

Federal Authority Advice Record (FAAR)

FAAR Response must be submitted by August 16 2024

Black Bear Power Plant Project – Kiwetinohk Energy Corp.

Registry File: 88747

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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?

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

ECCC does not expect that it will be required to exercise a power or perform a duty or function related to the Project to enable it to proceed. Once the scope of the Project and of the assessment are established by the Agency, this may change as additional activities or Project components could come into scope.

Please note the following requirements that may apply to this Project:

Species at Risk Act permits

For species listed in Schedule 1 of the *Species at Risk Act* (SARA) as Extirpated, Endangered or Threatened, a permit may be required from ECCC (section 73 of SARA) for activities that affect a listed terrestrial wildlife species, the residences of its individuals or any part of its critical habitat where those prohibitions are in place. Such permits may only be issued: if all reasonable alternatives to the activity that would reduce the impact on the species have been considered and the best solution has been adopted; all feasible measures will be taken to minimize the impact of the activity on the species or the residences of its individuals or its critical habitat; and if the activity will not jeopardize the survival or recovery of the species.

SARA prohibitions are in place for individuals and residences on federal lands in a province, reserve or any other lands under the *Indian Act*, or lands under the authority of the Minister of the Environment, and for birds listed under the *Migratory Birds Convention Act, 1994* wherever they occur regardless of land tenure.

Furthermore, prohibitions may be in force on land other than federal land pursuant to other orders or regulations under SARA. It is possible that additional prohibitions may come into force in the future

through orders in Council for individuals, residences and critical habitat on non-federal lands and/or through a ministerial order for critical habitat on federal lands. It is also possible that, over the course of the assessment or after the assessment, additional species could be listed under SARA; permits may be required for Project activities that affect these additional species. Proponents are advised to monitor for such developments on the SARA Registry <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>.

ECCC will require detailed information on the potential effects of the Project, including locations and/or occurrences of species at risk, their use of habitat and critical habitat within the Project area, and specific effects on federal land, before ECCC can determine whether a SARA permit is required.

Migratory Birds Convention Act, 1994 permits

The *Migratory Birds Regulations, 2022* (MBR 2022) protect migratory birds, their eggs and their nests, by prohibiting activities that may harm them. Unless a person has a permit or the regulations authorize it, it is prohibited to engage in the following activities:

- Capturing, killing, taking, injuring or harassing a migratory bird or attempting to do so;
- Destroying, taking or disturbing an egg; and
- Damaging, destroying, removing or disturbing a nest, nest shelter, eider duck shelter or duck nesting box, unless the following exceptions apply:
 - The nest does not contain a live migratory bird or a viable egg; and,
 - The nest was not built by a species listed in Schedule 1.

Modernization of the MBCA in 2022 has additionally identified 18 species of birds whose nests are protected year round (Schedule 1 of MBR 2022). The nests of species listed in Schedule 1 are protected at all times, unless the following conditions are met:

- Notification of the unoccupied nest has been submitted/received through the Registry for Abandoned Nests; and,
- The waiting time designated in the regulations has passed, during which time the nest has not been occupied by a migratory bird.

In some situations, it may be possible to obtain a permit to move or destroy an unoccupied nest of a Schedule 1 species. For more information, please visit:

<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html>

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.

ECCC does not expect to exercise any powers or perform a duty or function under any Act of Parliament in relation to the Project that will involve public and Indigenous Consultation.

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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?

Specify the specialist or expert information or knowledge.

ECCC has specialist or expert information that may be relevant to the impact assessment in the areas listed below. In each of these subject areas we have expertise related to establishing an adequate baseline, assessing potential effects to biophysical valued components, effectiveness of mitigation measures, methods for monitoring and follow-up, as well as information regarding federal policies, standards, and regulations that may be relevant to the assessment (Note: ECCC does not assess proposed projects for regulatory compliance, but instead provides technical input to the Agency to inform the assessment). Once the scope of the Project and of the assessment are established by the Agency, this list may change if additional Project activities or components should come into scope.

Air quality: ambient air quality; sources of emissions; emissions estimation and measurement; atmospheric transport, transformation and dispersion modelling; cumulative effects; effectiveness of mitigation measures; and follow-up monitoring.

Greenhouse gas emissions and climate change: estimations of greenhouse gas (GHG) emissions (net and upstream); impact on carbon sinks; GHG mitigation measures and determination of Best Available Technologies/Best Environmental practices (BAT/BEP); credible plans to achieve net-zero GHG emissions by 2050; climate change science to inform evaluation of potential changes to the environment and Project resilience to effects of climate change; climate change policies; and national GHG projections.

Water quality and quantity: surface water quality; contamination sources for surface water and groundwater, including effluent; wastewater; water quality predictions and modelling; seepage and runoff effects; management of contaminated soils or sediments; hydrology (streamflow rates data and modelling, flooding and extreme events management, drainage control, water levels, water balances); geochemistry; cumulative effects and follow-up and monitoring.

Wildlife, species at risk, and habitat: migratory birds, their nests, eggs, and habitat under authority of the *Migratory Birds Convention Act, 1994*; species assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC); species at risk under the *Species at Risk Act*, individuals, their residences, habitat and critical habitat including recovery strategies, action plans and management plans under ECCC's mandate; ecological function of wetlands; and ecotoxicology.

Environmental emergencies: emergency management planning and guidance, including where the release of hazardous substances could affect species at risk and/or migratory birds; atmospheric transport and dispersion modelling of contaminants in air; fate and behaviour; and hydrologic trajectory modelling of contaminants in water.

Climate and meteorology: long-term climate patterns and norms;

[Open Science Data Platform \(OSDP\)](#)

The Open Science Data Platform (OSDP) provides information relevant to cumulative effects and development activities across Canada and is publicly available at the following website: <https://osdp-psdo.canada.ca/dp/en>. More specifically, the platform provides a single window to access data and scientific knowledge relevant to understanding cumulative effects from existing federal, provincial, and territorial on-line databases and registries, including publications from the federal government and its scientists. It provides an interactive geospatial mapping tool to enable mapping of multiple datasets from multiple sources. It offers various features, including keyword-based searching, interactive data visualization on maps, and educational resources covering key topics such as cumulative effects, water, air, climate, biodiversity, land, economy and industry, health, and society and culture.

OSDP information may be of value to people preparing and reviewing projects assessments, including cumulative effects assessments. The following are some examples of ECCC information available on the OSDP.

Water – quality and quantity

- [National long-term water quality monitoring data](#)
- [Real-time hydrometric data](#)
- [Canadian Aquatic Biomonitoring Network \(CABIN\)](#)
- National Pollutant Release Inventory (NPRI)
 - [Facilities that reported releases to water](#)
- Find [additional water-related resources \(including publications, datasets and monitoring stations\) from ECCC on the OSDP here](#).

Biodiversity (e.g., birds, species at risk, wetlands)

- [Critical habitat for species at risk \(terrestrial\)](#)
- [Range map extents – Species at risk](#)
- [Canadian wetlands](#)
- [Canadian Protected and Conserved Areas Database \(CPCAD\)](#)
- [Canadian Breeding Bird Census plots](#)
- [Priority places for species at risk](#)
- Find [additional biodiversity-related resources \(including publications, datasets and monitoring stations\) from ECCC on the OSDP here](#).

Air Quality

- National Pollutant Release Inventory (NPRI), including:
 - [Facilities that reported release of criteria air contaminants](#)
- Canadian Environmental Sustainability Indicators (CESI), including
 - [Average ambient fine particulate matter concentrations](#)
 - [Peak ambient ozone concentrations](#)
 - [Ambient volatile organic compound concentrations](#)
 - [Average ambient sulphur dioxide concentrations](#)
 - [Peak ambient nitrogen dioxide concentrations](#)
- Find [additional air-related resources \(including publications, datasets and monitoring stations\) from ECCC on the OSDP here](#).

Climate, including climate change

- [Hourly](#) and [daily climate observations](#)
- [Monthly climate observation summaries](#)
- [Climate normals, averages and extremes 1981-2020](#)
- [Homogenized surface air temperature](#)
- [Homogenized precipitation](#)
- Find [additional climate-related resources \(including publications, datasets and monitoring stations\) from ECCC on the OSDP here](#).

Beyond ECCC's mandate, the OSDP also contains resources on topics led by departments and other levels of government (e.g. human health, economy and industry). The OSDP also provides access to regulatory registries that list government authorizations of other developments (e.g. *Fisheries Act* Registry), which can be useful in understanding the cumulative pressures on an area.

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?

Specify.

ECCC has not considered, exercised a power or performed a duty, or taken any course of action as part of the Project.

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)

Provide an overview of the information or advice exchanged.

As indicated by the Proponent in the Initial Project Description and based on information readily available, ECCC has not had any direct involvement with the Proponent or other parties that would be relevant to the assessment of this Project. ECCC Prairie and Northern Region (PNR) has not been in contact with the Proponent regarding permitting or authorizations for the Project

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)?

Specify as appropriate.

Based on information readily available, ECCC Prairie and Northern Region has not had any involvement with the Proponent or other parties that would be relevant to the assessment of this Project.

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.

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.

Environment and Climate Change Canada

Name of Departmental / Agency
Responder

N. John Olyslager
Acting Regional Director
Environmental Protection Operations Directorate
Prairie and Northern Region

Title of Responder

15 August 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	Valued Component or Factor to Consider	Description of Key Issue (Context and Rationale)	Advice	Plain language summary for inclusion in Summary of Issues
<p>Please identify comments by organization and comment number.</p> <p>e.g.: IAAC-01</p>	<p>If the comment is related to a specific section of the Initial Project Description, please include that reference.</p>	<p>Identify valued component(s) or factor to consider—within the mandate of your department or agency—to which the potential effect or issue applies.</p>	<p>Provide a brief description of the issue and rationale for being a key issue.</p> <p>Include, where relevant,:</p> <ul style="list-style-type: none"> • 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. 	<p>Where applicable, briefly provide solutions on how to address the potential issue or effects including:</p> <ul style="list-style-type: none"> • 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; • 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; • 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 • Commitments the proponent could make to respond to the issue. <p>Where available, please refer to existing text in the Tailored Impact Statement Guidelines template.</p>	<p>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.</p>
ECCC-01		Air Quality	<p>The construction, operation, and decommissioning of the Project can result in adverse effects on air quality. Air contaminant emissions from fuel combustion sources and earthwork activities during the construction phase may be considerable. Air contaminant emissions from the combustion of natural gas during the operational phase of a 450 MW cogeneration natural gas power plant may be significant and will be emitted for a considerable number of years (the operational life of the power plant).</p> <p>The combustion of fuels produces a large amount of chemical substances that are emitted into the atmosphere. The use of fossil fuels to power, among other things, on-road and off-road vehicle engines, machinery, turbines, and equipment generates the emission of combustion products (engine exhaust gases), including but not limited to nitrogen oxides and sulfur oxides (NO_x, SO_x);</p>	<p>Provide the results of a baseline study on ambient air quality by identifying and quantifying emission sources for all relevant contaminants. To this end, describe the ambient air quality in the Project's local and regional study areas and identify existing emissions and sources of contaminants. Provide baseline concentrations in ambient air for contaminants, particularly near key receptors (e.g., communities, traditional land users, wildlife, and vegetation). Consider air contaminants including, but not limited to, particulate matter (TSP, PM_{2.5}, PM₁₀); nitrogen dioxide and sulfur dioxide (NO₂, SO₂); carbon monoxide (CO); volatile organic compounds (VOCs); polycyclic aromatic hydrocarbons (PAHs); specific aldehydes contained in fuel combustion products (e.g., acetaldehyde, formaldehyde, 1,3-butadiene, acrolein, benzene, diesel particulate matter [DPM], black carbon); and any other relevant air pollutant from mobile, stationary, and fugitive sources. Compare ambient air quality results to applicable provincial and federal standards. Describe dust and acid deposition using existing long-term monitoring data or new monitoring data for a minimum duration of one year. Account for the impact of wildfires on baseline air quality data, if applicable, by referring to the Alberta Wildfire Status Dashboard.</p> <p>To assess the effects on the atmospheric environment, provide a detailed description of all sources of air pollutant emissions; provide an inventory and description of activities and all equipment, including the list of on-road and off-road vehicles, etc. (engine type, power, group (Tier 0, 2, 3, or 4)); provide a comprehensive list of substances and air pollutants that will be</p>	<p>Describe the ambient air quality in the Project's local and regional study areas and identify the existing emissions and sources for all relevant contaminants.</p> <p>Describe the effects on air quality for all relevant phases of the Project.</p> <p>To do this, provide a detailed description of all sources of air pollutant emissions. Provide an inventory and description of activities and all equipment.</p> <p>Provide a comprehensive list of substances and air contaminants that will be</p>

			<p>carbon monoxide (CO); volatile organic compounds (VOCs); any other products of fossil fuel combustion; and any other relevant air pollutants from mobile, stationary, and fugitive sources.</p> <p>Activities which cause a physical disturbance to land, such as earth moving, land clearing, blasting, and transportation, can introduce particulate matter (e.g. dust and soot) to the surrounding region. Air contaminants could include particulate matter (PM, PM₁₀ and PM_{2.5}), sulfur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (VOCs), hydrogen sulphide (H₂S), polycyclic aromatic hydrocarbons (PAHs), carbon monoxide (CO), and other air contaminants. These emissions can result in local or regional degradation of ambient air quality, with potential impacts on sensitive ecosystem receptors. Furthermore, emissions of air contaminants as a result of this Project may add cumulatively to the emissions from other activities, contributing to degradation of air quality in the region.</p> <p>When contaminants settle out of the air in the surrounding environment, their deposition may result in adverse impacts to terrestrial and aquatic ecosystems. For example, emissions of NO_x and SO₂ may also lead to acidification and potential exceedance of ecosystems' critical loads. Air contaminant emissions can result in contamination of nearby land and waterbodies, and may affect sensitive ecosystem receptors.</p>	<p>generated by the Project as well as their quantification for the entire Project life cycle; quantify, without limitation, the emissions of the following contaminants: particulate matter (TSP, PM_{2.5}, PM₁₀); nitrogen dioxide and sulfur dioxide (NO₂, SO₂); carbon monoxide (CO); volatile organic compounds (VOCs); polycyclic aromatic compounds (PACs), specific aldehydes contained in fuel combustion products (e.g., acetaldehydes, formaldehydes, 1,3-butadiene, acrolein, benzene, diesel particulate matter [DPM], black carbon); and any other relevant air pollutant from mobile, stationary, and fugitive sources. Moreover, provide atmospheric dispersion modelling for these contaminants for both the construction and operational phases; include a justification for the choice of the dispersion model used. Provide detailed methodologies and assumptions used to estimate air pollutant emissions; all relevant emission factors should be provided and referenced; use the best available technology for off-road mobile equipment throughout all phases of the Project; provide details on compliance with emission standards for all mobile and stationary engines used in the Project. Provide isopleth maps at an appropriate scale representing predicted concentrations and the location of the most sensitive human receptors. Justify the adoption of all effectiveness control measures used to reduce emission rates from sources in the model, including details of all assumptions related to the associated mitigation measures and their feasibility.</p> <p>To assess the effects on the receptor environment, determine the relative contribution of emissions sources attributable and non-attributable to the Project in relation to pollutant concentrations at key sensitive receptors; include the frequency of exceedances during the modelled periods; compare projected atmospheric contaminant levels with the strictest federal Canadian Ambient Air Quality Standards (CAAQS) or provincial air quality standards; consider the principles of continuous improvement and keeping clean areas clean in the context of airshed and air zone management within the Air Quality Management System; if applicable, then compare with critical thresholds for acidifying emissions; compare dust deposition while considering ambient deposits.</p> <p>Provide an air quality management plan that includes a dust management plan. This should encompass sources of air pollution, common mitigation measures for air contaminants (including a detailed complaint resolution process), the performance effectiveness of air contaminant control devices, best practice programs, and monitoring and follow-up.</p>	<p>generated by all components and activities of the Project, as well as their quantification for the construction and operational phases. Provide air dispersion modelling and isopleth maps.</p> <p>Describe the best management practices, mitigation measures, monitoring and follow-up.</p>
ECCC-02		<p>Greenhouse Gas Emissions (GHGs) and Climate Change</p>	<p>The construction, operation, and decommissioning of the proposed Project may result in greenhouse gas (GHG) emissions, or impacts to carbon sinks, and may hinder or contribute to the Government of Canada's ability to meet its commitments in respect of climate change.</p> <p>If the Project may cause incremental upstream GHG emissions, the Proponent may be asked to prepare an upstream GHG assessment if the upstream GHG emission estimates exceed the threshold outlined in Table 1 of The Strategic Assessment of Climate Change (SACC) (published in October 2020).</p> <p>Furthermore, the Project has the potential to be affected by future climate change, possibly resulting in impacts to the environment. Climate change may alter the likelihood or magnitude of sudden weather events such as extreme precipitation that can contribute to flooding, as</p>	<p>The Strategic Assessment of Climate Change (SACC) (published in October 2020) provides guidance related to climate change throughout the impact assessment process. The SACC outlines information that the Proponent should provide during the impact assessment process on GHG emissions, impacts of the Project on carbon sinks, impacts of the Project on federal emissions reduction efforts and on global GHG emissions, GHG mitigation measures and climate change resilience; the circumstances in which an upstream GHG assessment would be required; and the circumstances in which a credible plan to achieve net-zero emissions by 2050 will be required.</p> <p>More details are provided in the draft Technical Guide Related to the Strategic Assessment of Climate Change: Guidance on quantification of net GHG emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment published in August 2021</p>	<p>Should the Project be designated under the <i>Impact Assessment Act (IAA)</i>, the Strategic Assessment of Climate Change (SACC) would apply. The Project's greenhouse gas (GHG) emissions and climate change impacts should be assessed consistent with guidance in the SACC to ensure that GHG emissions are mitigated. The Proponent should develop a plan to achieve net-zero emissions by 2050 as the Project's lifetime, including decommissioning, is anticipated to go beyond 2050.</p>

			<p>well as contribute to longer-term changes such as permafrost thaw and changes to migration patterns. Changes related to warming are already evident in many parts of Canada, and are projected to continue in the future with further warming.</p> <p>The operation phase is anticipated to be 30 years. It is expected that the Project's timelines will go beyond 2050. The Proponent did not make a commitment to be net-zero by 2050 for any activity that goes beyond 2050, or a commitment to be compliant with the forthcoming Clean Electricity Regulations.</p>		
ECCC-03		Climate Change Resilience	<p>The Proponent indicates that the operation phase of the Project is likely to be 30 years, followed by a short period of decommissioning. As climate over the lifetime of a Project is projected to be different from past and current climate in the area, and the lifetime of the proposed Project is 30 years (not including post-closure), climate change considerations are relevant to the Project review. There is potential for climate change to affect the Project which, in turn, may have impacts on the surrounding environment (e.g. through accidents or malfunctions). Climate changes in the Project area, such as possible changes in mean and extreme precipitation and temperature and related environmental conditions, may alter baseline conditions, with implications for climate sensitive aspects of Project design and associated effects on the environment.</p> <p>For example, Project components and activities for which climate change resilience could be important for this Project such as those related to water management infrastructure (e.g. capacity of the stormwater management (SWM) pond and the quantity of water discharged from the stormwater pond to the receiving environment), water losses and potential for net negative water balance due to increased air temperatures. If the Proponent is required to conduct an Impact Statement, then further information would be required through the Tailored Impact Statement Guidelines (TISG) on how the Project is resilient to and at risk from both the current and future impacts of a changing climate.</p>	<p>The Strategic Assessment of Climate Change (SACC) (published in 2020) provides guidance related to climate change throughout the impact assessment process. Should the Project be subject to an impact assessment under the IAA, the SACC would apply. The SACC outlines information that the Proponent should provide during the impact assessment process related to climate change resilience.</p> <p>If the Proponent is required to prepare an Impact Statement, then further information would be required through the Tailored Impact Statement Guidelines (TISG) on how the Project is resilient to, and at risk from, the current and future impacts of a changing climate.</p> <p>More details are provided in the "Draft technical guide related to the Strategic Assessment of Climate Change: Assessing climate change resilience" published in March 2022.</p> <p>Links: "Strategic Assessment of Climate Change" https://www.strategicassessmentclimatechange.ca/</p> <p>"Draft technical guide related to the Strategic Assessment of Climate Change: Assessing climate change resilience" https://www.strategicassessmentclimatechange.ca/28896/widgets/117114/documents/77106</p> <p>The Proponent anticipates that the Project will operate with a positive water balance during operations given the proposed technology (air cooled condenser) for ambient temperatures up to 35°C. Under Climate Change (CC), the Proponent may run into negative water balance more often if air temperatures exceed 35°C. This scenario would require more frequent and/or larger volumes of water than initially anticipated to support operations. It is recommended that the quantification of water needs under CC is considered by the Proponent.</p> <p>The Proponent is proposing a SWM pond to manage surface runoff on-site with a capacity equivalent to the 24-hour, 100-year storm and refers to Intensity-Duration-Frequency (IDF) data from the Storm Water Guidelines for the Province of Alberta dated January 1999. It is recommended that more recent IDF data be reviewed for suitability to the Project including the consideration of CC in the estimate of the SWM capacity and the flows to the receiving environment, even if the receiver is not a water body, watercourse, or environmentally sensitive area (ESA). Potential updated data sources may include ClimateData.ca and other datasets.</p>	<p>The Project's resilience to future climate change should be described and, where relevant, considered in Project design.</p> <p>Include considerations of climate change for the quantification of water needs and an estimate of the stormwater capacity using more suitable intensity duration frequency data.</p>
ECCC-04		Water Quality and Quantity	Disturbing streambanks and streambeds during construction and decommissioning activities at pipeline and powerline watercourse crossings	Environment and Climate Change Canada (ECCC) is responsible for the administration of subsection 36(3) to (6) of the <i>Fisheries Act</i> which prohibits the deposit of a deleterious substance in waters frequented by fish unless authorized by regulations.	The Project has the potential for impacts to water quality, fish,

			<p>may cause erosion and sedimentation. The suspended solids released can have adverse effects on water quality, fish and fish habitat.</p> <p>Contaminants may be introduced into waterbodies through spills resulting in adverse effects on water quality.</p> <p>Water impoundment or withdrawals (including the initial water volume and the supplemental water during operations should a negative water balance occur) and disturbances to the natural flow of surface water (e.g. water taking from a watercourse such as the Freeman River or construction and decommissioning activities at pipeline and powerline watercourse crossings) and/or groundwater could have effects on the quantity, availability and hydrological regimes of watercourses, waterbodies and aquifers.</p>		<p>and fish habitat from the following sources:</p> <ul style="list-style-type: none"> - Erosion and sedimentation during works in or near water - Spills - Changes to water availability
ECCC-05	<p>Section 14.6.5 Wildlife</p> <p>Section 14.6.5.2 Effects of the BBPP</p>	Species at risk and their habitat	<p>The activities linked to the construction, operation, and decommissioning of the Project and associated infrastructure could have negative effects on terrestrial wildlife, including species at risk (e.g. amphibians, arthropods, birds, and mammals) listed on the <i>Species at Risk Act</i> (SARA) and their habitat (e.g. wetlands).</p> <p>The nature of effects to species at risk and their habitat (including residences defined under the SARA) can vary based on a number of factors, including: Project location, duration, scale, and configuration; ancillary Project activities (e.g., land clearing, new pipeline and transmission line construction); existing cumulative effects; the type of habitat that may be disturbed; and sensitivity of species found in the Project area. Specifically, construction of the Project and associated infrastructure will involve land clearing activities, which leads to destruction, disturbance, degradation, and further fragmentation of habitat such as those used for foraging and breeding. In addition, species at risk could be affected by sensory disturbances during the construction, operation, and decommissioning of the Project. Some examples of potential sources of sensory disturbance include noise from various Project activities, lights, vibrations from excavating and grading, and the operation of machinery and the power plant, as well as the presence of workers. The amount, duration, frequency, and timing of noise are important to understand potential effects. Sensory disturbance may make adjacent habitats unsuitable for use by species at risk and cause avoidance effects in many species. However, the existing surrounding landscape is</p>	<p>If the Project proceeds under the IAA, then the Agency will have obligations under s.79 of SARA to implement measures to lessen or avoid impacts and monitor effects to listed species at risk in a manner that is consistent with existing recovery strategies or action plans.</p> <p>Additionally, there is always the possibility that species assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) may be added to Schedule 1 of SARA with potential critical habitat identified. As best practice it is recommended to also consider species assessed by COSEWIC to implement measures to lessen or avoid impacts and to monitor them.</p>	<p>The Proponent should identify all species at risk listed on Schedule 1 of the <i>Species at Risk Act</i> (SARA) and any critical habitat that may interact with the Project and describe how they may be adversely affected by the Project. Describe what measures will be taken to avoid or lessen the effects of each Project activity and stage, and how these measures will be implemented, and effects be monitored to ensure they are avoided or minimized.</p> <p>As best practice, the Proponent should also consider species assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and any additional species that may become listed by COSEWIC or SARA over the course of the Project.</p>

			<p>already fragmented and disturbed, potentially creating low quality habitat at baseline conditions. The Proponent's IPD described potential effects to wildlife from the construction and operation of the power plant's disturbance footprint. However, routes for ancillary facilities such as the new natural gas pipeline and transmission line have not been surveyed or assessed at this time. Based on range and satellite imagery, there is potential for suitable Western Toad (SARA Special Concern) habitat where the point of interconnection for the transmission line is expected (in LSD 05-15-064-11 W5M), as well as both proposed pipeline routes where they cross potential waterbodies. The construction of these ancillary facilities may have potential impacts to Western Toads and their habitat.</p>		
ECCC-06	<p>Section 14.6.5 Wildlife</p> <p>Section 14.6.5.1.3 Birds</p> <p>Section 14.6.5.2 Effects of the BBPP</p> <p>Section 19.3 C) Migratory Birds</p>	Migratory birds and their habitat	<p>The nature of effects to migratory birds and their habitat (including nests) can vary based on a number of factors, including: Project location, duration, scale, and configuration; ancillary Project activities (e.g. land clearing); existing cumulative effects; the type of habitat that may be disturbed; and sensitivity of species found in the Project area.</p> <p>The construction and operation of a power plant will cause the loss, further fragmentation and alteration of habitat, and can negatively impact the reproduction, migration and wintering of affected species. Specifically, construction of the Project and associated infrastructure will involve land clearing which will remove habitat important for nesting, foraging, staging, and/or overwintering migratory birds. Although the Project's main disturbance footprint is located within a previously cleared area, different species of migratory birds still use sites that are regenerating and contain early seral stages of forest for breeding and foraging (i.e. shrub/ground nesting birds). Migratory birds using the area will be displaced to adjacent habitats.</p> <p>In addition, migratory birds could be affected by sensory disturbances during the construction, operation, and decommissioning of the Project. Some examples of potential sources of sensory disturbance include noise from various Project activities, lights, vibrations from excavation and grading, the operation of machinery and the power plant, as well as the presence of workers. The amount, duration, frequency, and timing of noise are important to understand potential effects. Sensory disturbance may make adjacent habitats unsuitable for use by migratory birds and</p>	<p>The Project footprint, including ancillary infrastructure, should be minimized to the extent possible to reduce the amount of habitat removed. Required lighting and noise production during the construction, operation and decommissioning of the Project should be controlled and minimized to avoid sensory disturbance to migratory birds. ECCC recommends the Proponent implement the lighting mitigation measures it has identified for migratory birds below:</p> <p>"During construction, the use of lights at night will be minimized to the extent practicable. Lights will be installed facing downward, and wherever practicable using motion-sensing lights. Construction will primarily occur during daylight hours, to prevent nighttime disturbance, however this cannot always occur given the type of Project. Lighting will be minimized and controlled by sensors as much as possible. If security lighting on buildings or inverters is installed, motion-activated lighting to minimize the duration that lighting will be used and down-shielding and directional lighting to restrict the area illuminated to the ground immediately within the building area."</p>	<p>The Proponent should describe sources of sensory disturbances (i.e. indirect habitat loss) including lighting and noise that might impact habitat use by migratory birds. Describe what measures will be taken to avoid or lessen the effects of sensory disturbances, and how these effects will be monitored to ensure they are avoided or minimized.</p>

			cause avoidance effects in many species. However, the existing surrounding landscape is already fragmented and disturbed, potentially creating low quality habitat at baseline conditions.		
ECCC-07	Section 14.6.5.2 Effects of the BBPP Section 19.3 C) Migratory Birds	Species at risk, migratory birds and their mortality risk	Individual mortality and the destruction of nests and eggs of migratory birds or any other structure necessary for the reproduction and survival of species at risk could occur during all Project phases, particularly during site preparation when vegetation is cleared and Project dismantling. Construction may also create temporary artificial habitat suitable for some migratory birds and species at risk, putting them at risk of mortality events. For example, certain migratory bird species at risk (e.g. Bank Swallow, Common Nighthawk) may nest in large piles of soil or graveled areas left unattended/unvegetated during the most critical period of the breeding season. The Proponent has identified Common Nighthawk (SARA Special Concern) as potentially occurring in the Project area and have indicated that gravel piles during construction may be attractive for nesting Common Nighthawks, putting their eggs at risk of destruction.	<i>The Migratory Birds Convention Act, 1994 (MBCA) and the Migratory Bird Regulations, 2022 (MBR 2022)</i> protect migratory birds and prohibit the disturbance or destruction of migratory bird nests when they contain a viable egg or a migratory bird themselves (young or adult). Schedule 1 of MBR 2022 provides year-round nest protection for 18 species, with Pileated Woodpecker having the potential to occur in the Project area, specifically within ancillary infrastructure (new pipeline and transmission line) footprints. The legislation and regulations apply to all lands and waters in Canada, regardless of ownership. The Proponent has proposed to conduct vegetation and habitat clearing activities outside the migratory bird nesting season (Nesting Zone B5) to prevent the destruction of migratory birds and their eggs and nests to be compliant with the MBCA. If the breeding bird window cannot be avoided, then the Proponent has indicated that nest searches will be conducted by qualified personnel. ECCC recommends that there not be nest searches or pre-clearing surveys for active bird nests during the breeding season as a mitigation, given the difficulty associated with finding nests reliably and the high likelihood of disturbing nesting birds when searching. The main sensitive period to consider is the breeding season. With respect to disturbance or harm to nesting birds, the principal risk factors are location and time of year. ECCC publishes a web site to aid in the planning of activities to reduce the risk of detrimental effects to migratory birds, their nest and eggs, in accordance with the purpose of the MBCA https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html . ECCC notes that if the Proponent is moving nests, then a permit under the MBR 2022 may be required.	It is the Proponent's responsibility to be compliant with its obligations stemming from the MBCA and its regulations. The Proponent should also provide details and monitoring measures that will be completed for migratory birds that nest on human infrastructure or man-made features.
ECCC-08	Section 14.6.5.1.2.2.3 Open Road Density Section 19.3 C) Migratory Birds	Species at risk, migratory birds and their mortality risk	Mortality in migratory birds and species at risk could occur because of collisions with vehicles or infrastructure related to the Project. Though the construction of the Project will not create any new access roads or access controls, vehicular activity is likely to increase on the existing road network potentially resulting in increased risk of wildlife injury or mortality. Grizzly Bear (SARA Special Concern) may be more prone to this risk. Artificial lighting from construction, operation and decommissioning activities may exacerbate the risk of building collisions resulting in injuries or mortality by attracting migratory birds to lit infrastructure. Birds can also be disoriented while circling an artificial light source and may deplete their energy reserves and either die of exhaustion or drop to the ground where they are at risk of predation.	Vehicular collision risk should be identified, and measures implemented to minimize those risks including posting of vehicle speed limits. Lighting required for the construction, operation and decommissioning of the Project should be controlled and minimized to avoid adverse effects on migratory birds and species at risk. ECCC also recommends the Proponent implement the lighting mitigation measures it has identified for migratory birds below: "During construction, the use of lights at night will be minimized to the extent practicable. Lights will be installed facing downward, and wherever practicable using motion-sensing lights. Construction will primarily occur during daylight hours, to prevent nighttime disturbance, however this cannot always occur given the type of Project. Lighting will be minimized and controlled by sensors as much as possible. If security lighting on buildings or inverters is installed, motion-activated lighting to minimize the duration that lighting will be used and down-shielding and directional lighting to restrict the area illuminated to the ground immediately within the building area".	The Proponent should describe sources of light that may attract migratory birds and species at risk that could increase their risk of collision resulting in injury or mortality, as well as other sources of potential collision risk (e.g. vehicles). Describe measures to be taken to minimize collision risk and how these measures will be implemented and monitored for effectiveness.
ECCC-09	Section 14.6.5.2 Effects of the BBPP	Species at risk, migratory birds and their mortality risk	During operations, the stormwater pond may be attractive to breeding and staging migratory birds if the facility retains water during the spring, summer and fall periods. Birds that land on and/or frequent wastewater (e.g., a storm water pond	ECCC recommends the Proponent implement the stormwater pond mitigation measures it has identified for migratory birds below: "[The Proponent] has a spill response plan in place which will limit, if not wholly eliminate, the potential for contaminants into the pond. In addition, surface water testing of the collection	The Proponent should describe sources and pathways of accidental deleterious substance release into the stormwater ponds that could

	Section 19.3 C) Migratory Birds		that may contain contaminants found within runoff) have the potential to come into contact with toxic substances, which can result in on and off-site mortality. Depending on the nature of the release (e.g., toxicity, volume release, exposure pathways), effects to wildlife could be acute, chronic or both and can include effects such as bioaccumulation of contaminants or mortality. Species at risk such as Western Toad (SARA Special Concern) may also be attracted to the stormwater pond during breeding, which may act as a sink for the local population.	pond is required, and the pond only collects surface runoff. Therefore, it is not expected to contain measurable volumes of hydrocarbons (i.e. from spills from equipment) nor will it contain any hazardous waste, which will be collected and disposed of at licensed facilities.” In addition, ECCC recommends the Proponent include additional measures that include monitoring for sightings of migratory birds and amphibian species at risk.	impact migratory birds and species at risk. Describe measures to be taken to minimize the risk and how these measures will be implemented and monitored for effectiveness.
ECCC-10	Section 14.4.1 Wetlands Surveys Section 14.6.9.3 Wetlands	Wetlands	The activities linked to the construction, operation, and decommissioning of the Project could have negative effects on wetlands and their ecological functions. Activities related to construction will result in the loss of a seasonal marsh wetland (0.09 ha) and could alter the existing hydrological regime essential for maintaining other wetlands in the surrounding area, thus affecting the quality or availability of habitat for migratory birds and species at risk. The destruction and modification of wetlands is likely to cause negative effects on or harm migratory birds and species at risk that use these areas for breeding and foraging. The Project is also more likely to create introduction and dispersal pathways for invasive species. The spread of invasive species may pose a threat to wetlands in the vicinity of the disturbance area.	Describe all potential effects, including direct and indirect effects, of Project components or activities, including changes to wetland functions. Describe avoidance and mitigation measures to alleviate the effects as well as monitoring measures. Provide information regarding mitigation measures for surface water, groundwater, sedimentation, accidents and spills to mitigate potential indirect effects on wetlands or wetland functions. Finally, provide information on the potential for residual effects after mitigation measures are implemented. ECCC further recommends no net loss of wetlands within the Project disturbance area for wetlands that provide habitat functions for migratory birds and/or species at risk, and that a compensation plan be developed.	The Proponent should detail Project effects to wetlands and how mitigation measures and/or potential offsets will be implemented to minimize impacts (direct and indirect) from Project activities. Describe residual effects and how mitigation measures will be monitored.
ECCC-11		Environmental Emergencies	The proposed Project includes construction, operation, and eventual closure and reclamation of a natural gas fired electrical generation plant and associated infrastructure, including an approximately 3.5–4 km natural gas pipeline and an approximately 0.5–1.5 km electrical transmission line. The construction, closure, and reclamation phases will involve use of diesel-powered heavy machinery for land preparation as well as construction of buildings and supporting infrastructure and their eventual removal. Operation of the station will involve transmission and conditioning of natural gas, generation of electricity with a combined cycle turbine, and carbon capture using an amine-based system. A diesel-powered generator and diesel-powered fire water pump will be on-site for emergency use. Station operations will involve storage and/or use of many substances including (but not limited to) natural gas, glycol, lubricating oil, hydraulic oil, diesel fuel, water treatment chemicals, caustic (NaOH), and amine.	Optimized spill prevention, preparedness and response measures and systems will be important during construction, operation, and decommissioning of the power plant, given the risk of spills of hazardous substances to the environment. Part 8 of the <i>Canadian Environmental Protection Act, 1999</i> (CEPA) on environmental emergencies (sections 193 to 205) addresses the prevention of, preparedness for, response to, and recovery from environmental emergencies caused by uncontrolled, unplanned, or accidental releases. It also addresses the reduction of any foreseeable likelihood of releases of toxic or other hazardous substances listed in Schedule 1 of the <i>Environmental Emergency Regulations, 2019</i> . This act may apply if Schedule 1 substances onsite meet or exceed the threshold to be regulated under CEPA. In the case of this Project, this may include (but is not limited to) natural gas and diesel.	Accidents and malfunctions arising from construction, operation, and eventual decommissioning of the power plant could result in releases of contaminants to the environment. The implementation of spill prevention, preparedness, and response measures and systems will be important to minimize this risk. These measures should be thoroughly documented in plans.

			There is potential for adverse environmental effects to air quality, water quality, fish, fish habitat, wildlife, wildlife habitat, migratory birds, or species at risk in the event of an accidental release of hazardous substances to the air, land, or water during construction, operation, and decommissioning of the power plant.		
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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
<p>Please identify comments by organization and comment number.</p> <p>e.g.: IAAC-01</p>	<p>If the comment is related to a specific section of the Initial Project Description, please provide a reference.</p> <p>You may also choose to copy the relevant text here.</p>	<p>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.</p>	<p>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:</p> <ul style="list-style-type: none"> • 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. 	<p>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.</p>
ECCC-01	<p>Appendix N, Section 2.5 Air Quality Criteria</p> <p>Appendix O, Section 5.3, Table 7</p>	<p>The Proponent used the Alberta Ambient Air Quality Objectives (AAAQO) as air quality standards in the air dispersion modelling report (Appendix N). Moreover, the Canadian Ambient Air Quality Standards (CAAQS) were considered in Appendix O <i>Emission Intensity Report</i> (Table 7, page 9), but were not considered in the air dispersion modelling report. Using all applicable standards, including provincial and federal, allows an assessment using the most stringent standards.</p>	<p>ECCC recommends considering, in addition to the AAAQO, the CAAQS when comparing predicted concentration levels with applicable standards. Federal standards (i.e. CAAQS) for NO₂ and PM_{2.5} are established, among other contaminants.</p>	<p>ECCC recommends considering, in addition to the Alberta Ambient Air Quality Objectives (AAAQO), the Canadian Ambient Air Quality Standards (CAAQS) when comparing predicted concentration levels with applicable standards.</p>
ECCC-02	<p>Appendix O, Section 5.3, Table 7</p> <p>Section 11 Anticipated Construction, Operation, and Decommissioning Schedules</p>	<p>The Proponent used the 2020 Canadian Ambient Air Quality Standards (CAAQS) values for NO₂ in the Emissions Intensity Report (Appendix O, Table 7, page 9). Updated 2025 CAAQS values are available and should be considered when comparing air quality contaminant concentrations with applicable standards. Given that Table 11 (Initial Project Description, page 76) mentions construction is planned to start in 2026 and operations are planned for 2028-2029, it would be appropriate to use the 2025 CAAQS standards.</p>	<p>ECCC recommends using the most up to date 2025 CAAQS values.</p>	<p>ECCC recommends using the most up to date 2025 Canadian Ambient Air Quality Standards (CAAQS) values.</p>
ECCC-03	<p>Appendix N, Section 3.3 Ambient Baseline Concentrations</p>	<p>For the ambient baseline concentrations, the Proponent used the nearest continuous ambient air monitoring station for each considered air contaminant. The Proponent must ensure the representativeness of the chosen monitoring stations based on factors such as distance, industrial activities, geographic data, etc.</p>	<p>ECCC recommends the Proponent provide a rationale of the representativeness of the chosen monitoring stations within the proposed Project area.</p>	<p>ECCC recommends the Proponent provide a rationale of the representativeness of the chosen monitoring stations within the proposed Project area.</p>
ECCC-04	<p>Appendix N, Section 3.2, Table 5</p>	<p>The Proponent provided emission sources information in Table 5 of Section 3.2 in Appendix N. However, it is unclear how each source type is defined, what it includes, how the emission rates were obtained, what assumptions and what control measures were considered to reduce the emission rates. For example, were the natural gas fired combustion turbine generator and emergency diesel generator included as emission sources?</p>	<p>ECCC recommends providing clarification regarding the emission sources considered in the air quality dispersion modeling. A breakdown of the composition of each emission source would allow for a better understanding of what has been included in this modeling. Moreover, a clarification of whether the natural gas fired combustion turbine generator and emergency diesel generator were considered as emission sources would be valuable. Also, there is not sufficient information regarding where the air contaminant emission rates were</p>	<p>ECCC recommends providing clarification regarding the emission sources considered in the air quality dispersion modeling.</p>

			sourced from, references were not provided. Finally, assumptions regarding the effectiveness of control measures used to reduce emission rates from sources in the model were not provided.	
ECCC-05	Section 14.6.1 Air Quality	The Proponent mentions on page 107 of the Initial Project Description, "however, for the purposes of this report, only direct emissions during the operations phase are discussed." Air dispersion modeling was conducted only for the operational phase, not for the construction phase. It is unclear why modeling was not conducted for the construction phase, which is planned to take two or more years. Air contaminant emissions from heavy machinery use and transportation may be significant. Sensitive receptors (nearby residences and indigenous communities) may be affected by air contaminants from fuel combustion and dust dispersion.	ECCC recommends providing the rationale for why air dispersion modelling was not conducted for the construction phase, in addition to the operational phase.	ECCC recommends providing the rationale for why air dispersion modelling was not conducted for the construction phase, in addition to the operational phase.
ECCC-06	Section 14.6.1 Air Quality Appendix N, Section 3.1 BBPP Emission Sources Appendix N, Section 4.1 NO ₂ Modelling Results Appendix O, Section 6 References	In the air quality assessment (page 5), it is mentioned that carbon capture system (CCS) is planned to be implemented to reduce contaminants emissions. Additionally, multiple scenarios were considered in the model. Modelling scenarios were based on the consideration of the CCS and of cumulative effects. Moreover, in the initial Project description (page 108), it is mentioned that "To minimize NO _x emissions, the exhaust system will be equipped with selective catalytic reduction (SCR)." Predicted concentrations of NO ₂ for scenarios C1 and C2 (page 10 of Appendix N) shows values near or exceeding the provincial AAAQO standards, depending on the NO _x to NO ₂ conversion method used. Comparison with 2025 CAAQS for NO ₂ concentrations was not realized. In Table 7 of Appendix O of the Initial Project Description, the scenario P2 considered the use of CCS and of Selective Catalytic Reduction (SCR) emission control. Predicted concentrations of NO ₂ were near the 2020 CAAQS values but could potentially be exceeding the 2025 CAAQS.	Given that predicted concentration results are near or could potentially surpass certain applicable standards for NO ₂ , ECCC recommends the uncertainties related to the air dispersion model are considered and caution exercised when analyzing the air quality impacts of the Project. Providing information such as the frequency of exceedances and source contribution would be beneficial. ECCC recommends a robust air quality management plan be developed, including relevant mitigation measures, potential follow-up and monitoring during relevant project phases	ECCC recommends considering the uncertainties related to the conducted air dispersion modeling when analyzing air quality impacts. It is important to emphasize the need for a robust air quality management plan, including relevant mitigation measures, potential follow-up and monitoring during relevant phases.
ECCC-07	Section 23 Greenhouse Gas Emissions Estimate	The Proponent provided a greenhouse gas (GHG) emission estimate for the operations phase, but not for the construction or decommissioning phases. The Proponent references the Strategic Assessment of Climate Change (SACC) in the Initial Project Description, however there are some requirements under the SACC that are missing, including details of the GHG emission estimate, and a discussion of the impact on carbon sinks.	For the Detailed Project Description, the Proponent should provide a GHG emission estimate for the construction and decommissioning phases, as done with the operations phase. For the GHG emission estimate, the Proponent should provide an estimate of the maximum annual net GHG emissions for each phase of the Project, including a breakdown of each term of Equation 1 in the draft Technical Guide Related to the Strategic Assessment of Climate Change: Guidance on quantification of net GHG emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment (SACC Technical Guide), as well as the methodology, data, emission factors and assumptions used. Related to carbon sinks, the Proponent should provide a description of the activities that would result in an impact on carbon sinks; and land areas	ECCC recommends the Proponent provide a greenhouse gas (GHG) emission estimate for the construction and decommissioning phases. ECCC recommends the Proponent discusses the impact of the Project on carbon sinks. The Proponent should review the Strategic Assessment of Climate Change (SACC) and the SACC Technical Guide for more guidance on GHG emission information to include in the Detailed Project Description.

			<p>expected to be impacted by the Project, by ecosystem type over the course of the Project lifetime, including any areas of restored or reclaimed ecosystems.</p> <p>The Proponent is encouraged to provide more information on the timeline of commissioning of the carbon capture system.</p> <p>The Proponent is encouraged to provide an overview of the measures being considered to ensure Projects are net-zero emissions by 2050.</p> <p>Further information is available in the SACC Technical Guide.</p>	
ECCC-08	Section 23 Greenhouse Gas Emission Estimate	<p>This section states that “It is possible that the carbon capture and storage (CCS) hub, or other party’s hubs, may not be operational when the BBPP is commissioned. As such, the BBPP may operate for a period without CCS.” Additionally, the text states that there are periods of time that the station may operate without use of the CCS system due to maintenance or outages of the CCS hub(s).</p> <p>During these periods of CCS system non-operation, especially after initial construction in the event that a suitable CCS hub is not yet established, it is not clear whether the substances required to operate the CCS system (e.g., amine, caustic) would be stored on site, or whether these would be brought in only when the system is ready to go into operation.</p> <p>This information would help inform what substances are being stored onsite and how they are being stored throughout the operational phase of the Project.</p>	<p>Provide details of how the CCS system, and associated substances, will be stored and maintained during extended periods when it is not operating, for example during initial station operation if a viable CCS hub has not been identified, or when the CCS hub is undergoing maintenance or is otherwise unavailable for use.</p>	<p>It is not clear if the carbon capture storage (CCS) system will be operational when the plant is initially opened, given that a suitable CCS hub may not be available at that time. There are also times when the CCS system will not operate due to maintenance or outages at associated CCS hub(s).</p> <p>The CCS system relies on several substances, including amine and caustic (NaOH) to operate. The Proponent should clarify how these substances will be stored and maintained during periods when the CCS system is not being used.</p>
ECCC-09	Section 9.1.5 Carbon Capture System Hub	<p>The carbon capture and storage (CCS) system, which appears to be a prominent component of this Project, will require a pipeline to deliver removed carbon to a CCS hub once identified. However, no information is provided on the specifications of such a pipeline, nor potential routing of the pipeline, other than text stating “While the pipeline routing is in development, it is anticipated to parallel existing disturbances to the extent possible.” Construction and operation of the CO₂ pipeline could result in accidents and malfunctions with potential impacts to the environment.</p> <p>It is acknowledged that construction of the CO₂ pipeline will be considered alongside the infrastructure related to a CCS hub, aligning with the timeline of this Project. However, given the prominence of the CCS system in the Project application, and the eventual need for the CCS to be operational to meet emissions requirements, it is reasonable that high-level risks (and associated mitigation measures) associated with the pipeline should be considered within the scope of the overall Project.</p>	<p>Although a CCS hub has not yet been identified for the Project, the accidents and malfunctions associated with construction and operation of the CO₂ pipeline, and any mitigation measures that will be put into place, should be discussed at a high level.</p>	<p>The carbon capture storage (CCS) system is an integral component of the Project; however, there are few details provided on the pipeline that would carry carbon from the station to a CCS hub.</p> <p>Providing information on potential accidents and malfunctions related to the construction and operation of the CO₂ pipeline, as well as any mitigation measures that will be applied, will enable for a more thorough assessment of the risks of the Project as it appears to be intended to operate (i.e. with CCS system operational).</p>
ECCC-10	Section 14.6.9.2 Watercourses	<p>The IPD states that “No provincially mapped watercourses are present within or adjacent to the BBPP. Historical review of aerial photos between 2006 and 2017 did not reveal the presence of watercourses across the BBPP Project lands. Field assessment confirmed there are no watercourses within or adjacent to the BBPP lands.”</p>	<p>Include consideration of watercourses crossed by the natural gas pipeline within the scope of the overall Project when determining risk.</p>	<p>Although the site of the station does not contain watercourses, the natural gas pipeline will almost certainly need to cross watercourses (between one to three based on preliminary routing options presented in the IPD).</p>

		Although the main site of the station does not contain watercourses, the natural gas pipeline that will be constructed to the station will likely need to cross watercourses (estimated to be one or three, depending on routing – page 17 IPD). Given the importance of the natural gas pipeline to the Project, it would be reasonable to include watercourses crossed by the pipeline within the scope of the overall Project, with risk determined accordingly.		Watercourses crossed by the pipeline should be considered within the scope of the Project when determining risk/potential disturbance, given the importance of the pipeline to the overall Project.
ECCC-11	Section 9.3 Physical Activities Incidental to the Project Outside KEC's Control	<p>Few details are provided in the IPD regarding construction and operation of the natural gas pipeline and electrical transmission line. Accidents and malfunctions could result during both the construction and operation of the pipeline and transmission line, resulting in potential impacts to the environment.</p> <p>It is acknowledged that the construction of the natural gas pipeline and transmission line will be considered in separate applications; however, given the importance of the pipeline and the electrical transmission line to the Project overall (i.e., the Project cannot operate without these pieces of infrastructure), it is reasonable that high-level risks (and associated mitigation measures) associated with the pipeline and the transmission line should be considered within the scope of the overall Project.</p>	Include high-level information about the risks of pipeline and transmission line construction and operation, as well as associated mitigation measures.	<p>The natural gas pipeline and the electrical transmission line are integral components of the Project. However, there are few details provided on the construction or operation of the pipeline or transmission line.</p> <p>Providing information on potential accidents and malfunctions related to the construction and operation of the natural gas pipeline and electrical transmission line, as well as any mitigation measures that will be applied, will enable for a more thorough assessment of the risks of the Project.</p>
ECCC-12	Table 13 Potential Sensitive Species and Likelihood of Occurrence	The Proponent had listed several sensitive species with potential to occur around the general Project footprint, including federally listed species on Schedule 1 of the <i>Species at Risk Act</i> (SARA). In Table 13 of the IPD Common Nighthawk and Olive-sided Flycatcher are incorrectly listed as threatened under SARA. There is also no SARA status shown for Woodland Caribou in Table 13.	The Proponent should update the federal SARA status of certain species within Table 13 to what is currently listed in the species at risk registry. The registry can be accessed at https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html	Update Table 13 with current information on the status of federally listed species from the SARA registry.
ECCC-13	<p>Table 13 Potential Sensitive Species and Likelihood of Occurrence</p> <p>Section 14.4 Field Surveys</p> <p>Section 14.4.1 Wetland Surveys</p>	Though the Western Toad's range overlaps with the Project and there may be suitable breeding habitat (i.e., wetland and potential streams within proposed footprints for ancillary infrastructure), it was not listed in Table 13 as a sensitive species with potential to occur in the general Project footprint. Given that the timing of the initial wildlife reconnaissance survey was conducted in early September when amphibians are dispersing (i.e., lower detectability), it is unclear whether this survey should be used as an indicator of the probability of presence for this species.	The Proponent should consider targeted surveys and the potential for Western Toad to occur in the Project area, including the footprint for ancillary infrastructure. If there is a likelihood of Western Toad being present, then detail what mitigation measures could be implemented to minimize risk.	Conduct targeted surveys for amphibian species at risk during the appropriate time of year. If Project activities cannot avoid known Western Toad breeding sites, then develop mitigation measures that would minimize impacts to the species at risk.
ECCC-14	<p>Section 14.6.5.2 Effects of BBPP</p> <p>Section 19.3 C) Migratory Birds</p>	The Proponent states that the stormwater pond is unlikely to be used by migratory birds due to its proximity to operational equipment; however, some species of migratory birds are more tolerant of anthropogenic disturbances (e.g., waterfowl at wastewater treatment plants) and may still be attracted to the pond. The attractiveness of the pond should also be considered for amphibian species at risk (i.e., Western Toad).	The Proponent should provide additional information to clarify the potential attractiveness of the stormwater pond to migratory birds and amphibian species at risk, such as describing the size of the pond and whether the banks will be vegetated or not.	The Proponent should detail the attractiveness of the stormwater pond to migratory birds and amphibian species at risk.

Please insert additional rows as necessary.