

Enclosure 1: Federal Authority Advice Record

Response due by June 14, 2023

Marmora Clean Energy Hub Project

Agency File: 84597

All comments should be submitted via the **Submit a Comment** feature available on the Project's Canadian Impact Assessment Registry page¹. Letters and forms can be uploaded using this feature. If you have any difficulties submitting this way, please contact the Agency at Marmora@iaac-aeic.gc.ca.

Department/Agency	Environment and Climate Change Canada (ECCC)
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Alternate Contact	

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.

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, the residences of its individuals, or its critical habitat; and if the activity will not jeopardize the survival or recovery of the species.

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* (MBCA) wherever they occur regardless of land tenure.

¹ Reference #84597 at <http://iaac-aeic.gc.ca/050/evaluations/document/147660?culture=en-CA>

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 (MBCA) 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) Describe any Indigenous or public consultation that will be undertaken in relation to the excise of that power, duty or function, including when it would take place.

In the event that a SARA permit is required, ECCC would evaluate and determine consultation requirements, if any. ECCC-led Indigenous consultations related to the issuance of SARA permits will be coordinated with consultation during the impact assessment where possible. If a permit is issued, the description of the activity and how SARA's preconditions were met will be posted on the SARA Registry here: <https://species-registry.canada.ca/index-en.html#/permits>

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2. Is your department or agency in possession of specialist or expert information or knowledge 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; 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 plan 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. Species at risk expertise may be particularly important in supporting the proponent in providing information throughout the assessment required by the Agency to meet requirements under section 79 of the *Species at Risk Act* (SARA), namely: 1) notifying the competent Minister of the Project if it is likely to affect a listed wildlife species or its critical habitat; 2) identifying adverse effects of the Project on listed wildlife species and their critical habitat; and 3) if the Project is carried out, ensuring that measures are taken in a way that is consistent with recovery documents, to avoid or lessen the adverse effects and to monitor the adverse effects of the Project.

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.

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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.

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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 (Initial Project Description, Section 1.3) 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 [Ontario Region] 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 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.

Not at this time.

6. What are the key issues likely to be relevant to the public interest decision, based on the mandate and area(s) of expertise of your department, and which should be addressed in an impact assessment of the Project, should the Agency determine that one is required?

For each key issue:

- Describe the effect or the nature of the issue, including any relevant context;
- Provide the rationale and/or evidence for why it is a key issue;
- Identify briefly solutions to 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 used by the Agency to determine if and an impact assessment is required and where appropriate to develop project-specific draft Tailored Impact Statement Guidelines that focus on the key issues likely to be relevant to the public interest decision.

Please use **Table 1: Key Issues to inform decision-making** to respond to this question.

7. Where possible, identify any clarifications or additional information the proponent could include in the Detailed Project Description or in the response to the Summary of Issues that would:

- give confidence that an issue or effect could be addressed and managed;
- inform the decision as to whether an impact assessment is required; or
- aid in tailoring the Impact Statement Guidelines, if 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. Clarifications or additional information the proponent could include in the Detailed Project Description or in the response to Summary of Issues** to respond to this question.

8. For departments with information about local context²

- I. Provide contact details for local organizations or institutions, including municipal government officials, with expertise on economic and social issues in the local area

Name of Contact	Organization	Email Address	Area of Expertise (provide a brief explanation, including website)

- II. Provide a list of reports or other sources of evidence (such as municipal plans, development plans) that might inform the Agency's understanding of the situational context of the region in which the Project is being proposed

Title of Report/Source of Information	Organization	Email address of key Contact (where available even if already listed in the table above)	Overview of the information that might be contained in the report/source of information (including website)

- III. Provide any key programs administered by your department (e.g. Fed/Nor or Fed/Dev) in the area that may constitute complementary measures that the proponent may consider to resolve issues associated with its Project

Name of Fed/Nor or Fed/Dev Program	Purpose of Program	Key Contact	Web link(s)

- IV. Provide any projects funded or likely to be funded by your department (e.g. Fed/Nor or Fed/Dev) in the area during the lifespan of the Project being proposed by the proponent.

Name of Project	Purpose of Project	Email Address of Recipient	Email address of Fed/Nor or Fed/Dev Project Administrator

² This section is particularly important for departments that offer direct programs and services to local communities, non-government organizations, institutions etc. that could be viewed as complementary measures. Complementary measures, which are initiatives undertaken under federal programs or under the authority of a federal Minister or department, beyond those stated in the *Impact Assessment Act*, may also be considered by decision-makers, as applicable. Complementary measures may be used to address issues outside of the care and control of a proponent, for cross-cutting issues requiring an integrated response, or to accommodate impacts to section 35 rights held by Indigenous peoples. Examples of complementary measures may include skill development and training programs, social programs, etc.

Wesley Plant

Name of Departmental / Agency Responder

Acting Regional Director
Environmental Protection Operations Directorate
Ontario Region

Title of Responder

June 14, 2023

Date

Table 1: Key Issues to inform decision-making

The Agency asks that federal authorities align expert advice with the Agency’s approach to tailoring, which focuses on key issues or effects that are likely to be relevant to the public interest decision. 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 public interest decision include:

- effects that may be significant, based on federal experts’ knowledge and experience with past projects;
- effects that may impact 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;
- transboundary 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 or local communities.

Effects that are anticipated to be minor or which can be managed using well understood mitigation measures, 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 the Agency to focus assessments on issues that are important to participants and to decision-makers.

Comment ID	Valued Component or Factor to Consider	Description of Key Issue (Context and Rationale)	Solutions	Plain language summary for inclusion in Summary of Issues
<p>Please identify comments by organization and comment number. e.g.: IAAC-01</p>	<p>Identify valued component(s) or factor to consider—within the mandate of your department or agency—to which the 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; • social, economic or environmental context which are relevant to it being 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 traditional knowledge, including from past project experience, which supports inclusion as a key issue. 	<p>Where applicable, briefly identify solutions to address the potential issue or effects including</p> <ul style="list-style-type: none"> • Information or studies required to describe and characterize the effect, should an impact assessment be required; including any guidance for data collection and/or analysis or existing data sources to inform the assessment; • Any powers, duties or functions that your department or agency has that may mitigate, manage, or set conditions related to the 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>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>
<p>ECCC-01</p>	<p>Air Quality</p>	<p>All activities associated with the construction, operation and decommissioning phases of the Project may have potential effects on air quality through the emission of gaseous contaminants and particulate matter.</p> <p>The proponent has provided some information about sources of air emissions from the Project (mainly from construction activities, fugitive dust, and fuel combustion emissions) and mitigation measures but has not adequately articulated effects on air quality and related mitigation and monitoring.</p> <p>The proponent has not provided emissions estimates and dispersion modelling. They have not provided existing or new air quality data, modelling results, or an assessment of air quality impacts, details of mitigation measures and monitoring plan. This information is required to understand</p>	<p>To assess effects on the atmospheric environment, provide a detailed description of all air pollutant emission sources; provide an inventory of activities and all equipment, as well as baseline, emission estimates, dispersion modelling.</p> <p>Provide a complete list of substances and air pollutants that will be generated by the Project and their quantification for the entire project cycle and assess emissions of the following contaminants: particulate matter (TSP, PM_{2.5}, PM₁₀); nitrogen and sulphur dioxides (NO₂, SO₂); carbon monoxide (CO); ozone, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs); any other relevant air pollutants from mobile, stationary, and fugitive sources.</p> <p>The proponent will be required to compare the results of an effects assessment of air quality impacts, based on predictions of dispersion modelling, with the Canadian Ambient Air Quality Standards (CAAQS). The CAAQS are health- and environmental-based outdoor air quality objectives for pollutant concentrations in the air. https://www.ccme.ca/en/air-quality-report#slide-7</p>	<p>Need for a detailed air quality assessment for all phases of the Project including baseline, emissions estimates, and dispersion modelling.</p>

		air quality effects and to determine appropriate mitigation and monitoring.		
ECCC-02	Air Quality	<p>The proponent has proposed standard mitigation measures to reduce the potential effects on air quality during the construction phase. Considering the numerous activities emitting particulate and gaseous matter during the construction phase, an air quality management plan, including a dust management plan, is required. This should include air pollution sources, common air contaminant mitigation measures, air contaminant control device performance efficiency, as well as best practice and continuous improvement programs.</p> <p>Insufficient information on the procedures for implementing the mitigation measures for air quality emissions. Information provided on mitigation measures does not include the benchmarks/thresholds, scheduling, and frequency that the proponent will monitor to determine when it will implement mitigation to reduce air emissions, and when it will implement adaptive management to ensure a timely response to exceedances.</p>	<p>An air quality assessment should include best management practices (BMPs) and development of a follow-up program with monitoring of key emission sources during all phases of the Project.</p> <p>Provide details on BMPs including details on: the application of mitigation measures; the methodology for implementing mitigation; inspection plans, record keeping, scheduling and frequency of the standard application of mitigation measures.</p> <p>ECCC recommends the proponent incorporate best practices from the following document in developing best management plans: Cheminfo Services Inc., 2005. "Best Practices for the Reduction of Air Emissions From Construction and Demolition Activities."</p> <p>In the absence of detailed equipment information, ECCC recommends the proponent commit to using best available technologies, such as using engines that meet the most stringent emission standards which are Tier 4 for the compression-ignition engines during all phases of the Project.</p> <p>The proponent should also identify planned emissions measurements or air quality monitoring plans, list of substances to be measured or monitored and details on the sampling location, duration and frequency.</p>	<p>Provide best management practices and mitigation measures for all phases of the Project.</p> <p>Provide proposed air quality monitoring for all phases of the Project.</p>
ECCC-03	Greenhouse Gas Emissions and Climate Change	<p>Canada's environmental obligations and climate change commitments include the Paris Agreement, the 2030 Emissions Reduction Plan and the <i>Net-Zero Accountability Act</i>. Canada's emissions reduction target is 40 to 45 percent below 2005 levels by 2030 and to achieve net-zero emissions by 2050.</p> <p>The Government of Canada is also taking action to reduce greenhouse gas (GHG) emissions from the generation of electricity to achieve a net-zero electricity supply by 2035.</p> <p>The construction, operation, and decommissioning phases of the proposed project may result in GHG emissions, and/or impact carbon sinks, and may hinder or contribute to the Government of Canada's ability to meet its commitments in respect of climate change. The proponent estimated the Project's construction and operation phase GHG emissions. However, ECCC has concerns with the estimates that have been included in Table 2 below. Among the concerns, the proponent did not estimate the emissions related to land use change, so the emissions estimates may be underestimated.</p> <p>The proponent indicates in the Initial Project Description that the Project would be in operation beyond 2050. The proponent did not make a commitment to be net-zero by 2050 for activities that go beyond 2050.</p>	<p>The Strategic Assessment of Climate Change (SACC) provides guidance related to climate change throughout the impact assessment process. Should the Project be subject to an impact assessment, the SACC would apply. The SACC outlines information that the proponent should provide during the impact assessment process on GHG emissions, impact of the Project on carbon sinks, impact of the Project on federal emissions reduction efforts and on global GHG emissions, GHG mitigation measures and climate change resilience. The SACC also outlines 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>Links:</p> <p>Strategic Assessment of Climate Change</p> <p>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</p>	<p>Provide an assessment of GHG emissions and climate change impacts consistent with guidance in the SACC and develop a plan to achieve net-zero emissions by 2050.</p>
ECCC-04	Climate Change Resilience	<p>In the Initial Project Description, the proponent indicates that "decommissioning of the facility is highly unlikely to happen in less than 100 years." (p. 38). Climate over the lifetime of the Project is projected to be different from past and current climate in the Project area. Given these projected changes in future climate, climate change considerations are relevant to the Project review.</p>	<p>The Strategic Assessment of Climate Change (SACC) provides guidance related to climate change throughout the impact assessment process. Should the Project be subject to an impact assessment, 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>Provide a description of the project's resilience to future climate change and, where relevant, how it has been considered in project design.</p>

		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, which can have implications for climate sensitive aspects of Project design (such as water management infrastructure). The proponent should identify where 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).	<p>If the proponent is required to conduct an Impact Statement, 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>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:</p> <p>“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>	
ECCC-05	Species at Risk, Birds, Wetlands	<p>The proponent has not provided enough information on Project effects to birds, species at risk, and wetlands. In the context of cumulative effects, even a negligible effect may be important in understanding regional effects as a whole.</p> <p>Baseline studies are needed to characterize existing conditions and inform the effects assessment.</p>	Baseline investigations should include targeted surveys for species at risk, birds, and wetland functions across the Project footprint, and local and regional study areas. Supporting information related to survey plans should describe survey design, effort, methodology, and site selection, as well as associated estimates of sampling bias and uncertainty.	<p>Need for plans that outline the surveys required to describe baseline conditions and inform assessment of potential direct and indirect effects on species at risk, birds, and wetlands during all project phases.</p> <p>Need for baseline information on species at risk, birds, and wetlands in the Project study areas, including seasonal and annual variation, distribution, and habitat use.</p>
ECCC-06	Migratory Birds and Their Habitat	<p>The proponent has not adequately articulated effects on migratory birds and their habitat.</p> <p>The <i>Migratory Birds Convention Act 1994</i> (MBCA) and <i>Migratory Bird Regulations</i> (MBR 2022) 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. The legislation and regulations apply to all lands and waters in Canada, regardless of ownership. 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. More information on the MBR 2022 can be found at: https://www.canada.ca/en/environment-climate-change/services/migratory-game-bird-hunting/status-update-modernization-regulations.html.</p> <p>Migratory birds, the nests of migratory birds and/or their eggs can be inadvertently harmed or disturbed as a result of many activities, including but not limited to clearing trees and other vegetation, draining or flooding land, or using fishing gear; this is known as incidental take. This inadvertent harming, killing, disturbance or destruction of migratory birds, nests and eggs is prohibited under the MBCA. Incidental take, in addition to harming individual birds, nests or eggs, can have long-term consequences for migratory bird populations in Canada, especially through the cumulative effects of many different incidents. For further details, please refer to the Avoiding Harm to Migratory Birds website at:</p>	Confirm whether any species on Schedule 1 of MBR 2022 have the potential to breed in the Project area.	<p>Identify direct and indirect effects on migratory birds and their habitat during all project phases.</p> <p>Need for additional information on migratory bird breeding.</p>

		https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html .		
ECCC-07	Birds and Their Habitat, including Migratory Birds	<p>The proponent has not adequately articulated effects on birds and their habitat.</p> <p>While the main pathways of potential effects are identified, no information is provided on the impact of those effects on individuals, local and regional populations, and habitat. Standard mitigation measures for wildlife in general are listed but no information is provided on the potential for residual and cumulative effects after mitigation has been applied.</p>	<p>Describe any effects (even if minimal) related to the Project on individual birds and habitat.</p> <p>Provide information on residual and cumulative effects after mitigation has been applied.</p>	<p>Identify direct and indirect effects on birds and their habitat during all project phases.</p> <p>Need for information on residual and cumulative effects on birds and their habitats.</p>
ECCC-08	Wetlands	<p>The proponent has not adequately articulated effects on wetlands and wetland function.</p> <p>A wetland function assessment to quantify existing hydrological, biogeochemical, habitat, and climate functions and to estimate potential impacts will be required if the impact assessment goes forward. The relevant studies to provide this information (see Appendix A in Wetland Ecological Functions Assessment: An Overview of Approaches) should be included in Table 2-3 and coordinated across related disciplines.</p> <p>No information is provided in terms of the amount of wetland loss expected and the extent to which functions may be impacted (directly or indirectly).</p> <p>Standard mitigation measures are listed but no information is provided on the potential for residual or cumulative effects after mitigation has been applied.</p>	<p>Consider wetlands as a separate valued component.</p> <p>Describe any effects, even if minimal, on wetlands and wetland functions, including the amount of wetland lost, if any.</p> <p>Provide information to demonstrate that the studies undertaken for hydrogeology, hydrology, groundwater and surface water, and any other relevant disciplines, will support the wetland function assessment.</p> <p>Provide supporting information to show that the mitigation measures outlined in the Initial Project Description related to soils and sediment quality, surface water, groundwater, fish and fish habitat, and accidents and spills will mitigate direct and indirect effects to wetlands or wetland functions. Include additional information on what mitigation measures will be taken to offset any permanent wetland loss due to the Project, if any.</p> <p>Provide information on residual and cumulative effects to wetlands after mitigation has been applied.</p>	<p>Identify direct and indirect effects on wetlands and wetland functions, during all project phases.</p> <p>Need for a wetland function assessment.</p> <p>Need for mitigation measures specific to avoiding and minimizing effects to wetlands and wetland functions.</p> <p>Need for information on the residual and cumulative effects on wetlands and wetland functions during all project phases.</p>
ECCC-09	Species at Risk	<p>The proponent has not adequately articulated effects on species at risk and their habitat.</p> <p>While the main pathways of potential effects are identified for wildlife in general, no effects to species at risk specifically are articulated and no information is provided on the potential impact to individuals or local and regional populations, and habitats.</p> <p>Standard mitigation measures are listed for wildlife in general but not specifically for species at risk. Measures must be consistent with applicable recovery documents for the species. No information is provided on the potential for residual and cumulative effects after mitigation has been applied.</p> <p>Consideration of baseline conditions and potential effects pathways and mitigation is required for all species potentially impacted by the Project that are listed on SARA Schedule 1, as well as species assessed as at risk by COSEWIC, to ensure that measures are taken in a way that is consistent with recovery documents to avoid or lessen the adverse effects and to monitor the adverse effects of the Project.</p>	<p>Identify all species at risk listed on Schedule 1 of SARA and any critical habitat that may interact with the Project. As best practice, also consider species assessed by COSEWIC.</p> <p>Consider each species at risk impacted by the Project as a separate valued component.</p> <p>Describe any effects (even if minimal) related to the Project on individuals, residences, and habitat.</p> <p>Explicitly address whether the biophysical attributes of species at risk critical habitat occur within the Project study areas and whether there is the potential to be directly or indirectly impacted by the Project.</p> <p>Provide information on mitigation measures specific to each species at risk that is consistent with recovery documents.</p> <p>Provide information on residual and cumulative effects after mitigation has been applied.</p>	<p>Identify direct and indirect effects on species at risk individuals, residences, and habitat during all project phases.</p> <p>Need for information on residual and cumulative effects on species at risk individuals, residences, and habitats.</p> <p>Need for mitigation measures specific to avoiding and minimizing effects to species at risk and their habitat.</p>

		<p>Based on an ECCC scan of potential species at risk in the local study area, the following species should also be considered:</p> <ul style="list-style-type: none"> • American Bumble Bee (SC) • American Ginseng (EN) • Black Foam Lichen (TH) • Eastern Hognose Snake (TH) • Flooded Jellyskin (SC) • Gypsy Cuckoo Bumble Bee (EN) • Nine-spotted Lady Beetle (EN) • Northern Map Turtle (SC) • Spotted Turtle (EN) • Transverse Lady Beetle (SC) • Yellow-banded Bumble Bee (SC) <p>In addition, based on an ECCC scan of potential critical habitat in the vicinity of the Project, it was found that the local study area may be within or adjacent to critical habitat polygons for the species listed below. Critical habitat is the habitat within the polygons that meets the biophysical attributes described within the recovery documents.</p> <ul style="list-style-type: none"> • Barn Swallow • Eastern Whip-poor-will • Golden-winged Warbler • Least Bittern • Loggerhead Shrike • Red-headed Woodpecker • Western Chorus Frog • Blanding's Turtle • Little Brown Myotis, Northern Myotis, Tri-colored Bat <p>The following species were not listed in the Initial Project Description as potentially occurring in the Project area, but the local study area may be within or adjacent to critical habitat polygons for these species as well:</p> <ul style="list-style-type: none"> • American Ginseng • Spotted Turtle <p>Lastly, the local study area may be within or adjacent to proposed critical habitat polygons for the following species. Proposed critical habitat is formally identified once the recovery strategy is posted as final.</p> <ul style="list-style-type: none"> • Bobolink • Eastern Meadowlark 		
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Please insert additional rows as necessary.

Table 2. Clarifications or additional information the proponent could include in the Detailed Project Description or 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 detailed project description that would give confidence that the issue will be addressed and managed, or which could aid in tailoring the Guidelines</p>	<p>Provide recommended clarification or additional information to be included in the Detailed Project Description to address the issue, concern or uncertainty, for example</p> <ul style="list-style-type: none"> • Clarifications to project description (e.g. components, activities, locations or alternatives); • Project design changes that could avoid effects; • Evidence that could be presented to demonstrate there is no effect pathway or that effects will 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-10	Section 3.8.3.1.8 Unevaluated Wetlands	The proponent states that there are numerous unevaluated wetlands within the proposed Project Location without GHG impacts.	<p>It is recommended that the Detailed Project Description include the GHG implications of the Project Location and estimate GHG emissions as a result of land use change project's emissions, as well as information on the physical and biological environment of the Project's location, according to the Strategic Assessment of Climate Change (SACC) and the supplementary Technical Guide (as referenced under comment ECCC-03). This includes:</p> <ul style="list-style-type: none"> • a description of the activities that would result in an impact on carbon sinks; and • land areas expected to be impacted by the Project, by ecosystem type (forests, cropland, grassland, wetlands, built-up land) over the course of the Project lifetime, including any areas of restored or reclaimed ecosystems. 	The GHG implications of the Project Location are not included in the Project emissions estimates. ECCC recommends including emissions from land use change, as well as further information on the potential impacts on carbon sinks in the Detailed Project Description, consistent with Section 4 of the SACC.
ECCC-11	Section 5.4 Greenhouse Gas Emissions	The proponent indicated that the Project is anticipated to be in operation for more than 100 years. The proponent expects the GHG emissions to be negligible during operations but did not make a commitment to be net-zero by 2050 for any activity that goes beyond 2050. If the Project is designated, the SACC will apply. Among other information requirements, the SACC describes the circumstances in which a credible plan to achieve net-zero emissions by 2050 will be required, including for those projects that have a lifetime beyond 2050.	If the Project is designated, the proponent may want to proactively begin considering how to prepare a net-zero plan for any activities beyond 2050.	Proactively consider how to prepare a net-zero plan for any activities beyond 2050.
ECCC-12	Section 5.4 Greenhouse Gas Emissions	Decommissioning emissions are not estimated. Operation emissions are assumed to be negligible without sufficient supporting information.	It is recommended that the Detailed Project Description includes the annual emissions estimates, the breakdown of emissions by source for each phase including the decommissioning phase, and the methodologies supporting the calculation of the emissions estimates.	Need for more details on the GHG emissions estimates for each of the Project phases.
ECCC-13	Section 5. Potential Effects of the Project	This section mentions "accidental spills" as a potential source to cause adverse effects to the surrounding environment. ECCC recommends that the proponent provide additional information on the type of substances that will be on site throughout the lifecycle of the Project (e.g., fuel, oil, etc.). This information would aid in categorizing the risk associated with an accidental spill of hazardous materials.	ECCC recommends the proponent provide more information on the type of hazardous materials that will be stored on site as well as their quantities, if available.	Need for information on the type of hazardous materials that will be stored on site as well as their quantities, if available.
ECCC-14	<p>Table 2-1: Summary of Key Permits, Approvals and Authorization Requirements, p22</p> <p>Species at Risk Act (SARA)</p> <p>DFO listed as the only 'Agency'</p>	<p>ECCC may also be an applicable 'Agency' in regards to SARA permits.</p> <p>For some SARA-listed migratory birds, the residence prohibition (s.33) will protect nests and/or roosts year round that are re-used in subsequent years. This prohibition applies everywhere in Canada and at all times of the year. SARA permits may be required to avoid being in violation of SARA.</p>	Include ECCC as an 'Agency' responsible for SARA permits along with explanation.	Potential for SARA permits to be required from ECCC.

		Year-round nest/roost protection <i>may</i> implicate (not exhaustive list until more detailed information is available): <ul style="list-style-type: none"> • Chimney Swift • Red-headed Woodpecker 		
ECCC-15	Table 2-1: Summary of Key Permits, Approvals and Authorization Requirements, p23 <i>Compliance with the migratory breeding bird timing windows:</i> “Potential effects on birds during construction. Timing considerations, work phasing, and isolation can manage potential effects during construction and operations.”	The MBCA and MBR 2022 must be complied with writ large, not just the timing windows. Timing windows are provided to help minimize risk of non-compliance. Note that Schedule 1 of MBR 2022 provides year-round nest protection for 18 species, unless they have been shown to be abandoned. In order to be considered abandoned: <ul style="list-style-type: none"> • the Minister must be notified, via an online registration system (the Abandoned Nest Registry), that the nest does not contain a live bird or viable egg; and • the nest is to remain unused by migratory birds during the designated wait time for that species Also note that SARA-listed migratory birds that require year-round nest protection are not included on Schedule 1 of the MBR 2022, as SARA s.33 provides the protection for those species (see comment ECCC-14).	Adjust wording to indicate compliance with MBCA and MBR 2022 protections.	Compliance with MBCA and MBR 2022.
ECCC-16	Table 2-3: Summary of Preliminary Environmental Investigations, p35 <i>Natural Heritage (Aquatic, Terrestrial, SAR) – Baseline Investigation</i>	Wetland function assessment and surveys for birds and all SAR should be included under baseline investigations. Ensure survey design and methodology are appropriate for each species/habitat. ECCC has specific survey requirements for birds and many species at risk, including Western Chorus Frog.	Indicate that surveys will be conducted to describe baseline conditions and inform assessment of potential direct and indirect effects on species at risk, birds, and wetlands during all project phases. Contact ECCC for advice on survey design and methodology for birds and species at risk.	Indicate that surveys will be conducted for species at risk, birds, and wetlands. Need for species/habitat appropriate survey design and methodology.
ECCC-17	Table 3-13: Species at Risk Records Review Results, p83-90	The rationale behind each characterization of the ‘Preliminary Issue Likelihood’ and ‘Potential for Long Term Benefits’ is not clear.	Provide further detail/rationale for the ‘Preliminary Issue Likelihood’ and ‘Potential for Long Term Benefits’ for each species.	Need for rationales for ‘Preliminary Issue Likelihood’ and ‘Potential for Long Term Benefits’ for each species.
ECCC-18	Table 3-13: Species at Risk Records Review Results, p84, p86	Common Nighthawk and Olive-sided Flycatcher were recently downlisted to Special Concern. COSEWIC reassessed Eastern Whip-poor-will as Special Concern. The status has not yet changed under SARA.	Update SARA status for Common Nighthawk and Olive-sided Flycatcher from Threatened to Special Concern. Update COSEWIC status for Eastern Whip-poor-will from Threatened to Special Concern.	Updates to SARA and COSEWIC species status.
ECCC-19	Table 5-2: Preliminary Summary of Potential Environmental Effects, p104 <i>Noise and Vibration: “Noise and vibration emissions may disturb adjacent landowners or other area users.”</i>	Noise and vibration may also affect birds and species at risk; they should also be considered receptors.	Consider whether wildlife, including birds and species at risk, should be included as receptors for noise and vibration.	Identify effects on wildlife receptors as a result of noise and vibrations.

Please insert additional rows as necessary.