# Gazoduq Project

## Initial Project Description - Summary

*October 2019*

**Submitted to:**

The Impact Assessment Agency of Canada


gazoduq

# GAZODUQ INC.

# Gazoduq Project

Note to readers:

This document is an unofficial translation of the original version in French for information purposes only. In case of a discrepancy, the original official document in French shall prevail.

# Glossary

| | |
|---|---|
| **Énergie Saguenay** | The Énergie Saguenay project developed by GNL Québec Inc. is a future natural gas liquefaction, storage, and export facility in Saguenay, QC. |
| **Initial Project Description** | The initial project description corresponds to the initial project description filed by the proponent for its Project, under the new regulatory regime, which includes the information prescribed in the *Information and Management of Time Limits Regulations*. |
| **Pre-Application Project Description** | A preliminary document filed by the Proponent on November 20, 2018, under the former regulatory regime with the National Energy Board, that describes the general characteristics of the Project and is equivalent to the Project Notice filed with *ministère de l'Environnement et de la Lutte contre les changements climatiques* on the same date. |
| **Preferred Planning Area (PPA)** | As part of its route selection process, Gazoduq defined a PPA within the Study Corridor which has an average variable width of approximately 400 metres. |
| **Preferred route** | The route within the Study Corridor that will be preferred from an environmental, social, economic, and technical standpoint. |
| **Project Notice** | A document that the Proponent filed with the *ministère de l'Environnement et de la Lutte contre les changements climatiques* on November 20, 2018, which describes the general characteristics of the Project and is equivalent to the Pre-Application Project Description filed with the National Energy Board on the same date. |
| **Shapefiles** | A file format that contains geometric location information and attributes of geographic features. |
| **Study Corridor** | The proposed delineated area within which several route alternatives have and continue to be analyzed. |

# Abbreviations

| | |
|---|---|
| **BAPE** | Bureau d'audiences publiques sur l'environnement |
| **CER** | Canadian Energy Regulator |
| **CPTAQ** | Commission de protection du territoire agricole |
| **EPP** | Environmental Protection Plans |
| **ERP** | Emergency Response Plan |
| **GHG** | Greenhouse Gases |
| **GNLQ** | GNL Québec Inc. |
| **IAAC** | Impact Assessment Agency of Canada |
| **LNG** | Liquefied Natural Gas |
| **LCD** | Local Distribution Company |
| **MELCC** | Ministère de l'Environnement et de la Lutte contre les changements climatiques |
| **MERN** | Ministère de l'Énergie et des Ressources naturelles |
| **NEB** | National Energy Board |
| **NOx** | Nitrogen Oxides |
| **PM** | Particulate Matter |
| **PPA** | Preferred Planning Area |
| **$SO_2$** | Sulphur dioxide |

# Table of Contents



# List of Tables

# F.25 Summary

The following is a plain language summary of an initial description of the Gazoduq Project. It was prepared using Part F of Schedule 1, paragraph 25, of the Information and Management of Time Limits Regulations, 2019 and the Impact Assessment Agency of Canada's (IAAC's) Guide to Preparing an Initial Project Description and a Detailed Project Description under the Impact Assessment Act.[1]

## F.25.1 Project Overview

Gazoduq Inc. (Gazoduq or the proponent) plans to build and operate a new natural gas transmission line from an interconnection with TC Energy's existing mainline near Ramore, Ontario to a future natural gas liquefaction, storage and export facility (Énergie Saguenay) belonging to its main customer, GNL Québec Inc. (GNLQ), in the Saguenay region of Québec. Natural gas transportation services on the new transmission line will also be available for contracting by local distribution companies (LDCs) in northern Ontario and Québec (the Project).

Subsequent to consultation on a wider study corridor (the Study Corridor), a Preferred Planning Area (PPA) for routing of the natural gas transmission line has been developed for the Project.[2] The PPA is about 780 km long and is located primarily in Québec. It avoids a vast majority of the sensitive areas that were identified in the PPA selection process and runs through four regions – northern Ontario, Abitibi-Témiscamingue, Mauricie and Saguenay–Lac-Saint-Jean (Appendix A of the present summary) and lands covered by treaties or subject to land claims by Indigenous groups. Routing based on the PPA has been and will continue to be fine-tuned to reflect information acquired from environmental assessments, technical studies, consultation programs, land acquisition, and feedback from regulatory and government authorities.

Approximate coordinates for the compressor stations, meter stations as well as for interconnections with the TC Energy system and Énergie Saguenay are provided in Table F.25.1.

[1] This guide is accessible through the IAAC website at: https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/guide-preparing-project-description-detailed-project-description.html#_Toc17794722).

[2] In April 2019, Gazoduq announced that a PPA 780 km long had been identified within a previously announced 30 km to 60 km wide Study Corridor. In unconstrained areas, the PPA was an average width of approximately 400 m on public lands and approximately 200 m on private land. It is located on approximately 82% public land and includes 21 municipalities (19 in Québec and two in Ontario), no First Nation reserves, and no federal Crown land.

**Table F.25.1: Preliminary Coordinates for Main Project Components**

| Type of Component | Component | Latitude | Longitude |
|---|---|---|---|
| Natural Gas Transmission Line | Start (interconnection with TC Energy) | 48.38679 | -80.28952 |
| | End (interconnection with Énergie Saguenay) | 48.38663 | -70.80121 |
| Compressor Stations[1] | Ramore station | 48.38703 | -80.28779 |
| | La Corne station | 48.34456 | -77.95033 |
| | Lac Ashuapmushuan station | 48.51428 | -72.72468 |
| Meter Station | Immediately upstream of Énergie Saguenay | 48.38669 | -70.80155 |

Note:
1. The preliminary compressor station coordinates represent the centre point of locations currently under study.

Gazoduq proposes to contribute a total of $36 million per year to non indigenous communities in the PPA. This innovative contribution is comprised of planned tax payments and a newly established community fund for Quebec public land. In Ontario, the use of public land is taxed by the provincial government. In Québec, there is no equivalent provincial tax for the use of public land. Annual taxes for public and private lands in Ontario are estimated at $2 million. This initiative demonstrates Gazoduq's support for long term economic and social development along the proposed natural gas transmission line.

Subject to timely receipt of applicable regulatory approvals in Q3 2021, Gazoduq plans to make a final investment decision by the end of Q3-2021 and to begin construction late 2021 /early 2022. The in-service date is planned for the fourth quarter of 2024. This will require tightly controlled, but nevertheless achievable, Project execution and approval timing.

## F.25.2 Need and Purpose

The Project is needed to fulfill the requirements of its main customer, GNLQ, to provide Énergie Saguenay with long-term access to natural gas sourced exclusively from Western Canada, at a competitive price. Gazoduq understands that GNLQ plans to enter into a long-term transportation services arrangement with Gazoduq for transportation service on the transmission line to Énergie Saguenay.

In addition, the Project will provide LDCs in northern Ontario and Québec with an opportunity to contract for transportation service on the natural gas transmission line. A non-binding open season for capacity will be held in the fourth quarter of 2019 to affirm the known GNLQ requirement for transportation service and to solicit additional interest in shipping natural gas through the Project.

## F.25.3 Benefits

### F.25.3.1 Energy Transition

The Project is designed to be compatible with provincial, Canadian, and international energy and climate policies, as it is anticipated to facilitate an energy transition using natural gas, away from higher emitting sources of energy (e.g., coal, fuel oil, and diesel) currently used in international markets and locally in northern Ontario and Québec. This transition is expected to help support the fight against world-wide climate change by reducing global greenhouse gas (GHG) emissions in the international markets.

The Project will also provide a link between Canadian natural gas producers and international LNG markets. This will facilitate the replacement of energy sources that emit more GHGs and will serve as a catalyst in expanding international trade for Québec, Ontario, Alberta and Canada.

### F.25.3.2 Economy

The Project represents a multi-billion-dollar investment by Gazoduq and, as such, will generate significant economic benefits, including job creation, in Québec, Ontario, and Canada. Project labour requirements and economic benefits will be further defined as Project planning progresses.

Gazoduq intends to develop strong relationships with local and Indigenous communities along the natural gas transmission line and plans to create mutually beneficial business partnerships in support of the Project throughout its operating life.

## F.25.4 Alternatives and Alternative Means

The natural gas transmission line is designed to transport approximately 51 million cubic meters (1.8 billion cubic feet) of natural gas per day. Most of this capacity is required by GNLQ for Énergie Saguenay.

To meet Énergie Saguenay's requirements, the capacity of the existing natural gas transmission and distribution system to Saguenay, Québec was evaluated. This evaluation indicated that the existing capacity represents only a small portion of Énergie Saguenay requirements. A new large diameter natural gas transmission line was therefore determined to be the only feasible option.

Three alternative alignments (southern, central and northern) were analyzed for the Project. Based on this analysis, the northern alignment was selected mainly because of its:

- overall lower population density
- potential for avoiding areas of ecological and recreational interest
- potential for routing on predominantly public land
- preliminary engagement with certain Indigenous groups did not raise decisive issues and concerns
- fewer number of infrastructure crossings (i.e., highway, road and rail)
- potential for economic development opportunities
- ability to access natural gas supply exclusively from Western Canada

## F.25.5 Project Components and Activities

### F.25.5.1 Main Components

The preliminary scope of the Project includes approximately 780 km of 1,067 mm (nominal pipe size [NPS] 42) outside diameter natural gas transmission line and related components. Approximately 93% of the 780-km length will be in Québec. The remaining 7% will be in Ontario.

For the purposes of this Project, the natural gas transmission line is an underground pipe of approximately 780 km in length that will transport natural gas from the interconnection point with TC Energy's mainline near Ramore, Ontario, to supply the future natural gas storage and export liquefaction complex in Saguenay, Québec.

**Table F.25.2: Natural Gas Transmission Line**

| | |
|---|---|
| **Location with respect to ground level** | Buried (including agricultural land, forests, bedrock areas, all watercourses, etc.)[3] |
| **Length** | Approximately 780 km |
| **Outside diameter** | 42 inches (1,067 mm) |
| **Pipe material** | High tensile steel with fusion bonded epoxy coating |
| **Construction footprint (typical)** | Approximately 45 m wide plus temporary workspace at crossings |
| **Width of permanent right-of-way (typical)** | Approximately 25 m wide |
| **Land ownership** | Right-of-way to be acquired (private and public land tenures) |

A compressor station is a facility that provides the energy necessary to compensate for the pressure loss that occurs along the pipe and thus allow the natural gas to move to its delivery point. The compression units will be powered by electric motors or gas turbines depending on their location. The use of compression units powered by electric turbines in Québec is currently being assessed.

**Table F.25.3: Compressor Stations**

| | |
|---|---|
| **Proposed locations (3)** | - Near Ramore, Ontario<br>- Near La Corne, Québec<br>- Near Lac Ashuapmushuan, Québec |
| **Surface area** | Approximately between 5 and10 ha per station |
| **Power supply** | Electricity and / or natural gas |
| **Land ownership** | Land to be acquired or leased |

A meter station is a facility used to measure the gas that is delivered to a customer.

**Table F.25.4: Meter Station[4]**

| | |
|---|---|
| **Quantity** | One station (meter station for Énergie Saguenay) |
| **Surface area** | Approximately 0.5 ha |
| **Land ownership** | Land to be acquired or leased |

Block valves are used to shut off the flow of natural gas for maintenance purposes or in the event of a pipe incident, thereby reducing the volume of natural gas that could potentially be emitted to the atmosphere.

**Table F.25.5: Mainline Block Valves**

| | |
|---|---|
| **Quantity** | Approximately 25 sites along the length of the natural gas transmission line |
| **Surface area** | Approximately 0.03 ha per site |
| **Land ownership** | Located within permanent right-of-way |

Inspection facilities consist of receptacles used to introduce or remove inspection tools to assess the condition of the natural gas transmission line (launcher and receiver facilities).

[3] Exceptions: within fenced-in areas (mainline block valves, in-line inspection sites, meter station, and compressor stations)

[4] A second meter station between TC Energy's facilities and Gazoduq's facilities is also planned. This station would be under the responsibility of TC Energy.

**Table F.25.6: Inspection Facilities**

| | |
|---|---|
| **Quantity** | 4 launchers and 4 receivers |
| **Location** | 1 independent site will have 1 launcher and 1 receiver. The other launchers and receivers will be inside the compressor and meter stations. |
| **Surface area** | Approximately 0.2 ha per station |
| **Land ownership** | Located within the permanent right-of-way |

**Table F.25.7: Related Equipments**

| **Related Equipments** |
|---|
| Operations Control Centre, including a Data Acquisition and Control System (SCADA) to monitor operating parameters remotely and intervene as required |
| Cathodic protection system providing protection of the pipe against corrosion |
| Safety equipment and warning signs |

Temporary infrastructure, such as access roads, construction camps, stockpile sites and contractor yards will be required during construction. Some new permanent access roads will also be needed for the operations phase.

The Project will be designed, constructed, operated, decommissioned and ultimately abandoned in accordance with all applicable laws, regulations, and industry codes and standards.

## F.25.5.2 Activities

Gazoduq will establish an integrated and systematic management system. The system will be comprised of various programs designed to support the safety and security of people and property, and the protection of the environment. It will be applied to all phases of the Project and will play a fundamental role in project-related activities, from planning and design to construction, operation and ultimately, decommissioning and abandonment.

### F.25.5.2.1 Planning and Design Phase Activities

During this phase, activities include but are not limited to:

- project planning and preliminary design
- engaging with Indigenous groups and stakeholders
- conducting biophysical and socioeconomic assessments, including field surveys
- undertaking detailed geotechnical design and studies, and related field work
- consulting with landowners, residents, and other land users
- consulting with entities responsible for allowing the use of Crown land
- applying management system components relevant to the planning and design phase
- preparing regulatory submissions and participating in the regulatory review process

### F.25.5.2.2 Construction Phase Activities

Construction activities include but are not limited to:

- applying management systems and programs relevant to the construction phase (e.g., emergency response plans (ERPs), environmental protection plans (EPPs), and project-specific health and safety plans)
- continuing engagement activities

- installing temporary infrastructure (e.g. worker camps, laydown areas, and access roads)
- preparing work areas (e.g. surveying, clearing, soil stripping and conservation)
- line assembly (stringing, bending, welding, weld inspections, coating of welded joints, and coating inspections)
- staking the centreline, trenching (rock blasting, where required), padding the trench, lowering-in of assembled line in trench, installing buoyancy controls where required, completing as-built surveys, and backfilling
- installing watercourse crossings and erosion controls, where required
- installing facilities (e.g. block valves, compressor stations, meter stations, operations control centre)
- installing cathodic protection system
- cleaning the interior of the line and hydrostatic pressure testing
- commissioning
- clean-up and site restoration

#### F.25.5.2.3 Operations Phase Activities

Once constructed, tested and commissioned, and all applicable regulatory authorizations are received, the operational phase will commence. During this phase, the natural gas transmission line will be remotely monitored 24 hours per day, seven days per week using a SCADA system. The SCADA system will provide continuous operational information to the control centre technicians. These highly trained technicians will be alerted of any abnormal operational event or loss of communication regarding the natural gas transmission line. This will enable them to respond rapidly and take the necessary action to ensure continued safe operation.

Management systems and prevention programs will be integrated into the operational phase of the Project, which will include, but not be limited to:

- terrestrial and aerial patrols
- internal integrity inspections
- monitoring of cathodic protection systems
- installation and maintenance of natural gas transmission line markers along roads and watercourse crossings
- preventive maintenance
- emergency response planning and management
- integrity maintenance
- safety and security management
- environmental protection

Other operations activities include transitioning from project-related engagement and consultation programs to ongoing communications and public awareness programs with local and Indigenous groups, landowners, emergency response providers, local officials, and others, as applicable.

#### F.25.5.2.4 Decommissioning and Abandonment

To meet the needs of Gazoduq's main customer, GNLQ, the Project will be in operation for at least 25 years. However, the Project's facilities are expected to operate over an economic life of 50 or more years based on the experience of existing pipelines of similar length operating in North America.

Decommissioning and abandonment activities will comply with applicable federal and provincial regulatory requirements in force at the time.

## F.25.6 Proximity to local communities

Table F.25.8 shows the proximity of the PPA to some of the nearest communities.

**Table F.25.8: Proximity to local communities**

| Communities | Distance estimated from the PPA (km) |
|---|---|
| La Baie | 5 |
| Ramore | 5 |
| Senneterre | 5 |
| Chicoutimi | 10 |
| Duparquet | 10 |
| Héberville | 10 |
| Lac-Bouchette | 10 |
| Roberval | 10 |
| Barraute | 15 |
| Jonquière | 15 |
| Rivière-Héva | 15 |
| Rouyn-Noranda | 15 |
| Clova | 20 |
| Kirkland Lake | 25 |
| Parent | 25 |
| Alma | 30 |
| Val-d'Or | 30 |

A photo-interpretation analysis and consultation of the MERN database on leases granted on public land made it possible to identify the buildings in the PPA in a preliminary manner. Based on their location and geometry, this preliminary assessment identified residential buildings of permanent or temporary occupation. Thus, 72 single-family homes, 1 multi-residential building and 43 cottages would be present in the PPA.

The actual distances from any permanent, seasonal or temporary residence at the Project will be calculated once the preferred route has been determined.

### F.25.6.1 Proximity to federal lands

No lands owned or administered by the federal government are located within the PPA.

The closest public lands under federal jurisdiction are those at Bagotville Airport in Saguenay, which is 2.7 km from the PPA, but outside the Study Corridor.

## F.25.7 Safety, Environment and Emergency Preparedness

### F.25.7.1 Public Safety and Environmental Stewardship

Public safety and environmental stewardship are top of mind and priority for Gazoduq. Gazoduq is committed to the safety of all employees and people that could be affected by its assets, and to ensuring that its assets are built and operated in a safe and environmentally responsible manner. Through all phases of the Project, Gazoduq will promote a positive safety culture to eliminate or reduce risk to the public, workers, the environment and Gazoduq assets.

To help prevent the potential for accidents, malfunctions and the unintended release of natural gas, public safety and environmental protection measures are being incorporated into the design of the Project. This provides a consistent approach that meets or exceeds industry codes and specifications and draws on the most recent standard available for the design and construction of natural gas transmission lines in Canada.[5] It also incorporates the most current practices for quality assurance, environmental mitigation, and operations management.

For example, in preparing for construction, Gazoduq will develop an overarching safety management program that will be supported by a series of site-specific construction safety plans. Environmental protection plans (EPPs) are also being developed for construction. Preliminary EPPs will be appended to the impact statement for the Project. Final EPPs will be completed prior to construction.

During construction, construction-related responsibilities for health, safety, security and environmental performance are expected to be in accordance with Gazoduq's management system. Qualified construction inspectors will be retained to inspect construction activities and help ensure that the natural gas transmission line and facilities are constructed in compliance with:

- the design of the Project
- the applicable standards, specifications, and procedures
- Gazoduq's quality management system

Environmental inspectors will be retained to ensure that environmental mitigation measures are followed during construction, in accordance with the EPPs for the Project. Additional information on construction inspection and monitoring will be provided in the Impact Statement for the Project.

Once the natural gas transmission line is put into service, Gazoduq will follow the integrated management system, programs and policies for the operations phase.

### F.25.7.2 Emergency Preparedness and Response

Emergency response plans (ERPs) will be developed for the natural gas transmission line, compressor stations, and meter station. These plans will ensure that Gazoduq has sufficient response capabilities and resources in place to address potential emergencies, including the unlikely event of an unplanned release.

A preliminary ERP is currently being developed and will be included in the Impact Statement for the Project. Final ERPs will be posted on the Gazoduq website[6] and will be developed with input from and distributed to applicable emergency response agencies before the Project is commissioned and put into commercial service.

## F.25.8 Stakeholder Information Sharing and Consultation Process

[5] Refer to Canadian Standards Association Z662-19, which took effect in July 2019.

[6] Refer to NEB Order MO-006-2016 - Compelling Publication of Emergency Procedures Manuals required under subQ 32(1.1) of the NEB Onshore Pipeline Regulations.

### F.25.8.1 Approach

Gazoduq's approach to information sharing and consultation centers on rigorous, transparent, timely and diligent communication with interested and potentially affected stakeholders, as well as on its goal of addressing project-related concerns and achieving social acceptability.

Interactions and communications with stakeholders are recorded and followed up. Comments and concerns are relayed to Project leaders for consideration and where appropriate and practicable, they are integrated into plans for the Project.

Throughout its information sharing and consultation process, Gazoduq has informed stakeholders about the Project using various means of communication (e.g., press releases, newsletters, public announcements, website, electronic mail, and social media). This will continue through construction and operation of the Project.

### F.25.8.2 Stakeholder Identification

For the purposes of information sharing and consultation, the main stakeholder categories include:

- government authorities
- landowners and occupants
- interest groups, environmental groups and non-governmental organizations
- socioeconomic groups (e.g., recreation/tourist associations, trappers, and guides/outfitters)
- post-secondary educational institutions
- general public

Stakeholders can also self-identify by sending Gazoduq an email (info@gazoduq.com) or calling the Project's toll-free number (1-833-228-6382).

### F.25.8.3 Main Issues Raised

The information sharing and consultation activities have enabled Gazoduq to identify key issues of concern to stakeholders in the regions crossed by the Project. These issues generally relate to:

- water and wetlands
- compatibility with economic, tourism and leisure activities
- the environment
- land use
- safety and accident risk
- the relationship with Indigenous groups

### F.25.8.4 Plan for Future Consultation

Over the next few months, Gazoduq plans to continue and expand its efforts to inform and consult the public and stakeholders on the PPA and the Project in general. Gazoduq will therefore continue its efforts in each of the regions concerned by the Project, in order to reach a wide range of stakeholders, including the population, neighbours (bordering the PPA), landowners, interest groups and municipal socio-economic and political actors, to name a few.

## F.25.9 Indigenous Engagement

### F.25.9.1 Approach

Gazoduq has adopted an approach to engaging with potentially affected Indigenous groups that is characterized by respect and collaboration.

In keeping with the spirit of this approach, Gazoduq initiated a dialogue with certain Indigenous groups early in the Project planning phase to:

- create opportunities for mutual sharing of information and concerns
- foster active Indigenous involvement in the Project's development and progress
- mitigate potential Project effects on the rights of Indigenous people
- promote and maximize opportunities resulting in benefits for neighbouring Indigenous groups

Gazoduq has and will continue to adapt its approach based upon each individual group's concerns, activities and interests.

### F.25.9.2 Proximity of Indigenous Groups

Table F.25.9 presents the preliminary list of 25 concerned indigenous communities, as formulated by the Couronne. On the one hand, it presents the approximate distance between the PPA and the reserve or community closest to or occupied by these groups.[7] In addition, a second column shows the approximate distance between the PPA and the boundaries of indigenous groups' traditional territories, as presented on the federal website of the *Aboriginal and Treaty Rights Information System*. Most of these territories are subject to a comprehensive claim or assertion of land rights and titles. The most recent maps available have been considered, and where possible, a short description is included about the stage of the current negotiation process, if any. It should be noted that the Crown-Indigenous Relations and Northern Affairs Canada does not guarantee the accuracy of the information, nor that it is complete or up to date.

As shown in the table, some indigenous communities have grouped together to submit their claims or assertions to the federal and provincial governments, so the traditional territories discussed here are not subdivided by community.

In fact, although the distances between the communities concerned and the PPA vary from 10 km to 190 km, the PPA covers lands that are subject to a comprehensive land claim agreement or self-government agreement by almost every group concerned. However, only the Wemontaci Atikamekw Council holds First Nation lands within the PPA within the meaning of subsection 2(1) of the First Nations Land Management Act. As well, the PPA affects lands included in Treaty 9, and in the James Bay and Northern Quebec Agreement and the Robinson-Huron Treaty.

The information available at this stage does not allow for a more precise definition of traditional land use in the PPA by different indigenous groups. This information is subject to be collected as part of the consultations and studies on traditional knowledge and land use that will be carried out.

The map in Appendix B provides an overview of the location of the groups in relation to the PPA.

**Table F.25.9 : Proximity of Concerned Indigenous Groups**

| Concerned Indigenous Groups | Distance between the PPA and the nearest community | Distance between the PPA and the boundary of the traditional territory, as shown on the Aboriginal and Treaty Rights Information System site |
|---|---|---|
| **Québec** | | |
| Algonquins of Barriere Lake | 105 km | Section of the PPA included in the territory of the Algonquin Nation (assertion of ancestral rights and titles presented in 2013). |

[7] Note that distances with regards to the Grand Council of the Crees (Eeyou Istchee) / Cree Nation Government and Métis Nation of Ontario are not provided. In the first instance, the organization represents several communities that each have Category I lands. In the second case, Métis Nation of Ontario is not a reserve or community.

| Concerned Indigenous Groups | Distance between the PPA and the nearest community | Distance between the PPA and the boundary of the traditional territory, as shown on the Aboriginal and Treaty Rights Information System site |
|---|---|---|
| Conseil des Anicinapek de Kitcisakik | 85 km | Section of the PPA included in:<br>• The territory of the Algonquin Anishinabeg Nation (assertion of ancestral rights and titles presented in 2010).<br>• The territory covered by the Anishnabek O Takiwan Committee Comprehensive Land Claim (submitted in 2013). |
| Nation Anishnabe du Lac-Simon | 25 km | |
| Conseil de la Première Nation Abitibiwinni | 25 km | |
| Long Point First Nation (Winneway) | 90 km | |
| Kebaowek First Nation | 175 km | Section of the PPA included in:<br>• The territory of the Algonquin Anishinabeg Nation (assertion of ancestral rights and title presented in 2010).<br>• The territory covered by the Algonquin Nation Secretariat (assertion of ancestral rights and titles presented in 2013). |
| Kitigan Zibi Anishinabeg | 190 km | Section of the PPA included in the territory of the Algonquin Anishinabeg Nation (assertion of ancestral rights and title presented in 2010). |
| Conseil des Atikamekw de Manawan | 100 km | Section of the PPA included in:<br>• The territory of the Council of the Atikamekw Nation (Comprehensive Land Claim, 1994. Resumption of negotiations to conclude the agreement-in-principle in 2014).<br>• Nitaskinan territory (assertion of traditional territory). |
| Conseil des Atikamekw de Wemotaci | 30 km | |
| Conseil des Atikamekw d'Opitciwan | 50 km | |
| Grand Conseil des Cris (Eeyou Istchee) | - | Section of the PPA included in the territory of the JBNQA (1975). |
| Nation huronne-wendat | 150 km | Section of the APA included in the territory covered by the Protocol on Consultation and Accommodation with the HWN (federal bilateral agreement concluded in 2019). |
| Première Nation des Innus d'Essipit | 105 km | Section of the PPA included in the territory of the Regroupement Petapen (memorandum of understanding signed in 2004). |
| Première Nation des Innus de Pessamit | 165 km | Section of the PPA included in the territory of the Mamuitun mak Nutashkuan (memorandum of understanding signed in 2004). |
| Première Nation des Innus de Pekuakamiulnuatsh | 10 km | Section of the PPA included in the territory of the Regroupement Petapen (memorandum of understanding signed in 2004). |
| Timiskaming First Nation | 80 km | |

| Concerned Indigenous Groups | Distance between the PPA and the nearest community | Distance between the PPA and the boundary of the traditional territory, as shown on the Aboriginal and Treaty Rights Information System site |
|---|---|---|
| Wolf Lake First Nation | 155 km | Section of the PPA included in the territory of the Algonquin Nation (assertion of ancestral rights and title submitted in 2013). |
| **Ontario** | | |
| Beaverhouse Indigenous Community | 25 km | Section of the PPA included in the Wabun First Nations traditional territory (traditional territory assertion, undated). |
| Flying Post First Nation | 120 km | |
| Matachewan First Nation | 40 km | |
| Mattagami First Nation | 105 km | |
| Métis Nation of Ontario | - | Section of the PPA included in the territory of the Métis Groups in Ontario. |
| Taykwa Tagamou Nation | 75 km | PPA section included in Treaty No. 9 (1905-1906) territory. |
| Temagami First Nation | 155 km | Section of the PPA included in the Robinson-Huron Treaty (1850), and about 25 km from the Temagami First Nation territory (1974). |
| Wahgoshig First Nation | 15 km | Section of the PPA included in:<br>• The territory of the Algonquin Anishinabeg Nation (2010 assertion).<br>• Anishnabek O Takiwan Committee Comprehensive Land Claim (submitted in 2013). |

### F.25.9.3 Information Sharing

Gazoduq has and will continue to distribute Project-related information with potentially affected Indigenous groups. The distributions to date, which were sent by mail or email, have included:

- an offer to conclude a collaboration agreement
- the Pre-Application Project Description and for Québec groups, the notice of application to ministère de l'Environnement, de la Lutte contre les changements climatiques (MELCC) as well
- maps of the Study Corridor and PPA
- a custom map for each group, showing its location relative to the PPA
- information on surveys and fieldwork, including a timetable by discipline
- information on TLRU, including offers of financial and technical support
- PPA shapefiles

### F.25.9.4 Highlights of Discussions with Indigenous Groups

Various Project-related issues and concerns have been identified through dialogue with Indigenous groups to the end of August 2019. These issues are as follows:

- risks associated with incidents and accidents

- potential impact on water, soil and animals
- economic benefits and spinoffs
- misunderstandings of the natural gas industry
- difficulty in differentiating natural gas from oil and gasoline
- applicable authorization processes

Given that Gazoduq is proceeding under the new federal authorization process and since the Crown must continue its direct consultation with Indigenous groups in September 2019,[8] discussions between Indigenous groups, Gazoduq and the Crown are expected to increase significantly in the coming months, and consequently more issues and concerns will be identified.

### F.25.9.5 Plan for Future Engagement

Since summer 2018, Gazoduq has been open and transparent in its approach to engaging with the Indigenous groups and has sought to adapt its engagement and consultation process to meet the needs, activities and interests of each group. Information has been sent to potentially affected Indigenous groups, as they became identified for engagement and at each significant stage in the progress of the Project and Gazoduq has made itself available and has offered support to engage in or continue the dialogue. Gazoduq plans to maintain this approach.

Understanding the need for and the importance of providing benefits to Indigenous groups, Gazoduq was an early adopter of practices that favoured Indigenous contractors and suppliers in its bidding process. Already this has enabled certain contracts, such as surveying and helicopter flyovers, manpower for field studies to be awarded to Indigenous businesses. Gazoduq intends to maintain active Indigenous involvement in the future work planned for the construction and operational phases.

Through ongoing dialogue with the Indigenous groups, Gazoduq will be positioned to continue:

- meeting the communication and consultation needs of the groups
- identifying employment, training and/or business opportunities
- discussing potential financial participation and other benefits

Gazoduq will continue to provide Indigenous groups with information that allows them to identify the potential effects of the Project on their rights and use of resources and land for traditional purposes. Through dialogue and ideally, meetings, with Indigenous groups and their representatives, issues associated with the Project will be identified.

For each group, the identified issues will further be discussed and the means to avoid, mitigate or remedy the potential effects of the Project will be discussed, clarified and to the extent necessary, integrated into the Project.

## F.25.10 Studies and Plans or Regional Assessments

In developing the Project and related regulatory filings, Gazoduq relies on numerous sources, including:

- knowledge and expertise from its team and consultants
- codes, standards and best industry practices[1]
- findings from the environmental and technical work carried out
- feedback from the engagement held with stakeholders, Indigenous groups and governmental authorities (regional, municipal, provincial and federal)

[8] Refer to NEB Filing ID A99638.

- traditional knowledge of Indigenous groups
- Guidance documents, studies and plans published by regulatory and government agencies

Table F.25.10 features a list of certain federal guidance documents, studies and plans to which the general public has access and are being used, as applicable, in developing the Project and regulatory filings.

**Table F.25.10: Preliminary List of Federal Studies and Plans**

| Government Agency | Studies and Plans |
|---|---|
| Canadian Environmental Assessment Agency | • Integrating Climate Change Considerations into Environmental Assessment: A General Practitioners' Guide, 2016 |
| Impact Assessment Agency | • Practitioners' Guide to Federal Impact Assessments under the *Impact Assessment Act*, 2019 |
| Environment and Climate Change Canada | • Federal policy on wetland conservation, 1991<br>• Federal policy on wetland conservation: implementation guide for federal land managers, 1996<br>• Wetlands environmental assessment guideline, 1998<br>• Migratory birds environmental assessment guideline, 1998<br>• Wetland ecological functions assessment: an overview of approaches, 2006<br>• Wetland ecological functions assessment: an overview of approaches, 2008<br>• Environmental assessment guideline for forest habitat of migratory birds, 2013<br>• Environmental assessment best practice guide for wildlife at risk in Canada, 2013<br>• National communications and biannual reports for Canada under the United Nations Framework Convention on Climate Change, 2017<br>• Recovery strategies potentially applicable, species at risk: action plan and management plan9<br>• Technical guidance on reporting greenhouse gas emission, 2019 |
| Health Canada | • Assessment of impact on health within the context of environmental assessments : noise, 2017<br>• Assessment of impact on health within the context of environmental assessments: air quality, 2016<br>• Assessment of impact on health within the context of environmental assessments: drinkable water quality and water used for recreational purposes, 2016<br>• Assessment of impact on health within the context of environmental assessments: traditional food, 2018 |
| National Energy Board | • Best available technologies in federally regulated pipelines, 2016 |

Gazoduq is not aware of any regional assessment being prepared under Sections 92 or 93 of the *Impact Assessment Act* that would apply to the Project. While preparing this initial description of the

[9] Refer to the list available under: https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/recovery-strategies.html

Project, Gazoduq communicated with the IAAC to find out whether such a regional assessment existed and was informed that no such assessment has been or is in the process of being prepared.

## F.25.11 Strategic Assessment Carried Out Under Section 95 of the *Impact Assessment Act*

Gazoduq understands that Environment and Climate Change Canada is presently consulting on a draft Strategic Assessment of Climate Change and that the document would only apply to projects assessed under the *Impact Assessment Act*. Gazoduq is also aware that the strategic assessment would include requirements regarding greenhouse gas (GHG) and climate change information, and that it is expected to be published in early 2020.

## F.25.12 Federal, Provincial, Indigenous and Municipal Involvement

### F.25.12.1 Federal

The Project crosses the Québec-Ontario boundary and will be subject to life-cycle regulation by the Canadian Energy Regulator (CER). The Project also meets the threshold criteria for new right-of-way that is established in the schedule to the Physical Activities Regulations, paragraph 41.

For these reasons, the Project will go through an integrated review process led by the IAAC, supported by the CER. This will require an Impact Assessment by an integrated review panel, a panel report setting out the conditions that would be required for the issuance of a certificate authorizing the Project's construction and operation, as well as a favorable determination by the Governor in Council that the Project is in the public interest.

In addition to the IAAC and CER, other federal authorities may have powers, duties or functions in relation to an assessment of the Project's potential environmental effects, including:

- Fisheries and Oceans Canada
- Transport Canada
- Environment and Climate Change Canada
- Health Canada
- Natural Resources Canada

### F.25.12.2 Provincial

**Québec:**

Gazoduq has already initiated proceedings under the impact assessment and environmental review procedure provided for under the Québec *Environment Quality Act*, by filing a Project Notice dated November 20, 2018. This procedure is managed by MELCC and may include a public hearing process conducted by the *Bureau d'audiences publiques sur l'environnement* (BAPE).

The Project will undergo the review and public hearing process required to obtain and use agricultural land for purposes other than agriculture. This process is managed by the *Commission de protection du territoire agricole du Québec* (CPTAQ).

In addition to the MELCC/BAPE and the CPTAQ processes, the MELCC and other Québec authorities may have powers, duties or functions related to the assessment of the Project's potential environmental impacts. These include:

- Ministère des Affaires municipales et de l'Habitation
- Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec
- Ministère de la Culture et des Communications
- Ministère de l'Énergie et des Ressources naturelles

- Ministère des Forêts, de la Faune et des Parcs
- Ministère de la Santé et des Services sociaux
- Ministère des Transports du Québec;
- Secrétariat aux affaires autochtones
- Secrétariat du Québec aux relations canadiennes

**Ontario:**

For the Ontario portion of the Project, the Ontario Pipeline Coordinating Committee will coordinate the review by provincial authorities exercising approval and permitting or licensing powers for certain aspects of the Project. These authorities include:

- Ministry of the Environment, Conservation and Parks
- Ministry of Natural Resources and Forestry
- Ministry of Tourism, Culture and Sport
- Ministry of Transportation
- Ministry of Energy, Northern Development and Mines
- Ministry of Indigenous Affairs

### F.25.12.3 Regions and Municipalities

A variety of permits and authorizations from regional, municipal and other local authorities might be required for the Project, as well as from private and public third-party utilities and railway companies. The specific regional and municipal approvals required for the Project are expected to be confirmed as Project planning and design progresses.

## F.25.13 Physical and Biological Context

The Study Corridor containing the PPA crosses eight ecological regions.[10] These regions are distinguished by landform, average altitude and small differences in climate. Two of them, the Plaine de l'Abitibi and the hills of the Haut-Saint-Maurice, together represent the largest portion of the Study Corridor.

Forests comprise approximately 73% of the area, followed by wetlands (16%) and hydrous environments (7%). Agricultural areas represent 2% and man-made environments 1%.

The Study Corridor crosses geological regions whose surface was eroded during the last ice age and exhibits loose glacial deposits. There are a number of eskers, the main ones being Vaudray-Joannès, Saint-Mathieu-Berry, Launay, lac Malartic, Barraute, lac Despinassy, and Senneterre, the main moraine is Harricana. Aquifers vary in type, either granular or fractured rock, depending on the region.

The Hudson Bay, Grands Lacs and St. Lawrence River drainage basins are straddled. River watersheds include the Abitibi (Moose) and Upper Ottawa (Outaouais) in Ontario, and the Moose, Outaouais, Harricana, Nottaway, Saint-Maurice and Saguenay in Québec.

Plant and wildlife habitats are diverse in the Study Corridor. Species of interest for conservation and listed species that could occur in the area, as well as species likely to be designated as threatened or vulnerable, or assessed by the Committee on the Status of Endangered Wildlife in Canada, have been taken into consideration when selecting the PPA.

There are no federally designated protected areas (e.g., wildlife refuges, national wildlife areas, migratory bird sanctuaries and marine protected areas). Legally designated provincially-protected areas represent about 4.26 % of the Study Corridor. Since several protected areas may overlap, this

[10] Refer to the Québec Ecological Land Classification Hierarchy and the Ontario Ecological Land Classification (MFFP, 2016a; MRNFO, 2012a).

area represents the actual footprint of legally protected area in the Corridor. The proposed PPA avoids protected areas.

## F.25.14 Health, Social and Economic Context

The Study Corridor containing the PPA is located in a relatively sparsely populated sector of Québec and Ontario. It is home to less than 4% of the total population of Québec and less than 1% of that of Ontario. In Québec, the main urban areas in the Study Corridor are located within the City of Rouyn-Noranda. The City of Rouyn-Noranda is approximately 15 km from the PPA. In Ontario, urban areas are outside the Study Corridor, except Virginia Town and Kearns. Kirkland Lake is approximately 25 km away from the PPA.

Community, public and institutional services are present in the Study Corridor, as are road, rail, maritime and air transportation networks.

Municipal land-use designations, for both the Québec and Ontario portions of the Study Corridor, are mainly forestry and agroforestry. Agricultural, tourism, recreational, rural, urban and industrial designations are also found. A few regional county municipalities have dedicated portions of their territory to the natural environment preservation. Most of the Ontario portion of the Study Corridor is not subject to a municipal land-use designation.

Several areas of recreational and tourism interest are located in the Study Corridor. These include structured wildlife areas where hunting and fishing are authorized. Four controlled harvesting zones (ZEC), nine outfitting operations, a wildlife reserve and two communal wildlife areas, where fishing is permitted, have been identified. Trapping is also allowed in some of the outfitting operations.

Economic activity in the Study Corridor centers on natural resources development. Examples are mining and mineral exploration, and forestry-related industries.

## F.25.15 Federal Interests

No federally owned or administered lands are located within the Study Corridor containing the PPA, which averages about 400 m in width on unconstrained public land. The closest Crown land under federal jurisdiction is at an airport approximately 2.7 km from the PPA.

### F.25.15.1 Environmental Components

Potential changes to fish, fish habitat, and aquatic species would be primarily attributable to construction, particularly in and around watercourse crossings and water bodies. Without mitigation, changes could occur to habitat, travel and migration paths, and mortality risk. However, mitigation during construction is proven and effective, and crossing methods will be selected that are suited to the biophysical conditions of each watercourse/water body.

Construction work will result in potential changes to the habitats of migratory birds, which could extend to the operations phase. Clearing vegetation will disturb bird habitats for the duration of construction work, but after the commissioning of the natural gas transmission line, native vegetation will grow back and reclaim the majority of the habitat it occupied.

Table F.25.11 lists potential changes to federally regulated environmental components and their potential causes (if mitigation measures were not required).

**Table F.25.11: Potential Changes to Environmental Components**

| Environmental Component | Potential Change | Potential Cause |
|---|---|---|
| Fish, fish habitat, aquatic species at risk | Habitat change | Introduction of deleterious substances that could alter water quality or sediment load and type (construction work near shorelines, banks or bodies of water).<br>The trenched crossing method is anticipated to temporarily alter riparian vegetation, the stability of the beds and banks of bodies of water, and the aquatic habitat.<br>Excavation work in waterways can result in a temporary or longer-term degradation of water quality in the affected area.<br>Inputs of sediments, fluids and hydrocarbons from accidental discharges from machinery used could potentially harm fish and fish habitats.<br>Sediment deposits could also result in changes to the shoreline habitat of benthic invertebrates, a food source for fish.<br>Sampling and discharge of water used for hydrostatic tests could also impact fish and the aquatic habitat. |
| | Changes to fish travel and migration paths | Implementing structures designed to isolate the work area, when an isolated trenching method is used, could temporarily disturb fish movement patterns.<br>The presence of suspended matter in the water could contribute to changes in the movement and migration of fish. |
| | Changed mortality risk | A heightened mortality risk may be attributable to direct causes during construction on water (e.g. contact with machinery, specimen trapped by pump water intake or accidentally removed from water by construction equipment, destruction of eggs).<br>A heightened mortality risk may be attributable to indirect causes such as disturbances (e.g. noise and vibrations) or associated with the introduction of deleterious substances such as suspended sediments. |
| Migratory birds | Habitat change | Vegetation clearing activities during construction work could result in a temporary loss of bird habitat within the right-of-way and adjacent areas (sensory disturbance).<br>Vegetation control activities will be structured to maintain shrubbery and herbaceous vegetation within the permanent right-of-way, which could deprive certain forest species of their habitats while creating new habitats for other species.<br>Compressor station construction will result in loss of forest habitat.<br>Noise caused by compressor station operation could result in sensory disturbance for certain delicate species, which will avoid environments that would otherwise be theirs, which translates into a loss of habitat. |
| | Changed mortality risk | A changed mortality risk could result from direct collisions between birds and construction equipment, or the destruction of occupied nests. |

### F.25.15.2 Federal, Provincial and Foreign Lands

Gazoduq does not foresee any direct changes to the environment of federal lands, or to provincial lands other than in Ontario and Québec.

No direct harmful environmental changes are expected on foreign lands from the Gazoduq Project.

The Project will build a new natural gas transmission line connecting sources of surplus natural gas supply in Western Canada with international markets for future LNG transshipment facilities (e.g. Asia

and Europe), while potentially providing transportation services to LDCs in Northern Ontario and Québec.

Providing long-term access to Canadian natural gas at competitive prices will promote a move away from higher emitting sources of energy (e.g. coal, fuel oil, and diesel). The Project will thus have a beneficial impact on public health matters such as air quality, smog and acid rain, as well as on climate change, by contributing to a reduction of GHGs and other emissions (i.e., $SO_2$, $NO_x$, and PM), creating a positive impact that reaches beyond the Project area and even beyond Canada's borders.

### F.25.15.3 Indigenous Peoples

Gazoduq continues to seek input and feedback from potentially affected Indigenous groups regarding the potential effects of the Project on their interests in the physical environment and on the health, social and economic interests of each group.

Carrying out the Project may cause changes to the physical environment including:

- physical and cultural heritage, owing to:
    - loss or disturbance of special use zones, including sites and cultural characteristics
    - changes to the quality of experience, owing to sensory disturbance
    - other changes that may be identified by Indigenous groups
- traditional land and resource use, owing to:
    - loss or changes to harvesting methods or possibilities
    - loss or changes to the use or access of traditional harvesting areas
    - loss or changes to harvested species
    - other changes that may be identified by Indigenous groups
- any structure, site or other item of historical, archaeological, paleontological or architectural importance, owing to:
    - loss or disturbance of sites
    - illegal gathering of artifacts
    - other changes that may be identified by Indigenous groups

Carrying out the Project may cause changes to the health, social and economic conditions of Indigenous groups due to:

- the disruption of subsistence-based livelihoods
- increased demands on community services
- other changes that may be identified by Indigenous groups

Gazoduq's understanding of the Project's potential effects, including on health, social and economic conditions, will be further refined by the views and concerns of groups liable to be affected, as shared through the ongoing consultation process.

## F.25.16 Greenhouse Gas Emissions

During construction, the main source of GHG emissions will come from the combustion of diesel fuel from heavy equipment on site and from transportation activities.

During operations, the use of natural gas-powered turbines for the compressor station(s) would be the main source of GHG emissions. Based on turbine consumption data sheets and expected annual operating hours, GHG emissions can be estimated at approximately 165 kT of $CO_2$ equivalent per year, per natural gas compressor station. Natural gas purges may sometimes be required during the operation phase for maintenance and safety purposes. Fugitive emissions could also contribute to GHGs. Mitigation measures to limit these emissions will be implemented.

Gazoduq is seeking to reduce GHG emissions though effective design. The feasibility of electric power drives alternatives for compressor stations in Quebec is currently being evaluated.

A GHG emissions quantification study is currently underway for the construction and operation phases. The results will be presented in the impact assessment.

## F.25.17 Waste and Emissions

Handling and disposal of wastes will be different for hazardous and non-hazardous materials and will be done in accordance with the waste and chemicals management plan for the Project. This plan will be developed and submitted in the preliminary EPP. The preliminary EPP will be included in the Impact Statement for the Project. It will meet the requirements of all applicable legislation.

### F.25.17.1 Waste

Gazoduq is committed to carrying out its activities in an environmentally responsible manner. Consistent with this commitment, a waste and chemicals management plan will be developed and submitted in the preliminary EPP. The plan will include the following guiding principles:

- reasonable preventive measures will be taken to avoid releasing waste and hazardous material into the environment
- any release of waste or hazardous materials will be reported to the relevant authorities
- any release of waste or hazardous materials will be cleaned up in a timely manner
- waste or hazardous materials will be recycled, disposed of or transported to an authorized disposal site in accordance with all applicable legislation

Two types of waste are likely to be generated during the construction and operation of the Project, a more fully detailed below.

#### F.25.17.1.1 Non-Hazardous Solid Waste

This includes waste and debris created during activities carried out by personnel during Project construction. This non-toxic waste includes but is not limited to:

- kitchen waste
- tapes and pipe coatings
- used welding rods/welding electrodes
- abrasive sanding products
- styrofoam and plastic
- wood
- wires and cables
- survey stakes and ribbons
- used geotextile
- metal strapping

#### F.25.17.1.2 Industrial Waste

This includes waste and products generated or used during construction and to a lesser extent during operation. These materials may contain a certain amount of potentially hazardous substances, in the form of residues. They include but are not limited to:

- used oils (motor oil, transmission oil, hydraulic oil, lubricating oil, gear oil, lubricating greases)
- used oil filters

- empty grease cartridges
- used antifreeze (e.g. bottles or cans of ethylene glycol and ethylene glycol monomethyl)
- soil, vegetation and contaminated absorbent materials that may contain hydraulic fluids, gasoline, diesel or lubricating oils
- used solvents
- used batteries (e.g. car or equipment batteries)
- liquid film-processing waste
- used cleaning products and cloths used with said products

Chemicals anticipated to be used over the course of the Project include:

- battery fluids
- cleaning products
- fuels (e.g. gasoline, diesel, propane, etc.)
- lubricants (e.g. motor oil, transmission oil, hydraulic oil, gear oil, lubricating grease, etc.)
- cooling fluids (ethylene glycol, ethylene glycol monomethyl)
- paints and solvents
- film-processing chemicals
- adhesives (including epoxy- and urethane-based products) and cements

### F.25.17.2 Emissions

Given the large number of vehicles, equipment and machinery with internal combustion engines that will be deployed simultaneously, the Project construction may generate atmospheric emissions ($SO_2$, $NO_x$, and $CO_2$) and particulates. In addition, rock blasting will be conducted as part of the Project construction, resulting in temporary dust generation and GHG emissions. During the operations phase, natural gas-powered compressor stations are expected to release emissions. Increased monitoring and corrective measures will limit fugitive emissions that may occur during the operational phase.

Project construction will require equipment whose operation may involve a temporary and localised increase in noise levels. The most common noises associated with this phase will be from mobile equipment including trucks, excavators, bulldozers, generators and drilling machines. In certain situations, blasting of rock as well as the use of specialized equipment for drilling crossings may also increase local noise levels. During operation, most noise will come mainly from the compressor stations, where the main sources of noise are compressors, engines and electrical substations.

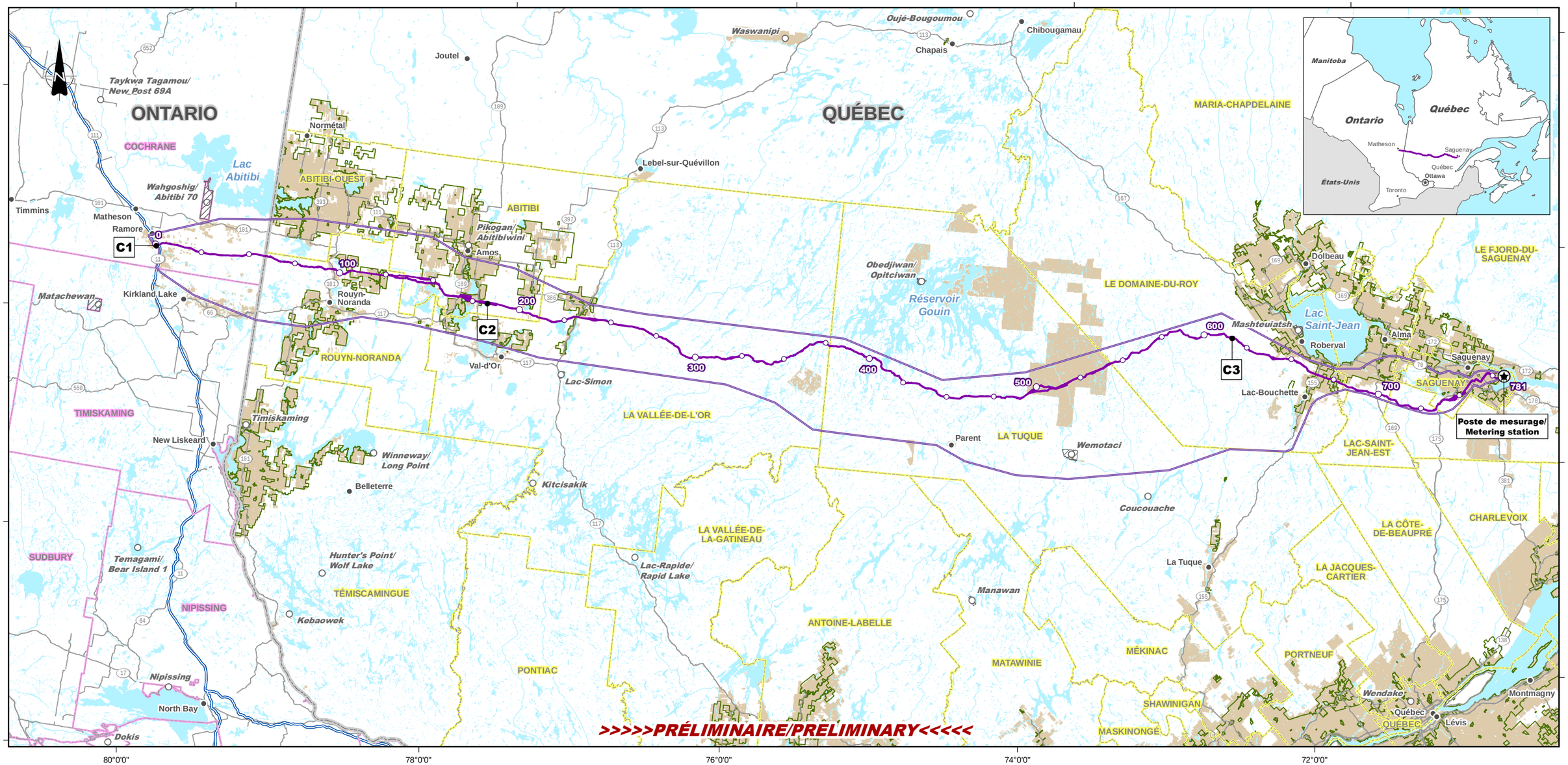
Depending on the method that will be selected, it is possible that crossing certain water bodies may result in an input of sediments. However, measures will be implemented to control this potential occurence. In general, this sediment input would be temporary and related to the duration of the construction of these crossings. No emissions in the water or soil are anticipated.

## F.25.18 Contact Information

| | |
|---|---|
| **Primary Contact** | Carolina Rinfret, Senior Director Legal and Regulatory Affairs |
| **Contact Information** | crinfret@gazoduq.com<br>438 320-2946 |

| | |
|---|---|
| **Primary Contact** | Carolina Rinfret, Senior Director Legal and Regulatory Affairs |
| **Legal Address** | 1, Place Ville-Marie, bureau 4000<br>Montréal (Québec) H3B 4M4 |

# Appendix A: Maps - Preferred Planning Area and Ecological Regions of the Corridor




## COMPOSANTES DE PROJET/ PROJECT COMPONENTS

- Corridor d'étude — Study corridor
- Zone d'aménagement privilégiée — Preferred planning area
- Poste de compression projeté (C1) — Proposed compressor station
- Point kilométrique — Kilometer point
- Complexe GNL — GNL Facility

## REPÈRES GÉOGRAPHIQUES/ GEOGRAPHICAL LANDMARKS

- Frontière — Boundary
- Limite de MRC — RCM boundary
- Limite de district — District boundary
- Municipalité — Municipality
- Communauté autochtone — Indigenous community
- Route principale — Major road
- Gazoduc existant (TC Énergie) — Existing natural gas line (TC Energy)
- Zone agricole — Agricultural area
- Terre privée — Private land

**Sources/References :**

**QUÉBEC**
MERN (SDA 20k, découpages administratifs) 2018.
MRNF (BDGA 1M, pôles d'occupation) 2010.
MRNF (BDGA 1M, hydrographie) 2010.
RNCan (BNDT 250k, hydrographie) 2004.
MDDELCC (CRHQ-BDTQ 20k, réservoirs) 2013.
MERN (Adresses Québec, réseau routier) 2018.
MERN (Registre foncier, cadastre) 2018.
CPTAQ (zone agricole) 2018.
Groupe Conseil UDA inc. (photo-interprétation d'image satellite, réseaux de gazoduc) 2018.

**ONTARIO**
OMMAH (municipal boundaries) 2012.
OMNR (DOBMP, Indian reserves) 2008.
MRNF (BDGA 1M, pôles d'occupation) 2010.
MRNF (BDGA 1M, hydrographie) 2010.
RNCan (BNDT 250k, hydrographie) 2004.
OMNRF (OHN 10k-20k-50k, reservoirs) 2011.
OMNRF (ORN, road network) 2010.
TERANET (Ontario parcelle) 2019.
Groupe Conseil UDA inc. (photo-interprétation d'image satellite, réseaux de gazoduc) 2018.

1 : 2 000 000
0 20 40 km
Québec Lambert NAD 83

gazoduq

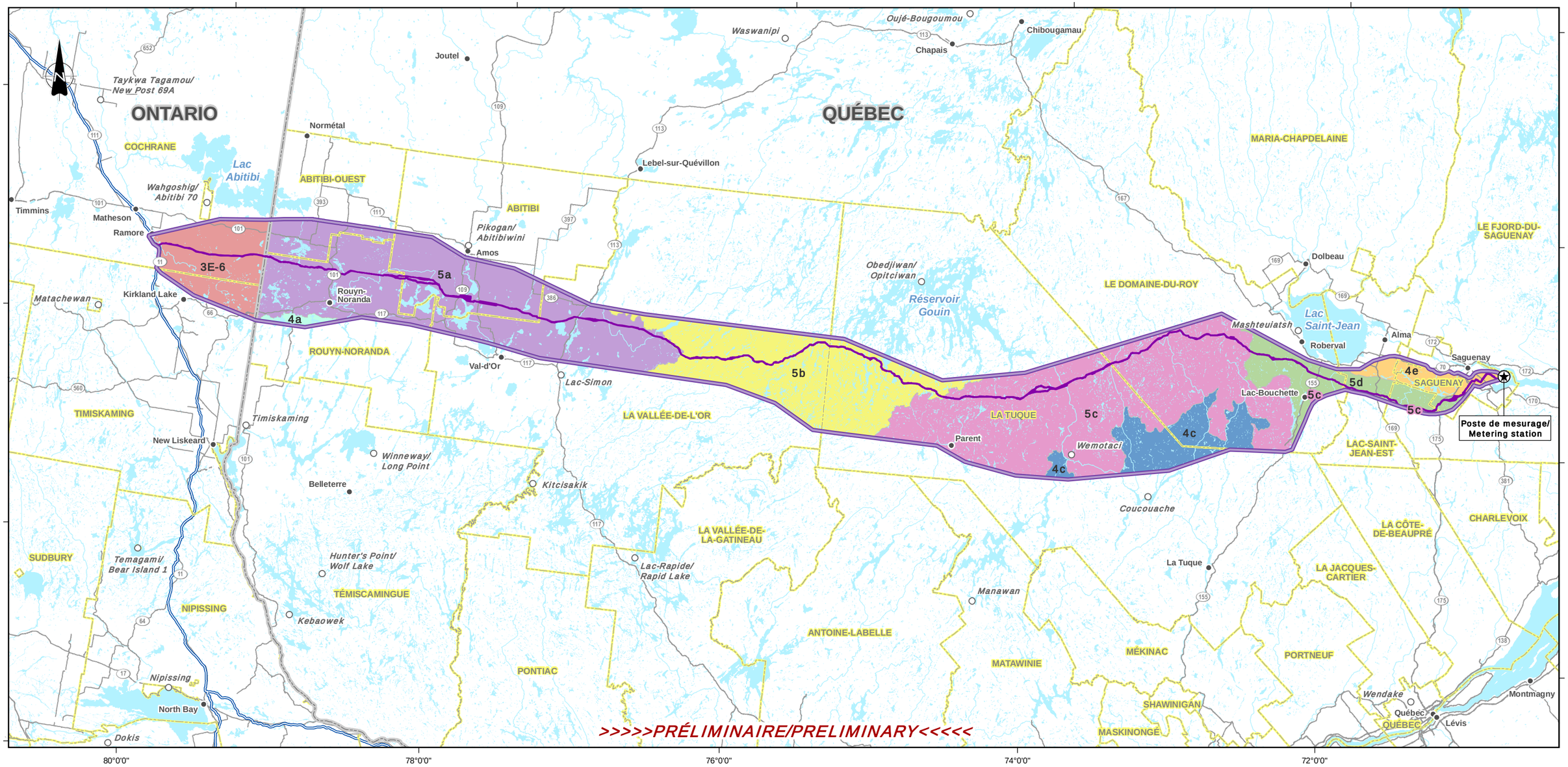
UDA AGRICULTURE · FORESTERIE ENVIRONNEMENT

# Vue d'ensemble
# Overview

| | |
|---|---|
| Directeur de projet/Project Director : Claude Veilleux, ing. & agr. | Projet/Project : 32538-450 |
| Cartographie/Cartography : Anne-Marie Marquis | Date : 2019-09-20 |



X:\Cad_Dossier_1000_999\32500\32538_GNL\ESIP\DIEES_IPD_001_VUE_ENSEMBLE_20190920.mxd




## COMPOSANTES DE PROJET/ PROJECT COMPONENTS

- Corridor d'étude — Study corridor
- Zone d'aménagement privilégiée — Preferred planning area
- Complexe GNL — GNL Facility

## REPÈRES GÉOGRAPHIQUES/ GEOGRAPHICAL LANDMARKS

- Frontière — Boundary
- Limite de MRC ou de district — RCM or district boundary
- Municipalité — Municipality
- Communauté autochtone — Indigenous community
- Route principale — Major road
- Gazoduc existant (TC Énergie) — Existing natural gas line (TC Energy)

## RÉGIONS ÉCOLOGIQUES/ECOLOGICAL REGIONS

| | | |
|---|---|---|
| Collines ceinturant le lac Saint-Jean | 5d | Hills surrounding Saint-Jean Lake |
| Collines du haut Saint-Maurice | 5c | Hills of Upper Saint-Maurice |
| Collines du moyen Saint-Maurice | 4c | Hills of the middle Saint-Maurice |
| Coteaux du réservoir Gouin | 5b | Gouin reservoir hillsides |
| Plaine de l'Abitibi | 5a | Abitibi plain |
| Plaine du lac Saint-Jean et du Saguenay | 4e | Lake Saint-Jean and Saguenay Plain |
| Plaines et coteaux du lac Simard | 4a | Plains and hillsides of Lake Simard |
| Kirkland Lake | 3E-6 | Kirkland Lake |

**Sources/References :**

**QUÉBEC**
MERN (SDA 20k, découpages administratifs) 2018.
MRNF (BDGA 1M, pôles d'occupation) 2010.
MRNF (BDGA 1M, hydrographie) 2010.
RNCan (BNDT 250k, hydrographie) 2004.
MDDELCC (CRHQ-BDTQ 20k, réservoirs) 2013.
MERN (Adresses Québec, réseau routier) 2018.
MFFP (écorégions) 2016.
Groupe Conseil UDA inc. (photo-interprétation d'image satellite, réseaux de gazoduc) 2018.

**ONTARIO**
OMMAH (municipal boundaries) 2012.
OMNR (DOBMP, Indian reserves) 2008.
MRNF (BDGA 1M, pôles d'occupation) 2010.
MRNF (BDGA 1M, hydrographie) 2010.
RNCan (BNDT 250k, hydrographie) 2004.
OMNRF (OHN 10k-20k-50k, reservoirs) 2011.
OMNRF (ORN, road network) 2010.
OMNRF (EcoDistricts) 2012.
Groupe Conseil UDA inc. (photo-interprétation d'image satellite, réseaux de gazoduc) 2018.

1 : 2 000 000
0 20 40 km
Québec Lambert NAD 83

gazoduq

UDA AGRICULTURE · FORESTERIE ENVIRONNEMENT

# Régions écologiques
# Ecological Regions

| | |
|---|---|
| Directeur de projet/Project Director : Claude Veilleux, ing. & agr. | Projet/Project : 32538-450 |
| | Date : 2019-09-23 |
| Cartographie/Cartography : Anne-Marie Marquis | 2/2 |

X:\Cad_Dossier_1000_999\32500\33000\32538_GNL\EES\PDI\EES_PD_003_ECOREGIONS_20190823.mxd

# Appendix B: Map - Indigenous Groups

*Note: La localisation de la Métis Nation of Ontario - Région 3 n'est pas illustrée sur cette carte parce que ses membres résident dans différentes localités de l'est de l'Ontario.*

ONTARIO
QUÉBEC

Kapuskasing
Timmins
Matheson
Ramore
Kirkland Lake
Normétal
Joutel
Lebel-sur-Quévillon
Amos
Rouyn-Noranda
Val-d'Or
New Liskeard
Belleterre
Chapais
Chibougamau
Lac Abitibi
Lac Evans
Lac Mistassini
Lac au Goéland
Lac Chibougamau
Lac Manouane
Lac Péribonka
Lac Saint-Jean
Lac Simard
Lac Kempt
Réservoir Gouin
Réservoir Dozois
Réservoir Cabonga
Réservoir Baskatong
Réservoir Pipmuacan
Réservoir Outardes 4
Réservoir Manicouagan
Lac Nipissing
Lac Huron (Baie Georgienne)
Abitibi
Rivière
Rivière aux Outardes
Rivière des Outaouais
Waswanipi
Mistassini
Manouane
Péribonka
Betsiamites
Gatineau
Richelieu
Saguenay
Saint-Maurice
Saint-François
Chaudière
Fleuve Saint-Laurent
Moosehead Lake
Sudbury
North Bay
Parry Sound
Pembroke
Renfrew
Arnprior
Buckingham
Hawkesbury
Lachute
Saint-Jérôme
Joliette
Tracy
Drummondville
Victoriaville
Thetford Mines
Saint-Hyacinthe
Granby
Sherbrooke
Magog
Saint-Jean-sur-Richelieu
Cornwall
Massena
Shawinigan
Trois-Rivières
Montmagny
Québec
Lévis
La Tuque
Dolbeau
Alma
Roberval
Chicoutimi
Lac-Bouchette
Parent
Baie-Comeau
Rimouski
Rivière-du-Loup
Edmundston
Caribou
Presque Isle
Millinocket
QUÉBEC
ÉTATS-UNIS

***Taykwa Tagamou Nation (New Post )***
***Flying Post First Nation***
***Wahgoshig First Nation***
***Matachewan First Nation***
***Mattagami First Nation***
***Beaverhouse***
***Timiskaming First Nation***
***Long Point First Nation (Winneway)***
***Temagami First Nation***
***Wolf Lake First Nation (Hunter's Point)***
***Kebaowek First Nation (Kipawa)***
***Cree First Nation of Waswanipi***
***Cree Nation of Mistissini***
***Oujé-Bougoumou Cree Nation***
***Conseil de la Première Nation Abitibiwinni (Pikogan)***
***Conseil de la Nation Anishnabe de Lac Simon***
***Communauté anicinape de Kitcisakik***
***Algonquins of Barriere Lake (Rapid Lake)***
***Conseil des Atikamekw de Manawan***
***Kitigan Zibi Anishinabeg***
***Conseil des Atikamekw d'Opitciwan***
***Conseil des Atikamekw de Wemotaci***
***Première Nation des Pekuakamiulnuatsh (Mashteuiatsh)***
***Nation huronne-wendat (Wendake)***
***Première Nation des Innus de Pessamit***
***Première Nation des Innus de Essipiunnuat (Essipit)***

**Carte/Map 1.0**

**Groupes autochtones**
**Indigenous Groups**

***>>>PRÉLIMINAIRE/PRELIMINARY<<<***

1 : 1 250 000
0 12.5 25 km
Québec Lambert NAD 83

| | |
|---|---|
| Directeur de projet/Project Director : Claude Veilleux, ing. & agr. | Projet/ Project : 32538-A1001 |
| Cartographie/Cartography : Anne-Marie Marquis | Date : 2019-09-10 |

**COMPOSANTES DE PROJET/PROJECT COMPONENTS**

| | |
|---|---|
| Corridor d'étude | Study corridor |
| Zone d'aménagement privilégiée (400 m) | Preferred planning area (400 m) |
| Complexe GNL | GNL Facility |
| Poste de compression | Compressor station |

**REPÈRES GÉOGRAPHIQUES/GEOGRAPHICAL LANDMARKS**

| | |
|---|---|
| Frontière internationale | International boundary |
| Frontière provinciale | Provincial boundary |
| Localité | Locality |
| Route | Road |
| Gazoduc existant | Existing natural gas line |
| Groupe autochtone | Indigenous group |

**Sources/References :**

MERN (SDA 20k, découpages administratifs) 2018.
MNR (DOBMP, Indian reserves) 2008.
MRNF (BDGA 1M, hydrographie, localités et réseau routier) 2010.
Groupe Conseil UDA inc. (photo-interprétation d'image satellite, réseaux de gazoduc) 2018.

X:\Cad_Dossier_1000_9999\32500\33000\32538_GNL\AUTOCHTONE\AUT_ca030_GROUPES_AUTOCHTONES_20190910.mxd