



Natural Resources
Canada

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Sent via email: Stephen.bonnell@canada.ca

RE: Potential Regional Assessment St. Lawrence River

Thank you for meeting with Natural Resources Canada (NRCan) on Monday February 22, 2021. In this letter we are responding to the questions about the need/rationale for a Regional Assessment of St. Lawrence River from the presentation IAAC provided at that meeting.

Attached is an annex with NRCan's detailed response. In summary, we emphasize that - given current uncertainty in global economic markets, climate, and technology - a safe, efficient and sustainable Seaway is a regional issue that is important for the competitiveness of Canada's natural resources sector. While NRCan has not identified science or technical issues within our department's mandate that could only be effectively addressed through Regional Assessment, we support the goal of addressing such issues outside the scope of project-level impact assessment.

If other federal departments do identify fishery, navigation or other areas of focus for a regional assessment, NRCan could provide supporting information and knowledge related to groundwater, forestry, coastal processes, and economic impacts from future development scenarios.

If you have any questions, please do not hesitate to contact me at John.Clarke@canada.ca

Sincerely,

<Original signed by>

John Clarke
Director, Impact Assessment Division
Office of the Chief Scientist

Enclosure: Annex 1 – NRCan's Input on Need / Rationale for a Regional Assessment Potential Regional Assessment of the St. Lawrence River



Annex 1 – NRCan’s Input on Need / Rational for a Regional Assessment Potential Regional Assessment of the St. Lawrence River

1. Project-level challenges that could these be better addressed through regional- approach

NRCan has been involved in the following projects under the *Canadian Environmental Assessment Act 2012* on the St. Lawrence River:

- Laurentia Project: Port of Quebec Deep-Water Wharf (Quebec Port Authority)
- Contrecoeur Port Terminal Expansion Project (Montreal Port Authority)
- Trois-Rivières Port Facilities Expansion Project (Trois-Rivières Port Authority)

NRCan has provided specialist or expert information or knowledge on geology, groundwater, geological hazards and the manufacturing and storage of explosives. Within the scope of these areas of technical expertise, these projects did not raise project-level challenges that could be better addressed through a regional approach.

Although not on the St. Lawrence River, NRCan has also been involved with the Énergie Saguenay Project (GNL Quebec), on the Saguenay River, and the associated Gazoduq Project (Gazoduq Inc.) which would terminate at the proposed liquefied natural gas (LNG) export facility on the Saguenay River. The joint projects would support market diversification objectives for Canada’s natural gas sector, would be one of the lowest emitting LNG facilities in the world, and would aim to support global energy security and decarbonisation through displacement of higher emitting fuels. The Gazoduq Project differs from the others, in that it is an assessment under the *Impact Assessment Act*. As such, the proponent’s Impact Statement is expected to address impacts on both economic and social valued components (for example, see *Gazoduq Project TISGs, s. 17*).

To the extent that there are future potential Impact Assessments projects along the St. Lawrence, proponents, other stakeholders, and Indigenous Communities may benefit from having a regional perspective on economic benefits and risks from multiple proposed projects.

2. Regional issues that could help position future project assessments

A regional issue that could help position future projects is understanding the economic importance of the ports for transporting natural resources as the St. Lawrence Seaway is an important regional gateway for several natural resource commodities. It is also a source of economic activity, supporting more than 93,000 jobs and generating \$16.8 billion in revenues in Canada and the United States. The Seaway is strategic for the movement of bulk commodities such as grain and steel products. These commodities are



often high volume and low margin, with fee increases and other marginal costs causing a relatively more significant impact.

NRCan understands that, in response to consultation with Transport Canada relating to a review of existing contracts for the operation and maintenance of the Seaway, industry raised the importance of investing in commercial and economic development; maintaining fees competitive with rail; updating permissible navigation capabilities; reinvesting to improve current docks; and prioritizing vessels that optimize loads and reduce environmental impacts.

Quebec has a wide variety of natural resources, including mining resources. A large part of the economic activity revolves around these resources. (see [Plan d'action nordique 2020-2023](#)). It also has a strong potential in critical and strategic minerals that could meet new needs related to new technologies in the fields of aviation, telecommunications, renewable energies, energy storage and transport electrification (Source: [Plan québécois de valorisation des minéraux critiques et stratégiques 2020-2025](#)). Although the largest mineral port in North America is located in Sept-Îles (Source: [Port de Sept-Îles-rapport annuel](#)) and outside the St. Lawrence regional assessment area, it is envisaged that other strategic ports in Quebec could play a role in preserving Quebec's economic interests by promoting the export of products containing critical and strategic minerals (Source: [Plan québécois de valorisation des minéraux critiques et stratégiques 2020-2025](#)). Ports on the St. Lawrence River also play a key role in the transportation and export of lumber from Quebec's sustainably-managed forests.

If there is a Regional Assessment of the St. Lawrence River, NRCan suggests that consideration be given to looking at adjacent areas to address related regional issues such as groundwater and watershed health, that may be raised through future project-level assessments .

- **Groundwater** – Groundwater can contribute significantly to surface water flow and, in dry periods, the flow of some streams may be supplied entirely by groundwater. A regional assessment could provide insight on the characteristics of subsurface formations and their effect on the quantity and quality of surface water, including predicting the effects of climate change on river levels, which would be important information for project-level assessments on the river.
- **Watershed health** - Important components of biodiversity / forest ecosystems could be better assessed at a regional level. A regional assessment could also assess the sensitivity of the coast to climate conditions, and include mapping of shore-zone morphology, materials, hazards, and processes and their rates of change for project-level assessments. Sea-level projections that take local conditions into account and show variable sea-level change in different locations.



3. Studies/initiatives (completed, underway, planned) that may be applicable to a regional assessment?

NRCan is currently involved with two projects with other Federal Authorities and provincial partners through researchers at the Canadian Forest Services:

- ***Lake St-Pierre Living Laboratory (NRCan, ECCC, AAFC and provincial partners)***

Based on preliminary consultations with (mostly agriculture) producers and stakeholders in the region, the priority research themes will be good management practices for rivers, riparian zones and hydro-agricultural infrastructures; cover cropping practices; animal feeding and manure management practices. The Lake St-Pierre region will be the cradle of this living laboratory, which will gradually be established during the 2020-2023 period. Mobilization and co-creation workshops will begin the process, followed by the start of on-farm trials and a detailed characterization of the current state of ecosystem health. NRCan-CFS is focusing on the soil health aspect of the project, and more specifically the contribution of trees to soil health (agroforestry, riparian areas) and the potential impact on water quality, working closely together with ECCC. More information about the Living Lab initiative here: <https://www.agr.gc.ca/eng/scientific-collaboration-and-research-in-agriculture/living-laboratories-initiative/?id=1551383721157>

- ***Pôle d'expertise multidisciplinaire en gestion durable du littoral du Lac St-Pierre***

This is a research initiative funded by the Quebec Ministère de l'Environnement et de la lutte contre les changements climatiques (MELCC), the Ministère de l'agriculture et de l'alimentation du Québec (MAPAQ) and the Ministère des forêts, de la faune et des parcs (MFFP). The Pole's mandate is to propose an intervention strategy in the littoral zone promoting the establishment of sustainable agriculture, adapted and respectful of the ecosystem of Lake Saint-Pierre and supporting the restoration of priority environments.

NRCan was involved with the following work that was undertaken with provincial partners, academics through researchers at the Geological Survey of Canada:

- ***Projets d'acquisition de connaissances sur les eaux souterraines – Montérégie Est, Chaudière-Appalaches and Mauricie (2009-2015)***

These three research projects were carried out as part of Quebec's program to improve knowledge of groundwater (PACES) of the Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC) of Quebec. The PACES program seeks to provide a realistic overview of the groundwater resources of southern Quebec municipal areas through data collection, fieldwork, data analysis and interpretation and conceptual and numerical modelling. The ultimate goal of this program is to ensure the protection of the resource for the future.

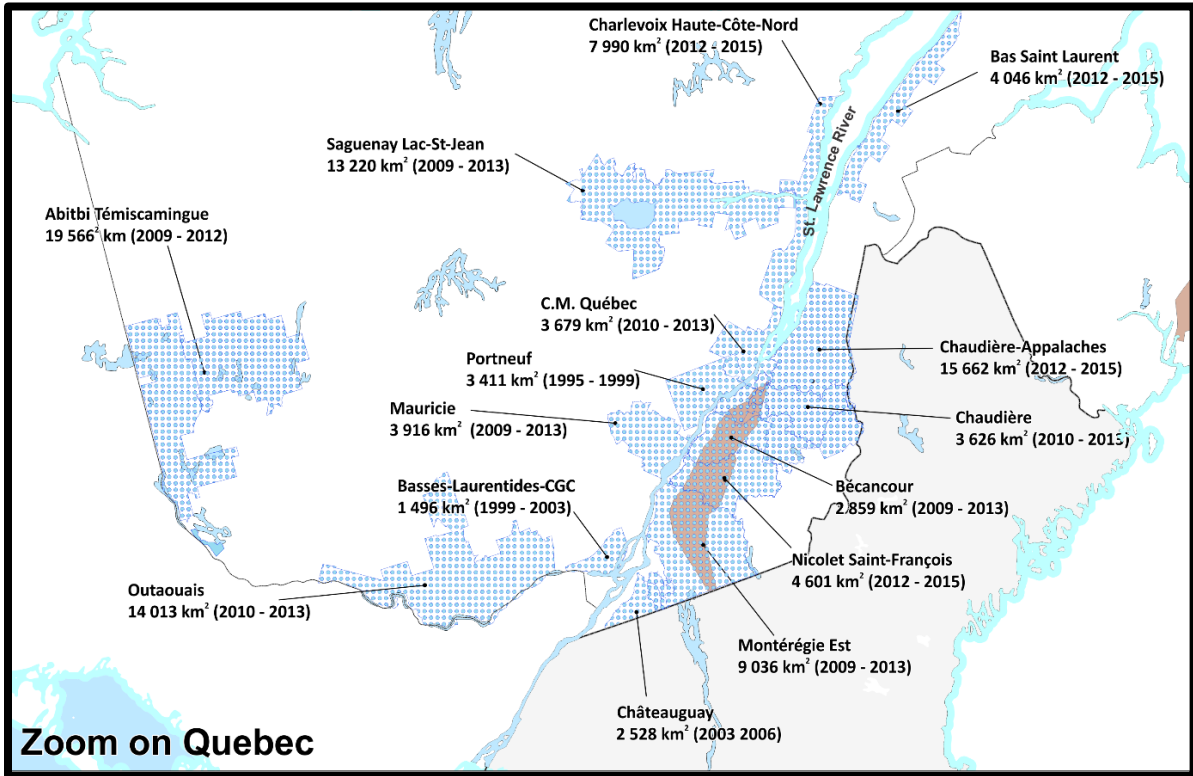


Figure 1: Hydrogeological characterization projects carried out in the province of Quebec before 2015, including the three PACES projects in which the GSC-Quebec has participated in recent years