Summary of Issues Raised – Sorel-Tracy Port Terminal Project

This document provides an overall summary of the issues raised by the public, federal authorities, and Indigenous peoples during the public consultation period from September 26, 2022, to October 17, 2022, on the Sorel-Tracy Port Terminal Project (the project), specifically at the public consultations on the Initial Project Description, submitted by QSL International Ltd (the proponent). The issues raised highlight the need for information to support the Impact Assessment Agency of Canada (the Agency) decision on whether an impact assessment is required under section 16 of the *Impact Assessment Act*. If an assessment is deemed necessary, these issues are also intended to guide the development of the preparatory phase documents and a more in-depth assessment. Details regarding the issues raised below are available in the original comments posted on the Canadian Impact Assessment Registry (reference number 83969).

Accidents and Malfunctions
Information is needed on potential accident and malfunction scenarios that could result in the release of contaminants into the surrounding environment and cause environmental degradation.
Details are needed on the risk assessment and description of potential environmental and human health effects for each potential accident and malfunction (ammonium nitrate storage, ship collisions, oil spills, etc.).
Clarification is needed on mitigation and prevention measures, as well as the contingency plan to minimize the risks and impacts of accidents and malfunctions.
Some concerns exist about the ability of a floating dock to withstand the impact of berthing vessels with high loading capacities, ice movement, and annual water level variations.
Gender-Based Analysis Plus
Disaggregated information,[1] including from a cumulative effects perspective, is needed to understand how the project may differentially affect the health of women, children, and other groups historically excluded from impact assessments, or groups vulnerable to the adverse effects of a port terminal project, such as populations near the project, young or elderly populations, or project employees. Information is needed on mitigation measures for these effects.

[1] "The Importance of Disaggregated Data": https://www.nccih.ca/docs/context/FS-ImportanceDisaggregatedData-EN.pdf

There is a need for more gender-based analysis to understand how the project might generate different health impacts for different groups of people and how to target mitigation more effectively.
It is important to provide, where available, statistics on the number of jobs, employment rates, labour force participation rates, and unemployment rates for members of groups underrepresented in the local labour market, such as women, Indigenous people, youth, visible minorities, immigrants, and people with disabilities.
Information is needed on specific initiatives for hiring, recruiting, and retaining a diverse and regional workforce that includes members of groups underrepresented in the labour market.
Climate Change and Greenhouse Gas Emissions
There is a need to obtain the information requested in the Strategic Assessment of Climate Change guide while respecting the project's scope as determined by the Impact Assessment Agency of Canada.
Clarification is needed on the calculation that led the proponent to conclude that net GHG emissions in the operational phase would be reduced compared to the current situation, mainly due to the reduction in the waiting time of ships off shore.
Information is needed on the options, besides the construction of the proposed port terminal, that the proponent is exploring to reduce GHGs emitted by waiting ships.
There are concerns about the merits of the project in the fight against climate change.
Health Conditions, Human Health, and Well-Being
There are concerns about the project's impact on nearby sensitive receptors (e.g., seniors' residences, homes).
Information is needed on the substances potentially involved in accidents and malfunctions (e.g., accidental spills) or resuspension of contaminated sediments, as well as on their environmental fate (including bioaccumulation potential) and health consequences.
Information is needed on the noise impacts of the project (construction and operations) on human health.
Information is needed on potential cumulative effects on the noise environment and subsequent impacts on human health due to the project, nearby facilities, and other anticipated projects in the area.

Information is needed on the mitigation measures that will be taken to minimize the impact on the noise environment during all phases of the project.
Information is needed on the potential accumulation of contaminants released by the project into traditional[2] foods consumed by Indigenous and non-Indigenous people, and their potential health effects.
It is important to bear in mind that, in assessing health impacts, potential changes to health, social, or economic conditions may be distributed differentially among different groups of people (e.g., men vs. women, Indigenous vs. non-Indigenous, skilled vs. unskilled workers, youth vs. seniors).
Information is needed on the location of potential permanent, temporary, and seasonal sensitive human receptors and their distance from project elements that could affect them.
Information needed on the baseline for ambient air quality. There is a need to identify and quantify emission sources for the following contaminants: nitrogen dioxide, sulphur dioxide, dust (total suspended particulate matter), PM^{10}, $PM^{2.5}$, carbon monoxide, ozone, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and any other substances that may be released.
A comparison between the baseline air quality and Canadian Ambient Air Quality Standards (CAAQS) is required.
Information is needed on the air quality assessment for the project's construction and operations phases, the results of air contaminant dispersion modelling, the inventory of all equipment, the complete list of substances and air pollutants that will be generated by the project, as well as on best management practices for contaminant and mitigation measures.
Information is needed on the assessment of health impacts due to air emissions from the project.
Information is needed on potential cumulative air quality effects and subsequent impacts on human health due to the project, nearby facilities, and other anticipated projects in the area.
Information is needed on how the effects on the health and well-being of Indigenous and non-Indigenous peoples will be addressed, and how these effects can be minimized.

[2] Foods that have been trapped, fished, hunted, harvested, or grown for subsistence or medicinal purposes.

Information is needed on the safety measures planned for the well-being of the population, including users of the bicycle network.
There are concerns about the environmental nuisance (noise, contaminant emissions, light, etc.) generated by vessels waiting in anchorage areas located near residential areas.
There are concerns about the nuisances (noise, contaminant emissions, risk of accidents, deterioration of road conditions, conflicts between road users, etc.) generated by the project-related road traffic that may affect the residential and recreational environments located near the project.
Information is needed on the analyses or studies that have been or will be conducted to assess the project's impact on road traffic (truck routes, impacts on road infrastructure, etc.).
Information is needed on the planned terminal's hours of operation.
Socio-Economic Conditions
It is important to consult with a representative and diverse range of population subgroups (or organizations representing them) to ensure that all important issues have been identified, and to take into account community concerns regarding environmental, socio-economic, and social impacts (e.g., housing needs, impacts on tourism activities, distribution of economic benefits, social cohesion, racism, etc.).
Information is needed on the project's potential effects on recreational and tourism activities.
Information is needed on the number of full-time, part-time, permanent, temporary, and contract jobs that would be created, as well as the number of indirect jobs.
Conflicts Over Use and Operational Safety Issues
There are concerns that the proposed dock could impede Kildair Service ULC's ability to ensure the safe operation of its petroleum terminal and the safe navigation of vessels docking at or departing from its dock (increased vessel traffic, including berthing, navigation, and anchoring in the immediate area of the existing Kildair Service ULC dock; impacts related to the fact that the proposed dock would be longer than the existing Kildair Service ULC dock; sufficient space to accommodate and maneuver large vessels simultaneously at the proposed dock and the existing Kildair Service ULC dock).
Clarification is needed on the impact of the relocation or extension of the proposed dock on the validity of the pilots' recommendations contained in the Simulation and Marine Expertise Centre simulation report. There are questions about the need for a new simulation.

Clarification is needed on how a vessel berthed at the proposed dock would position its moorings to avoid potential encroachment on Kildair Service ULC property and entanglements with moorings of vessels berthed at the Kildair Service ULC dock.
There are concerns that the construction of a dock extending further into the St. Lawrence River than the existing Kildair Service ULC dock could result in an accumulation of ice between the two docks, thereby hindering the ability of vessels to maneuver, particularly berthing and disembarking from the existing Kildair Service ULC dock.
Clarification is needed on the mooring line schematic of the proposed dock and the process by which the mooring lines will be brought to the bollards.
Clarification is needed on the management of the floating docks during the three-month period per year when these docks would not be in operation (barges left in place or moved), as well as on the impact of ice build-up and movement at the existing Kildair Service ULC dock during this period.
Details are needed on the time and infrastructure required to bring the proposed dock into service each spring and to shut it down at the end of each year, as well as the impact of these operations on operations at the existing Kildair Service ULC dock.
Clarification is needed on the priority of vessel movements in situations where two vessels are scheduled to move at the same time at both the existing Kildair Service ULC dock and the proposed dock.
There are concerns about the capacity of the city of Sorel-Tracy’s infrastructure to accommodate the heavy truck traffic that the project would generate.
There are concerns that some trucks are currently not following the route prescribed under the regulations.
There are concerns about project-related traffic increases on rue Industrielle, rue Joseph Simard, and Route 132, and the capacity of these roads to accommodate this increase.
There are questions as to whether a street could be built to connect rue Industrielle or Autoroute 30 directly to the site of the proposed port terminal.
Information is needed on whether roadway signage will be improved to minimize the impacts of project-related traffic and to ensure the safety of pedestrians, cyclists, and other road users.
Information is needed on whether citizens will be consulted regarding the proposed truck route, prior to the project’s implementation.

Information is needed on whether a staging area will be built for trucks waiting to access the project site so that trucks do not park on the shoulder of Route 132.
Information is needed on whether an assessment will be carried out of the impact of project-related traffic on the quality of life of citizens and on the market value of their properties.
Information is needed on whether the impact of increased project-related heavy traffic on local traffic (school buses, public transit, etc.) will be measured.
Information (ideally on a map) is needed on the route(s) that would be taken by trucks travelling between Autoroute 30, or the existing Saint-Joseph-de-Sorel port terminal, and the site of the proposed port terminal.
Information is needed on whether the project's impacts on the safety of users of the bicycle network in industrial areas will be measured, and whether a mitigation plan will be presented in collaboration with public transportation authorities.
Information is needed on whether vessel anchorage areas would be moved to an area where the St. Lawrence River is wider.
Information is needed on whether it would be possible to improve planning for vessel unloading (vessel waiting times on the St. Lawrence River in the Sorel-Tracy sector) and to ensure better coordination of mooring operations between the Port of Montréal and the various private terminal operators in the Sorel-Tracy area (compliance with regulations and limitation of nuisances when moored). Information is needed on designating a central point of contact where citizens can direct their complaints.
Information is needed on the project's impact on marine traffic (number of additional vessel transits) from the proposed terminal to Montréal, and to the region upstream from Montréal.
Information is needed on the number of years (following the construction phase) and the conditions required for the proposed terminal to accommodate 35 vessels per year and result in an increase of approximately 14,600 additional truck trips annually.
Information is needed on whether it would be better to improve the Saint-Joseph-de-Sorel port terminal (owned by QSL International Ltd.) rather than develop a new terminal.

Cumulative Effects
It is important to await the findings of the Regional Assessment of the St. Lawrence River Area before initiating new development projects so that the cumulative effects of past, present, and future projects can be properly considered, and so that the location and impacts of the proposed port terminal can be studied in context.
There are concerns about the cumulative effects of the project given its location in an area that is already home to several port terminals, including the cumulative effects on water quality, air quality, the noise environment, and the condition of road infrastructure.
There are concerns about the cumulative effects of marine transportation (shoreline erosion, release of contaminants, collisions with marine mammals, etc.).
It is important to consider the project's impacts as part of the cumulative impacts of other large-scale port projects in the St. Lawrence River and to base this analysis on recognized methodologies and recent scientific data, such as those derived from the Oceans Protection Program (OPP), which designates Lac Saint-Pierre and the area concerned by this project as sensitive sectors where there is already a high concentration of cumulative effects caused by marine activities.
It is important that cumulative effects assessment use thresholds and that the spatial boundaries of the cumulative effects analysis are defined in relation to the ecosystem, not in relation to the boundaries of the project or of an arbitrary administrative unit.
It is important that the time frame used for the cumulative effects assessment extends to a time when diversity and abundance in ecosystems still supported the exercise of Kanien'kehá:ka rights.
It is important to apply the precautionary principle in analyzing the project's cumulative effects and in determining the adaptation measures required to address cumulative effects on First Nations' rights, pending the completion of the Regional Assessment of the St. Lawrence River Area, and in cases where uncertainty exists as to whether we are approaching or have exceeded various thresholds of decline.
It is essential that the proponent's cooperation with federal cumulative effects studies, conducted by Transport Canada and the Impact Assessment Agency of Canada, not be a substitute for an adequate project-specific cumulative effects analysis.

It is important that the cumulative effects assessment be conducted by the project proponent in collaboration with Indigenous communities and the Impact Assessment Agency of Canada.
It is important to consider that the assessment of the cumulative effects of marine activities on the St. Lawrence conducted by Transport Canada, as part of its Oceans Protection Plan, indicates that Sorel-Tracy is particularly vulnerable to stressors and is the location on the St. Lawrence River where cumulative exposure to various sources of impact is most concentrated.
Exercise of Aboriginal or Treaty Rights
It is important that the proponent properly delineate the various ancestral territorial boundaries of the First Nations, in consultation with the First Nations concerned.
It is important that the proponent use the appropriate vocabulary for each First Nation, particularly for the names of Nations and important places. To do so, it is important that the proponent communicate with the First Nations concerned.
It is important to carry out a federal impact assessment to adequately analyze the project's effects, including cumulative effects, on the rights of each of the First Nations concerned, and to establish appropriate avoidance, mitigation, and compensation measures.
It is important to consult and engage Indigenous communities to ensure that all key issues have been identified, to obtain information on traditional land use (e.g., fishing, hunting, gathering, traditional sites) and to ensure that their traditions, values, and concerns are respected.
It is important to consider potential changes to the quality of soil, air, water, and fish habitat, as well as potentially reduced access to traditional foods, which could affect the exercise of Aboriginal and treaty rights and the traditional diets of Indigenous peoples.
It is important to develop and implement, in collaboration with the First Nations concerned, a follow-up program on the impacts on rights.
It is important to involve the Indigenous peoples concerned in archaeological activities, to carry out a study of archaeological potential, and to apply the resulting recommendations before the construction phase of the project.
It is important to consider the project's potential impacts over a long time frame (80–100 years), paying particular attention to the anticipated effects of climate change on food security and the traditional activities of the Indigenous peoples potentially affected by the project.

Information is required on how cumulative effects on Indigenous peoples, including those that will impact their rights, will be addressed.
It is important to assess, mitigate, and compensate for the project's impacts on culturally important and sensitive species for First Nations, including lake and Atlantic sturgeon, yellow perch, and migratory birds.
It is important to consider the project's socio-economic impacts in collaboration with each of the First Nations.
It is important to assess the impacts of the proposed marine terminal operations and associated marine traffic on the natural and cultural heritage of First Nations.
It is important that the proponent verify the data on the socio-economic profile of the First Nations concerned, particularly the number of members belonging to each Nation.
Geology, Geochemistry, and Geological Hazards
Information is required on the area's earthquake hazard, its potential influence on structural designs and, if necessary, the earthquake-resistant design considerations (or codes/standards) that will be applied.
Information is required on the soil stratigraphy[3] at the level of the floating dock foundations.
Information is needed on the behaviour of floating dock piles or piers under static conditions.[4]
Information is needed on the liquefaction potential of sandy deposits and the impact of possible liquefaction on the behaviour of piles (option A) or piers (option B) under seismic loading[5] consistent with Canada's 6th Generation earthquake hazard model.
Information is needed on the potential for lateral spreading[6] under seismic loading at the level of the dock and storage area.
Information is needed on the impact of potential cyclic softening[7] of clays on the behaviour of piles or piers, depending on the stratigraphy at dock level.

[3] The succession of different geological layers or strata.
[4] The behaviour of floating dock piles or piers in non-earthquake conditions.
[5] Simulation of seismic motion (oscillation, tremor).
[6] Type of landslide that occurs in sandy deposits during an earthquake.
[7] Loss of strength of clay soil caused by cyclic stress (shaking).

General Issues
It is important to improve the structure of industrial development projects and related infrastructures, to produce a regional development plan to promote the harmonization of uses (industrial, residential, agricultural, recreational, etc.) and to limit the negative impacts on landscapes and ecosystems.
Information is needed on the environmental, economic, and safety issues associated with the fact that the existing Saint-Joseph-de-Sorel port terminal is being used at its maximum capacity, with waiting times for unloading sometimes reaching 30 days.
Information is needed on the types of goods that would be transshipped at the proposed terminal and the storage methods involved for these goods (dry bulk, liquid bulk, hydrocarbons, etc.).
Information is required on why the project notice to the province states that the project could accommodate approximately 75 vessels per year in the operations phase, while the Initial Project Description sent to the Impact Assessment Agency of Canada states that the project could accommodate approximately 35 vessels per year.
Information is needed on the impact of the projected expansion of the Port of Trois-Rivières and the possible expansion of the Port of Bécancour in view of the proponent's statement that the port terminal of Saint-Joseph-de-Sorel (operated by the same proponent) is currently at maximum capacity and that this congestion leads to significant waiting times for ships (up to 30 days before unloading in high season).
Information is needed on the financial benefits to the city of Sorel-Tracy when vessels are moored near the city's territory.
Mitigation, Compensation, and Follow-up Measures
It is important to establish mitigation measures to prevent the spread of invasive alien species in the natural environment.
Information is needed on the possibility of maintaining or implementing screen plantings around the site to mitigate the project's nuisances.
It is important to compensate for encroachments on nature, shoreline, and flats by reclaiming areas of equivalent ecological value from nearby sites where previous development or construction has occupied shoreline, flats, or riparian wetlands.
It is important to control and minimize the project's effects on wildlife and plant species.

There are concerns about possible differences between the project's estimated and actual effects, and about possible differences between the estimated and actual effectiveness of mitigation measures.
Wetlands
Information is needed on the presence of wetlands (bogs, fens, marshes, swamps, and shallow water wetlands) in the project area, or hydrologically connected to it, that could be directly affected by project activities.
Information is needed on the project's potential indirect effects on wetlands and wetland functions.
Migratory Birds and Species at Risk
Information is required on the potential effects of each project phase on the migratory birds and species at risk listed in Schedule 1 of the *Species at Risk Act*, and on their habitat, habitat use, and critical habitat in the project area.
Information is needed on the amount, duration, frequency, timing, and effects of sensory disturbances (light, noise, vibration, presence of workers, etc.) on migratory birds and species at risk.
An accurate summary is needed, based on the best available information, on the potential for migratory birds to be present in the project area.
Information is required on mitigation measures to reduce impacts on migratory birds, including species listed in Schedule 1 of the *Species at Risk Act* and species assessed as being at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).
Information is needed on the proponent's willingness to conduct additional inventories, particularly in winter, to adequately reflect seasonal and annual variations in the potential for migratory bird presence in the project area.
Information is needed on previous bird inventory methodologies mentioned in the Initial Project Description, as well as methodologies for all future field inventories.
Information is needed on the positive impacts that the project would have on ecosystems (project's contribution to sustainability).
Information is needed on the anticipated need for licences under the *Species at Risk Act* during all phases of the project, including for the little brown bat, eastern pipistrelle, northern long-eared bat, barn swallow, wood thrush, evening grosbeak, bobolink, bank swallow, and whip-poor-will.

An accurate summary is required, based on the best available information, of the potential presence of species at risk, their potential habitats, and the ecological requirements of species whose distribution intersects the study area. Also required are the inventory methodologies outlined in the Initial Project Description and the methodologies for all future field inventories.
Reasonable conclusions are required, based on the best available information, on the project's potential effects on species at risk, including species listed in Schedule 1 of the *Species at Risk Act* and species assessed as being at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).
A description of mitigation measures to reduce impacts on species at risk is required, including species listed in Schedule 1 of the *Species at Risk Act* and species assessed as being at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).
It is important that remedial, mitigation, and compensation work be carried out to meet ecological thresholds given the number of endangered, threatened, and vulnerable species present in the project area and the cumulative effects that already affect these species.
Fish and Fish Habitat
Information is needed on the known movements of migratory fish species in the area, such as American eel and American shad.
Information is needed on the overlap of grass beds with the proposed infrastructures, including those identified as H03 and H04 on Map 5 of the Initial Project Description.
Information is needed on changes that may occur to the grass beds at and near the project site, particularly in relation to construction activities, proposed permanent infrastructure, and operations activities.
Information is needed on work methods during the construction phase to assess the risk of impact on grass beds at the project site and downstream, including • the final method of pile placement; • barge work or the installation of temporary structures (jetties, cofferdams, etc.), if necessary, for the setting up of infrastructures; • the avoidance or mitigation measures adapted to the work methods.
Information is needed on the intervention period in the water, as well as an assessment of the risk of modifying the feeding behaviours of copper redhorse populations in the grass beds at the project site, or of impacting the grass beds downstream (e.g., due to an inflow of sediments).

Information is needed on work methods and their anticipated effects on fish and fish habitat, and on elements of the monitoring and follow-up program to be implemented, particularly to document possible effects on nearby grass beds.
Information is needed on the project's impacts to fish and fish habitat, including impacts to cumulative habitat loss and fragmentation, species at risk, downstream fish habitat, shoreline erosion, and underwater noise.
Information on the bathymetry[8] of the site and its surroundings is needed.
There are concerns about the selection, implementation, and follow-up of compensation measures for the project's impacts on fish and fish habitat.
There are concerns about the project's potential impacts on the copper redhorse (a species endemic to Canada) and its habitat. This is especially true for the project's effects on shallow water grass beds, which are already facing several threats (erosion and increase in suspended matter, shoreline artificialization and industrial projects, introduction and spread of invasive species, disturbance by shipping, etc.).
There are concerns about the project's impact on the spread of the zebra mussel, an invasive exotic species that requires solid surfaces to attach itself to and that competes with the native mollusks that the copper redhorse feeds on.
It is important to apply the precautionary principle in assessing the project's effects on the copper redhorse and its habitat, given the status of the species and the goals of the Recovery Strategy for the Copper Redhorse.
Information is needed on whether dredging will be required during the project's construction and operations phases.
An estimate of the project's footprint in the aquatic environment (major infrastructure, permanent structures and facilities) is required.
It is important that the list of key issues and comments in the Initial Project Description be amended to include: cumulative habitat loss and fragmentation, shoreline erosion, impact on designated copper redhorse critical habitat, impacts on migratory fish species, increased vessel traffic in the St. Lawrence Seaway, and truck and rail traffic in Kahnawà:ke.

[8] Depth and relief measurements of the sea floor, lakes, and streams.

Water, Sediment, and Soil Quality
Recent information is needed to document baseline soil, water (surface and groundwater) and sediment quality.
Information is needed on the project's potential effects on soil, water (surface and groundwater), and sediment quality, and on appropriate mitigation measures.
Information is needed on the project's potential cumulative effects on water quality, and on those of other anticipated projects in the area.