



Safe Environments Directorate
Healthy Environments and Consumer Safety Branch
Health Canada

March 31, 2021

Stephen Bonnell
Manager, Strategic and Regional Assessments,
Impact Assessment Agency of Canada

Subject: Health Canada's Preliminary Input on Information that may be of Relevance to The Potential Regional Assessment of the Saint Lawrence River Area under the Impact Assessment Act

Dear Stephen Bonnell,

Thank you for your email from January 22, 2021, requesting input from Health Canada on four considerations to help inform the analysis and recommendation to the Minister on a potential regional assessment of the Saint Lawrence River under the Impact Assessment Act (IAA).

Health Canada participates in regional assessments as a federal authority under the IAA, and has coordinated with Indigenous Services Canada's First Nations and Inuit Health Branch (ISC-FNIHB) to provide the response herein. Should the Agency determine that the regional assessment will proceed and may include human health-related considerations, Health Canada, ISC-FNIHB and the Public Health Agency of Canada can provide expertise on issues within their mandates and federal jurisdiction, upon request.

Should you have any questions concerning Health Canada's response, please contact the undersigned.

Sincerely,

<Original signed by>

Suzanne Leppinen
Director, Chemicals and Environmental Health Management Bureau,
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- Cc: Isabella Chan, Assistant Deputy Minister, Healthy Environments and Consumer Safety Branch, Health Canada
- Cc: David Morin, Director General, Safe Environments Directorate, Healthy Environments and Consumer Safety Branch, Health Canada
- Cc: Denise MacGillivray, Director General, Environmental Health and Pesticides Directorate, Regulatory Operations and Enforcement Branch, Health Canada
- Cc: Jennifer Mercer, Director, Environmental Public Health Division, First Nations and Inuit Health Branch, Indigenous Services Canada
- Cc: Chantal Roberge, Director, Environmental Health and Internationally Protected Persons Programs, Regulatory Operations and Enforcement Branch, Health Canada
- Cc: Kathleen Buset, Manager, Chemicals and Environmental Health Management Bureau, Healthy Environments and Consumer Safety Branch, Health Canada

Attachment: Health Canada's preliminary input on information that may be of relevance to the potential Regional Assessment of the Saint Lawrence River Area under the Impact Assessment Act

HEALTH CANADA'S PRELIMINARY INPUT ON INFORMATION THAT MAY BE OF RELEVANCE TO THE POTENTIAL REGIONAL ASSESSMENT OF THE SAINT LAWRENCE RIVER AREA UNDER THE IMPACT ASSESSMENT ACT

1) Does Health Canada have information on key issues and concerns that are raised regularly through project-level environmental / impact assessments in this region?

Several project-level environmental assessments (EA) under the *Canadian Environmental Assessment Act*, 2012 (CEAA 2012) have occurred in the region. A project-level impact assessment (IA) has yet to advance past the planning phase under the IAA in Quebec. The following information summarizes the key issues and concerns raised on three recent EAs near the Saint Lawrence River within the mandate area of Health Canada that may have implications for the potential regional assessment.

Traditional/Country foods

Several Indigenous groups (e.g., Mohawks, Abenakis, Nation Huronne Wendat) have raised concerns over the capacity of the Saint Lawrence River and its ecosystem to support future projects. These concerns relate to reduced access to and abundance of country foods, including avoidance of resources due to perceived contamination and consumption advisories. Evidence shows that country food consumption improves **diet quality and food security** (AFN, 2007; Chan et al., 2019). These dietary changes can lead to negative health effects (e.g., chronic disease such as diabetes, heart disease).

"The cumulative ecological impacts on the Saint Lawrence River, including the major impacts of the shipping industry, have left the Mohawks of Kahnawà:ke with a depleted River ecosystem and restricted access to the resources that support our culture and way of life" (MCK, 2019).

The Mohawk Council of *Kahnawà:ke* (MCK) is concerned about **potential contamination** of aquatic species that may result from sediment dredging activities undertaken as part of the proposed Contrecoeur Port Terminal Expansion project. Furthermore, many First Nations brought forth concerns over contamination of country foods from accidents and malfunctions (i.e., spills) in the river in the context of the Marine Terminal Project on the north shore of the Saguenay, the Énergie Saguenay Project, and the Laurentia Project EAs. As maritime traffic is not considered in its totality (but rather in project-related increases), Indigenous groups have expressed concern that the increased risk of accidents and malfunctions, and their true magnitude and extent, is inadequately captured and evaluated through project-specific EAs/IAs.

"Harvesters expect high quality meat, fish, and water, and suspicions of contamination are generally met with significantly reduced traditional land use of an area, until the harvesters themselves see signs of recovery. We also require healthy fish and wildlife populations that can be reliably and sustainably harvested. Today, it is extremely difficult to find fish and game in the places, and in the quantities that would allow us to support our families with safe, healthy foods" (MCK, 2020).

Finally, the MCK highlighted issues related to **food sovereignty** in the context of the Contrecoeur and Laurentia projects. In the case of the Laurentia Project, the MCK have expressed serious concerns about the cumulative effects on migratory fish, which would interfere with their harvesting and stewardships rights. The Grand Conseil de la Nation Waban-Aki has also expressed concerns

regarding impacts on fishing practices. Some Indigenous communities depend on the river for subsistence or economic activity (e.g., Pessamit Innus – Laurentia Project).

“Food sovereignty expands on the notion of food security (having enough food to eat), by including the abilities and responsibilities of Indigenous communities to make decisions about their food systems and through food, to practice relationship to territory” (MCK, 2019).

2) Are there issues that have proven challenging to address at the project level or through other existing management and regulatory processes? Could these be better addressed through a more proactive, regional-scale analysis and planning approach? Would an RA help position future project assessments to better deal with regional issues, such as cumulative effects, or provide other possible benefits and efficiencies?

Health Canada is not involved in any management or regulatory processes related to human health specifically targeting the Saint Lawrence River’s vicinity.

Traditional/Country Foods

Health Canada notes there is currently very little data outside of a few individual projects on baseline levels of contaminants in surface waters, sediments and country foods commonly consumed by Indigenous peoples in the region. The State of the St. Lawrence Monitoring Program¹ “report[s] regularly on the state of the St. Lawrence and how it is changing”, including levels of certain contaminants in water, sediments and fish, but the risks to human health from exposure to these contaminants through consumption are not assessed. The provincial *Guide de consommation du poisson de pêche sportive en eau douce*² provides guidance on fish consumption rates related to mercury.

Air Quality

The scope of individual project EAs typically excludes certain emission sources that may contribute to effects on human health. For instance, the evaluation of human health effects from an individual project does not typically consider off-site rail, maritime and truck transport, which may be impacted by project-related activities. Additionally, certain contaminants emitted by project activities can travel over many kilometers and the ambient levels of pollutants will be impacted by contaminants from other sources, increasing risks to human health further from the project. For example, a proposed port expansion may result in increased truck or rail traffic through the community to and from the port, thereby contributing to the cumulative air quality effects on the community. A regional assessment could help identify zones where local contaminant levels are more likely to be elevated and collect baseline data for use in future project EAs/IAs.

Determinants of Health Approach

Project-specific EAs rarely consider a holistic view of the environment and the relation to human health, which often doesn’t align with Indigenous views of the connection between all living things.

¹ Available at: <https://www.planstlaurent.qc.ca/en/developing-knowledge/state-st-lawrence-monitoring-program>

² Available at: <https://www.environnement.gouv.qc.ca/eau/guide/complement.htm#bpc-ddt>

For example, little knowledge exists on the perception of country food contamination and the resulting effect on traditional ways of life, nutrition and food security.

Of relevance to the St. Lawrence region, the MCK mention that the basis of their approach to EA is *The Ohenrton Karihwaterhkwen* “because it outlines the roles and responsibilities of all of the components of the natural world, including humans. [...] In all environmental decision-making, we consider the principle of the Seven Generations” (MCK, 2019).

The Grand Conseil de la Nation Waban-Aki specify that:

“Land use for food, ceremony or social purposes is linked to a much broader and more complex occupation of territory that can include contemplation and recreational activities. For many, fishing is not just about harvesting and using the resource for dietary purposes, it is largely about being well on the land” (translated from GCNWA, 2019).

A detailed health impact assessment (HIA) could be used to integrate a broad spectrum of determinants of health as part of a regional assessment, reflective of a holistic view of health and environment. Applying an HIA in a regional assessment is not limited to the health determinants directly tied to a specific project and can be used to study broader community concerns regarding health. This methodology is able to consider the potential positive and adverse effects on social, economic and health conditions in addition to the environmental (biophysical) conditions typically included in an EA. An HIA emphasizes that physical, mental, and social well-being is determined by a broad range of conditions, or factors, from all sectors of society known as the determinants of health. The HIA would also be able to incorporate Gender-based Analysis Plus to reflect how regional activities can affect subgroups of the population in different ways.

3) Has Health Canada completed studies/initiatives in this region that may be applicable to a regional assessment (e.g., water quality, air quality, contamination in food sources, etc.)? If so, are there reports/results/summaries that can be shared with the Agency?

Health Canada has relatively limited resources to develop new information or programs in support of regional assessments under the IAA. Nevertheless, Health Canada participates in a variety of research initiatives where publications may be available or forthcoming. The following existing programs or initiatives may yield specialist or expert information or knowledge relevant to a regional assessment in the Saint Lawrence River area:

- Health Canada assesses the health impacts of air pollution. These assessments generally focus on fine particulate matter, nitrogen dioxide, ground ozone, sulfur dioxide and carbon monoxide. Results can be extracted for individual census divisions, including Montreal, Laval, Quebec and others near the Saint Lawrence River. Examples of publications containing these results include:
 - Health Impacts of Air Pollution in Canada: Estimates of premature deaths and nonfatal outcomes, 2021 Report
<http://publications.gc.ca/site/eng/9.874080/publication.html>
 - Human health risk assessment for diesel exhaust
<http://publications.gc.ca/site/eng/9.810907/publication.html>



- Human health risk assessment for gasoline exhaust
<http://publications.gc.ca/site/fra/9.846459/publication.html>
- Health Canada collaborated on the First Nations Food, Nutrition and Environment Study (2008-2018) research project led by Indigenous Services Canada. The Quebec regional report indicates high mercury levels in samples of hair taken from participants in the Taiga and Boreal Shield ecozones, the latter lying along the Saint Lawrence River, and with consumption of fish (walleye, pike, and lake trout) being the probable source of this exposure.
 - http://www.fnfnes.ca/docs/FNFNES_Quebec_Regional_Report_ENGLISH_2019-06-18.pdf
- Health Canada collaborated with Statistics Canada to collect and interpret information with a focus on nutrition and food insecurity in the 2004 and 2015 Canadian Community Health Surveys, which can be accessed at the provincial level.
 - Nutrition:
<https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=201486>
 - Household food insecurity: <https://www150.statcan.gc.ca/n1/pub/82-625-x/2020001/article/00001-eng.htm>
- Health Canada participated in the 2011-2016 Saint Lawrence Action Plan by sitting on two committees.

Further review of research completed by Health Canada since 2010 may yield additional information, should this regional assessment proceed.

4) Similarly, is Health Canada currently conducting / planning to conduct studies/initiatives in this region that may be applicable to a regional assessment? If so, can scope/objectives/preliminary findings be shared with the Agency?

An initial scan of internal subject matter expert groups identified the following existing or future studies or initiatives that may be directly relevant to the Saint Lawrence River area:

- Health Canada's HealthADAPT initiative funds climate change and health vulnerability and adaptation assessments in the region as follows:
 - *Institut national de santé publique du Québec's* regional assessment of population vulnerabilities to natural hazards impacted by climate change, and tailored adaptation plans, in 13 participating regions; and,
 - *Centre intégré de santé et services sociaux* assessment of health system capacity in two pilot regions (Chaudière-Appalaches and Bas Saint Laurent) related to mental health and psychosocial well-being impacts on populations exposed to extreme climate events.
- Health Canada is currently working on the following studies related to ambient air quality and health:
 - Analyzing air pollution health impacts associated with specific sources of air pollutant emissions, with estimates by census division expected in 2021-22;
 - Deriving region-specific and sector-specific estimates of the health and societal costs associated with an incremental tonne of air pollutant emissions originating from a sector source or a geographic region, with results expected in 2021-22; and
 - Quebec Air Pollution Exposure and Epidemiology (QAPEE) study.



- Health Canada is collaborating on the First Nations Food Environmental Health and Nutrition for Children and Youth (2020-2030) research project led by Indigenous Services Canada (implementation delayed until community engagement can safely resume).
- Health Canada's Impact Assessment Research Fund provides annual funding for expert groups internal to the Department (and their partners) to address knowledge gaps and support novel scientific efforts that contribute to the health-related knowledge and expertise provided to reviewing bodies during IA processes. The following research projects are currently underway and anticipated to yield information in 2021 and 2022:
 - Assessment of the relative contribution of traditional food consumption to nutrition, contaminant exposures and related health outcomes of First Nation children and youth in Canada;
 - Master database of mercury and methylmercury levels in top country foods contributing to mercury exposure among Indigenous communities; and,
 - A national survey on attitudes toward environmental noise in rural and non-rural areas among 5,000 Indigenous and non-Indigenous participants.
- ISC-FNIHB's Community-based First Nations Environmental Contaminants Program (FNECP) is currently funding the Mohawk Council of Kanasatake to assess potential environmental pollution from off-site sources and associated health effects within their community.

REFERENCES

ASSEMBLY OF FIRST NATIONS (AFN), March 2007. *Traditional Foods: Are they Safe for First Nations Consumption?* Available at https://www.afn.ca/uploads/files/rp-traditional_foods_safety_paper_final.pdf.

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MOHAWK COUNCIL OF KAHNAWAKE (MCK), July 29 2020. Letter posted to the Minister of Environment and Climate Change by Chief Ross Montour, Mohawk Council of Kahnawà:ke. *Re Request for a Region Impact Assessment – St. Lawrence River*. 13 p.

MOHAWK COUNCIL OF KAHNAWAKE (MCK), August 26 2019. Letter posted to the IAAC registry for the Contrecoeur Port Terminal Expansion Project, titled: *Re : Impacts of the proposed Contrecoeur terminal expansion project on the exercise of inherent and Section 35(1) rights of the Mohawks of Kahnawà:ke*. 21 p.