Federal Authority Advice Record (FAAR)
FAAR Response must be submitted by January 28, 2026
Marshdale Natural Gas Power Generation Facility Project – Independent Energy System Operator – Nova Scotia.
Registry File: 90111

Department/Agency	Environment and Climate Change Canada
Lead Contact	Stephen Zwicker
Full Address	16th Floor Queen Square 45 Alderney Drive, Dartmouth NS B2Y2N6
Email	stephen.zwicker@ec.gc.ca
Telephone	(902)402-7145
Alternate Contact	Michael Hingston michael.hingston@ec.gc.ca

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, based on the Initial Project Description, as either Required, Potential, Likely, Unlikely or Not Required

***Species at Risk Act* permits**

For species listed in Schedule 1 of the *Species at Risk Act* (SARA) 2022 as Extirpated, Endangered, or Threatened, a section 73 SARA permit may be required from Environment and Climate Change Canada (ECCC) for activities that affect a listed terrestrial wildlife species, any part of its critical habitat, or the residences of its individuals, 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 species have been considered and the best solution has been adopted; all feasible measures will be undertaken to minimize the impact of the activity on the species or its critical habitat of the residences of its individuals; and if the activity will not jeopardize the survival of the species. Permits are also required by those persons conducting activities that contravene the critical habitat destruction prohibitions (subsection 58(1)).

Prohibitions are in place for individuals and residences on federal lands and water 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.

Furthermore, prohibitions may be in force on land other than federal land pursuant to other orders or regulations under SARA. It is possible that further prohibitions may come into force in the future through orders in Council for individuals, residences and critical habitat on non-federal lands. It is also possible that, over the course of the assessment or after the assessment and during the lifetime of the Project, 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.

Examples of activities that could require a *Species at Risk Act* permit include:

- Species surveys that would affect individuals or residences;
- Site preparation (clearing, grubbing, site access, staging, blasting);
- Construction and operation of temporary and permanent works and infrastructure;

- Creation of new roads, rails or power lines;
- Infilling of wetlands or watercourses;
- Any monitoring that requires the capture/release of individuals; and
- Sensory disturbance effects (artificial lighting, noise, vibration, human activity, vehicular traffic).

For most projects, the requirement for a SARA permit will always remain a possibility due to the widespread presence of SARA-listed migratory birds protected under the *Migratory Birds Convention Act, 1994* across Canada. Permits for these species apply to activities on all types of land tenure. 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 and non-federal land, before ECCC can determine whether a SARA permit is required.

Note that a SARA permit for activities involving migratory birds is only possible if they do not contravene the *Migratory Birds Convention Act*.

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 https://species-registry.canada.ca/index-en.html#/consultations/2983

In the event that a SARA permit is required, ECCC would evaluate and determine consultation requirements, if any. ECCC-led Indigenous consultation 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.

Migratory Birds Convention Act Permits

The *Migratory Bird 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 the migratory bird.

In some situations, it may be possible to obtain a permit to move or destroy an unoccupied nest of a Schedule 1 MBR 2022 species. For more information, please visit: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html.

ECCC advises that there is no mechanism under the MBCA and its regulations to grant a permit for activities that are not directly aimed at migratory birds, their nests and/or eggs, but which may harm them (e.g., land clearing).

Scientific Permits issued under the *Migratory Bird Regulations* may, for scientific purposes, including banding, or for rehabilitation or educational purposes, authorize the permit holder to: capture, kill, injure, or harass an individual; destroy, remove or disturb a nest; deposit bait under specific circumstances; exchange, give, or have in their possession a migratory bird, egg or nest; and if they are authorized to capture and band a migratory bird, take birds that are killed as a result of normal banding operations or that are found dead. Scientific permits are issued to authorize activities for scientific purposes that would otherwise be prohibited by the MBCA and its associated regulations, however, there are only certain exceptional situations where these types of permits may be available. These permits do not authorize activities that may adversely affect migratory birds.

The Canadian Wildlife Service (CWS) issues Scientific permits to authorize the capture and handling of migratory birds that become stranded at facilities that must be kept until they can be successfully released. These permits are most often associated with facilities and vessels with large amounts of artificial lighting that may attract seabirds and cause disorientation, stranding, or collisions, for which proponents are required to search and document such events at their facilities. The information gathered from capture and handling permits is being used to quantify the impact of artificial attraction (causing stranding events) on migratory birds. Stranded bird monitoring is conducted following CWS's *Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic Canada* (2017).

Links to publicly available documents:
For more information, please visit:

- Migratory Birds Convention Act (MBCA) and Regulations;
- Fact sheet: Nest Protection under the Migratory Birds Regulations, 2022, and;
- Frequently asked questions: Migratory Birds Regulations, 2022.

The *Migratory Birds Regulations* were amended in July 2022 and include additional protection measures for the abandoned nests of the Pileated Woodpecker. The Pileated Woodpecker is included on Schedule 1 of the amended MBRs and requires the notification of ECCC Minister, 36 months in advance, prior to destroying an abandoned nest.

Pileated Woodpecker will excavate Nesting Cavities in trees in proportion to the availability of suitable nest trees on the land scape. Factors that determine suitable nest trees include:

- Prevalence of tree diseases, insects, and physical conditions (rot, breaks, cracks) that can weaken trees and make them more suitable for cavity excavation;
- The tree's size. Nesting Cavities have been found in trees as small as 25 cm dbh (diameter at breast height), but are more often found in trees > 40cm dbh;
- Nesting Cavity entrance holes are about 10cm in diameter and found 8-15m above the ground;

More information on nest cavities can be found on ECCC's Pileated Woodpecker Cavity identification Guide. For more information on the amended nest protections, frequently asked questions on how these protections apply to migratory birds, including Pileated Woodpecker, and your responsibilities for reporting abandoned nests, please visit Fact Sheet Nest Protection Under the Migratory Birds Regulations, 2022 and Frequently Asked Questions, Migratory Birds Regulations, 2022. For more information on permits related to Pileated Woodpeckers, please visit Damage or Danger Permits for Nest Destruction: Pileated Woodpecker nesting cavities - Canada.ca and Damage to the Use of the Land: Pileated Woodpecker nesting cavities - Canada.ca.

b) Describe any associated Indigenous or public consultation, including timelines

Please See information on Indigenous or public consultation discussed in a) above.

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

Please see additional information in links provided for permitting requirements identified in a) above.

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

Open Science Data Platform (OSDP)
The Open Science Data Platform (OSDP) provides information relevant to cumulative effects and development activities across Canada and is publicly available at the following website: https://osdp-psdo.canada.ca/dp/en. More specifically, the platform provides a single window to access data and scientific knowledge relevant to understanding cumulative effects from existing federal, provincial, and territorial on-line databases and registries, including publications from the federal government and its scientists. It provides an interactive geospatial mapping tool to enable mapping of multiple datasets from multiple sources. It offers various features, including keyword-based searching, interactive data visualization on maps, and educational resources covering key topics such as cumulative effects, water, air, climate, biodiversity, land, economy and industry, health, and society and culture.
OSDP information may be of value to persons preparing and reviewing projects assessments, including cumulative effects assessments. The following are some examples of ECCC information available on the OSDP.
Water – quality and quantity * National long-term water quality monitoring data * Real-time hydrometric data * Canadian Aquatic Biomonitoring Network (CABIN) * National Pollutant Release Inventory (NPRI) o Facilities that reported releases to water * Find additional water-related resources (including publications, datasets and monitoring stations) from ECCC on the OSDP here.
Biodiversity (e.g., birds, species at risk, wetlands) * Critical habitat for species at risk (terrestrial) * Range map extents – Species at risk * Canadian wetlands * Canadian Protected and Conserved Areas Database (CPCAD) * Canadian Breeding Bird Census plots * Priority places for species at risk * Find additional biodiversity-

related resources (including publications, datasets and monitoring stations) from ECCC on the OSDP here.
Air Quality
* National Pollutant Release Inventory (NPRI), including: o Facilities that reported release of criteria air contaminants
* Canadian Environmental Sustainability Indicators (CESI), including o Average ambient fine particulate matter concentrations o Peak ambient ozone concentrations o Ambient volatile organic compound concentrations o Average ambient sulphur dioxide concentrations o Peak ambient nitrogen dioxide concentrations * Find additional air-related resources (including publications, datasets and monitoring stations) from ECCC on the OSDP here.
Climate, including climate change * Hourly and daily climate observations * Monthly climate observation summaries * Climate normals, averages and extremes 1981-2020 * Homogenized surface air temperature * Canadian homogenized monthly precipitation * Adjusted precipitation * Find additional climate-related resources (including publications, datasets and monitoring stations) from ECCC on the OSDP here.
Beyond ECCC's mandate, the OSDP also contains resources on topics led by departments and other levels of government (e.g., human health, economy and industry). The OSDP also provides access to regulatory registries that list government authorizations of other developments (e.g., Fisheries Act Registry), which can be useful in understanding the cumulative pressures on an area.

e) Indicate whether your department or agency has identified any power that it will not be exercising or may not be able to exercise to allow the project to be carried out, in whole or in part.

None identified

2. **Using Table 1**, identify project- and context- specific **key issues**, based on the expertise within your mandate[1] and the information in your possession, including the Initial Project Description, any exchanges with the proponent or others related to the project and known means to address the effects of the project. 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's a key issue based on:
      i. biophysical effect pathway(s) from the specific project component or activity
      ii. concern unique to the project or a priority within your mandate
      iii. the issue being material[2] to decision making under the *Impact Assessment Act*
   d) Identify how the issue could be resolved, including through means other than an impact assessment
   e) Identify additional information the proponent could provide including to give confidence on how the issue can be addressed through other means.

[1] Refer to the Memoranda of Understanding with IAAC.
[2] 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.

Stephen Zwicker, Environmental Assessment Coordinator

Name and title of Departmental / Agency Responder

January 28, 2026

Date

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) Means for issue resolution	e) Additional information from the proponent
Identify comments by organization and comment number. *e.g.: IAAC-01*	*Specify the 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 or the component or activity.*	*Identify the specific biophysical 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 projects of this nature or in this sector, or whether it's unique to this project due to its 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 the key issue could be resolved or addressed by:* • *Any means, including powers, duties, functions, frameworks, policies or guidance that your department or agency has;* • *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 can provide, or commitments the proponent can make, in their Response to the Summary of Issues that would provide confidence that the issue can be resolved by existing means.* *Consider whether information, studies, analyses or collaborative work with other authorities would be required to address the issue beyond existing means.*
ECCC-01	Migratory birds	The activities linked to the construction, operation, maintenance, and decommissioning of the proposed Project could have adverse effects on migratory birds.	The nature of effects of the project on migratory birds will vary based on a number of factors, including: project location, duration, scale, and configuration; ancillary project activities (e.g., land clearing, operation, etc.); existing cumulative effects; the type of habitat that may be	Habitat Loss/Alteration and Disturbance/Destruction caused by Vegetation Clearing (example: land clearing, site preparation, etc.) Clearing and other activities that cause habitat loss or alteration may lead to destruction, disturbance and fragmentation of habitat (foraging, nesting), habitat avoidance, sensory disturbance, and the	The federal *Migratory Birds Convention Act (MBCA)* and its regulations protect migratory birds and their eggs and prohibit the disturbance, damage, destruction or removal of migratory bird nests that contain a live bird or a viable egg. Migratory birds are protected at all times; all migratory bird nests are protected when they contain a live bird or viable egg; and the nests of 18 species listed in Schedule 1 of the MBR 2022 are protected year-round. These general prohibitions apply to all lands and waters in Canada, regardless of ownership. For more information, please visit: Avoiding harm to migratory birds - Canada.ca.	ECCC provides the following recommendations to avoid and minimize potential adverse impacts on migratory birds. Habitat Loss/Alteration and Disturbance/Destruction caused by Vegetation Clearing Most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, but several species nest at ground level (e.g., Common Nighthawk), in hay fields, pastures or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in head ponds created by beaver dams. Some migratory birds (e.g., Barn Swallow, Cliff Swallow, Eastern Phoebe) may build their nests on structures such as	When providing information on migratory birds, the proponent should prioritize consideration of: (1) species listed under SARA/provincial legislation, assessed by COSEWIC, or ranked by ACCDC; (2) areas of migratory bird concentration (e.g., breeding, colonies, staging, wintering); (3) breeding/nesting areas of low-abundance or higher-trophic species; and (4) species identified through

			disturbed; and sensitivity of species found in the project area. The pathway through which potential effects are conveyed will depend on the land, air and water constituents associated with the site along with the behavioural adaptability, presence and interaction with the species limiting factor (e.g., habitat supporting stating, nesting, roosting, or foraging) and population resilience.	inadvertent disturbance and destruction of individuals, nests and eggs of migratory birds. Projects involving the construction of linear footprints can cause the loss, fragmentation and alteration of habitat and may result in direct adverse effects on migratory birds during breeding, migration, staging and foraging. Linear disturbances may also cause connectivity issues and/or facilitate the movement of predators into an area and increase hunting access and efficiency. <u>Sensory Disturbance</u> Noise and vibrations from site preparation, use of heavy equipment and blasting, artificial lighting, human presence and disturbance from construction, operation, maintenance and decommissioning activities may result in injury, mortality, sensory disturbance and change in habitat use. The amount, duration, frequency, and timing of disturbance are important to understand potential effects. Sensory disturbance may make adjacent habitats unsuitable for use by migratory birds and cause avoidance effects in many species. <u>Lighting Attraction</u> Night-flying birds may be attracted to lights, resulting in possible injury or mortality: • Equipment and building strikes;	Section 5.1 of the MBCA describes prohibitions related to depositing substances harmful to migratory birds: "5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area. (2) No person or vessel shall deposit a substance to be deposited in any place if the substance, in combination with one or more substances, result in a substance – in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area – that is harmful to migratory birds." It is the responsibility of the proponent to ensure that activities are managed so as to ensure compliance with the MBCA and associated regulations. Further information can be found at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html and Avoiding harm to migratory birds - Canada.ca.	bridges, ledges or gutters. In developing mitigation measures, it is incumbent on the proponent to identify the best approach, based on the circumstances, to comply with the MBCA. The following should be considered during project planning: • Avoid scheduling high disturbance activities, such as vegetation clearing, during the regional nesting period for migratory birds. Information regarding regional nesting periods can be found at: Nesting periods - Canada.ca. Some species protected under the MBCA may nest *outside* these timeframes. • Nest searches or pre-clearing surveys during the breeding season are not supported as mitigation in most habitat types (e.g., forests, grasslands, wetlands) due to low detectability and high likelihood disturbance to nesting birds. • Nest searches may be effective when conducted by experienced observers using appropriate scientific methods in simple habitats with limited potential nesting locations or small migratory bird communities. Examples include urban parks with few trees, vacant lots with limited nest sites, previously cleared areas where ground nesters may use exposed soil or stockpiles, and structures such as bridges, towers, beacons, or buildings commonly used for nesting (e.g., by swallows, robins, phoebes, Common Nighthawks, and gulls). • The risk of impacting active nests or birds caring for pre-fledged chicks discovered during project activities *outside* of the regional nesting period can be minimized by measures such as the establishment of vegetated buffer zones around nests and minimization of activities in the immediate area until nesting is complete and chicks have naturally migrated from the area. • In developing and implementing a wildlife management plan, preventative measures to minimize the risk of impacts on migratory birds should be considered (see "Avoiding harm to migratory birds: guidelines to reduce the risk to migratory birds" at https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html). Some ground nesting species of migratory birds, including the threatened (SARA) Common Nighthawk, and Killdeer, may be attracted to previously cleared areas for nesting in the spring and summer if there is a delay between clearing activities (e.g., clearing conducted during the fall/winter and construction scheduled in the spring and summer). In the event that a nest is discovered, it would be prudent for a proponent to consult ECCC and/or NS' Department of Natural Resources (NS NR) (depending on the species) regarding appropriate buffers and other	recognized prioritization frameworks (e.g., BCR priority species). The proponent should present proposed mitigation by: (1) clearly stating firm commitments to mitigation measures and demonstrating how the proponent intends to ensure compliance with the MBCA and its regulations; (2) defining objective criteria for determining when measures are not feasible; and (3) identifying contingency measures applicable across all project phases and seasons. The proponent should commit to scheduling high-disturbance activities, including vegetation clearing, outside the core migratory bird breeding period (mid-April to late August). Pre-clearing nest searches are not supported as effective mitigation for most habitat types. The proponent should conduct targeted searches for Pileated Woodpecker nesting cavities in areas to be cleared for the project and, if cavities are found, develop mitigation measures to ensure compliance with the MBCA and its regulations. The proponent should also commit to follow-up monitoring to verify predicted effects and effectiveness of all mitigation measures, and to implementing adaptive management where adverse effects to migratory birds and their habitat occur. The proponent should provide additional

				• Complete or partial incineration leading to death or injury; • Disorientation and increased energy expenditure, which may lead to exhaustion and increased predation. <u>Accidental Releases of Hazardous Substances</u> Adverse effects on migratory birds and their habitat could result from accidental release of hazardous substances (e.g., hydrocarbons). Depending on the nature of the release (e.g., toxicity, volume, exposure pathways), and the location and duration of the release, effects on wildlife could be acute, chronic, or both. Contamination of the environment through accidental spills can result in destruction or disturbance of nests and eggs, contamination of feathers, which can be detrimental to waterproofing capabilities, and change in food quantity/quality.		mitigation measures, and to prepare and implement a monitoring plan to verify their efficacy. The Pileated Woodpecker is listed on Schedule 1 of the Migratory Birds Regulations, 2022, which provides additional legal protection for its nests. To avoid impacts to this species, ECCC recommends: • Conduct targeted surveys within vegetation clearing areas to identify suitable Pileated Woodpecker nesting habitat and confirm cavity presence and occupancy (with surveys in the Maritimes recommended in late June). • If abandoned cavities are identified on trees proposed for removal, notify ECCC through the Abandoned Nest Registry. • Where cavities are present, maintain the nest intact, establish a vegetated buffer, and monitor cavity occupancy for up to 36 months prior to removal; if construction overlaps the breeding season, implement measures to prevent disturbance. <u>Sensory Disturbance caused by Noise</u> ECCC-CWS recommends the following best management practices for noise disturbance issues: • Develop mitigations for programs that introduce very loud and random noise disturbance (e.g., blasting programs) during the migratory bird breeding season for their region. • Where possible, prioritize construction works in areas away from natural vegetation while working during the migratory bird breeding season. Conducting loud construction works adjacent to natural vegetation should be completed outside the migratory bird breeding season. • Keep all construction equipment and vehicles in good working order and loud machinery should be muffled if possible. <u>Sensory Disturbance Caused by Lighting Attraction</u> The proponent should consider the following mitigation measures when designing the Project's Lighting Plan: • Use the minimum amount of aviation safety, warning and obstruction lighting needed on tall structures. Warning lights should flash and completely turn off between flashes; • Use the fewest number of site-illuminating lights possible in the project area. Only use strobe lights at night, at the lowest intensity and the smallest number of flashes per minute allowable by Transport Canada. • Reduce lighting levels during inclement weather events that may force migratory birds to land, or fly at lower altitudes, to prevent birds from landing in areas that would cause collisions; • Avoid or restrict the time of operation of exterior decorative lights such as spotlights and floodlights	information on exhaust stack design and operation (e.g., timing, frequency, duration, temperature profile and extent of the exhaust plume) to enable assessment of risk. The proponent should also commit to monitoring for bird and bat mortality in the vicinity of the stack and to implementing adaptive management if mortality is detected. ECCC will be in a better position to comment on exhaust-related risks once this information is provided.

						whose function is to highlight features of buildings or to illuminate an entire building. These lights, especially during periods of inclement weather, can draw birds from far away. Turn off these lights during migration season when the risk to birds is highest, and during periods when birds are dispersing from their nests or colonies; • Shield safety lighting so that the illumination shines down. Only install safety lighting where it is needed, without compromising safety; • Shield street and parking lot lighting so that little escapes into the sky, and it falls where it is required. Consider using LED lighting fixtures as they are generally less prone to light trespass; • Limit construction activities to the day and avoid illuminating habitat adjacent to the worksite(s); • Develop a Bird Monitoring and Management Plan that describes what measures will take place to avoid incidental take. The Plan should include: ○ Actions that will be used to prevent incidental take of migratory birds; ○ A mortality monitoring plan that includes corrections for searcher efficiency, carcass persistence, and searchable area. For further guidance regarding lighting attraction, please see the "International Light Pollution Guidelines for Migratory Species". ECCC advises that mortality monitoring and/or carcass searches may require a CWS Scientific Migratory Birds Convention Act (MBCA) permit. Information on the MBCA permitting process can be found at scf-atlpermis-cws-atlpermits@ec.gc.ca. Bird mortality incidents of 10 or more birds in a single event, or an individual species at risk, should be reported via email to SCFATLEvaluationImpact-CWSATLImpactAssessment@ec.gc.ca. <u>Accidental Releases of Hazardous Substances</u> The proponent must ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared. Furthermore, the proponent should ensure that contractors are aware that under the MBCA, "*no person shall deposit or permit to be deposited oil, oil wastes or any substance harmful to migratory birds in any waters or any area frequented by migratory birds".* Biodegradable alternatives to petroleum-based chainsaw bar oil and hydraulic for heavy machinery are commonly available from major manufacturers. Such biodegradable fluids should be considered for use in place of petroleum products whenever possible, as a standard for best practices. Fueling and servicing of equipment should not take place within 30-metres of	

						environmentally sensitive areas, including shorelines and wetlands. ECCC recommends incorporating a Wildlife Emergency Response Plan into emergency response contingency plans for scenarios that may impact avifauna directly (injury or mortality, e.g., polluting incident) or indirectly (collisions causing mortality, stranding due to light attraction). For consideration in emergency response and contingency planning related to accidents and malfunctions, ECCC has prepared *Guidelines for Effective Wildlife Response Plans* (ECCC 2022) available online at: https://www.canada.ca/en/services/environment/wildlife-plants-species/national-wildlife-emergency-framework.html. Plans should include: • Measures to deter migratory birds from coming into contact with the oil or polluting substance; • Measures undertaken if individuals of migratory birds and/or sensitive habitat become contaminated; and • The type, extent of monitoring, and reporting in relation to various spill events. The proponent is responsible for ensuring that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan is prepared in the case of spills. Furthermore, the proponent should ensure that contractors are aware of s.5.1 MBCA prohibitions.	
ECCC-02	Species at Risk, Species of Conservation Concern, and their habitat	The activities linked to the construction, operation, maintenance and decommissioning of the proposed Project could have adverse effects on terrestrial wildlife including species at risk listed on the *Species at Risk Act* (SARA), or Species of Conservation Concern (SOCC) assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (e.g., birds, terrestrial mammals, amphibians, reptiles,	The nature of effects of the project on species at risk (including their residences and critical habitat defined under the SARA) can vary based on a number of factors, including: project location, duration, scale, and configuration; ancillary project activities (e.g., land clearing, operation, etc.); existing cumulative effects; the type of habitat that may be disturbed; and sensitivity of species found in the project area. The pathway	Habitat Loss and Alteration (example: land clearing, site preparation, etc.) Clearing and other activities that cause habitat loss or alteration may lead to destruction, disturbance and fragmentation of habitat (foraging, nesting), habitat avoidance, sensory disturbance, and the inadvertent disturbance and destruction of individual migratory bird species at risk and their nests and eggs, or of individual non-migratory bird species at risk, their residences and critical habitat.	The purpose of the *Species at Risk Act* (SARA) is to 1) prevent wildlife species from extirpation or extinction, and 2) provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity. The list of species protected by the SARA can be found on the Species at Risk Public Registry. Under SARA s.79. (1), "*Every person who is required by or under an Act of Parliament to ensure that an assessment of the environmental effects of a project is conducted, and every authority who makes a determination under paragraph 82(a) or (b) of the Impact Assessment Act in relation to a project, must, without delay, notify the competent minister or ministers in writing of the project if it is likely to affect a listed wildlife species or its critical habitat*." Under section 79(2) of SARA, "*The person must also identify the adverse effects of the project on listed wildlife species and its critical*	ECCC provides the following recommendations to avoid and minimize potential adverse impacts on species at risk. Habitat Loss and Alteration caused by Vegetation Clearing ECCC recommends that proponents establish buffer zones or setback distances to minimize potential impacts from disturbance activities. A 30 m buffer is likely not sufficient to address impacts on SAR, ground-nesting species, or highly mobile chicks of certain species. Should the nests of a migratory bird species at risk or any unfledged chicks be discovered, proponents should establish an appropriate-sized buffer for the relevant species. In general, ECCC recommends the following buffers for landbird SAR during the breeding season: • Low disturbance activities (e.g., site monitoring) – 50 metres • Medium disturbance activities (e.g., sensory disturbance) – 150 metres • High disturbance activities (e.g., clearing, use of heavy equipment) – 300 metres	The proponent should present proposed mitigation by: (1) clearly stating firm commitments to mitigation measures; (2) defining objective criteria for determining when measures are not feasible; and (3) identifying contingency measures applicable across all project phases and seasons. The proponent should commit to scheduling high-disturbance activities, including vegetation clearing, outside the core migratory bird breeding period (mid-April to late August). Pre-clearing nest searches are not supported as effective mitigation for most habitat types.

		arthropods, lichen, mosses, and vascular plants), and their habitat (e.g., wetlands). Based on the Initial Project Description, SARA-listed and COSEWIC-assessed species that may occur in the project area include: Black Ash (Threatened), Bank Swallow (Threatened), Barn Swallow (Threatened), Bobolink (Threatened), Canada Warbler (Threatened), Common Nighthawk (Special Concern), Eastern Wood-pewee (Special Concern), Evening Grosbeak (Special Concern), Olive-sided Flycatcher (Special Concern), Monarch (Endangered), and Myotis spp. bats (Endangered).	through which potential effects are conveyed will depend on the land, air and water constituents associated with the site along with the behavioural adaptability, presence and interaction with the species limiting factor (e.g., habitat supporting staging, nesting, roosting, or foraging) and population resilience.	Projects involving the construction of linear footprints can cause the loss, fragmentation and alteration of habitat and may result in direct adverse effects on species at risk during important life-stages. Linear disturbances may also cause connectivity issues and/or facilitate the movement of predators into an area and increase hunting access and efficiency. There is a higher risk that these effects would be more severe for migratory birds that are also SAR and species where habitat is sensitive to disturbance (e.g., wetlands) or where there is already a high degree of cumulative effects to habitat and individuals. Destruction and/or disturbance of habitat can have increased impacts on SAR individuals, residence(s), and their critical habitat, which can lead to changes in prey and predator dynamics, loss of food resources, loss of breeding areas, changes in migration or movement, and increased risk of mortality. For example, certain species of migratory birds (e.g., Bank Swallow, Common Nighthawk) may nest in large piles of soil left unattended/unvegetated during the most critical period of breeding season. <u>Sensory Disturbance</u> Noise and vibrations from site preparation, use of heavy equipment and blasting, artificial lighting, human presence and disturbance from	*habitat and, if the project is carried out, must ensure that measures are taken to avoid or lessen adverse effects and to monitor them*". Mitigation measures must be consistent with recovery strategies and action plans for the species. Indirect and direct effects should be considered. The proponent must manage activities to ensure compliance with the SARA and associated regulations. SARA Policy Guidelines (2016) are available at: Species at Risk Act: addressing considerations - Canada.ca **<u>Important Note</u>**: ECCC-CWS also recommends that the province be contacted for technical expertise on species at risk under their jurisdiction (e.g. bats, reptiles, amphibians, land-mammals, insects, plants, lichen, and birds not protected by the MBCA, such as raptors). **<u>Notification and Identification of Effects (SARA s. 79(1)(2)</u>** Subsection 79(2) of SARA establishes a requirement to avoid or lessen **all (direct and indirect)** adverse effects of a project on listed wildlife species and critical habitat, regardless of the significance of those effects. Thus, in developing mitigation measures for listed wildlife species, the approach should be systematic and rigorous. The following mitigation sequence should be followed: 1. Avoidance of the adverse effect. 2. Minimization of the adverse effect. 3. Restitution for the adverse effect (e.g., replacement, restoration or compensation/conservation allowances).	• Very high disturbance activities (e.g. blasting) – 1000 metres. In the event that a migratory bird SAR nest is discovered during activities, it is prudent for the proponent to consult ECCC and/or NS NR (depending on the species), regarding appropriate buffers and other mitigation measures, and to prepare and implement a monitoring plan to verify their efficacy. <u>Sensory Disturbance caused by Noise</u> ECCC recommends the following best management practices for noise disturbance issues: • Develop mitigation for programs that introduce very loud and random noise disturbance (e.g., blasting programs) during the migratory bird breeding season for their region. • Where possible, prioritize construction works in areas away from natural vegetation while working during the migratory bird breeding season. Conducting loud construction works adjacent to natural vegetation should be completed outside the migratory bird breeding season. • Keep all construction equipment and vehicles in good working order and loud machinery should be muffled if possible. <u>Sensory Disturbance caused by Lighting Attraction</u> The proponent should consider the following mitigation measures when designing the Project's Lighting Plan: • Use the minimum amount of aviation safety, warning and obstruction lighting needed on tall structures. Warning lights should flash and completely turn off between flashes; • Use the fewest number of site-illuminating lights possible in the project area. Only use strobe lights at night, at the lowest intensity and the smallest number of flashes per minute allowable by Transport Canada. • Reduce lighting levels during inclement weather events that may force migratory birds to land, or fly at lower altitudes, to prevent birds from landing in areas that would cause collisions; • Avoid or restrict the time of operation of exterior decorative lights such as spotlights and floodlights whose function is to highlight features of buildings or to illuminate an entire building. These lights, especially during periods of inclement weather, can draw birds from far away. Turn off these lights during migration season when the risk to birds is highest, and during periods when birds are dispersing from their nests or colonies; • Shield safety lighting so that the illumination shines down. Only install safety lighting where it is needed, without compromising safety;	With respect to species at risk, the proponent should identify potential adverse effects on listed species and critical habitat and implement mitigation measures that are consistent with applicable Recovery Strategies, Action Plans, and Management Plans, and that comply with the requirements of the Species at Risk Act. The proponent should also commit to follow-up monitoring to verify predicted effects and mitigation effectiveness, and to implementing adaptive management where adverse effects to species at risk or their critical habitat occur. The proponent should provide additional information on exhaust stack design and operation (e.g., timing, frequency, duration, temperature profile and extent of the exhaust plume) to enable assessment of risk. The proponent should also commit to monitoring for bird and bat mortality in the vicinity of the stack and to implementing adaptive management if mortality is detected. ECCC will be in a better position to comment on exhaust-related risks once this information is provided.

				construction, operation, maintenance and decommissioning activities may result in injury, mortality, sensory disturbance and change in habitat use. The amount, duration, frequency, and timing of disturbance are important to understand potential effects. Sensory disturbance may make adjacent habitats unsuitable for use by species at risk and cause avoidance effects in many species. <u>Lighting Attraction</u> Night-flying SAR birds may be attracted to lights, resulting in possible injury or mortality: • Equipment and building strikes; • Complete or partial incineration leading to death or injury; • Disorientation and increased energy expenditure, which may lead to exhaustion and increased predation. <u>Accidental Releases of Hazardous Substances</u> Adverse effects on species at risk and their habitat could result from accidental release of hazardous substances (e.g., hydrocarbons). Depending on the nature of the release (e.g., toxicity, volume, exposure pathways), and the location and duration of the release, effects on species at risk could be acute, chronic, or both. Contamination of the environment through accidental spills can result in destruction or disturbance of nests and eggs, contamination of		• Shield street and parking lot lighting so that little escapes into the sky, and it falls where it is required. Consider using LED lighting fixtures as they are generally less prone to light trespass; • Limit construction activities to the day and avoid illuminating habitat adjacent to the worksite(s); • Develop a Bird Monitoring and Management Plan that describes what measures will take place to avoid incidental take. The Plan should include: ○ Actions that will be used to prevent incidental take of migratory birds; ○ A mortality monitoring plan that includes corrections for searcher efficiency, carcass persistence, and searchable area. For further guidance regarding lighting attraction, please see the "<u>International Light Pollution Guidelines for Migratory Species</u>". • ECCC advises that mortality monitoring and/or carcass searches may require a CWS Scientific Migratory Birds Convention Act (MBCA) permit. Information on the MBCA permitting process can be found at scf-atlpermis-cws-atlpermits@ec.gc.ca. Bird mortality incidents of 10 or more birds in a single event, or an individual species at risk, should be reported via email to SCFATLEvaluationImpact-CWSATLImpactAssessment@ec.gc.ca. <u>Accidental Releases of Hazardous Substances</u> The proponent must ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared. Furthermore, the proponent should ensure that contractors are aware that under the MBCA, "*no person shall deposit or permit to be deposited oil, oil wastes or any substance harmful to migratory birds in any waters or any area frequented by migratory birds*". Biodegradable alternatives to petroleum-based chainsaw bar oil and hydraulic for heavy machinery are commonly available from major manufacturers. Such biodegradable fluids should be considered for use in place of petroleum products whenever possible, as a standard for best practices. Fueling and servicing of equipment should not take place within 30-metres of environmentally sensitive areas, including shorelines and wetlands. ECCC recommends incorporating a Wildlife Emergency Response Plan into emergency response contingency plans for scenarios that may impact avifauna directly (injury or mortality, e.g., polluting incident) or indirectly	

				feathers, which can be detrimental to waterproofing capabilities, and change in food quantity/quality.		(collisions causing mortality, stranding due to light attraction). For consideration in emergency response and contingency planning related to accidents and malfunctions, ECCC has prepared *Guidelines for Effective Wildlife Response Plans* (ECCC 2022) available online at: https://www.canada.ca/en/services/environment/wildlife-plants-species/national-wildlife-emergency-framework.html. Plans should include: • Measures to deter migratory birds from coming into contact with the oil or polluting substance; • Measures undertaken if individuals of migratory birds and/or sensitive habitat become contaminated; and • The type, extent of monitoring, and reporting in relation to various spill events. The proponent is responsible for ensuring that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan is prepared in the case of spills. Furthermore, the proponent should ensure that contractors are aware of s.5.1 MBCA prohibitions.	
ECCC-03	Wetland alteration and destruction	Through field surveys and wetland functional assessments, Strum has identified several wetlands within the project and focus areas, including six that will be directly impacted by project activities. Six potential wetlands of special significance (WSS) were identified The activities linked to the construction, operation, maintenance, and decommissioning of the proposed project could have adverse effects on wetlands and their ecological functions.	Carrying out the project, particularly the activities related to construction, may alter the existing hydrological regimes essential for maintaining wetlands and thus affect the quality or availability of habitat for migratory birds, SAR, and other wildlife.	The destruction and alteration of wetlands is likely to have adverse effects on migratory birds and SAR that use these areas for breeding, foraging, resting and migration.	Wetlands provide important habitat and food sources for many species of migratory birds and SAR, the loss of which may contribute to adverse impacts to species that fall under federal jurisdiction under the *Migratory Birds Convention Act* and its associated regulations (MBR 2022) and the *Species at Risk Act* (SARA). The Federal Sustainable Development Strategy Act enables the Federal Sustainable Development Strategy 2022-2026 that identifies the Government of Canada's commitment to the protection of biodiversity and reducing the degradation of natural habitats, including wetlands.	To promote wetland conservation, which is vital to many migratory birds and species at risk, ECCC recommends the following general beneficial management practices: • Developments on wetlands should be avoided. • Where development does occur in the vicinity of wetlands, a minimum vegetation buffer zone of 30 metres should be maintained around existing wetland areas. • Hydrological function of the wetland should be maintained. • Runoff from development should be directed away from wetlands. • Implement a 30-metre buffer from the high-water mark of any water body (1:100 Flood Zone) to maintain movement corridors for migratory birds. The impact assessment should include information on how the proponent intends to avoid, minimize or mitigate the potential loss of wetlands. Where avoidance or minimization is not possible, the proponent may develop a Wetland Compensation Plan that outlines measures to offset the residual loss of wetland habitat and/or function as a result of the Project. More information can be found at Operational Framework for Use of Conservation Allowances (publications.gc.ca). ECCC advocates the goal of no net loss of biodiversity for all development projects that have the potential to adversely affect biodiversity under their mandate. The disturbance or loss of wetlands may have adverse effects on migratory birds and species at risk that use	ECCC recommends the development of a Wetland Compensation Plan that fully describes the mitigation hierarchy, including: • Identification of wetlands potentially affected by the project, • A detailed description of potential effects, and the reasons why avoidance and minimization of impacts were determined to not be possible, and • Identification and justification of proposed offset ratios. As a mitigation measure to compensate for the lost wetland habitat function associated with migratory birds and species at risk or species of conservation concern, in instances where such habitat cannot be avoided, ECCC recommends the use of conservation allowances as the last step in the

						these areas for breeding, foraging, resting and migration. ECCC requests the opportunity to review any wetland assessments and monitoring plans, once prepared.	mitigation hierarchy of avoidance, minimization, on-site restoration and offsetting.
ECCC-04	Effects to fish and fish habitat, water quality and Indigenous Peoples from the unplanned releases of substances to the environment	Site preparation, construction, and decommissioning phases will involve extensive use of gasoline and diesel-powered heavy equipment. Equipment used during these phases may also contain hydraulic oils and lubricants. Operation of the facility will involve use of natural gas delivered via pipeline, as well as diesel fuel delivered to the site by truck and stored on-site. Other substances may be used and / or stored as part of project operations including lubricating oil and ethylene glycol. Given the hazardous nature of several of the substances that will be handled, stored, and used for 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 hazardous substances during all project phases. Accidents and malfunctions resulting in the release of these 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.	Accidents and malfunctions that may occur over the life of the project are not unusual in terms of complexity or scale, and many can be addressed through implementation of industry standard practices and mitigation measures at all phases of the project. Nonetheless, 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 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. 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. These effects include	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.	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 outlined within their initial project description (section 15) a suite of mitigation measures and plans that would reduce the risk of accidents and malfunctions and mitigate the impacts should accidents and malfunctions occur. These include: • Using secondary containment for storage tanks containing hazardous substances to prevent their release completely or minimize the amount that enters the environment in the event of an accident or malfunction. • Keeping appropriately stocked spill kits and spill response equipment on site and available at all locations where spills could occur (including on mobile equipment), enabling rapid containment and clean-up of any hazardous substance that enters the environment. • Locating fuel storage areas, refuelling, and equipment maintenance a minimum of 30 m from watercourses, wetlands, and groundwater features • Carrying out regular inspections of equipment. • Developing comprehensive plans, including a spill prevention and response plan, emergency response plan, and fire prevention and evacuation plan, which will outline procedures and practices to reduce the risk of accidents and malfunctions and equip responders with the knowledge and information necessary to rapidly and effectively respond if they occur. 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	The proponent should commit to implementing all mitigation measures and developing all plans mentioned in the initial project description, 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 adopt all relevant industry best-practices regarding prevention, preparedness, response, and recovery in the context of spills resulting from accidents and malfunctions.

				impacts to fish and fish habitat, migratory birds, and changes to the environment resulting in non-negligible adverse impacts to Indigenous Peoples of Canada. 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.			
ECCC-05	Greenhouse Gas Emissions Assessment	GHG emissions and climate change. The construction, operation, and decommissioning of the proposed Project will result in GHG emissions and may impact carbon sinks. GHG emissions during operations is estimated by the Proponent to be 325,594 t CO2/yr which are an important amount to consider.	N/A	The assessment of the impact on carbon sinks and GHG emissions (including upstream emissions) 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). Should the Project be subject to an impact assessment under the Impact Assessment Act (IAA), the Strategic Assessment of Climate Change (SACC) would apply.	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.	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. 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 .	ECCC recommends that the Project's GHG emissions and climate change impacts be assessed and mitigated consistent with guidance in the SACC. The Proponent is encouraged to provide the methodology, data, emission factors and assumptions used for the GHG emission estimate, and information on measures being considered to reduce the project's GHG emissions on an ongoing basis, including conversion to low-carbon fuels. Technical guidance on the SACC can be found here.
ECCC-06	Air Emissions	Release of emissions through the combustion of natural gas or diesel	Given the nature and magnitude of the emissions from the proposed facility, dispersion of emissions will result in elevated ambient air concentrations in the vicinity of the proposed facility but are unlikely to result in any significant	ECCC provides expertise on the fate of air emissions to help support Health Canada's assessment of potential impacts within the federal mandate.	Any potential effect within federal jurisdiction would be related to Indigenous health impact from ambient concentrations in the immediate vicinity of the proposed facility. Details of this would fall under the purview of Health Canada.	The prevalent use of natural gas will minimize air quality emissions compared to any other choice of fossil fuels, and a small buffer around the facility could also be sufficient (the location of any fenceline was not apparent from the provided documentation) to limit exposure. The proponent should reference the Federal Guidelines for Stationary Gas Turbines, which provide applicable standards and expectations for NO_x control in such installations.	The proponent has already provided credible emissions scenarios and accompanying modelling, so no further information or studies would be needed to assess the fate of emissions. Even when background concentrations are included, all ambient concentrations predicted under maximum emission

			impacts in relation to the federal mandate.				rate, operational scenarios fall below existing ambient air quality criteria.
ECCC-07	Water Quality	The activities linked to the construction, operation, and decommissioning of infrastructure can have adverse effects on the quality of groundwater and surface water. Constructing and maintaining access roads, excavating or reworking of soils, sediments or rocks, and drilling may result in the deposit of contaminants to watercourses and water bodies and result in adverse effects on water quality. Works near water during construction activities may result in disruption of soils, rock, and streambanks causing erosion and result in deposition of soils and sediments to waterbodies. Soils and sediments can also enter waterbodies through streambed disturbance. These suspended solids can have adverse effects on water quality. Contaminants may be introduced into waterbodies through stormwater discharge, groundwater resurgence, or spills resulting in adverse	Accidental spills can release contaminants to watercourses and waterbodies Disturbance of pre-existing contamination can affect adjacent watercourses Increased sediment concentrations and transport in surface water due to vegetation clearing, increased erosion on the project footprint, and erosion along effluent discharge channel	ECCC provides expertise on water quality to help support the assessment of potential impacts on water quality on nearby Indigenous Communities. Environment and Climate Change Canada (ECCC) is responsible for the administration of subsection 36(3) to (6) of the Fisheries Act which prohibits the deposit of a deleterious substance in waters frequented by fish unless authorized by regulations. The nature of potential impacts to water quality is common to this project type	Any potential effect within federal jurisdiction would be related to the release of contaminants into watercourses and waterbodies that could lead to effects on fish or fish habitat or of migratory birds as well as nearby Indigenous Communities. The groundwater and surface water modelling and monitoring would help determine the potential extent of any impacts.	Standard mitigation measures can be implemented to ensure water quality beyond the immediate project site is not significantly impacted.	Results from groundwater and surface water modelling and monitoring could be used to help determine the appropriate mitigation measures to be implemented.

		effects on water quality. Adverse effects to water quality could, in turn, result in adverse effects to sensitive ecosystem receptors.					
ECCC-08	Water quality - effluent discharge	The proposed project would generate reject process water to be directed to a settling pond, treated, and discharged to a nearby watercourse WC1.	Discharge of process water from the project operation to nearby surface watercourses and waterbodies	The nature of potential impacts to water quality is common to this project type	Any potential effect within federal jurisdiction would be related to the release of process water/contaminants into watercourses and waterbodies that could lead to effects on fish and fish habitat, of migratory birds as well as nearby Indigenous Communities. Groundwater and surface water modelling and monitoring as well as assessing wastewater treatment options would help determine the potential extent of any impacts.	In Section 9.1.6, the Proponent notes: “The quality (and quantity) of wastewater that will be generated by the Project is currently unknown, as this will vary depending on the specific technologies chosen for operation of the facility and demineralized water production.” The proponent also notes that "Treated process water from the Facility is not anticipated to be elevated in temperature, as water used for cooling is released as steam through the stack.” The Proponent notes the project is in a risk area for arsenic, manganese, and uranium content in groundwater. It can be expected that wastewater from project operations may contain three times the concentration of contaminants of potential concern than found in the pumped groundwater. The Proponent notes wastewater discharge will be treated as necessary to meet CCME FWAL guidelines and Tier I EQS prior to being released. Based on the limited information available on groundwater and wastewater characterization ECCC is not able to evaluate whether this is reasonably achievable. As well, Subsection 36(3) of the Fisheries Act prohibits the deposit of any deleterious substances in water frequented by fish or to any place where it may enter water frequented by fish, regardless of the ability of the receiving water to assimilate the deposit, unless authorized by federal regulations. Deleterious substances include any substance that, if added to water, would degrade, alter or form part of a process of degradation or alteration of the quality of water so that it is rendered deleterious to fish or fish habitat or to the use of fish by humans. There are currently no regulations under the Fisheries Act that authorize the deposit of industrial effluents from a facility, such as the one described in this project, into water frequented by fish. If these deposits were determined to be deleterious, they would be prohibited under the Fisheries Act. For more information on the pollution prevention provisions of the Fisheries Act, please visit https://www.canada.ca/en/environment-climate-	Results from groundwater and surface water modelling and monitoring could be used to help determine the appropriate mitigation measures to be implemented to meet applicable water quality standards.

						change/services/managing-pollution/fisheries-act-registry/frequently-asked-questions.html.	

Please insert additional rows as necessary.