Enclosure 1: Federal Authority Advice Record – New Nuclear at Wesleyville Project
Registry No. 89802

Please submit the completed form by February 11, 2026, via email to wesleyville@iaac-aeic.gc.ca.[1] In order to be posted on the Registry, and to align with the *Official Languages Act*, IAAC is requiring that you submit the FAAR form, or a summary of it, in French and English.

Department/Agency Contact Information

Submission Date	February 10, 2026
Department/Agency	Environment and Climate Change Canada (ECCC)
Lead Contact, Title, Work Unit	Blake Haskell Environmental Assessment (EA) Officer, EA Ontario Region
Email, Phone	Blake.Haskell@ec.gc.ca
Alternate Contact, Title, Work Unit	Dan McDonell Senior Environmental Assessment Officer, EA Ontario Region
Email, Phone	Dan.McDonell@ec.gc.ca

Review the draft Initial Project Description and answer the following questions:

1. Will your department or agency exercise a **power, perform a duty or function**, or provide **financial assistance**, related to the project to enable it to be carried out in whole or in part?

   As relevant,

   a) Specify the power, duty or function, or financial assistance, and the likelihood that it will be required to construct the project, as either Required, Potential, Likely, Unlikely or Not Required.

   There is potential that ECCC will be required to exercise a power or perform a duty or function related to the Project to enable it to proceed. The following requirements may apply to the Project:

   - *Species at Risk Act* (SARA) permits
   - *Migratory Bird Convention Act* (MBCA) permits

   There is no federal land, and currently no order in place to bring SARA prohibitions into effect on non-federal land within the Project area. However, a SARA permit may be required for SARA listed migratory birds as these species are protected on all land tenure types. The potential for a SARA permit in relation to migratory bird species at risk will require additional information on the specific species present and nesting near the project site as some species have year-round protections (e.g., Chimney swift) or protection of unoccupied nests (e.g., Barn Swallow). In some situations, it may be possible to obtain a migratory bird permit under the MBCA to move or destroy an unoccupied nest of a migratory bird species on Schedule 1 of the *Migratory Bird Regulations 2022*, although these situations are limited (see response to Question 1(d) for further information).

   b) Describe any associated Indigenous or public consultation, including timelines, and elaborate on any potential opportunities for consultation coordination with the impact assessment process, if an impact assessment is required.

[1] Please note that advice provided to IAAC may be posted on the Canadian Impact Assessment Registry Internet Site or otherwise made available to the public.

Should a SARA permit be required, ECCC would evaluate and determine consultation requirements.

ECCC-led Indigenous consultations related to the issuance of SARA permits will be coordinated with consultation during the impact assessment where possible.

If applicable, ECCC encourages Proponents to submit clear and complete permit applications at least 6-8 months prior to the anticipated start of Project activities that require a SARA permit. During the analysis and before the regulatory decision, ECCC may undertake additional Indigenous consultations, as required under s.73(4) and (5) of SARA.

c) Describe any associated information requirements (e.g., alternative means assessment, habitat offsetting), and specify those that may be coordinated with the impact assessment process, if an impact assessment is required

If the Proponent has identified that a SARA permit is required, they can apply for the permit concurrent to the impact assessment process. Note, that a SARA permit cannot be issued prior to an impact assessment decision, under IAA.

See the following links for additional information:

- Guidelines for permitting under Section 73 of Species at Risk Act - Canada.ca
- Permits Authorizing an Activity Affecting Listed Wildlife Species Regulations

d) Identify any associated project-specific guidance or issues of which the proponent should be aware, or information the proponent should provide

To identify any associated Project-specific guidance or issues of which the Proponent should be aware, additional information is required related to how the Project will affect migratory birds and SAR, their residences and/or critical habitat. The Proponent should be aware of the following general information related to SARA permits and MBCA permits.

Species at Risk Act permits

For species listed in Schedule 1 of 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, any part of its critical habitat, or the residences of its individuals, where those protections are in place.

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 MBCA wherever they occur regardless of land tenure.

Species that are both a migratory bird protected under the MBCA and listed on Schedule 1 of SARA as endangered, threatened or extirpated, receive protections under the MBCA and SARA. For some migratory bird species listed under SARA, the residence prohibition (section 33) will protect nest and/or roost sites that are not active, for example when a species reuses these sites in subsequent years. Please note that the protection afforded may differ between the two pieces of legislation, though both pieces of legislation/protection apply.

Refer to the Species at Risk Registry for more information on migratory bird residence and protection requirements: Species at risk public registry - Canada.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 made by the Governor in Council for individuals, residences and critical habitat on non-federal lands and/or for critical habitat on federal lands. It is also possible that 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.

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.

Links to publicly available documents:

- Guidelines for permitting under Section 73 of Species at Risk Act (https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/policies-guidelines/permitting-under-section-73.html)
- Species at Risk Permitting Policy (Species at Risk Act Permitting Policy - Document search - Species at risk registry)

The Proponent should provide any anticipated need for the species at risk permits during all phases of the Project, in responses to the Summary of Issues and/or in the Detailed Project Description, if possible. The Proponent is encouraged to collect and submit the information necessary to determine if a SARA permit is required during the impact assessment process, and to submit their application well in advance of the proposed activities to avoid delays. For additional information see links above to publicly available documents as well as the following document available upon request: *Project Planning: Applying for a Species at Risk (SARA) permit administer by Environment and Climate Change Canda (ECCC).*

Further information regarding species at risk permits will be provided in the Permitting Plan.

Migratory Birds Convention Act 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. If it is not possible to wait the prescribed period before destroying or relocating the nest of a species listed in Schedule 1, or if there is a need to destroy or relocate the nest of another species of migratory bird

where the nest contains a live bird or viable egg and appropriate mitigation measures have been taken, a permit may be available. The MBR 2022 authorize the issuance of permits for damage or danger, as well as scientific permits, which may apply in certain limited situations. For more information, please visit: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html.

e) Indicate whether your department or agency has identified any power that it will be unable, or may be unable, to exercise to allow the project to proceed, in whole or in part as currently planned, with reasons; if unsure, explain what must be resolved to increase confidence.

ECCC is not currently aware of any power that it will be unable or may be unable to exercise to allow the Project to proceed in whole or in part as currently planned.

2. **Using Table 1**, identify project- and context-specific **key issues** based on the expertise within your mandate[2] and the information in your possession. Available information may include your access to databases and corporate knowledge, the draft Initial Project Description, any exchanges with the proponent or others related to the project and known means to address the effects.

   For each key issue:
   a) Specify the key issue (e.g., specific species and location)
   b) Specify the project component or activity linked to the key issue
   c) Explain why it is a key issue based on:
      i. biophysical effect pathway(s) from the specific project component or activity
      ii. concerns unique to the project or a priority within your mandate
      iii. the issue being material[3] to decision-making under the *Impact Assessment Act*
   d) Potential pathways from key issues that could lead to an impact on Indigenous Peoples and their rights
   e) Identify how the issue could be resolved, including through other means than an impact assessment (e.g., other regulatory oversight)
   f) Identify additional information the proponent could provide to build confidence about how the issue could be addressed through other means

   IAAC has prepared a preliminary list of potential effects that are likely to be key issues for the impact assessment.[4] While completing **Table 1**, IAAC requests that, as appropriate based on your department or agency's mandate and expertise, you validate this list, add precision or rationale where appropriate, and recommend any additional key issues for consideration. For a federal work or undertaking, such as nuclear energy works, a broader range of effects are within federal jurisdiction, including socio-economic effects.

   IAAC has identified the following topics as **potential key issues** for the impact assessment:
   - Effects to Biological Environment: vegetation (terrestrial, riparian and wetland environments), wildlife, reptiles and amphibians, fish and fish habitat, birds, species at risk
   - Effects to Physical Environment: geology and geochemistry, soils and sediment, ambient radioactivity, air quality/emissions, surface water quality/quantity, groundwater quality/quantity, effects to Lake Ontario
   - Accidents and malfunctions and effects of the environment on the project
   - Impacts to Indigenous rights, current use of lands and resources for traditional purposes, physical and cultural heritage of Indigenous peoples and sites of archaeological importance, with a focus on potential archaeological resources on land or water, and species of cultural importance
   - Effects to the health, social and economic conditions and the positive and negative consequences of these changes that are likely to be caused by the carrying out of the designated project

   Blake Haskell
   Environmental Assessment Officer

   Name and title of Departmental / Agency Responder

   February 10, 2026

   Date

[2] Refer to the Memoranda of Understanding with IAAC.
[3] An issue is material to decision making if its analysis is anticipated to affect the conclusions on (1) whether adverse effects within federal jurisdiction or direct and incidental adverse effects (collectively adverse federal effects) are likely not significant, or of low, medium or high significance; (2) appropriate mitigation measures for significant adverse federal effects; or (3) justification in the public interest.
[4] IAAC has prepared this list based on limited information prior to receipt of the draft Initial Project Description. It may change based on input received from federal and provincial authorities, Indigenous communities, and the public.

Table 1: Key Issues to inform the impact assessment process

This table should outline key issues to inform the impact assessment process, including whether an impact assessment is required and, if so, the scope of the assessment and tailoring of the Tailored Impact Statement Guidelines.

Key issues are the major concerns directly related to a project component or activity, the analysis of which is anticipated to be material to decision-making under the *Impact Assessment Act*.

Federal authorities' advice should be guided by the identification and resolution of key issues. If an impact assessment is required, it will be focused on key issues.

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
Identify each comment by your organization's acronym and a sequential comment number. *e.g.: IAAC-01*	*Specify each key issue (e.g., specific species and location).*	*Identify the project component or activity linked to the key issue.* *Be specific about the nature, scale, novelty and complexity of the component or activity.*	*Identify the specific effect pathway between the project component or activity and the affected environmental or human receptor (including Indigenous Peoples).*	*Describe why it's a key issue within the mandate of your department or agency, including in terms of priorities of the federal government and in terms of anticipated likelihood, severity or uncertainty of effects.* *Identify if the key issue is common for project activities of this nature or in this sector, or whether it is unique to this project due to the project's complexity, size or novelty; a sensitive or rare receiving environment; and/or proximity of sensitive environmental or human receptors (including Indigenous Peoples).*	*Describe why the key issue is material to decision-making as either:* • *an adverse effect within federal jurisdiction, or a direct or incidental adverse effect, that may be significant based on available evidence including:* ○ *federal experts' knowledge and experience with past project assessments;* ○ *presence of sensitive species, habitats or human receptors (including Indigenous Peoples);* ○ *novel or complex project activities, components or technologies;* ○ *high uncertainties in effects or in the effectiveness of mitigation measures;* ○ *unknown or unproven mitigation; or* • *a factor for the justification in the public interest anticipated to be material to decision-making such as a likely positive effect contributing to sustainability, to Canada's environmental obligations or climate change commitments or in supporting governmental priorities, such as reconciliation with Indigenous Peoples.*	*Describe how key issues you have identified within your mandate and expertise may lead to impacts on Indigenous Peoples and their rights.* *This advice must be informed by knowledge and input from Indigenous Nations and communities during the comment period, or within the Initial Project Description to support a more accurate, respectful and collaborative assessment.*	*Describe how the key issue could be resolved or addressed by:* • *Any means, including powers, duties, functions, frameworks, policies or guidance for which your department or agency is responsible;* • *Any means, including powers, duties, functions, frameworks, policies or guidance from another jurisdiction, including the province;* • *Common, proven, well-understood or standard mitigation measures to mitigate the effect or effect pathway(s); or* • *Commitments made by the proponent (e.g. in the Initial Project Description).*	*Describe information the proponent could provide, or commitments the proponent could make, that would provide confidence that the issue can be resolved by existing means (to be considered for the final Initial Project Description, future Summary of Issues and response, or (potential) Tailored Impact Statement Guidelines.* *Consider whether information, studies, analyses or collaborative work with other authorities would be required to address the issue beyond existing means.*
ECCC-01	Effects to Biological Environment: Species at Risk and Migratory Birds Confirmation of all terrestrial species at risk (SAR) and migratory birds present within the Project study area. Section 3.4.2 Biological Environment and Section 5, Table 30: Real and Potential Impacts to Components of the Environment within the Legislative Authority of Parliament (Preliminary) are limited in detail specific to migratory birds and terrestrial SAR.	The activities linked to the construction and operation of the Project and associated infrastructure could adversely affect SAR listed on the *Species at Risk Act* (SARA) and their habitat (e.g., residences or critical habitat) as well as migratory birds and their habitat.	The Project footprint and impacts to adjacent natural habitats, specifically for migratory birds and terrestrial SAR is unclear.	Adequate knowledge of potential effects to species at risk and migratory birds and their habitat is needed to select appropriate VCs and understand Project impacts. It is common for construction projects to impact areas beyond the Project area both directly and indirectly.	Potential for adverse effects within federal jurisdiction could occur if species at risk or migratory bird individuals, nest, residences, or habitat are impacted.	Unknown.	Common, proven, well understood or standard avoidance and mitigation measures to mitigate effects or effect pathways to SAR and/or migratory birds are likely available, however, the potential SAR, migratory birds and habitat affected by the Project need to be confirmed to help better understand and describe any potential pathways of effects and ensure adequate mitigation can be applied.	ECCC recommends that the Proponent provide: • Further information on the surveys for SAR and migratory birds that have taken place (number, timing, methodologies, maps of survey locations and SAR occurrences and habitat in relation to the Project footprint). • Survey information and results for SAR mammals and insects. • A full list that confirms what SAR and migratory bird species are observed/ confirmed during surveys in the Project and adjacent areas that may be impacted by Project activities. • Further consideration of pathways of effects that may impact adjacent natural habitat for SAR and migratory birds including residences and/or critical habitat.

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
	Baseline studies using species-specific protocols are necessary to understand abundance and distribution within the study area and potential impacts the Project may have on these species. Terrestrial SAR and their habitat should also be assessed as a valued component (VC) and is missing from Table 30.							• Further information on potential direct and indirect pathways of effects on species at risk individuals, residences and/or critical habitat and on migratory birds. • Further information on the proposed avoidance and mitigation measures for potential effects to SAR and migratory birds. • Further information on potential residual effects on SAR individuals, residences and/or critical habitat and on migratory birds.
ECCC-02	Effects to the Physical Environment: Surface water quality, sediment Missing information	Baseline data collection and analysis	Surface Water Quality	Proposed Studies to Characterize Existing Conditions: a) The IPD does not include baseline studies for water quality or sediment quality. Baseline data will be required to verify predictive modeling. b) The IPD did not mention if a thermal risk assessment has been conducted. A thermal risk assessment will be required to determine thermal discharge thresholds to ensure the protection of aquatic life.	Providing this information is essential to support an understanding of potential impacts to surface water quality and consequently, potential adverse effects within federal jurisdiction. This includes potential impacts to fish and fish habitat.	Unknown.	ECCC recommends the following resolutions corresponding to the “concerns” identified in column c(ii): a) Provide baseline data for water quality and sediment quality for the waterbodies in the regional study area. If baseline data has not been collected yet, the Proponent should consider sampling immediately. b) The Proponent will be required to conduct a thermal risk assessment, as part of the licensing process. The Proponent is encouraged to refer to ECCC’s Guidance document for environmental effects assessment of freshwater thermal discharge.	See “Means for issue resolution”.
ECCC-03	Effects to the Physical Environment: Surface water quality, sediment Missing information	Baseline data collection and analysis	Surface Water Quality	Physical and Biological Environments: a) The Proponent should identify which guidelines are being used and their screening values. The Proponent should use the most stringent guidelines, including the Federal Environmental Quality Guidelines (FEQGs) if available. b) The IPD did not define the Regional Study Area (RSA) and Local Study Area (LSA). c) The IPD did not identify and outline the watershed in the Project Area (PA). More information is required to identify flow directions of the waterbodies and watercourse, water elevation, stream channels and sediment transport to describe the hydrology and potential habitat for aquatic	Providing this information is essential to support an understanding of potential impacts to surface water quality, and consequently potential adverse effects within federal jurisdiction. This includes potential impacts to fish and fish habitat.	Unknown.	ECCC recommends the following resolutions corresponding to the “concerns” identified in column c(ii): a) The Proponent should identify which guidelines and screening values they will be screening against and consider using the most stringent ones, including the FEQGs. Federal Environmental Quality Guidelines (FEQGs) - Canada.ca b) The Proponent should define the RSA and LSA for each relevant VC. c) Provide more information to support a thorough understanding of the existing surface water quality and hydrology of the waterbodies surrounding the PA.	See “Means for issue resolution”.

New Nuclear at Wesleyville Project

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
				and wetland organisms in the PA.				
ECCC-04	Effects to the Physical Environment: Surface water quality, groundwater quality	Hazardous waste associated with blasting during the construction phase of the Project.	Surface Water quality; groundwater quality	Section 2.6.1 indicates that blasting will be one of the methods for excavation during site preparation of the Project. Dewatering is also indicated as part of the site preparation activities. Table 28 however, does not include the potential effects of explosive residues that may affect the dewatering water.	Explosives residue has the potential to adversely impact ground and surface water quality. This could be relevant for pathways of effects within federal jurisdiction.	Unknown.	The Proponent should consider explosives use in excavation as a potential source of hazardous waste during the site preparation and construction phases of the Project.	See “Means for issue resolution”.
ECCC-05	Effects to the Physical Environment: Non-human biota, ecological risk	All Project phases.	Bioaccumulation of contaminants, impacts of physical stressors on environmental receptors over all phases of the Project.	Ecological Risk Assessment: While the IPD includes some references to Human Health Risk Assessments to evaluate the potential risks posed by the Project to human health, there is no indication that ecological risk assessment (ERA) would be included in the impact assessment of the Project.	An ERA is an essential component of an environmental impact assessment that evaluates and characterizes the risk to biological receptors posed by contaminants and physical stressors caused by a proposed or existing facility. ERAs systematically identify and quantify, including the magnitude and extent of the effects associated with a facility. ERAs for non-human biota may be referred to as Ecological Risk Assessment (EcoRA). Understanding baseline ecosystem conditions is critical to measuring or predicting the effect of the project or facility on the environment. EcoRA’s also should include trophic pathways through which contaminants and radionuclides may move, accumulate and potentially biomagnify throughout the ecosystem. For these reasons, both ERAs and EcoRAs are critical tools needed to fully characterize pathways of effects for a range of VCs, and this includes federal pathways of effects which have the potential to be adverse.	Unknown.	The Proponent should demonstrate the need for and utilization of environmental risk assessments including ecological risk assessments. EcoRA’s should include an assessment of existing baseline conditions as well as predictive risk assessments during all phases of the Project.	NA
ECCC-06	Effects to the Physical Environment: Water quality and quantity Effects to the Biological Environment: Fish and fish habitat, species at risk	The activities linked to the operation of the circulating cooling system include the continuous withdrawal of large volumes of water from Lake Ontario through the intake structure and the subsequent discharge of water at an increased temperature through the discharge structure (Applicable only if once through cooling is the selected cooling technology). In addition, activities linked to the operation of on-site runoff and	During operation, water withdrawals and discharge from/to Lake Ontario may change local hydrodynamics, potentially affecting circulation, sediment transport, and vertical stratification in Lake Ontario, in the vicinity of the Project site.	Changes to water quality and quantity have the potential to lead to a significant adverse impact on fish and fish habitat, species at risk, and migratory birds.	Changes in water quality and quantity can result in adverse impacts to fish and fish habitat, migratory birds and species at risk which are effects within federal jurisdiction.	Unknown.	The Proponent lists potential mitigation measures to address real or potential impacts (Table 30), which may serve to resolve issues within federal jurisdiction. These measures include: • avoid, to the extent practical, areas of fish habitat; • locate to the extent practical intake and discharge structures in areas where effects can be reduced; • implement environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective, and; • reduce impingement and entrainment through the design and location of the intake structure; and design discharge structure to reduce temperature of water discharge.	ECCC recommends that the Proponent describe all potential effects, both direct and indirect, of Project components or activities on water quality, quantity and fish and fish habitat at a suitable spatial and temporal scale. This includes assessing potential local changes to Lake Ontario circulation associated with the proposed intake and outlet structures from the circulating cooling system. Specifically, changes on the nearshore circulation (velocities and directions), sediment transport patterns, stratification regime, and effective mapping of the Project-affected area under a wide range of plausible environmental and operational conditions. Effects assessment should evaluate potential effects under seasonal conditions, consider variability in environmental conditions through

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
		stormwater management infrastructure may involve discharge to Lake Ontario.					ECCC recommends that the Proponent consider additional measures to minimize potential adverse effects from local changes to circulation patterns in Lake Ontario, such as: • implement baseline environmental monitoring program in Lake Ontario to characterize the local environment (water level and vertical profiles of currents and temperature regime) to inform Project design; • continue the environmental monitoring program during all Project phases to support adaptive mitigation measures; and; • develop numerical models, calibrated with local environmental monitoring data, to demonstrate the effectiveness of the proposed design of intake and outlet structures and mitigation measures and to characterize the areal extent potentially affected by the Project.	the year, and consider potential Project-related effects under climate change.
ECCC-07	Effects to the Physical Environment: Water quality and quantity, effects to wetland ecosystems Effects to Biological Environment: Effects to fish and fish habitat, species at risk	The activities linked to the construction of the Project, include site preparation; clearing and grubbing of vegetation; site contouring, grading, excavation and dewatering; and development of runoff and stormwater management infrastructure. The activities linked to the operation of the Project include the operation of site services and utilities, including runoff and stormwater management, and the operations of the on-site water systems, including condenser cooling water, service water, and cooling systems.	Alteration of the water quantity and hydrological regime of water bodies and hydroperiods of wetlands: During construction and operation, Project activities have the potential to cause permanent changes to contributing areas to watercourses and wetland ecosystems, runoff and infiltration coefficients, groundwater contribution to surface water features, and timing and point of discharge of surface water managed on-site to the receiving environment. These changes may cause changes to the water quantity and hydrological regime of nearby wetland ecosystems and water bodies, as well as channel morphology, and hydraulic conditions in affected watercourses.	Changes to water quality and quantity have the potential to lead to a significant adverse impact on fish and fish habitat, migratory birds and species at risk.	Changes to water quality and quantity can result in adverse impacts to fish and fish habitat and species at risk which are effects within federal jurisdiction.	Unknown.	The Proponent lists potential mitigation measures to address real or potential impacts (Table 30), including: • implement stormwater management plan to control erosion, sedimentation and water quality; • use floating turbidity barriers (or silt curtains) to contain sediment within the immediate in-water construction area • implement environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective; and • incorporate good industry management practices for stormwater management such as oil and grit separators stormwater management ponds. ECCC recommends that the Proponent consider additional measures to minimize potential adverse effects from local changes to water quantity, such as: • implement continuous baseline environmental monitoring program in sensitive receivers (watercourses, wetlands) to characterize hydrographs or hydroperiods of these water features; and • continue the environmental monitoring program during all Project phases to support adaptive mitigation measures. • define performance criteria or thresholds (e.g., allowable changes in flow or water level) that would trigger adaptive management actions.	ECCC recommends that the Proponent describes all potential effects, both direct and indirect, of Project components or activities on water quantity, fish and fish habitat and species at risk at a suitable spatial and temporal scale. This includes assessing potential changes to surface water quantity (flows and water levels) in sensitive receptors.

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
ECCC-08	Effects to physical environment: Air quality Effects to Biological Environment: Effects to health conditions Dust (particulate matter) generation, as well as combustion-related air contaminants such as nitrogen oxides (NOx), sulphur oxides (SOx), carbon monoxide (CO), and hydrocarbons associated with vehicle traffic and heavy machinery may be key issues during site preparation and construction. During operation and decommissioning, additional air quality changes may occur due to vehicle traffic and air emissions associated with facility operations.	The construction phase is expected to span approximately 15 years (2033–2048) and will involve large-scale activities associated with site preparation and the construction of reactor units and supporting infrastructure. Construction activities will include earthworks, excavation, grading, material handling, concrete works, and other civil works required for reactor buildings and associated facilities. The intensity and nature of construction activities, and associated air emissions are expected to vary over the construction period depending on the specific activities being undertaken. These works will require the use of heavy construction equipment and haul trucks, generating particulate matter (PM) and combustion-related emissions from on-road vehicles, mobile off-road equipment, and stationary machinery. Construction activities will occur in proximity to residential areas, First Nations communities, and other sensitive receptors, which increases the importance of construction-phase air quality considerations. During the operation and maintenance phase, air quality changes may result from employee and service vehicle traffic, periodic testing	Construction activities may result in effects on Indigenous Peoples' health and use of traditional lands such as places for cultural and spiritual purposes, due to changes in air quality. With respect to air quality, emissions of particulate matter (PM_{10}, $PM_{2.5}$, TSP) and other combustion-related air contaminants (e.g., NO_x, CO) generated from the combustion of fuels by construction equipment and vehicles, as well as dust generated from site preparation and construction activities may contribute to short-term degradation of local air quality. These emissions have the potential to affect sensitive human receptors, including surrounding residential areas, Indigenous communities and other sensitive receptors located within and in proximity to the Project area and within traditional land use areas. During the operation and maintenance phase, air quality effects may result from employee and service vehicle traffic, periodic testing of emergency diesel generators, air emissions associated with nuclear facility operations, with the potential to affect the identified sensitive human receptors.	Construction-phase and operation and maintenance–phase emissions from a nuclear facility have the potential to affect sensitive receptors nearby. Consideration of potential effects on Indigenous Peoples and surrounding populations from changes in air quality, falls within the federal mandate. The construction phase spans an extended period and involves large-scale site preparation and construction activities for reactor units and supporting infrastructure, which increases the likelihood of air quality effects during construction. There is uncertainty regarding the magnitude of potential air quality effects in the absence of a detailed construction-phase air quality assessment. While dust and combustion-related emissions are common for projects of this nature, the proximity of Indigenous communities and other sensitive human receptors warrants consideration within ECCC's mandate. ECCC provides expertise on air emissions, including the fate and dispersion of conventional contaminants, to support the assessment of potential effects on sensitive receptors.	Adverse impacts to air quality have the potential to impact the health of Indigenous Peoples in Canada. ECCC's technical expertise in air quality may be used to support Health Canada's assessment of potential impacts on Indigenous health.	Project-related changes in air quality during site preparation, construction, operation and maintenance, and decommissioning have the potential to affect Indigenous Peoples through changes in ambient air quality in areas used for traditional land use. Emissions of dust and combustion-related air contaminants during construction, and conventional emissions during nuclear facility operations, may contribute to effects on Indigenous Peoples' health. Information provided on Project proximity indicates that Indigenous communities are located at varying distances from the Project site. Indigenous Knowledge and input from Indigenous communities will be important to better understand how changes in air quality may interact with the use of traditional lands and to support a more accurate and respectful assessment of potential effects.	Concerns related to changes in air quality throughout the lifecycle of the Project could be addressed through the implementation of standard mitigation and monitoring measures identified for the Project. As indicated by the Proponent, a Dust Management Plan (Table 32 p.277) will be implemented to reduce dust emissions at their source during site preparation and construction. Additional mitigation measures identified for the Project include the implementation of no-idling policies and reduced speed limits for vehicles and equipment, the incorporation of design measures to reduce conventional emissions during operations, and environmental monitoring and adaptive management to confirm that appropriate mitigation measures are in place and effective. To further reduce combustion-related air emissions during construction, particularly in proximity to sensitive receptors, ECCC recommends the Proponent: • prioritize, where feasible, the use of lower-emission construction equipment (e.g., Tier 4); • minimize the use of emergency diesel generators, where possible, and; • consider relevant mitigation measures for the construction and operation phases from recognized guidance documents, such as Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities: http://www.bv.transports.gouv.qc.ca/mono/1173259.pdf .	Provide a comprehensive list of substances and air contaminants that will be generated by all components and activities of the Project, as well as their quantification for the construction and operational phases. Baseline air quality conditions should be characterized using representative National Air Pollution Surveillance (NAPS) data or other appropriate sources to adequately characterize existing ambient air quality in the Project area. The Proponent should provide detailed construction and operation phases air quality assessment or modelling, as well as a description of the mitigation measures that will be implemented to reduce emissions of air contaminants, including nitrogen oxides (NO_x), sulphur oxides (SO_x), carbon monoxide (CO), ozone, volatile organic compounds (VOCs), and particularly dust and particulate matter ($PM_{2.5}$, PM_{10} and TSP). While the Proponent has identified some construction-phase mitigation measures and indicated that a Dust Management Plan will be developed, additional detail would help better understand the mitigation measures to be implemented. The Proponent should also provide details on the follow-up air quality monitoring program to be implemented during the construction and operation phases, as no specific information on air quality monitoring has been provided to date. Monitoring is relevant to verifying the effectiveness of implemented mitigation measures and supporting adaptive management if needed. The Proponent should further clarify whether a complaint tracking system for residents and other sensitive receptors is planned as part of this follow-up.

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
		of emergency diesel generators and air emissions associated with nuclear facility operations.						
ECCC-09	Greenhouse Gas (GHG) Emissions Assessment	The construction, operation, and decommissioning of the proposed Project may result in GHG emissions or impacts to carbon sinks. The Proponent provides a preliminary estimate of GHG emissions using lifecycle emission factors. The Proponent indicates this was used due to the absence of Project-specific design and construction information.	N/A	The assessment of GHG emissions and carbon sinks from this Project would be relevant in considering the extent to which the effects of the designated Project hinder or contribute to the Government of Canada's ability to meet its environmental obligations and its commitments in respect of climate change (IAA s.22(i) factor to be considered). ECCC recommends the Project follow the Strategic Assessment of Climate Change (SACC) in the estimation of GHG emissions.	Designated projects that require an Impact Assessment (IA) under the Impact Assessment Act (IAA), regardless of whether they are federally or provincially regulated, must consider the Project's GHG emissions in terms of the Projects' contribution to Canada's ability to meet its environmental obligations and its commitments in respect of climate change. Application of the Strategic Assessment of Climate Change (SACC), as determined by IAAC, would generate the information to determine if the Project will contribute to Canada's climate change objectives and will inform the federal Minister's IA decision for the Project. It should be noted that lifecycle emission factors often include emission sources not usually considered by conventional emission factors, such as upstream material purchases and upstream land clearing. This may result in an inaccurate GHG emissions estimate. ECCC recommends the GHG emission estimate be updated using details pertaining to this specific Project as soon as this information becomes available.	Unknown.	The SACC was published in 2020 and works in conjunction with the IAA to provide guidance on how to consider climate change throughout federal impact assessments. Proponents may find the technical guidance of the SACC helpful in assessing the impacts to climate change and in ensuring consistent, predictable, efficient and transparent consideration of impacts to climate change. Information typically requested for the Project description is outlined in the SACC (including section 4.1) and the draft Technical Guide (including sections 2.4, 3.3, and 4.2). Should IAAC determine an IA under the IAA is required for the Project, the SACC would apply, as circumstances warrant, to determine the extent to which the effects of the Project contribute to the Government of Canada's ability to meet its environmental obligations and its commitments in respect of climate change.	"Strategic Assessment of Climate Change" https://www.strategicassessmentclimatechange.ca "Draft technical guide related to the Strategic Assessment of Climate Change: Assessing climate change resilience" https://www.strategicassessmentclimatechange.ca/28896/widgets/117114/documents/77106
ECCC-10	Climate change resilience	Climate over the lifetime of the Project is projected to be different from past and current climate in the Project area. Any Project components or activities that may be susceptible to changes in climate may be relevant, including those related to storm water management. .	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. This could be associated with a range of effects within federal jurisdiction, including adverse effects to fish and fish habitat.	There is potential for climate change to affect Project infrastructure which, in turn, may have impacts on the surrounding environment (e.g., through accidents or malfunctions).	Changes in environmental conditions and interactions with Project components and activities have the potential to cause adverse effects within federal jurisdiction. The Proponent should provide clarification on how climate change may result in accidents and malfunctions to water management infrastructure and how the Project has considered factoring in climate change resilience.	Unknown.	The Strategic Assessment of Climate Change (SACC) was published in 2020 and works in conjunction with the Impact Assessment Act to provide guidance on how to consider climate change throughout federal impact assessments.	Relevant information is provided in the "Draft technical guide related to the Strategic Assessment of Climate Change: Assessing climate change resilience" published in March 2022.

New Nuclear at Wesleyville Project

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
ECCC-11	Non-negligible adverse changes to fish and fish habitat, water quality, migratory birds, and changes to the environment resulting in non-negligible adverse impacts to Indigenous Peoples of Canada due to spills of hazardous substances resulting from accidents and malfunctions.	Site preparation, construction, and decommissioning phases will involve use of gasoline and diesel-powered heavy equipment. Equipment used during these phases may also contain hydraulic oils and lubricants. Operation and maintenance of the Project will involve the storage, handling, use, and waste management of radiological substances and conventional hazardous substances, including, but not limited to, fuel (diesel and/or gasoline) for emergency generators and vehicles, lubricants, solvents, cleaning agents, corrosion inhibitors, and corrosive substances, and paints. Given the presence of numerous conventional hazardous substances that will be handled, stored, and used throughout the Project, there is potential for non-negligible adverse effects within federal jurisdiction if accidents and malfunctions result in the release of these substances to the land, air, or water.	The proposed Project involves the storage, handling, and use of conventional hazardous substances during all Project phases, as well as radiological substances during operations and maintenance and decommissioning phases. The Project is located adjacent to Lake Ontario and will involve close association with the lake, including Project infrastructure extending into the lake for intake of cooling water. The Project site also contains several water features including creeks and a wetland. The site is located on the traditional homelands of the Michi Saagiig Anishinaabeg Nations of the Williams Treaties First Nations (MS-WTFN). First Nations belonging to MS-WTFN are located in the greater region around the proposed Project site. Accidents and malfunctions resulting in the release of hazardous substances to the land, air, or water could result in non-negligible adverse impacts to areas under federal jurisdiction including fish and fish habitat, water quality, migratory birds, or changes to the environment resulting in non-negligible adverse impacts to Indigenous Peoples of Canada.	The proposed Project is complex, will involve the use of many radiological and conventional hazardous substances, is located close to and has close association with Lake Ontario and other sensitive receptors, and has a long operational life. As such, there is risk that accidents and malfunctions could occur over the life of the Project that result in non-negligible impacts to areas under federal jurisdiction. For accidents and malfunctions leading to the release of non-radiological hazardous substances, industry best-practices, mitigation measures, and contingency plans may be employed to minimize the risk and address impacts should an accident or malfunction occur. Even with the implementation of best practices and mitigation measures, there remains residual risk that accidents and malfunctions associated with the Project could have non-negligible adverse effects to areas under federal jurisdiction and within ECCC's mandate, including non-negligible adverse changes to fish and fish habitat, water quality, migratory birds, and changes to the environment resulting in non-negligible adverse impacts to Indigenous Peoples of Canada. Key concerns unique to this Project include: • The storage, handling, and use of numerous radiological and non-radiological hazardous substances in large volumes during all Project phases which extend over a long period of time. • The Project is located adjacent to Lake Ontario, with some Project infrastructure extending into the lake, as well as the	During all Project phases, accidents and malfunctions could result in the release of hazardous substances to the environment, with potential non-negligible adverse changes to areas under federal jurisdiction, including fish and fish habitat, water quality, migratory birds, or changes to the environment resulting in non-negligible adverse impacts to Indigenous Peoples of Canada. A federal review is therefore warranted to verify that the proposed mitigation measures, plans, and procedures reduce risk of accidents and malfunctions to the extent possible and that they sufficiently address any potential adverse effects should accidents or malfunctions occur.	Accidents and malfunctions associated with the Project could result in a release of hazardous substances to the air, water, or land, resulting in impacts to Indigenous Peoples' current use of lands and resources for traditional purposes, impacts to physical and cultural heritage, and impacts to elements of historical, archaeological, paleontological or architectural significance, especially in the event of severe accidents or malfunctions that cause impacts beyond the Project footprint. For example: • Impacts to hunting and fishing if accidents and malfunctions result in damage to habitat, reduce or eliminate populations, or cause contamination of tissues, rendering animals unfit for human consumption or use. • Loss or impact to accessibility, availability, or quality of culturally significant medicinal and forage plants (for example, wild rice), if accidents and malfunctions damage habitat (directly or indirectly due to damage caused in clean-up). • Impacts to ability to access places of cultural significance on or near the Project site including (but not limited to): ○ Wetlands ○ Mouths of several creeks ○ Maple stands ○ Beaver habitat	Mitigation measures and plans will be important during all phases of the Project, given that activities during these phases could result in release of hazardous substances to the environment in the event of an accident or malfunction. The Proponent has broadly outlined within their Initial Project Description (IPD) several mitigation measures and plans that would reduce the risk of accidents and malfunctions and mitigate the impacts should accidents and malfunctions occur. These include: • Implementation of a Spills Management Plan and an Emergency Preparedness and Response Plan. • Use of oil and grit separators and stormwater management ponds to prevent release of contaminants to the environment. • Conducting environmental monitoring and using it to inform further mitigation measures using an adaptive management approach. Additional mitigation measures and plans that the Proponent could implement to reduce the risks of accidents and malfunctions include: Containment and storage controls: • Secondary containment for storage of all hazardous materials. • Spill/leak detection and automatic alert systems for hazardous material storage and transfer systems. Site controls and best practices: • Designated, bermed, and lined refuelling and maintenance areas located 30 m away, at minimum, from waterbodies. • Appropriately stocked spill kits and spill response equipment on site and available at all locations where spills could occur (including on mobile equipment). • Regular inspections and preventive maintenance of hazardous material storage and transfer systems and equipment. • Strict, clear procedures for storage, transfer, use, and disposal of hazardous substances. • Use of on-site traffic management. Details for plans and programs: • Comprehensive Spills Management Plan covering all hazardous materials (radiological and non-radiological), outlining roles and responsibilities, procedures for responding to spills, notification procedures, and training requirements. • Emergency Preparedness and Response Plan integrating project-specific nuclear	The Proponent is encouraged to commit to implementing all mitigation measures and developing all plans mentioned in the IPD, as these will help to reduce the risk of accidents and malfunctions, as well as to mitigate environmental impacts should they occur. As the Project is further planned and developed, the Proponent is encouraged to: • Conduct a comprehensive risk assessment of credible accident and malfunction scenarios, including those related to extreme weather, climate change, and seismic events. • Adopt all relevant industry best-practices regarding prevention, preparedness, response, and recovery in the context of spills resulting from accidents and malfunctions. • Continue to engage with members of MS-WTFN regarding Indigenous participation in emergency planning, monitoring, and response exercises. Provide transparent reporting on emergency preparedness, incidents, and results of environmental monitoring.

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
				presence of several fish-bearing creeks located on the Project site. This leads to an elevated risk that accidents and malfunctions could impact fish, fish habitat, and water quality. • The Project site provides varied habitat supporting over 100 bird species and is a stopover habitat for migratory birds. The Project site's habitats also support diverse populations of mammals, amphibians, reptiles, insects, plants, and species at risk. This habitat may be severely impacted or destroyed by accidents and malfunctions. ECCC provides environmental emergency management planning advice and guidance related to potential accidents and malfunctions involving unplanned or uncontrolled releases or spills of hazardous substances into the environment, including scenarios where such releases could result in non-negligeable adverse environmental effects within ECCC's mandate. Additionally, ECCC coordinates expert review of atmospheric transport and dispersion modelling of airborne contaminants, the fate and behaviour of contaminants, and hydrologic trajectory modelling of contaminants in water.		○ *Manoomin* (wild rice) habitat ○ Remnant *Mishkode* (grassland prairie) habitat ○ Crysler and Oily Points ○ A potential culturally modified tree ○ A potential gathering place and ancestral burying ground ○ Islands located in Lake Ontario • Loss of ability to carry out cultural practices, including holding ceremonies at, caring for, or visiting culturally significant locations at or near the Project site if accidents or malfunctions result in their contamination or permanent alteration.	emergency requirements, fire protection systems, and communication protocols with local, provincial, federal, and Indigenous authorities. • Waste Management Plan for low, intermediate, and high-level radioactive wastes, hazardous wastes, contaminated equipment, and wastewater. Monitoring and adaptive management: • Establishment of baseline environmental conditions. • Ongoing monitoring of groundwater, surface water, soil, and air for radiation and hazardous substances. • Development of clear strategies, using the principles of adaptive management, for addressing impacts caused by hazardous substances released due to accidents and malfunctions. • Long-term monitoring for hazardous substances throughout decommissioning and site closure phases. The plans and measures outlined by the Proponent in the IPD are a positive starting point; however, they are currently outlined only in broad terms. Given the risk of a significant accident or malfunction, a federal review would provide an opportunity for a more comprehensive assessment of the Proponent's plans and mitigation measures, thereby minimizing the likelihood of non-negligible adverse effects under federal jurisdiction, and better safeguarding the environment. Part 8 of the *Canadian Environmental Protection Act, 1999* 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 *Environmental Emergency Regulations, 2019*. This act may apply if Schedule 1 substances onsite meet or exceed the threshold to be regulated under the *Canadian Environmental Protection Act, 1999*. Technical Guidelines for the *Environmental Emergency Regulations, 2019* may be found at: https://www.canada.ca/en/environment-climate-change/services/environmental-emergencies-program/regulations/technical-guidelines.html	