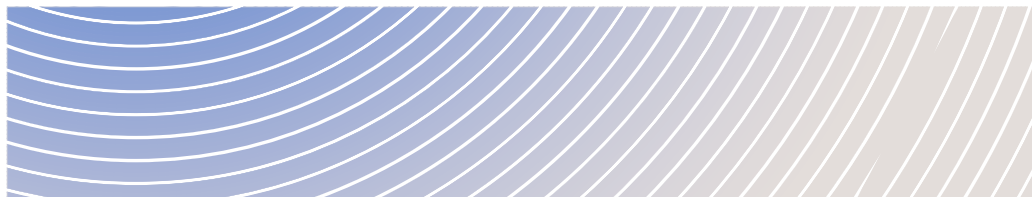


Analysis Report



WHETHER TO DESIGNATE THE NORTHERN PULP PROJECT
IN NOVA SCOTIA PURSUANT TO THE *IMPACT ASSESSMENT
ACT*

MAY 2022



Contents

Analysis Report	1
Purpose.....	2
Project.....	2
Context of Request.....	2
Project Context.....	3
Project History.....	3
Provincial Environmental Assessment.....	4
Project components and activities	4
Analysis of Designation Request	6
Authority to designate the Project.....	6
Potential adverse effects within federal jurisdiction.....	6
Potential adverse direct or incidental effects	12
Public concerns.....	12
Potential adverse impacts on the rights of Indigenous peoples	13
Regional and strategic assessments	14
Conclusion	14
ANNEX I.....	16
Annex I: Potential Federal and Provincial Authorizations Relevant to the Project.....	17
ANNEX II.....	20
Annex II: Analysis Summary Table.....	21

Purpose

The Impact Assessment Agency of Canada (the Agency) prepared this report for consideration by the Minister of Environment and Climate Change Canada (the Minister) in deciding whether to designate the Northern Pulp Project (the Project) pursuant to section 9 of the *Impact Assessment Act* (IAA).

Project

The Project, proposed by Northern Pulp Nova Scotia Corporation (the Proponent), is the transformation of its current bleached kraft pulp mill and the construction, operation, and decommissioning of a new effluent treatment facility adjacent to its mill, located at Abercrombie Point near Pictou, Nova Scotia. Treated effluent would be discharged through a new pipeline extending into Pictou Harbour. The pipeline route will be finalized once a receiving water study has been completed.

Context of Request

On March 1, 2022, the Minister received a request to designate the Project from Pictou Landing First Nation (one of 13 Mi'kmaq communities in Nova Scotia). The request expressed concerns about project-related effects to the local environment and areas of federal jurisdiction including fish and fish habitat (including species at risk), migratory birds, interprovincial impacts, and impacts on Indigenous people and Aboriginal and treaty rights. In particular, concerns were expressed about the potential impacts on the health, social, cultural, and economic conditions of the Mi'kmaq of Nova Scotia (including Mi'kmaq youth, women and gender minorities). The request also expressed concern regarding the perceived conflict of interest of the Province of Nova Scotia by having dual roles as indemnitor and regulator. As such, Pictou Landing First Nation is concerned that a provincial assessment may not be free from bias.

On March 11, 2022, the Agency sent a letter to the Proponent notifying them of the designation request and requesting information. In addition, the Agency requested advice and/or input from Environment and Climate Change Canada, Fisheries and Oceans Canada, Transport Canada, Health Canada, Natural Resources Canada, Indigenous Services Canada, Public Health Agency of Canada, Employment and Social Development Canada, Women and Gender Equality Canada, Nova Scotia Environment and Climate Change, and potentially affected Indigenous groups (the Mi'kmaq of Nova Scotia and Mi'kmaq of Prince Edward Island).

The Proponent responded on April 14, 2022, with information about the Project, its potential adverse effects, proposed design, and mitigation measures. The Proponent provided its view that designating the Project would not add any noticeable rigour to the assessment of effects that is already covered by the provincial Class II Environmental Assessment, the requirements of a provincial Industrial Approval, and the assessments required for federal approvals under various federal legislation.

Advice on applicable legislative mechanisms and potential effects due to the Project was received from Environment and Climate Change Canada, Fisheries and Oceans Canada, Transport Canada, Health Canada, Natural Resources Canada, and Nova Scotia Environment and Climate Change.

The Agency did not receive comments from any Indigenous group (other than the original request from Pictou Landing First Nation).

Project Context

Project History

The provincial government built the Boat Harbour Effluent Treatment Facility in 1967 to treat wastewater from industrial sources by reconstructing Boat Harbour into a closed basin to collect solids. Boat Harbour is located adjacent to several reserve lands held by Pictou Landing First Nation and within territory traditionally used and occupied by the Mi'kmaq of Pictou Landing First Nation. Prior to the Boat Harbour Effluent Treatment Facility being operational, Pictou Landing First Nation were assured that their use of Boat Harbour for boating and fishing could continue while the facility was in operation. In 1970, reports from Health Canada and Fisheries and Oceans Canada revealed a progressive increase in concentration of pollutants in Boat Harbour to such an extent that no traditional or recreational use by the community is believed to have been undertaken since. Furthermore, the community states that the loss of the area for food and cultural gathering, including a burial ground, has resulted in suffering to Pictou Landing First Nation.¹

On February 7, 2018, a previous Minister of Environment and Climate Change Canada received a request to designate the Northern Pulp Replacement Effluent Treatment Facility Project (i.e., the original Project) for a federal environmental assessment. The Agency subsequently received over three thousand letters expressing concern and, in most cases, also requesting that the original Project be designated to require a federal environmental assessment. This included letters from local fishermen's associations, Indigenous groups, and elected officials from Prince Edward Island.

The original Project was required because of the provincial *Boat Harbour Act*, which prohibited the use of the existing Boat Harbour Effluent Treatment Facility for the reception and treatment of effluent after January 31, 2020.

On December 16, 2019, a previous Minister of Environment and Climate Change decided that the designation request on the original Project did not warrant designation pursuant to subsection 9(1) of the IAA. The determination was made after careful consideration of the concerns raised, the scientific advice provided by expert departments including Environment and Climate Change Canada, Fisheries and Oceans Canada, Health Canada, Transport Canada, and Public Services and Procurement Canada, and the provincial and federal mechanisms to deal with the potential environmental effects.

On December 20, 2019, the former Premier confirmed that an extension to the *Boat Harbour Act* beyond the January 31, 2020, deadline would not be granted, effectively leading to the closure of the mill.

¹PLFN Victim Impact Statement (<http://canadianaboriginallaw.com/wordpress1/wp-content/uploads/2016/02/PLFN-Victim-Impact-Statement-2016-02-221.pdf>)

Provincial Environmental Assessment

In May 2021, the Proponent withdrew the original Project from the provincial Class I Environmental Assessment that was ongoing at the time.

In December 2021, the Proponent registered the Project for a Class II Environmental Assessment with Nova Scotia Environment and Climate Change. The Project is subject to a Terms of Reference, which underwent a public review period, and a panel review. Federal departments such as Fisheries and Oceans Canada, Health Canada, Transport Canada, and Environment and Climate Change Canada participate as federal experts in the provincial environmental assessment. Although the current Project and the original Project share some commonalities (i.e., effluent treatment), the current Project involves a different discharge location, treatment technology, and receiving water. In addition, the current Project includes modifications to the existing mill that were not part of the original Project.

On April 12, 2022, Northern Pulp filed an application for judicial review in the Nova Scotia Supreme Court based on the Terms of Reference for the provincial assessment being unreasonable, especially in regards to not prescribing effluent quality standards.

Project components and activities

The Project consists of three main components:

- upgrade of mill infrastructure and process components;
- construction of a new effluent treatment facility on Northern Pulp property; and
- installation of a pipeline that will carry treated effluent to the Pictou Harbour estuary and discharge via an engineered diffuser (marine outfall).

Most of the mill components will be located within the footprint of the current mill; the oxygen delignification and oxygen generation buildings will be built on the current parking area (Figure 1).

Mill transformation: The mill transformation components of the Project include upgrades to a number of the existing in-mill processes, including:

- upgrades to washing and screening components of the pulping process and collection of odour producing gases;
- installation of a two-stage oxygen delignification process and on-site oxygen generator;
- upgrades to the bleaching plant;
- lignin separation;
- upgrades to green and white liquor clarifiers;
- calcium liquor cycle upgrades;
- conversion to a low-odour recovery boiler;
- replacement and decommissioning of emission stack scrubber equipment;
- steam stripper system upgrades;
- upgrades to the mill's spill containment and cooking chemical recovery processes; and
- installation of cooling towers and cooling water loops within the mill.

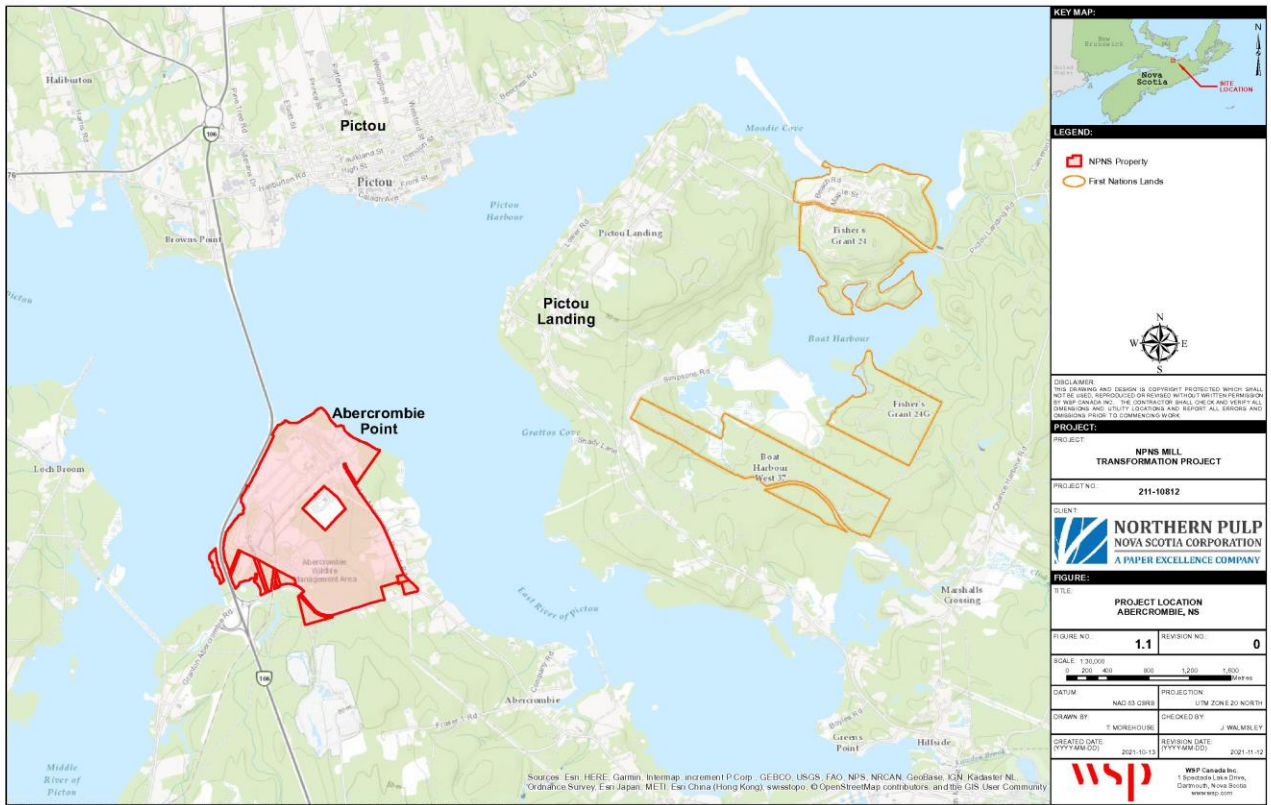
The Proponent indicates that the Project components will be designed to meet best available technology standards for the pulp industry. They are intended to improve overall air and effluent emissions from the

mill, reduce visible plumes and odours during normal mill operations, improve the quality of effluent to the treatment facility, and reduce the mill's water usage.

Effluent Treatment Facility: The Proponent proposes the design and development of a three-stage effluent treatment facility to be located on the mill property. Primary treatment would consist of a two-stage process including an automatic raked bar screen to remove large debris from the effluent stream and a concrete circular clarifier to remove wood fibre and lime by gravity. Secondary treatment would employ a biological activated sludge process. The tertiary treatment stage would consist of rotating disc filters to remove suspended solids and address effluent colour. The Proponent also proposes to construct a 35,000 cubic metres spill basin between the mill and the effluent treatment facility in the event of major process upsets. The basin is proposed to be designed to contain 20 hours of mill effluent and will be kept empty during normal mill operations.

Effluent pipeline: Once treated, effluent is proposed to be sent through a pipe and discharged via an engineered multi-port diffuser into the Pictou Harbour estuary from the mill property. The discharge point will be determined through completion of a receiving water study and engineering design process.

Figure 1: Project Location



Analysis of Designation Request

Authority to designate the Project

The *Physical Activities Regulations* (the Regulations) of the IAA identify the physical activities that constitute designated projects. The Project, as described in the information provided by the Proponent, is a kraft pulp mill transformation and effluent treatment facility project, and as such is not included in the Regulations.

Under subsection 9(1) of the IAA, the Minister may, by order, designate a physical activity that is not prescribed in the Regulations. The Minister may do this, if, in the Minister's opinion, the physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation.

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 would permit the Project to be carried out, in whole or in part.²

Given this understanding of the Project, the Agency is of the view that the Minister may consider designating the Project pursuant to subsection 9(1) of the IAA.

Potential adverse effects within federal jurisdiction

The potential for adverse effects within federal jurisdiction, as defined in section 2 of the IAA, would be limited and managed through project design and existing legislation. Annex I describes the applicable regulatory mechanisms. Annex II provides a summary table of the potential adverse effects within federal jurisdiction and adverse direct or incidental effects, mitigation measures proposed by the Proponent, and legislative mechanisms that would likely apply to the Project if it proceeds.

The closest federal lands are *Indian Act* reserve lands (Boat Harbour West 37) located approximately 2.5 kilometres from the Project. The closest First Nation community (Pictou Landing First Nation) is located 6 kilometres from the Project.

Fish and Fish Habitat

Based on available information, the Agency is of the view that the Project has the potential to cause adverse effects to fish and fish habitat; however, these effects are anticipated to be managed through existing regulatory and legislative mechanisms.

Fisheries and Oceans Canada stated that the proposed works, undertakings and activities of the Project have potential to cause adverse effects to fish and fish habitat. This refers to the potential impacts from the

² The Minister must not make the designation if the carrying out of the physical activity has substantially begun, or a federal authority has exercised a power or performed a duty or function in relation to the project (subsection 9(7) of IAA).

construction and installation of the effluent pipeline. Effects that result in the death of fish and/or the harmful alteration, disruption or destruction of fish habitat could be managed under sections 34.4 and 35 of the *Fisheries Act*. *Fisheries Act* authorizations and *Species at Risk Act* permits include conditions related to avoidance, mitigation, offsetting measures, monitoring, and reporting. Should Fisheries and Oceans Canada be required to issue an authorization, regulatory conditions could be added to address potential impacts on fish and fish habitat, aquatic species, and Aboriginal and treaty rights from physical works related to their mandate.

While Fisheries and Oceans Canada would manage the physical impacts from the construction of the effluent pipeline, Environment and Climate Change Canada and Nova Scotia Environment and Climate Change would manage impacts from the effluent. Furthermore, the Proponent stated that the effluent treatment system will be designed to meet or exceed environmental standards for discharge to the receiving environment through the implementation of a three-stage treatment process that will remove a significant amount of suspended biosolids and effluent colour.

Environment and Climate Change Canada stated that effluent from the new treatment facility would be subject to the *Pulp and Paper Effluent Regulations* under the *Fisheries Act*. The purpose of the *Pulp and Paper Effluent Regulations* is to manage threats to fish, fish habitat, and human health from fish consumption by limiting the deposit of deleterious substances into fish-bearing waters from pulp and paper mills. The *Pulp and Paper Effluent Regulations* also require pulp and paper mills to conduct environmental effects monitoring studies to identify and investigate potential effects of mill effluent on fish, fish habitat, and the use of fisheries resources on a site-specific basis. In addition, unless permitted through regulation, any deposit of a deleterious substance into a water body frequented by fish is prohibited pursuant to section 36(3) of the *Fisheries Act*.

The Proponent noted that the effluent discharge will be designed to meet or exceed the anticipated updates to the *Pulp and Paper Effluent Regulations*. It is expected that the *Pulp and Paper Mill Effluent Chlorinated Dioxins and Furans Regulations* under the *Canadian Environmental Protection Act, 1999* would apply, which prohibit the release of dioxins and furans.

The provincial Terms of Reference for the Class II Environmental Assessment require the Proponent to identify and evaluate potential short-term and long-term effects on the receiving water environment. This is to be based on a receiving water study that assesses the fate and transport of all chemicals of potential concern for a range of scenarios reflective of conditions possible in the study area. This study shall be based on the results of the effluent characterization and other relevant studies, such as the human health and ecological risk assessment.

Nova Scotia Environment and Climate Change has the ability to require, through enforceable conditions included in the Industrial Approval, stricter conditions on the discharged effluent than those established in the *Pulp and Paper Effluent Regulations*. They would seek input from Environment and Climate Change Canada during the review of the Industrial Approval Application and would continue to consult with the Mi'kmaq of Nova Scotia through this process.

Environment and Climate Change Canada, Health Canada, Fisheries and Oceans Canada and Transport Canada will also continue to participate in the provincial assessment.

The Agency is of the view that the provincial environmental assessment and permitting process, combined with applicable federal legislative requirements, provide a framework to address potential adverse effects to fish and fish habitat.

Migratory Birds

The Agency is of the view that the potential for adverse effects to migratory birds due to the Project is expected to be limited and can be managed through compliance with applicable legislation and regulatory processes.

Environment and Climate Change Canada's Canadian Wildlife Service administers the *Migratory Birds Convention Act, 1994* and is responsible for the management and conservation of migratory birds. The *Migratory Birds Convention Act, 1994* prohibits the deposit of harmful substances into waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area. It also prohibits the disturbance or destruction of migratory bird nests and eggs in Canada.

Environment and Climate Change Canada stated that the activities linked to the construction, operation, and decommissioning of the Project and associated infrastructure could have negative effects on migratory birds and their habitat. Noise, vibrations, and light from construction and operation activities may result in habitat disturbance. Attraction to lights at night may cause birds to collide with lit structures resulting in injury or death.

The provincial environmental assessment will assess potential impacts to avian species, including migratory birds and bird species at risk, and will provide recommendations to mitigate potential adverse effects to migratory birds, such as avoiding sensitive nesting windows during clearing and pipeline/outfall construction activities. If clearing is required within this season, Canadian Wildlife Service would be consulted and mitigation developed to meet the *Migratory Birds Convention Act, 1994* requirements. In addition, potential adverse effects would be appropriately managed through adherence to applicable legislation such as the Nova Scotia *Environment Act*, *Migratory Birds Convention Act, 1994*; and the *Species at Risk Act*.

Nova Scotia Environment and Climate Change states that migratory birds are a valued component of the provincial environmental assessment and, in accordance with the provincial Terms of Reference for this Project, the Proponent is required to address all impacts resulting from the Project and propose mitigations to reduce the impacts on migratory birds. Environment and Climate Change Canada will continue to participate in the provincial environmental assessment as a federal expert regarding migratory birds.

The Agency is of the view that the provincial environmental assessment combined with compliance with applicable legislation and regulatory processes provide a framework to address the potential adverse effects to migratory birds.

Indigenous Groups

The Mi'kmaq of Nova Scotia consider the province and the offshore as their traditional territory and assert a title claim to the entire province. The Mi'kmaq of Nova Scotia have Aboriginal and treaty rights to hunt, fish and gather throughout the province as a result of historic Peace and Friendship treaties.

The Agency notes that Aboriginal and treaty rights are included as a valued component of the provincial environmental assessment in Nova Scotia and that provincial Crown consultation is ongoing for this Project. In addition, the Project may require federal permits (e.g., under the *Canadian Environmental Protection Act, 1999*; *Fisheries Act*; or the *Canadian Navigable Waters Act*) that, if applicable, would require the respective department(s) to meaningfully consult with Mi'kmaq First Nations prior to issuing a permit.

The Agency understands that potential effects to fish, fish habitat and migratory birds, as noted above, or other wildlife species of importance, could adversely affect the current use of lands and resources for traditional purposes by the Mi'kmaq of Nova Scotia. Applicable regulatory processes and legislation that provide a framework to address the associated potential impacts are outlined in earlier sections of this report.

The Proponent stated that fish of the Northumberland Strait and Pictou Harbour support recreational and Indigenous fisheries and affect the economic well-being for many individuals and coastal communities. The waters that surround Abercrombie Point are actively fished for American eel, smelt, and gaspereau and, in the past (currently closed), blue mussel and softshell clam. Recreational fishing of Atlantic salmon, striped bass, brown trout, and brook trout may occur, as well.

Pictou Landing First Nation expressed concern regarding potential impacts to fishing activities within Pictou Harbour and the Northumberland Strait. The moderate livelihood fishery is referred to by Pictou Landing First Nation as the "Netukulimk" fishery and is carried out in many areas including within Pictou Harbour adjacent to the Project. Environment and Climate Change Canada stated that effects to water quality of the receiving waters of Pictou Harbour, and potentially the Northumberland Strait, may result in potential effects related to the Indigenous fisheries carried out by Pictou Landing First Nation. The regulatory processes and legislation that provide a framework to manage effluent water quality are outlined in earlier sections of this report.

An Archaeological Resource Impact Assessment conducted on the Proponent's property revealed archaeological resources and a registered archaeological site at Abercrombie Point, in immediate proximity to the initially planned location of the proposed spill basin site. A 200 metre archaeological "buffer" has been established around this site where ground disturbance should be avoided. The spill basin was subsequently redesigned to avoid adverse impacts to those resources.

Pictou Landing First Nation expressed concern regarding the health, social, cultural, and economic impacts of the Project to Pictou Landing First Nation, in particular to Mi'kmaq youth, women, and gender minorities.

Health Canada identified a lack of information on potential adverse health effects of sensitive human receptors (e.g., daycares, schools, long-term care facility) that may experience adverse health effects. Additionally, information on how the Project would differentially impact diverse groups of people, including vulnerable subgroups, is lacking.

Health Canada indicated that the Project-related changes to the biophysical environment (e.g., degradation of the quality of air, soil and water, elevated noise levels) and socioeconomic conditions (e.g., impacts on physical activity and mental health) may have adverse impacts on human health. Socio-economic and health conditions (including air quality and noise) are included as valued components of the provincial environmental assessment in Nova Scotia and Health Canada will continue to participate as an expert reviewer through that process.

The Proponent stated that the Project design aims to significantly reduce emissions to the atmosphere from the mill including an 80 percent reduction in total reduced sulphur, a 75 percent reduction in power boiler particulate, a 70 percent reduction in visible stack plumes and a 50 percent reduction in chlorine dioxide emissions, compared to 2019 levels. In addition, the Proponent is required, in accordance with the Terms of Reference of the provincial Class II Environmental Assessment, to address all impacts resulting from the Project and propose mitigations to reduce the impacts on these components. The Proponent's previous provincial Industrial Approval prohibited its facility from exceeding maximum permissible ground-level concentrations specified in Schedule A of the provincial *Air Quality Regulations*. This requirement is expected to also apply to any new Industrial Approval and also regulate any new emissions that occur.

Transboundary Effects

Consideration of transboundary effects includes transboundary waters, greenhouse gases and other air emissions, and climate change.

Environment and Climate Change Canada stated that the release of treated effluent into Pictou Harbour and the Northumberland Strait has the potential for adverse effects to water quality. Given the proximity of Prince Edward Island and the shared receiving waters between Nova Scotia and Prince Edward Island, there is the potential for effects to fish and fish habitat outside of Nova Scotia.

Nova Scotia Environment and Climate Change stated that consideration of interprovincial waters are included in the Terms of Reference required for the Proponent to complete as part of the provincial environmental assessment. This includes an assessment of the suitability of the intended effluent discharge location and its impact on water quality, fish/fish habitat, aquatic species, and fisheries, through completion of modelling exercises, a receiving water study, and a human health and ecological risk assessment. The results of these studies will be used to assess the suitability of the Project on the local environment, local communities, and human health. Members of the public and Mi'kmaq First Nations will have the opportunity to provide feedback on the provincial environmental assessment, including the results of the receiving water study.

The Proponent stated that the effluent released into Pictou Harbour is expected to meet ambient water quality criteria within the mixing zone of the receiving water, and is not expected to decrease the ambient water quality of the Northumberland Strait. The receiving water study will determine the effluent discharge parameters to meet regulatory mixing requirements. The Proponent indicated that the Project is not expected to influence interprovincial waters.

Environment and Climate Change Canada stated that the construction, operation, and decommissioning of the Project will result in greenhouse gas emissions which may have impacts to carbon sinks, and may hinder the Government of Canada's ability to meet its commitments in respect of climate change.

The Proponent stated that transboundary effects have potential to occur due to long-range effects from atmospheric releases, including greenhouse gases. Air contaminants are regulated under Nova Scotia's *Air Quality Regulations*, and regulatory benchmarks will be included in the mill's Industrial Approval. The Proponent stated that the project design aims to significantly reduce emissions to the atmosphere from the mill including nine percent reduction in greenhouse gases, from 55,500 tonnes carbon dioxide equivalent per year to an estimated 51,000 tonnes carbon dioxide equivalent per year. The total greenhouse gas emissions from the mill would be less than 0.5 percent of Nova Scotia's total greenhouse gas emissions. Annual air quality monitoring would be conducted in accordance with the provincial Industrial Approval requirements for the Project.

Adverse effects outside of Canada are expected to be limited.

Species at Risk

Environment and Climate Change Canada's Canadian Wildlife Service administers the *Migratory Birds Convention Act, 1994* and *Species at Risk Act* and is responsible for the management and conservation of migratory birds and protection of *Species at Risk Act*-listed species and their habitats.

Environment and Climate Change Canada stated that the Project could have negative effects on species at risk (e.g., amphibians, arthropods, birds, lichens, terrestrial mammals, mosses, reptiles, and vascular plants) listed in the *Species at Risk Act*, and their habitat (e.g., wetlands).

Environment and Climate Change Canada also stated that individual mortality and the destruction of nests and eggs or any other structure necessary for the reproduction and survival of species at risk could occur during all project phases. Construction activities could lead to destruction, disturbance and fragmentation of habitat (e.g., foraging, nesting, hibernating), habitat avoidance, sensory disturbance, and the inadvertent disturbance and destruction of individuals, nest and eggs of migratory birds and species at risk.

Prohibitions under the *Migratory Birds Convention Act, 1994* and the *Species at Risk Act* would apply to the Project. For example, the *Migratory Birds Convention Act, 1994* prohibits the disturbance or destruction of migratory bird nests and eggs, including for those species also listed under the *Species at Risk Act*.

The Proponent stated that the marine environment of Pictou Harbour within the vicinity of the Project has not been well studied and additional field information is required. There are no known marine fish species at risk listed under the *Species at Risk Act* with potential to occur in Pictou Harbour; however, there are ten species of conservation concern listed by the Committee on the Status of Endangered Wildlife in Canada with potential to occur, American eel, Atlantic salmon, Blue fin tuna, Atlantic cod, American plaice, Lumpfish, Porbeagle, Spiny dogfish, Striped bass (South Gulf of St Lawrence Population), and White hake (South Gulf of St Lawrence Population). Fisheries and Oceans Canada conducts regulatory reviews of proposed works, undertakings and activities under the *Fisheries Act* and *Species at Risk Act* to determine whether they are likely to result in any prohibited effects to fish and fish habitat and/or aquatic species at risk.

In accordance with the Terms of Reference for the provincial Class II Environmental Assessment, the Proponent must consider the potential and known adverse effects of the Project on species at risk, species of conservation concern, and their habitats.

Fisheries and Oceans Canada and Environment and Climate Change Canada will continue to participate in the provincial environmental assessment to determine whether the Project is likely to affect listed species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under the *Species at Risk Act*, unless authorized.

It is the view of the Agency that the potential adverse effects to species at risk would be limited through project design and existing legislative mechanisms.

Potential adverse direct or incidental effects

Direct or incidental effects refer to effects that are directly linked or necessarily incidental to a federal authority's exercise of a power 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.

The Project as described may potentially require the exercise of the following federal powers, duties, or functions:

- *Fisheries Act* authorization, administered by Fisheries and Oceans Canada;
- *Canadian Navigable Waters Act* approval, administered by Transport Canada; and
- *Canadian Environmental Protection Act, 1999* permit, administered by Environment and Climate Change Canada.

The carrying out of the Project has the potential to cause adverse direct or incidental effects on water quality, fish and fish habitat, species at risk, navigation, and Mi'kmaq First Nations. Additional information would be required to understand these potential effects; however, these effects are expected to be addressed through the requirements set by the relevant federal authorities.

Potential federal authorizations and approvals are listed in Annex I.

Public concerns

The Agency did not receive any public comments related to the designation request directly but considered public comments submitted to Nova Scotia Environment and Climate Change as part of the ongoing provincial environmental assessment.

In total, 1,465 public comments (including over 1,000 supportive form letters) were submitted to Nova Scotia Environment and Climate Change on the provincial draft Terms of Reference. Over ninety percent of the submissions were supportive of a transformed mill and revitalized forestry sector in Nova Scotia. The comments requested that Nova Scotia Environment and Climate Change establish clear standards, an expert independent panel, a fair environmental assessment, and a revitalized forestry sector in Nova Scotia.

Concerns related to potential adverse effects within federal jurisdiction (i.e., effects on fish and fish habitat, fisheries, migratory birds, species at risk, and Mi'kmaq First Nations) were expressed. In addition, there

were comments related to potential impacts to air quality, drinking water, health, wetlands, recreational activities, and economics (e.g., fisheries and tourism). The Agency is of the view that the provincial environmental assessment, compliance with federal and provincial legislation, and applicable federal and provincial permits (Annex I and Annex II) provide a framework to manage public concerns related to effects within federal jurisdiction and adverse direct or incidental effects.

Potential adverse impacts on the section 35 rights of Indigenous peoples

The Agency is of the view that while there is the potential for the Project to cause adverse impacts on rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982* (section 35 rights), existing legislative mechanisms would include consultation with Indigenous peoples to address concerns regarding potential impacts of the Project on their section 35 rights.

The Agency notified potentially impacted Indigenous groups of the request for designation and invited them to express their comments and concerns, including all 13 Mi'kmaq First Nations in Nova Scotia and the Mi'kmaq of Prince Edward Island. No comments were received other than those from Pictou Landing First Nation.

Potential adverse effects within federal jurisdiction, as described in Annex II, that could impact section 35 rights, include effects on local water resources, potential impacts to fish and fish habitat, and potential impacts on the use of lands and resources for traditional purposes. In conducting this analysis, the Agency considered potential impacts to Mi'kmaq First Nations and the comments provided by Pictou Landing First Nation. Pictou Landing First Nation expressed concern about the potential impacts of the Project on their Aboriginal and treaty rights, including fishing rights, and its right to live on reserve and claimed Aboriginal titled lands free from environmental contamination.

If federal authorizations or permits are required (Annex I), federal authorities would consult with potentially impacted Mi'kmaq First Nations to address their concerns.

Nova Scotia Environment and Climate Change indicated that Pictou Landing First Nation is leading consultations on behalf of the Assembly of Nova Scotia Mi'kmaq Chiefs and provided comments on the draft Terms of Reference in December 2021. Finalization of the Terms of Reference considered the information provided by Pictou Landing First Nation including utilizing the environmental assessment process to conduct consultation with the Mi'kmaq of Nova Scotia, using a baseline of status quo (non-operation) of the kraft pulp mill, valued ecosystem components identification (such as fish and fish habitat important to Pictou Landing First Nation), and the cumulative impacts of the Project.

Consultation meetings have been initiated between Nova Scotia Environment and Climate Change and Pictou Landing First Nation, with support from the provincial Office of L'nu Affairs. A consultation plan has been developed to facilitate consultation with Pictou Landing First Nation, which will continue through the environmental assessment and, should the Project receive an Environmental Assessment Approval, during subsequent provincial approvals and authorizations.

While impacts to Mi'kmaq youth, women, and gender minorities are not expressly identified, the province received comments from Pictou Landing First Nation regarding these valued components and are continuing to consult with Pictou Landing First Nation to further understand the potential impacts.

The Proponent noted that engagement with the Mi'kmaq of Nova Scotia, including Pictou Landing First Nation, during the environmental assessment for the original Project provided the basis for the revision of the Project and the current design. Information gathered from the Mi'kmaq Ecological Knowledge Study undertaken for the previous Replacement Effluent Treatment Facility Project was considered relevant for the current Project and will be integrated into the provincial Class II Environmental Assessment. The Proponent intends to engage with potentially impacted section 35 rights holders to obtain additional information and provide opportunities for the Mi'kmaq of Nova Scotia to identify potential issues or impacts to their Aboriginal or treaty rights related to the Project. In addition, the Proponent plans to meet and communicate with the Mi'kmaq of Nova Scotia regarding project milestones and updates, share relevant information, discuss topics of interest, and invite community members to participate in a site visit to learn about the Project area and gather relevant community information.

The Proponent noted in their letter of March 1, 2022, to the Minister of Environment and Climate Change, that Pictou Landing First Nation raised concerns similar to those identified during the previous provincial environmental assessment for the original Project that did not go ahead. The Proponent noted that the provincial Class II Environmental Assessment will include assessments to address adverse effects to fish and fish habitat, migratory birds, species at risk, human health, socio-economic conditions, and Indigenous peoples.

Based on these considerations, the Agency is of the view that while there is the potential for the Project to cause adverse impacts on section 35 rights, existing federal and provincial legislative mechanisms, including the provincial environmental assessment and approval process, would include Indigenous consultation and opportunities to address potential impacts to section 35 rights caused by the Project.

Regional and strategic assessments

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

Conclusion

To inform its analysis, the Agency sought and received input from the Proponent, Environment and Climate Change Canada, Fisheries and Oceans Canada, Health Canada, Transport Canada, Natural Resources Canada and Nova Scotia Environment and Climate Change. In addition, the Agency considered the concerns in the letter sent to the Minister by Pictou Landing First Nation and information in the public domain. Further, the Agency considered the potential for the Project to cause adverse impacts on the rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982*.

The Agency is satisfied that the provincial environmental assessment, provincial and federal regulations and permitting requirements, and associated Crown consultation processes provide a framework to

manage the potential for adverse effects within federal jurisdictions, adverse direct of incidental effects, and impacts on section 35 rights.

ANNEX I

Annex I: Potential Federal and Provincial Authorizations Relevant to the Project

Authorization/Legislation	Description
<p><i>Fisheries Act: Pulp and Paper Effluent Regulations</i></p>	<ul style="list-style-type: none"> • Pulp and paper effluent discharge is subject to the <i>Pulp and Paper Effluent Regulations</i>, under the <i>Fisheries Act</i> and administered by Environment and Climate Change Canada. • The purpose of the <i>Pulp and Paper Effluent Regulations</i> is to manage threats to fish, fish habitat, and human health from fish consumption by limiting the deposit of deleterious substances into fish-bearing waters from pulp and paper mills. • The <i>Pulp and Paper Effluent Regulations</i> also require the operator to conduct environmental effects monitoring studies to identify and investigate potential effects of mill effluent on fish, fish habitat, and the use of fisheries resources on a site-specific basis.
<p><i>Fisheries Act</i></p>	<ul style="list-style-type: none"> • Section 36(3) of the <i>Fisheries Act</i> prohibits the deposit of any deleterious substance into any type of waters frequented by fish, unless authorized by regulation. • Any activity that results in the death of fish or the harmful alteration, disruption or destruction of fish habitat will need authorization under the <i>Fisheries Act</i>. The authorization process includes mandatory consideration of Indigenous knowledge and Indigenous consultation. • Fisheries and Oceans Canada reviews physical impacts from proposed construction projects to determine whether it is likely to result in: <ul style="list-style-type: none"> • the death of fish by means other than fish and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the <i>Fisheries Act</i>. • Any potential <i>Fisheries Act</i> authorization for the Project would be limited to the physical footprint of the construction activities for the pipe and pipe outfall.
<p><i>Species at Risk Act</i></p>	<ul style="list-style-type: none"> • Fisheries and Oceans Canada's role includes a review of the Project to determine whether it is likely to affect listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the <i>Species at Risk Act</i>, unless permitted. • The <i>Species at Risk Act</i> review include both impacts from the physical footprint of the construction activities and impacts from the effluent on species listed as threatened or endangered on Schedule 1 of the <i>Species at Risk Act</i> if required, in collaboration with Environment and Climate Change Canada's review.

Authorization/Legislation	Description
<i>Migratory Birds Convention Act, 1994</i>	<ul style="list-style-type: none"> • Prohibits the deposit of harmful substances into waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area. • Prohibits the disturbance or destruction of migratory bird nests and eggs in Canada. • Activities affecting migratory birds and/or their nests and eggs, regardless of their scale, the level of potential detrimental effects on bird populations, or the nature of mitigation measures taken, can result in violations of the <i>Migratory Bird Regulations</i>.
<i>Canadian Environmental Protection Act, 1999: Disposal at Sea Regulations</i>	<ul style="list-style-type: none"> • Environment and Climate Change Canada may issue a permit under the <i>Canadian Environmental Protection Act, 1999</i> for the disposal of dredged materials at sea. • The permitting process may include public meetings where proponents are expected to address any concerns raised by reviewers, Indigenous communities, and stakeholders.
<i>Canadian Environmental Protection Act, 1999: Pulp and Paper Mill Effluent Chlorinated Dioxins and Furans Regulations</i>	<ul style="list-style-type: none"> • The <i>Pulp and Paper Mill Effluent Chlorinated Dioxins and Furans Regulations</i> prohibits the release of measurable concentrations of 2,3,7,8-TCDD or 2,3,7,8-TCDF (dioxins and furans).
<i>Canadian Navigable Waters Act</i>	<ul style="list-style-type: none"> • Transport Canada may issue an authorization issued under the <i>Canadian Navigable Waters Act</i> for the in-water construction portion of the pipe. • The authorization process would include a 30-day public comment period and Indigenous consultation.
Provincial Legislation and Authorizations	
<i>Environment Act: Environmental Assessment Regulations</i>	<ul style="list-style-type: none"> • Several federal departments are participating in the provincial Class II Environmental assessment under Nova Scotia's <i>Environmental Assessment Regulations</i> and providing expert advice, including Fisheries and Oceans Canada, Transport Canada, Environment and Climate Change Canada, and Health Canada. • Federal departments provided expert advice on the Registration Document and supported the development of the Terms of Reference. They will also review the Environmental Assessment Report when it becomes available. • If the provincial Minister of Environment approves the Project, the Environmental Assessment Approval would contain enforceable terms and conditions.

<p><i>Environment Act: Activities Designation Regulations Industrial Approval</i></p>	<ul style="list-style-type: none"> • If the Project is approved by the province, the Project would require a new Industrial Approval in accordance with the <i>Activities Designation Regulations (Nova Scotia Environment Act)</i>. • If granted, the Industrial Approval would include enforceable terms and conditions. • Nova Scotia Environment has the ability to require, through enforceable conditions of the Industrial Approval, stricter conditions on the effluent than the <i>Pulp and Paper Effluent Regulations</i>.
<p><i>Environment Act: Nova Scotia's Activities Designation Regulations Nova Scotia Wetlands Alteration Approval</i></p>	<ul style="list-style-type: none"> • <i>Nova Scotia's Activities Designation Regulations (Nova Scotia Environment Act)</i> requires an approval for certain activities or "alterations" that impact wetlands. • Any approval to alter a wetland would require wetlands to be restored elsewhere to offset any loss during the alteration process.
<p><i>Crown Lands Act and Regulations (Beaches Act)</i></p>	<ul style="list-style-type: none"> • Crown land easements, leases, and licences. Although land portion of the Project is on the Proponent's property, leases or right-of-way agreements may be required for the pipeline/outfall. • A <i>Beaches Act</i> permit could be required if removal of sand, gravel, stone or other materials from beaches is required.
<p><i>Special Places Protection Act</i></p>	<ul style="list-style-type: none"> • A Heritage Research Permit is required for an Archaeological Resources Impact Assessment.

ANNEX II

Annex II: Analysis Summary Table

Adverse Effect in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p>Fisheries and Oceans Canada advised that there is potential for the Project to cause adverse effects on fish and fish habitat during the construction of the pipeline and outfall.</p> <p>Environment and Climate Change Canada identified the potential for adverse effects to water quality from the release of treated effluent into Pictou Harbour, which could impact fish and fish habitat.</p> <p>Environment and Climate Change Canada identified the potential for adverse effects to water quality should the Project include disposal at sea activities from dredged sediments related to the effluent pipe installation.</p>	<p>Potential <i>Fisheries Act</i> authorization for the physical construction footprint of the pipe and pipe outfall.</p> <p>Environment and Climate Change Canada administers section 36(3) of the <i>Fisheries Act</i>, the <i>Pulp and Paper Effluent Regulations</i> and the <i>Pulp and Paper Mill Chlorinated Dioxins and Furans Regulations</i> which can manage adverse effects from the discharge of treated effluent.</p> <p>Provincial Class II Environmental Assessment with input from Environment and Climate Change Canada, Fisheries and Oceans Canada, Transport Canada, and Health Canada. Nova Scotia Environment and Climate Change requires that characterization of the effluent be addressed as part of the provincial Terms of Reference.</p> <p>Should the provincial environmental assessment be approved, Nova Scotia Environment and Climate Change has the ability, through enforceable conditions of the required Industrial Approval, to impose stricter conditions on the effluent than what is required by the <i>Pulp and Paper Effluent Regulations</i>. Environment and Climate Change Canada will provide advice to Nova Scotia Environment during this process.</p> <p>Any dredged materials that require disposal at sea would be regulated by and may require permitting under the <i>Canadian Environmental Protection Act, 1999</i>. A post-deposit monitoring</p>

Adverse Effect in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
		assessment of the disposal site(s) would be required.
A change to aquatic species, as defined in subsection 2(1) of the <i>Species at Risk Act</i>	<p>Fisheries and Oceans Canada advised that there is potential for the Project to cause adverse effects on aquatic species at risk during the construction of the pipeline and outfall.</p> <p>The Proponent stated there are no known marine fish occurring in the local assessment area listed under the <i>Species at Risk Act</i> or the <i>Nova Scotia Endangered Species Act</i>; however, the Proponent identified ten species of conservation concern assessed by the <i>Committee on the Status of Endangered Wildlife in Canada</i> with potential to occur in the area.</p>	Through their participation in the provincial environmental assessment, Fisheries and Oceans Canada will review the Project to determine whether it is likely to affect listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under the <i>Species at Risk Act</i> , unless authorized.
A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i>	Environment and Climate Change Canada stated that the activities linked to the construction, operation, and decommissioning of the project and associated infrastructure could have negative effects on migratory birds and their habitat.	<p>The Proponent is required to comply with the <i>Migratory Birds Convention Act, 1994</i> when carrying out the Project. Potential harm to migratory birds that may occur could be addressed through standard management practices and the appropriate timing of construction activities.</p> <p>Assessment of impacts to migratory birds is a valued component of the provincial environmental assessment and Environment and Climate Change Canada will continue to participate in this process.</p>
A change to the environment that would occur on federal lands	The closest federal lands are <i>Indian Act</i> reserve lands (Boat Harbour West 37) located 2.5 kilometres from the Project. The closest First Nation community (Pictou Landing First Nation) is located six kilometres from the Project.	<p>Licences, permits and approvals required for the Project pursuant to the <i>Nova Scotia Environment Act</i> would set requirements to ensure the environmental effects are localized and mitigated to reduce impacts on local reserve lands.</p> <p>The Proponent's previous provincial Industrial Approval prohibits its facility from exceeding maximum permissible ground-level concentrations specified in Schedule</p>

Adverse Effect in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>The Project can result in adverse effects on air quality. The emission of these air contaminants can result in local or regional degradation of ambient air quality.</p>	<p>A of the provincial <i>Air Quality Regulations</i>. This requirement is expected to also apply to any new Industrial Approval and also regulate any new emissions that occur.</p>
<p>A change to the environment that would occur in a province other than the one in which the project is being carried out or outside Canada</p>	<p>Environment and Climate Change Canada stated that given the proximity of Prince Edward Island and the shared receiving waters between Nova Scotia and Prince Edward Island there is the potential for effects to fish and fish habitat outside of Nova Scotia.</p> <p>With respect to greenhouse gas emissions, the Proponent stated that the project design aims to significantly reduce emissions to the atmosphere from the mill including nine percent reduction in greenhouse gases, from 55,500 tonnes carbon dioxide equivalent per year to an estimated 51,000 tonnes carbon dioxide equivalent per year. The total greenhouse gas emissions from the mill would be less than 0.5 percent of Nova Scotia's total greenhouse gas emissions.</p>	<p>See above for mechanisms to manage adverse effects from the discharge of treated effluent.</p> <p>The Project would be subject to federal greenhouse gas emissions reporting, pursuant to the <i>Canadian Environmental Protection Act, 1999</i>, since it would emit ten kilotonnes or more of greenhouse gas emissions, in carbon dioxide equivalent units per year.</p>
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on physical and cultural heritage</p>	<p>The Proponent determined that the potential for Indigenous peoples heritage resources to be present within the project area is low, based on a review of the Canadian Registry of Historic Places 2018.</p>	<p>Heritage resources in Nova Scotia are protected under the Nova Scotia <i>Special Places Protection Act</i>, which protects important archaeological, historical, and paleontological resources both on land and underwater and is enforced by the Nova Scotia Department of Communities, Culture and Heritage.</p>
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada</p>	<p>Pictou Landing First Nation expressed concern that the Project will impact the Mi'kmaq communal commercial fishery.</p>	<p>The provincial environmental assessment and federal and provincial regulations and permitting requirements - including those related to water quality, fish and fish</p>

Adverse Effect in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
and resulting from any change to the environment - on current use of lands and resources for traditional purposes	The Proponent identified potential effects from the Project during construction and operation on fish and fish habitat, migratory birds, and resources important to Pictou Landing First Nation's fishing, harvesting, cultural or recreational activities.	habitat and migratory birds - will address the Project's potential impacts on current use of lands and resources for traditional purposes.
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on any structure, site, or thing that is of historical, archaeological, paleontological or architectural significance	<p>The area of Abercrombie Point has an elevated potential for encountering pre-Contact and/or early historic Native archaeological resources.</p> <p>An Archaeological Resource Impact Assessment conducted on the Proponent's property revealed archaeological resources and a registered archaeological site at Abercrombie Point, in immediate proximity to the initially planned location of the proposed spill basin site. A 200 metre archaeological "buffer" has been established around this site where ground disturbance should be avoided. The spill basin has subsequently been redesigned for the current layout to avoid adverse impacts to those resources.</p>	Heritage resources in Nova Scotia are protected under the Nova Scotia <i>Special Places Protection Act</i> , which protects important archaeological, historical, and paleontological resources both on land and underwater and is enforced by the Nova Scotia Department of Communities, Culture and Heritage.
Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada	Pictou Landing First Nation has expressed concern that the Project will impact the Mi'kmaq communal commercial fishery and result in economic hardship to their community members. They also stated that the Project could negatively affect their health through water and air pollution.	<p>Mitigation, legislative mechanisms and advice from federal authorities related to a change to water quality and fish and fish habitat, also apply to any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada.</p> <p>Assessment of impacts to health and socioeconomic conditions is a valued component of the provincial environmental assessment and provincial Crown consultation is ongoing.</p>

Adverse Effect in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
		<p>The Proponent's previous provincial Industrial Approval prohibits its facility from exceeding maximum permissible ground-level concentrations specified in Schedule A of the provincial <i>Air Quality Regulations</i>. This requirement is expected to also apply to a new Industrial Approval and also regulate any new emissions that occur.</p>
Adverse direct or incidental effects	<p>Most of the potential effects that are directly linked or necessarily incidental to a federal authorization are already considered as an effect within federal jurisdiction.</p>	<p>Fisheries and Oceans Canada may issue an authorization under the <i>Fisheries Act</i> for the in-water construction of the pipe.</p> <p>Environment and Climate Change Canada may issue a permit under the <i>Canadian Environmental Protection Act, 1999</i> for disposal of dredged materials at sea.</p> <p>Transport Canada may issue an authorization issued under the <i>Canadian Navigable Waters Act</i> for the in-water construction portion of the pipe.</p> <p>Provincial Class II Environmental Assessment with input from Environment and Climate Change Canada, Fisheries and Oceans Canada, Transport Canada, and Health Canada.</p>