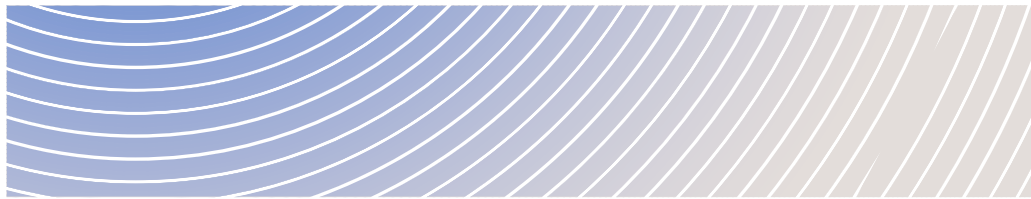


Analysis Report



DESIGNATION REQUEST FOR THE **MADAWASKA WIND FARM PROJECT** IN
QUEBEC PURSUANT TO THE *IMPACT ASSESSMENT ACT*

February 3, 2025



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Purpose

The Impact Assessment Agency of Canada (IAAC) has prepared this report in response to the designation request for the Madawaska wind farm project (the project) pursuant to section 9 of the amended *Impact Assessment Act* (the IAA). This analysis report will serve as the basis of analysis for any new designation request submitted to the Minister of Environment (the Minister) for a wind farm project in southern Quebec. In these circumstances, IAAC will refer to the analysis in this report, and address potential effects within federal jurisdiction that were not covered by this analysis, or that may be different.

Context of Request

Designation request

On November 16, 2024, the Minister received a designation request from a member of the public (the requester) for the Madawaska wind farm project proposed by Parc éolien de la Madawaska S.E.C.¹ (the proponent). In that request, the requester raised concerns regarding the effects that the Project may have on migratory birds, as well as the cumulative effects of existing and planned wind farms in the Bas-Saint-Laurent region.

On December 9, 2024, IAAC informed the proponent of this designation request. IAAC also contacted the Indigenous communities likely to be affected by the Project, namely the Wolastoqiyik Wahsipekuk First Nation (WWFN) and the Mi'gmawei Mawio'mi Secretariat representing the Mi'gmaw communities of Gespeg, Listuguj and Gesgapegiag, but received no comments from them. IAAC also obtained information from Environment and Climate Change Canada (ECCC) and Fisheries and Oceans Canada (DFO) regarding the legislative and regulatory mechanisms applicable to wind power projects.

Designation requests for similar projects

Historically, IAAC has analysed designation requests for wind power projects and, to date, none of them has led to designations². The components and activities related to wind power generation of these projects, as well as the effects within federal jurisdiction, were similar. One of these is the Pohénégamook-Picard-Saint-Antonin-Wolastokuk (PPAW) Wind Farm Project, for which the Minister issued his decision on November 18, 2024. The Minister decided not to designate the project, in part because provincial and federal legislative and regulatory mechanisms provide a framework to address the adverse effects within federal jurisdiction and direct or incidental adverse effects, as well as concerns expressed by Indigenous communities and the public related to those effects.

¹ Parc éolien de la Madawaska S.E.C. is the result of an equal partnership between EDF Renewables Canada inc., Alliance de l'énergie de l'Est S.E.C. and Société de gestion éolienne Madawaska inc. (a subsidiary of Hydro-Québec).

² [PPAW Wind Farm Project](#) in Quebec, [Smoky River Wind Project](#) in Alberta and [Port au Port-Stephenville Wind Power and Hydrogen Generation Project](#) in Newfoundland and Labrador.

Project Context

Project overview

The proponent is proposing the construction and operation of a wind farm located in the regional county municipality (RCM) of Témiscouata in the Bas-Saint-Laurent administrative region in Quebec (figure 1).

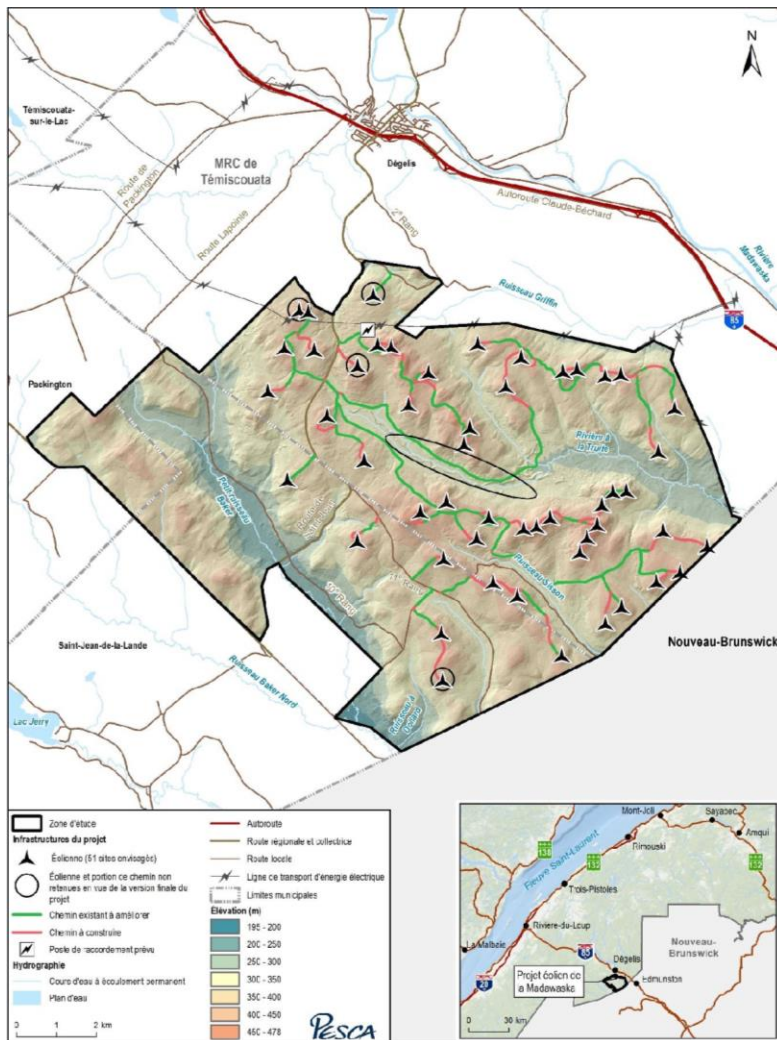


Figure 1: Project Location

Source (In French only): Parc éolien de la Madawaska S.E.C. (2024). Étude d'impact sur l'environnement – Parc éolien de la Madawaska. Volume 7 : Résumé. Étude réalisée par PESCA Environnement et déposée au ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs.



As proposed, the Madawaska Wind Farm Project would involve the construction and operation in forest and agricultural areas of 45 wind turbines, each rated at 6 megawatts, for a total planned capacity of 270 megawatts. The project would also include a road network, a mostly underground electrical collector system and a substation to the Hydro-Québec grid. A service building (operation and maintenance), meteorological towers and temporary areas, including a parking lot, sand pits and a temporary cement concrete manufacturing site, are also planned. The project area is located partially on lands in the domain of the state (provincial public lands). A portion is privately owned. The Proponent plans to build the project in 2025-2026, with commissioning in December 2026. The operating life would be around 30 years, based on the current supply contract with Hydro-Québec. The proponent has undertaken to dismantle the wind farm at the end of the current contract, unless the contract is renewed or there is another opportunity to sell the energy being produced.

Project components and activities

The Project will be carried out in three phases: construction, operation and dismantling.

In the construction phase, the project would include the following activities:

- Clearing of permanent and temporary project infrastructure areas;
- Layout of work areas for siting wind turbines and other equipment;
- Construction of new roads and improvement of existing roads;
- Construction of water crossings and rehabilitation of existing water crossings;
- Transportation of project-related components and traffic in the project area, including:
 - trucking of wind turbine parts, heavy machinery, sand, gravel, concrete and other equipment; and
 - daily circulation of workers.
- Installation or fitting out of equipment, including:
 - foundations and assembly of the wind turbines;
 - a mostly underground electrical collector system, a substation and a service building; and
 - temporary site offices, parking and concrete manufacturing site.
- Restoration of temporary work areas.

The operation phase would include the presence and operation of equipment, semi-automated monitoring and control, as well as maintenance of equipment and access roads.

Finally, the dismantling phase would include the following activities:

- Clearing of a work area at the foot of each wind turbine and along the access roads, where necessary;
- Dismantling of equipment;



- Transportation and circulation of workers, heavy machinery and materials or equipment; and
- Restoration of work areas and repair of access roads.



Analysis of Designation Request

Authority to designate the Project

Under subsection 9(1) of the IAA, the Minister may designate a physical activity that is not prescribed by the *Physical Activities Regulations* and if the Minister is of the opinion that the carrying out of that physical activity may cause adverse effects within federal jurisdiction or direct or incidental adverse effects. The Madawaska wind farm project, as described, does not correspond to any physical activity described in the *Physical Activities Regulations*, and is therefore not designated by it.

In accordance with subsection 9(2) of the IAA, if the Minister is of the opinion that the carrying out of the project may cause adverse effects within federal jurisdiction or direct or incidental adverse effects, the Minister may, in making the decision on whether to designate the Project, consider: public concerns related to those effects, adverse impacts that the project may have on the rights of Indigenous peoples, and whether an authority has a means other than an impact assessment to address these adverse effects.

According to subsection 9(7) of the IAA, the Minister may not exercise its power to designate a physical activity if :

- a) the carrying out of the physical activity has substantially begun; or

- b) a federal authority has exercised a power or performed a duty or function conferred on it under any Act of Parliament other than the IAA that could permit the physical activity to be carried out, in whole or in part.

Under subsection 154(1) of the IAA, the Minister may, subject to any terms and conditions that the Minister specifies, delegate to IAAC any powers, duties, or functions that the Minister is authorized to exercise or perform under the IAA. The Minister delegated the powers under section 9 of the IAA to the President of IAAC.

IAAC is of the opinion that there are no restrictions applicable under subsection 9(7) because the carrying out of the Project has not substantially begun and no federal authority has exercised a power or performed a duty or function that could permit the Project to be carried out, in whole or in part. Consequently, the Minister could exercise his power to designate pursuant to subsection 9(1) of the IAA.

Existing legislative mechanisms

The main federal and provincial legislative mechanisms that are relevant to the project are summarized below. Some of those mechanisms (authorizations, approvals and permits) include Indigenous consultation and public engagement.



Federal Legislative Mechanisms

Fisheries Act

As part of the Fish and Fish Habitat Protection Program, DFO reviews projects for their effects on fish and fish habitat by ensuring compliance with the *Fisheries Act* and *Species at Risk Act*. Through this program, DFO may provide information to the proponent to avoid and mitigate the negative project-related effects on fish and fish habitat.

A *Fisheries Act* authorization is required if the Project is likely to result in the harmful alteration, disruption, or destruction of fish habitat and/or is likely to result in the death of fish. When granted, this authorization includes legal conditions for avoiding, reducing and offsetting for the effects of the project, as well as for monitoring these effects and the effectiveness of mitigation or offset measures.

The authorization procedure includes consultation with Indigenous communities. The Minister of Fisheries and Oceans must consider the adverse impact of his decision (under paragraphs 34.4(2)(b) and 35(2)(b)) on the rights of Indigenous peoples recognized and affirmed by section 35 of the *Constitution Act, 1982*.

In addition, subsection 36(3) of the *Fisheries Act*, administered by ECCC, prohibits the deposit of deleterious substances into waters frequented by fish, unless authorized by regulations or other forms of federal legislation.

Migratory Birds Convention Act, 1994

The *Migratory Birds Convention Act, 1994* (MBCA) protects migratory birds, their eggs and nests, wherever they may be. This law prohibits the disturbance or destruction of migratory bird nests and eggs. It also prohibits the deposit of harmful substances into waters or areas frequented by migratory birds or into a place from which substances may enter such waters or such an area.

Nests of species listed in Schedule 1 of the *Migratory Birds Regulations (2022)* (MBR 2022) are protected at all times, except under certain conditions. MBR 2022 authorizes the issuance of damage and danger permits, as well as scientific permits, which may apply in specific limited situations.

Species at Risk Act

The *Species at Risk Act* (SARA) aims to prevent wildlife species of Canada from becoming extinct and to take the steps necessary for their recovery.

For aquatic species listed in Schedule 1 of SARA as extirpated, endangered, or threatened, an authorization under paragraphs 34.4(2)(b) and 35(2)(b) of the *Fisheries Act*, which also serves as a permit under SARA, may be required by DFO for activities that may cause effects on these species.

For non-aquatic species listed in Schedule 1 of SARA as extirpated, endangered, or threatened, a permit may be required from ECCC under section 73 of SARA for activities that may affect a listed wildlife species or the residences of its individuals, where prohibitions are in place. Species that are both migratory birds protected under the MBCA and species listed on Schedule 1 of SARA as endangered, threatened or extirpated are protected under both Acts. These permits may only be issued under specific conditions.

Canadian Navigable Waters Act

An application for authorization may be required from TC under the *Canadian Navigable Waters Act* (CNWA) when a project involves navigable waters listed in the schedule to the *Canadian Navigable Waters Act*. The authorization procedure includes consultation with Indigenous communities.

Approvals under the CNWA are also required when major works in watercourses are necessary.

Provincial Legislative Mechanisms

Environment Quality Act

The *Environment Quality Act* (EQA) is the main legislation that governs environmental protection in Quebec. The purpose of this Act is to protect the environment and the living species inhabiting it, to the extent provided by law. The Act also enables considering issues related to the protection of human health and safety, as well as the circumstances of the territories and their communities.

In particular, section 22 of the Act requires ministerial authorization for certain activities, including work or interventions carried out in wetlands and bodies of water, as well as any activity likely to result in the release of contaminants or effects on the quality of the environment³. The *Regulation respecting the regulatory scheme applying to activities on the basis of their environmental impact* sets out the framework for activities subject to ministerial authorization under section 22 of the EQA, and classifies them according to their level of environmental risk. Projects presenting a high environmental risk are subject to the Environmental impact assessment and review procedure (EIARP) under section 31.1 of the EQA, and require government authorization. This particularly applies to wind farm construction projects or any other type of power plant or facility with a capacity of 10 MW or more that aims to generating electricity. The framework for the various stages, and the list of projects subject to the procedure, are set out in the *Regulation respecting the environmental impact assessment and review of certain projects*. The Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP) is responsible for applying this procedure.

The EIARP involves several stages, including the admissibility stage of the proponent's impact assessment statement, and the environmental acceptability stage for the project, during which the MELCCFP seeks expert advice from various provincial and federal departments and agencies. In the case of wind farm projects, ECCC is generally called on for their expertise, particularly on migratory birds.

The EIARP also provides several opportunities for public consultation, some of which are conducted by the Bureau d'audiences publiques sur l'environnement (BAPE⁴). The EIARP also involves an Indigenous consultation process led by the MELCCFP. In addition to the analysis report produced by the MELCCFP, prior

³ For more information on activities requiring ministerial authorization (in French):

<https://www.environnement.gouv.qc.ca/lqe/autorisations/realite/fiches/declencheur-autorisation-ministerielle.pdf>

⁴ BAPE is an impartial government body that reports to the MELCCFP. It enables citizens to obtain information and express their views on the projects entrusted to it. It is important to note that BAPE does not have the power to authorize or refuse a project. It makes recommendations to the MELCCFP based on the concerns raised during the public consultation sessions and in the briefs submitted.



to submitting his recommendation to the government, the Minister will take into consideration, where applicable, the BAPE report and the results of the Indigenous consultation carried out as part of the project. The Quebec government will then decide whether to authorize the carrying out of the project.

In the event of a favourable decision by the Quebec government (decree), the proponent may then be required to obtain one or more authorizations from the MELCCFP under section 22 of the EQA before starting work on the project. When these authorization requests are at the analysis stage, additional consultations may be held with experts to ensure compliance with the conditions set out in the decree.

Finally, the EQA sets out several other regulations that could apply to wind power projects in southern Quebec or to their incidental activities, including but not limited to the following:

- the *Regulation respecting activities in wetlands, bodies of water and sensitive areas*, which prescribe standards for carrying out activities in these environments; and
- the *Regulation respecting compensation for adverse effects on wetlands and bodies of water*, which establishes the rules for compensating for residual and unavoidable losses to wetlands and bodies of water when a project is carried out.

Act respecting the conservation of wetlands and bodies of water

The purpose of the *Act respecting the conservation of wetlands and bodies of water* is to prevent the loss of wetlands and bodies of water and to foster development of projects with minimal impacts on those environments. This Act establishes a compensation regime for damage to wetlands and bodies of water, articulated through the EQA and the *Regulation respecting compensation for adverse effects on wetlands and bodies of water*. This Act completes the environmental authorization regime under the EQA.

Sustainable Forest Development Act

The objectives of the *Sustainable Forest Development Act* are to ensure the perpetuity of the forest heritage through sustainable forest management, to promote ecosystem-based management and integrated, regionalised management of forest resources and land, and to ensure the monitoring and control of activities carried out in public forests. The *Regulation respecting the sustainable development of forests in the domain of the State* (RSDF) follows from this law and applies to forest land in the domain of the state (provincial lands) up to the northern limit of the forest tundra in Quebec.

According to DFO, this regulation ensures consistency with the *Fisheries Act*, and indicates that if the project complies with the provisions of the SFDA regarding the free passage of fish through watercourse crossings, the proponent may not need to submit its project to DFO for review, without, however, releasing it from other applicable laws and regulations, both provincial and federal.

Cultural Heritage Act

The purpose of the *Cultural Heritage Act* is to promote, in the public interest and from a sustainable development perspective, the knowledge, protection, enhancement and transmission of Quebec's cultural heritage. This Act also regulates archaeological excavations and discoveries.

Act respecting threatened or vulnerable species

The main objective of the *Act respecting threatened or vulnerable species* is to safeguard Quebec's genetic diversity as a whole. It specifies that wildlife species designated as threatened or vulnerable and their habitats are governed by the *Act respecting the conservation and development of wildlife*. The Act establishes a list of plant and animal species that are threatened, vulnerable or likely to be designated as threatened or vulnerable, as well as the *Regulation respecting threatened or vulnerable plant species and their habitats* and the *Regulation respecting threatened or vulnerable wildlife species and their habitats*.

Act respecting the conservation and development of wildlife

The object of the *Act respecting the conservation and development of wildlife* is the conservation of wildlife and its habitat, their development in keeping with the principle of sustainable development, and the recognition of every person's right to hunt, fish and trap, in accordance with the law. The Act regulates activities carried out in a wildlife habitat, as defined in the *Regulation respecting wildlife habitats*.

Adverse effects within federal jurisdiction

To identify the adverse effects within federal jurisdiction that the project may cause, as well as to determine whether there are existing legislative and regulatory mechanisms to address these effects, IAAC considered the:

- designation request analysis reports for similar projects (wind farms) under the IAA, namely the PPAW Wind Farm Project in Quebec, the Smoky River Wind Farm Project in Alberta, and the Port au Port-Stephenville Wind Power and Hydrogen Project in Newfoundland and Labrador;
- documentation available on the Quebec registry of environmental assessments (QREA) for the Madawaska Wind Farm Project⁵, including the environmental impact assessment statement submitted by the Proponent and expert opinions on the assessment statement's admissibility;
- documentation available on the QREA for other recent wind farm projects⁶ subject to the EIARP, including impact assessment statements submitted by proponents and MELCCFP acceptability analyses, when available;
- *Guidelines for Watercourse Crossings in Quebec* (DFO, 2016);

⁵ In French only: https://www.ree.environnement.gouv.qc.ca/projet.asp?no_dossier=3211-12-252

⁶ Quebec registry of environmental assessments (in French only): [Projet éolien des Neiges - Secteur sud](#), le [Parc éolien Des Cultures](#) et le [Projet de parc éolien Mesgi'g Ugnu's'n 2 sur le territoire non organisé Rivière-Nouvelle par Parc éolien Mesgi'g Ugnu's'n 2 \(MU2\) S.E.C.](#)

- documents *Wind Turbines and Birds: A Guidance Document for Environmental Assessment* by the Canadian Wildlife Service (CWS, 2007)⁷ and *Wind Turbines and Birds: A Background Review for Environmental Assessment* by Kingsley and Whittam (2007)⁸; and
- federal and provincial legislative and regulatory mechanisms described above.

Fish and Fish Habitat

During construction, wind farm project activities that may affect fish and fish habitat typically include road construction or improvement, watercourse crossing construction or rehabilitation, work area development and machinery traffic. These construction-phase activities may contribute to the erosion of soil exposed by deforestation and earthworks. Increased sedimentation of watercourses due to erosion and construction work in or near watercourses can harm fish or lead to the deterioration or disruption of their habitat. Concerning watercourse crossings, the main issue lies in the creation of obstacles to the free passage of fish. Infrastructure work can also lead to encroachment on watercourses and destruction of fish habitat. In addition, certain interventions during work in or near water may cause fish mortality, for example when they are confined in cofferdams or when the work area is drained.

During the operational phase, wind farm project activities, including maintenance of equipment and access roads, have little or no effect on fish and their habitat.

The dismantling phase involves much of the same activities as the construction phase, i.e., repairing roads where necessary, setting up work areas and using machinery. These activities are likely to have the same effects on fish as during the construction phase.

The effects that wind farm projects may cause on fish and their habitat are assessed and addressed as part of the EIARP under the EQA, and the proponents must obtain government authorization before carrying out these projects. MELCCFP authorizations under section 22 of the EQA also make it possible to address and provide a framework for the effects on fish and their habitat of activities subject to the Act.

Wind farm projects may also require authorization under paragraphs 34.4(2)(b) and 35(2)(b) of the *Fisheries Act*. In such cases, DFO ensures that effects on fish and their habitat are analysed and, where appropriate, avoided, mitigated and ultimately offset. According to the advice received from DFO, the mitigation and protection measures prescribed by the provincial government in the SFDA ensure consistency with the *Fisheries Act* regarding the free passage of fish at water crossings such as bridges and culverts.

Finally, federal and provincial legislation protecting special-status species, SARA and the *Act respecting threatened or vulnerable species* respectively, allow to address the effects on any fish at risk present in the watercourses affected by the project.

Following a review of the documents submitted by the proponent as part of the provincial assessment procedure, IAAC notes that the Madawaska Wind Farm Project's activities are similar to other wind farm

⁷ Environment Canada Canadian Wildlife Service (CWS) (2007). *Wind Turbines and Birds Environmental Assessment Guidance Document*. https://publications.gc.ca/collections/collection_2013/ec/CW66-363-2007-eng.pdf

⁸ Kingsley, A and Whittam, B. (2007). *Wind Turbines and Birds: A Background Review for Environmental Assessment*. <https://tethys.pnnl.gov/sites/default/files/publications/Kingsley-2005.pdf>



projects, and considers that the project may result in adverse effects within federal jurisdiction, particularly on fish and their habitat.

Considering this information, IAAC is of the opinion that existing federal and provincial legislative and regulatory mechanisms administered by other jurisdictions, notably the *Fisheries Act* and SARA, as well as the EQA, provide a framework for addressing the adverse effects that the project may cause on fish and their habitat.

Aquatic Species

The Project would not result in any change to aquatic species, as defined in subsection 2(1) of the SARA, other than those presented above on fish, particularly because the project is located more than 75 kilometres from a marine environment and thus, cannot affect marine plants.

Migratory Birds

During construction, wind farm project activities that may affect migratory birds include site preparation and construction-related clearing, as well as the presence of workers and machinery traffic. Deforestation can contribute to habitat destruction and fragmentation, as well as accidental mortality of individuals or destruction of nests and eggs. Habitat modification and disturbance can also displace birds and reduce local breeding density and survival rates. In addition, the various activities carried out during the construction phase can disturb birds (noise, vibrations, dust), particularly if they take place during more sensitive periods such as breeding or wintering.

During operation, wind farm project activities that may affect migratory birds are mainly the presence and operation of wind turbines, as well as maintenance of equipment and access roads. These activities can cause sensory disturbance, particularly from rotating blades, noise and lighting. Migratory birds can also be injured or killed when they accidentally collide with wind turbines, although the mortality rate is relatively low. Collisions are said to be mainly linked to the attractive effect of lights at night, or to poor visibility conditions during the day.

In the dismantling phase, the layout of work areas and machinery traffic may have the same effects as in the construction phase.

At the provincial level, the potential effects of wind farm projects on birds, including migratory birds, are assessed and addressed with as part of the EIARP under the EQA, to which these projects are subject. Should a wind farm project receive government authorization, the proponents must submit to the MELCCFP an environmental monitoring program for avian fauna, a management plan in the event of the discovery of permanent nests, a management plan in the event of migratory bird mortality, and a follow-up program for avian fauna mortality.

At federal level, proponents must comply with the provisions of the MBCA and MBR 2022 when carrying out activities that could harm migratory birds, their eggs or nests. ECC's [Guidelines to avoid harm to migratory birds](#) provide resources and tools to help proponents plan project activities and comply with the MBCA and MBR 2022. Appendix 1 of MBR 2022 lists the species (e.g., Pileated Woodpecker) whose nests are protected year-round. Proponents must comply with the recommendations listed in the Fact sheet: Nest Protection under



the *Migratory Birds Regulations, 2022*, and obtain, if necessary, a permit from ECCC if one or more nests of one of these species must be destroyed.

The provisions of SARA also protect migratory bird species at risk listed on Schedule 1, and provide additional protection for individuals of these species and their nests. Similarly, migratory birds on the provincial list of threatened or vulnerable species are also protected by Quebec's *Act respecting threatened or vulnerable species*.

Based on the documents submitted by the proponent as part of the provincial assessment procedure, the Madawaska Wind Farm Project is likely to generate the above-mentioned adverse effects. In the context of the EIARP, the effects on migratory birds have been the subject of public concern. It is also the requester's main concern. In addition, the surveys carried out by the proponent in the study area identified the bird species, seven of which are listed in Schedule 1 of SARA and also protected under the MBCA: the bobolink, the bank swallow, the barn swallow, the chimney swift, the olive-sided flycatcher, the Canada warbler and the Eastern wood pewee.

Considering this information, IAAC is of the opinion that existing federal and provincial legislative and regulatory mechanisms administered by other jurisdictions, notably the MBCA, MBR 2022 and SARA, as well as the EQA and the *Act respecting threatened or vulnerable species*, provide a framework for addressing the adverse effects that the Project may have on migratory birds.

Indigenous Peoples

Physical and Cultural heritage

Wind farm project construction activities, such as deforestation, work area development, access roads construction or improvement, installation of an underground electrical collection system, or water crossings construction or rehabilitation, as well as transportation activities and heavy machinery traffic, can disturb components of the biophysical environment that have a physical or cultural heritage value for Indigenous communities.

During the operational phase of a wind farm, the presence and operation of wind turbines can have an adverse effects on elements of native physical and cultural heritage. For example, the presence of a wind farm in a landscape or ecosystem valued by a community can have a visual impact that could disrupt the experience and enjoyment of the territory.

According to the MELCCFP's guidelines for wind farm projects in the context of the EIARP, the proponent must provide information on the project's impacts and their mitigation, on the accessibility and current and planned use of the territory and resources, on cultural activities, on cultural and archaeological heritage, and on the visual environment (landscape). The information requested to examine the project's effects on the receiving environment, including those on habitats, fauna and flora, also helps to identify measures to prevent or mitigate effects on Indigenous physical and cultural heritage.

The authorizations that may be issued under section 22 of the EQA, as well as the *Act respecting threatened or vulnerable species* and the *Act respecting the conservation and development of wildlife* in Quebec, are



legislative tools that can also frame the effects of wind power projects on components that may be part of the physical heritage of Indigenous communities (e.g., wildlife, flora, water and wetlands, valued ecosystems).

According to the documents submitted by the proponent as part of the provincial assessment procedure, IAAC is of the opinion that the Madawaska Wind Farm Project is likely to generate the above-mentioned adverse effects on the physical and cultural heritage of Indigenous peoples. In the context of the EIARP, the proponent's impact assessment statement mentions the protection of Indigenous archaeological and cultural heritage as a concern for the project. IAAC has not received any comments or concerns about the effects of the Project from the two Indigenous communities notified.

Considering this information, IAAC considers that existing legislative and regulatory mechanisms administered by other jurisdictions, notably the EQA, the *Act respecting threatened or vulnerable species*, and the *Act respecting the conservation and development of wildlife*, provide a framework for addressing the adverse effects that the Project may have on the physical and cultural heritage of Indigenous communities that may be affected by the Project.

Current Use of Lands and Resources for Traditional Purposes

Activities related to the construction and dismantling of wind farms may have an impact on the current use of lands and resources for traditional Indigenous purposes. Deforestation work, construction of access roads and collector networks, or work on watercourse crossings can disrupt land use and the practice of hunting, fishing, gathering and trapping, due to the presence of the worksite, the noise generated, and the presence of workers and machinery. For example, noise from construction activities can disturb wildlife valued for hunting, thus disrupting this traditional activity. Changes to habitats and the biophysical environment can also affect the way in which the land is used by members of Indigenous communities, particularly if the sites favoured for traditional activities are disturbed or lost (e.g., fishing or hunting sites).

During the operational phase, habitat modification and loss caused by the siting of the wind farm may result in a loss of land area or changes in the way this land is used for traditional activities such as hunting, fishing and trapping. The presence and operation of infrastructure can also disrupt and alter the experience of traditional activities, or even limit access to places favoured by Indigenous communities for the practice of their activities.

According to the MELCCFP's guidelines for wind farm projects in the context of the EIARP, the proponent must document the potential impacts of the project on resource and land use and the mitigation of these impacts, as well as impacts on the practice of traditional activities for food, domestic, ritual or social purposes (hunting, fishing, trapping, gathering, use of sites of interest, etc.). The information requested to examine the project's effects on the receiving environment, including those on habitats, fauna and flora, also helps identify measures to prevent or mitigate effects on land uses.

Based on the documents submitted by the proponent as part of the provincial assessment procedure, the Madawaska Wind Farm Project is likely to generate the above-mentioned adverse effects. In the context of the EIARP, the proponent's impact assessment statement mentions the maintenance and harmonization of land uses and the impacts on the practice of traditional activities as a concern for the project. IAAC has not received any comments or concerns about the effects of the project from the two Indigenous communities notified.



Considering this information, IAAC considers that existing legislative and regulatory mechanisms administered by other jurisdictions, notably the *Fisheries Act* and the *EQA*, provide a framework for addressing the adverse effects that the Project may have on the current use of lands and resources for traditional purposes by Indigenous communities that may be affected by the project.

Structure, site or thing of historical, archaeological, paleontological or architectural significance

Wind farm project construction activities may have adverse effects on archaeological, historical, paleontological or architectural features in the project area. The construction and improvement of roads and drainage systems near or in areas of archaeological potential can alter Indigenous archaeological heritage.

At the provincial level, according to the MELCCFP's guidelines for wind farm projects in the context of the EIARP, the proponent must provide information on terrestrial and submerged archaeological heritage, including known sites, as well as areas of archaeological potential. These elements must be determined as part of an archaeological potential study, for which it is encouraged to involve the Indigenous communities concerned. The guidelines issued to the proponent also state that the impact assessment statement must include a description of the built heritage, i.e., heritage buildings and sites, as well as a heritage assessment of all buildings in the study area that are to be demolished in whole or in part, or to which major modifications will be made.

In Quebec, the discovery of archaeological property or sites during project work is governed by section 74 of the Quebec *Cultural Heritage Act*. Thus, those responsible for the construction site are required to stop work at the location of the archaeological property or site and inform the proponent, who must immediately notify the Minister.

Based on the documents submitted by the proponent as part of the provincial assessment procedure, the Madawaska Wind Farm Project is likely to generate the above-mentioned adverse effects. In the context of the EIARP, the proponent's impact assessment statement mentions the protection of Indigenous archaeological heritage as a concern for the project. IAAC has not received any comments on the project from potentially affected Indigenous communities and is not aware of any effects other than those noted above.

Considering this information, IAAC considers that existing legislative and regulatory mechanisms administered by other jurisdictions, notably the *EQA* and the *Cultural Heritage Act*, provide a framework for addressing the adverse effects that the Madawaska Wind Farm Project may have on structures, sites or things of historical, archaeological, paleontological or architectural significance.

Health, social and economic conditions

During the construction and dismantling phases of wind farm projects, the main effects on health and quality of life are linked to the presence of the construction site and the transport of heavy vehicles, which can cause nuisances such as dust and noise that are likely to affect the health of land users frequenting the project area. During the operational phase, noise from wind turbines (e.g., from blade movement and turbine operation) can disturb or affect the well-being of members of Indigenous communities who use or frequent the wind farm area.

With regard to effects on social or economic conditions, the presence of construction sites during the construction or dismantling of wind farm projects can disrupt the activities of businesses owned by Indigenous members or communities, resulting in a loss or reduction of income. Similarly, during the operational phase, the presence of wind turbines or other project infrastructure may diminish the attractiveness or quality of the landscape, thus affecting the experience of Indigenous recreation and tourism businesses and leading to lost or decreased revenues.

According to the MELCCFP's guidelines for wind farm projects in the context of the EIARP, the proponent must provide information on the project's health impacts, including social and psychosocial impacts, as well as impacts on the demographic profile and economic situation of the communities concerned, including Indigenous communities. The guidelines also specify that the assessment of potential health impacts must take into account the concentrations or loads of contaminants (in water, atmosphere and soil) to which the population could be exposed. The impact assessment statement must also describe the economic impacts associated with each phase of the project, as well as the anticipated spin-offs in terms of employment or contract opportunities for local and regional communities, including Indigenous communities.

The information requested to examine the project's effects on the receiving environment, including those on habitats, fauna and flora, also helps to identify measures to prevent or mitigate the project's effects on land use, and consequently to prevent effects on the health, social and economic conditions of Indigenous communities.

Based on the documents submitted by the proponent as part of the provincial assessment procedure, the Madawaska Wind Farm Project is likely to cause the above-mentioned adverse effects. IAAC has not received any comments on the Project from potentially affected Indigenous communities and is not aware of any effects other than those noted above.

Considering this information, IAAC considers that existing legislative and regulatory mechanisms administered by other jurisdictions, notably the EQA, provide a framework for addressing the adverse effects that the Madawaska Wind Farm Project may have on the health, social and economic conditions of Indigenous communities.

Federal Lands

For the Madawaska Wind Farm Project, the project area is located partly on lands in the domain of the state (provincial public lands) and partly on private land. As such, it does not constitute federal land as defined by the IAA. The Kataskomik Indian Reserve (formerly the Whitworth Reserve) lies more than 50 kilometres from the project area. This territory is used but not inhabited by the WWFN. The WWFN's Cacouna Indian Reserve is located some 80 kilometres from the project area. Considering the distance from the Kataskomik and Cacouna Indian Reserves, IAAC considers that the Project is unlikely to have adverse effects on these areas.

Pollution of boundary, interprovincial or international waters

Taking into account the location of the Project, IAAC considers that it is unlikely that the Madawaska Wind Farm Project would cause pollution resulting in non-negligible adverse changes to boundary, interprovincial or international waters, as defined in section 2 of the IAA.

Direct or incidental adverse effects

Direct or incidental adverse effects refer to non-negligible adverse effects that are directly linked or necessarily incidental (indirect) to a federal authority's exercise of a power (e.g., permit or authorization) or performance of a duty or function that would permit the carrying out, in whole or in part, of a project, or to a federal authority's provision of financial assistance to a person for the purpose of enabling that project to be carried out, in whole or in part.

In general, wind farm projects may require, but are not limited to, the exercise of the following federal powers:

- An authorization under paragraphs 34.4(2)(b) and 35(2)(b) of the *Fisheries Act*, administered by DFO;
- A permit under MBR 2022, administered by ECCC.

IAAC is of the opinion that the existing federal and provincial legislative mechanisms administered by other jurisdictions, notably the EQA, provide a framework for addressing the direct or incidental adverse effects that the project may cause and that are related to the powers described above.

Public concerns

Public concerns of which IAAC is aware regarding adverse effects within federal jurisdiction, or adverse direct or incidental effects that wind power projects may cause, have been addressed in the preceding sections. Some concerns may differ from one wind project to another, but IAAC is of the opinion that existing legislative and regulatory mechanisms administered by other jurisdictions, notably the EQA, provide a framework for addressing these concerns.

Regarding the Madawaska Wind Farm Project, public concerns are documented as part of the provincial environmental assessment, in the proponent's impact assessment statement, but also in the compilation of issues submitted as part of the MELCCFP public consultation⁹ and in the minutes of the BAPE public information period¹⁰. Issues related to the adverse effects within federal jurisdiction or the direct and incidental adverse effects that have been expressed by the public and Indigenous communities include:

- the effects that the project may have on migratory birds, as well as the cumulative effects on migratory birds of existing and planned wind farms in the Bas-Saint-Laurent region;
- the maintenance and harmonization of land uses;
- the impacts on traditional activities;
- the protection of Indigenous archaeological and cultural heritage; and
- the business opportunities for the WWFN (positive impact).

⁹ In French only: <https://www.ree.environnement.gouv.qc.ca/dossiers/3211-12-252/3211-12-252-4.pdf>

¹⁰ In French only: <https://voute.bape.gouv.qc.ca/dl/?id=00000692973>

The analysis presented in the previous sections considers the adverse effects within federal jurisdiction that the project may cause in relation to these concerns. Consequently, IAAC is of the opinion that existing legislative and regulatory mechanisms provide a framework for addressing public concerns related to these effects.

Adverse impacts on the rights of Indigenous peoples

Wind power projects can have adverse impacts on the rights of potentially affected Indigenous peoples. These projects may be built on the traditional territories of Indigenous communities and may cause biophysical modifications to their territory. The construction and operation of wind farms can also have impacts on the rights to the enjoyment and use of traditional territory, hunting, fishing and harvesting rights, among others. In this regard, IAAC reiterates that the adverse impacts on the rights of Indigenous peoples under section 35 of the *Constitution Act, 1982* are taken into account in the exercise of federal powers, including those under the *Fisheries Act*.

In Quebec, when a proponent applies for land rights to build a wind farm on lands in the domain of the state (provincial public lands), the Ministère des Ressources naturelles et des forêts (MRNF) consults with Indigenous communities to determine if there are any potential issues concerning the wind farm site. Following this, in the context of the EIARP under the EQA, the MELCCFP also consults Indigenous communities on the impacts of the wind farm project, to learn about any concerns and the degree of infringement of Indigenous rights, if applicable. The Crown's duty to consult and accommodate Indigenous people is ensured by the MELCCFP and framed by the *Interim Guide for Consulting the Indigenous Communities*¹¹. MELCCFP conducts an impact analysis on Indigenous and treaty rights, as well as on lands and resources used for traditional purposes. The consultation process conducted by MELCCFP includes the transmission of all relevant and available information to Indigenous communities, to ensure that they have a sufficient understanding of the project.

The EIARP also enables the groups consulted to express themselves and raise concerns about their rights. Concerns expressed in this way are taken into account by the MELCCFP or by the proponent and may lead to the identification of mitigation measures to reduce the project's impact on rights. These measures can also be included as requirements in the project's government authorization. Following the results of the provincial consultation, the Quebec government may impose requirements based on the degree of infringement of ancestral rights, which may result in harmonization measures that may even involve modifying the positioning of infrastructure.

The Madawaska Wind Farm Project is located on the territory covered by the protocol of consultation (Wolastokuk region) signed between the WWFN and Canada, within the asserted traditional territory of this First Nation. The WWFN is a signatory to the Peace and Friendship Treaties (1775–1779).

The Project is also located on the Gespe'gewagi, a territory covered by the Quebec claim filed by the Mi'gmawei Mawiomi Secretariat in 2007 on behalf of the Mi'gmaw communities of Gespeg, Listuguj and Gesgapegiag. The Mi'gmaw Nation is also a signatory to the Peace and Friendship Treaties (1775–1779).

¹¹ https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/conseil-executif/publications-adm/srpn/administratives/orientations/en/guide_inter_2008_en.pdf



After reading the documents submitted by the proponent as part of the provincial assessment procedure, IAAC considers that the Madawaska Wind Farm Project may have adverse impacts on the rights of potentially affected Indigenous peoples.

However, IAAC considers that existing federal and provincial legislative mechanisms administered by other jurisdictions, notably the *Fisheries Act*, SARA, MBCA, EQA, SFDA and the *Act respecting threatened or vulnerable species*, provide a framework for addressing the adverse impacts that the project may have on the rights of the WWFN and the Mi'gmaq Nation.

Other considerations

Cumulative Effects

Cumulative effects are defined as changes to the environment and to health, social and economic conditions, as well as the positive and negative repercussions of these changes that result from the residual effects of a project combined with those of other past, existing or future projects or activities.

The residual effects of wind power projects may contribute to cumulative effects in combination with those of past, existing or future projects or activities, if these overlap spatially or temporally. For example, construction activities, including clearing and traffic on local and forestry roads, could have cumulative effects on a local and regional scale, when combined with those of other existing or planned wind power projects, and/or those of existing or future forestry activities. While in operation, the project may also contribute to a cumulative impact, particularly on migratory birds and the physical and cultural heritage of Indigenous peoples, including landscapes.

At the provincial level, the contributions that wind farm projects can make to cumulative effects are assessed and addressed in the context of the EIARP under the EQA, to which these projects are subjected. To meet MELCCFP requirements, proponents must include a cumulative impact assessment in their impact statement, along with mitigation measures to protect wildlife and their habitats, including migratory birds. This assessment must be carried out for all phases of the project, i.e., during the construction phase, including deforestation, the operation phase and the dismantling phase.

Based on the documents submitted by the proponent as part of the provincial assessment procedure, the Madawaska Wind Farm Project may contribute to cumulative effects, particularly by combining the effects of forestry activities and existing or planned wind farm projects on a local and regional scale. However, IAAC considers that existing legislative and regulatory mechanisms administered by other jurisdictions, notably the EQA, provide a framework for addressing effects within federal jurisdiction that may be caused by the project, thereby limiting the potential for residual effects and, by the same token, the project's potential contributions to cumulative effects.

Regional and strategic assessments

There are no regional or strategic assessments pursuant to sections 92, 93 or 95 of the IAA that are relevant to the project.

Conclusion

IAAC considered the information available on the project, as well as information obtained from similar designation requests and provincial documentation on environmental assessment processes for wind power projects in southern Quebec, to support its analysis. IAAC:

- 1) is of the opinion that the carrying out of the project may cause adverse effects within federal jurisdiction or direct or incidental adverse effects.
- 2) considered the factors listed in subsection 9(2) of the IAA and is of the opinion that existing legislative mechanisms, some of which include consultation with Indigenous communities and public engagement, provide a framework for addressing public concerns related to the adverse effects within federal jurisdiction or the direct or incidental adverse effects that may be caused by the carrying out of the project and adverse impacts that the project may have on the rights of Indigenous peoples recognized and affirmed by section 35 of the *Constitution Act, 1982*.
- 3) is of the opinion that there is a means, other than a federal impact assessment, such as the federal and provincial legislative mechanisms (notably the Government of Canada's Fisheries Act, SARA and MBCA, and the Government of Quebec's EQA, *Sustainable Forest Development Act*, *Act respecting threatened or vulnerable species*, *Act respecting the conservation and development of wildlife* and *Cultural Heritage Act*), to address the adverse effects within federal jurisdiction and the direct or incidental adverse effects that may be caused by the project.

Finally, as mentioned in the subject line of this report, this analysis report will serve as the basis of analysis for any new designation requests submitted to the Minister for a wind farm project in southern Quebec. In these circumstances, the AEIC will refer to the analysis in this report and address potential effects within federal jurisdiction that were not covered by this analysis, or that may be different.