol> <li>Provide a description of potential effects from Project-related noise for all phases on land users (identified as per comment HC-1) and nearby Indigenous communities.</li> </ol> </li> <li>Discuss potential mitigation measures for the operation phase of the Project and develop a communication plan that describes how human receptors in neighbouring areas will be informed ahead of time of any Project-related activities that may lead to noise disturbances. Additionally, provide a complaints resolution process that describes how noise complaints will be received and addressed.</li> </ol>	There is insufficient information on noise impacts and follow-up plans to mitigate noise disturbance and resolve complaints.
Page 6 of 8		Table 4.8 only lists mitigation measures for noise during the construction phase, which includes efforts to reduce noise generation and perform regular maintenance where possible. Mitigation measures for the other project phases, namely the operation phase, along with a communication plan to proactively engage with and inform Indigenous communities located along	documents.	

	1	anticipated flight paths, as well as a complaint resolution process could be		
		considered.		
HC-04	Human Health – Drinking and Recreational Water Quality & Country Foods  Section 3.1 PDF pg. 17-18  Section 4.2.4.PDF pg. 38-40  Table 4.7 PDF pg. 39-40  Section 6.7.2 PDF pg. 65	The IPD does not discuss potential Project impacts on drinking/ recreational water quality and country foods or the resulting effects on human health.  Baseline water quality and fish species surveys for Hodge Lake and other lakes to the southeast of the Project were characterized based on baseline monitoring programs undertaken by two other proposed mining Projects located 20 kms southeast of the Project. However, there is no information provided regarding Grygar Lake (located 200 m from the Project site), which may be affected by the Project activities (e.g., sedimentation, accidental spills – see Table 4.7). It is unclear if the Grygar Lake is used for fishing, recreation, or as a source of drinking water. Section 6.7.2 indicates that the Project will pull water from the lake and treat it using their on-site water treatment plant. However, it is unclear whether the treated water will be used for drinking water.  Section 3.1 notes that an intended use for the Project was increasing regional tourism which may include recreational water use (including fishing activities), at Grygar Lake or other nearby water bodies. If the use of the Project area expands to include any type of recreational water use during the Project, an assessment of potential health risks associated with recreational water use (i.e., dermal absorption and accidental ingestion) and possibly the consumption of country foods (e.g., fish) could be considered.	<ol> <li>Identify all potential drinking water sources (both surface water and groundwater, if applicable) and any recreational waters within the areas of influence of the Project.</li> <li>Provide information regarding baseline water quality from Grygar Lake and surrounding waterbodies that may be impacted by the Project.</li> <li>Consider any potential Project-related impacts to drinking/recreational water quality and country foods and associated potential effects on human health.</li> <li>Compare all baseline and predicted water quality results, for all COPCs, to the most stringent and most up-to-date federal and provincial water quality guidelines.</li> <li>Please refer to HC-06 for relevant Health Canada guidance</li> </ol>	
HC-05	Human Health – Health, Social and Economic Context  Section 3.1 PDF pg.17-18  Section 6.4 PDF pg. 56	Information on existing and anticipated socioeconomic conditions in the project area should be sufficiently developed to inform decisions on the need for a Health Impact Assessment.  Section 6.4 summarized net positive impacts of the Project to Indigenous Peoples, which include improved access to medical and emergency services and general transportation to and from the region. Section 3.1 describes Project purposes as supporting regional tourism, providing a potential base for the Saskatchewan Public Safety Agency including accommodation of crews and aircraft support, and servicing the expanding needs of the mining industry in the region.  Given that HC does not identify any clear socioeconomic health concerns regarding the Project and engagement with Indigenous groups has not identified any concerns with regards to impacts to health, a comprehensive Health Impact Assessment is not recommended at this time. However, as the IPD provides many forecasted uses for the Project, it may contribute to cumulative socioeconomic impacts in the region. It may be useful to consider future projections of growth in the Project area (e.g., housing pressures and increased service demands) and how this rise in future usage may positively and negatively impact broader social determinants of health as well as how these potential effects may be distributed across different populations groups (e.g., Indigenous peoples, youth, etc.).	<ol> <li>Provide information on the potential cumulative social, and economic effects of existing and future projects within the vicinity of the Project and their potential to collectively impact human health. Elaborate on the broader positive and negative socioeconomic impacts that may result from increased future usage of the aerodrome.</li> <li>Consider engaging with local Indigenous communities to help gather community-specific views and information.</li> <li>Please refer to HC-06 for relevant Health Canada guidance documents.</li> </ol>	health of local
HC-06	Human Health - General	HC has published a series of Guidance Documents that provide general guidance on assessing risks to human health from major resource and infrastructure projects in Canada. It presents the principles, current practices, and basic information HC looks for when it reviews environmental impact statement or other reports submitted by Project proponents. These Guidance	HC recommends an assessment of the potential health impacts as per the department's guidance documents for Evaluating Human Health Effects in Impact Assessment:  1. Guidance for Evaluating Human Health Effects in Impact	N/A
<u>l</u>		Documents are available for the benefit of proponents and their consultants	Assessment: Air Quality	

and to support an efficient and transparent project review process. References to these Guidance Documents can be included in the DPD.	<ol> <li>Guidance for Evaluating Human Health Effects in Impact         Assessments: Country Foods</li> <li>Guidance for Evaluating Human Health Effects in Impact         Assessment: Drinking and Recreational Water Quality</li> <li>Guidance for Evaluating Human Health Effects in Impact         Assessment: Human Health Risk Assessment</li> <li>Guidance for Evaluating Human Health Effects in Impact         Assessment: Noise</li> <li>Guidance for Evaluating Human Health Effects in Impact         Assessment: Radiological Impacts</li> <li>Guidance for the Environmental Public Health Management of</li> </ol>
	7. Guidance for the Environmental Public Health Management of Crude Oil Incidents
	8. Interim Guidance Document for the Health Impact Assessment of Designated Projects under the Impact Assessment Act. Draft for review. June 30, 2022

<sup>1</sup> Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality. Available online at: https://publications.gc.ca/collections/collections\_2024/sc-hc/H129-54-1-2023-eng.pdf

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Country Foods. Available online at: <a href="https://publications.gc.ca/collections/co

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Drinking and Recreational Water Quality. Available online at: <a href="https://publications.gc.ca/collections/

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Human Health Risk Assessment. Available online at: https://publications.gc.ca/collections/collection 2024/sc-hc/H129-54-6-2023-eng.pdf

<sup>&</sup>lt;sup>5</sup> Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Noise. Available online at: <a href="https://publications.gc.ca/collections/collec

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Radiological Impacts. Available online at: <a href="https://publications.gc.ca/collections/collect

Thealth Canada. 2018. Guidance for the Environmental Public Health Management of Crude Oil Incidents. Available online at: <a href="https://publications.gc.ca/collections/col

Health Canada. 2022. Interim Guidance Document for the Health Impact Assessment of Designated Projects under the Impact Assessment Act. Draft for review. June 30, 2022. (available upon request to: ia-ei@hc-sc.gc.ca)