

## Alexandra Bridge Replacement Project – Summary of Issues

This document provides a high-level summary of the issues submitted to the Impact Assessment Agency of Canada (the Agency) on the Alexandra Bridge Replacement Project (the Project) during the comment period on the Initial Project Description submitted by Public Services and Procurement Canada, in collaboration with the National Capital Commission (the Proponent). The issues highlight information needs to support the Agency’s decision on whether an impact assessment is required under section 16 of the *Impact Assessment Act* and— if an assessment is required—to inform the planning phase documents and further assessment. Original submissions are posted on the Canadian Impact Assessment Registry (Reference Number #83444). Categories of issues are listed in alphabetical order.

<b>Accidents and Malfunctions</b>
Need for further details on potential accidents and malfunctions, including activities with potential to release chemicals or pathogens to the environment, information on proposed accident and malfunction avoidance or preparedness plans, and corresponding mitigation measures.
Need for further information on potential effects (including effects on human health, vegetation, surface water, fish and fish habitat, migratory birds, wildlife, and species at risk) of accidents and malfunctions (spills of hazardous substances or uncontrolled release of pollutants to the environment), including consideration of existing contamination in the Ottawa River watershed.
<b>Acoustic Environment</b>
Concerns about potential effects to fish, birds, and other wildlife from potential increase in noise levels during deconstruction of the existing bridge and construction of the new bridge.
<b>Alternatives Assessment (including Alternatives to the Project and Alternative Means)</b>
Need for further details and analysis on alternatives, including a comparison of the environmental (e.g., greenhouse gas emissions), health, social, cultural, and economic effects of various alternatives.
Requests to consider that the new bridge be dedicated exclusively for the use of public transit and active transportation.
Requests from Indigenous groups for increased consultation efforts from the Proponent in the consideration of alternatives assessment for the Project.
<b>Climate Change and Greenhouse Gas Emissions</b>
Need for details related to the volume, transportation, disposal or destruction of wood chips and contaminated soils during deconstruction of the existing bridge and construction of the new bridge, and a calculation of greenhouse gas emissions associated with it.
Request from Indigenous groups for the Proponent to include Indigenous Knowledge in the assessment of climate change and greenhouse gas emissions.
<b>Cumulative Effects</b>
Need for further information on other past, present, and future physical activities in the Ottawa River watershed, and further information related to potential cumulative effects on Indigenous peoples and their Aboriginal and/or treaty rights, and how these effects would be addressed.
<b>Effects of the Environment on the Project</b>
Need for further information on the resilience of the Project to climate change including potential effects of weather extremes (e.g., flooding) on the Project.
<b>Fish and Fish Habitat</b>
Need for further information on potential effects to and proposed approach to management of fish and fish habitat, including species at risk, species native to the Ottawa River and the Rideau Canal, and species of importance to Indigenous groups, from deconstruction of the existing bridge and

construction of the new bridge, as well as an overview of how the requirements of the <i>Fisheries Act</i> would be met.
<b>Geology and Soils</b>
Need for further baseline information, including maps and diagrams, of groundwater, soil, sediment, and wood chips layers across the riverbed, including mapping and delineation of any contamination plumes near the Project.
<b>Heritage and Historical Context</b>
Potential effects on cultural heritage, including effects on built heritage resources and/or cultural landscapes around the Project location.
Need for further information on how the new bridge will commemorate the legacy, design, historical context, and heritage of the existing bridge.
Need for further information on potential effects of the Project on archaeological resources, including underwater archaeological resources.
Need for technical heritage studies, such as archaeological assessments, cultural heritage evaluation, heritage impact assessment, and heritage value assessment, to be completed by qualified persons.
Need for information on potential impacts of the Project on Rideau Canal (UNESCO World Heritage Site), Ottawa River (Canadian Heritage River), or properties designated under Parts IV and V of the <i>Ontario Heritage Act</i> .
<b>Human Health and Well-Being (non-Indigenous)</b>
Need for further information on the chemicals that would be used for dust management during deconstruction of the existing bridge and construction of the new bridge.
Clarity on which parks and greenspaces near the Project would be affected during deconstruction of the existing bridge and construction of the new bridge.
<b>Inadequate Documentation</b>
Request to include potential environmental effects and concerns heard from all the Indigenous groups in the body of the report.
<b>Indigenous Engagement</b>
Need for details regarding how Indigenous groups will be involved in the identification and mitigation of potential social, economic, and health impacts from the Project.
Need for further information on how Indigenous groups will be involved by the Proponent and how Indigenous knowledge (including Traditional Ecological Knowledge) will be gathered and utilized in the Project, including in the development of study areas, design of the Project, surveys and baseline studies for fish, migratory birds, and species at risk, management and monitoring plans.
Request from Indigenous groups for increased consultation, including establishing agreements where applicable, in relation to the Project.
Need for further details on how the Proponent will discuss economic benefits with potentially impacted Indigenous groups with respect to the Project.
<b>Indigenous Peoples' Current Use of Lands and Resources for Traditional Purposes</b>
Potential effects on the current use of lands and resources for traditional purposes, such as hunting, fishing, and gathering due to potential adverse effects of the Project on fish populations, vegetation (e.g., berries, plants, mushrooms, highbush cranberry, medicinal plants, etc.) and wildlife.

<b>Indigenous Peoples' Health and Well-being</b>
Potential effects of the Project on the health of Indigenous peoples from changes in drinking water quality, air quality and consumption of traditional foods. Need for further information on proposed mitigation measures and monitoring plans for the effects.
Potential or perceived impacts of the Project on mental health and well-being of Indigenous groups.
<b>Indigenous Peoples' Social and Economic Conditions</b>
Request for the Proponent to provide economic benefits and opportunities for Indigenous communities throughout the lifecycle of the Project, including during operation of the new bridge.
Need for further information on how the Proponent will ensure Indigenous peoples will have access to training and apprenticeship opportunities in relation to the Project.
<b>Indigenous Peoples' Spiritual, Physical, and Cultural Heritage</b>
Potential impacts to cultural and archaeological heritage and resources near the project area (e.g., Chaudière Falls and Victoria Island, which are culturally significant sites for Indigenous groups).
Potential impacts on cultural values of Indigenous communities, including effects to cultural and spiritual practices conducted near the project area, during deconstruction of the existing bridge and construction of the new bridge.
Need for details on how Indigenous peoples will retain access to important sites near the project area, including sites used for traditional practices.
Need for further information on how the Proponent will work with Indigenous groups to preserve discovered archaeological resources.
Need for further information on how Algonquin culture will be incorporated into the design of the new bridge.
<b>Migratory Birds</b>
Potential effects to migratory birds and their habitat, including effects to breeding, nesting, migration and overwintering, due to physical or sensory disturbances during deconstruction of the existing bridge and construction of the new bridge. Need for further information on proposed mitigation measures for these effects.
<b>Navigation and Navigable Waters</b>
Potential effects on navigation in the Ottawa River during deconstruction of the existing bridge and construction of the new bridge. Need for further information on proposed mitigation measures for these effects.
<b>Need for the Project</b>
Request for an updated analysis on the need for the Project, considering changes in traffic, work settings, and social behaviour in the wake of the COVID-19 pandemic.
<b>Project Activities and Design</b>
Need for further information on the specific locations of project activities (including scale drawings and photographs where applicable) and their proximity to known habitat for fish, birds, and other wildlife.
Need for further information on the proposed public transit lane on the new bridge, including how it might enable future implementation of a tram/streetcar system that would link Gatineau and Ottawa.
Need for further information, if applicable, on plans to treat or dispose potentially contaminated soil, sediment, or wood chips.
Clarity on whether the areas in and around the Project would require cut and fill works in relation to the Project.

Provide information on any plans to include features such as shade and shelter, and rest areas for active transportation users in the design of the new bridge.
Provide information on any plans to use eco-friendly materials and products for the construction of the new bridge.
<b>Public and Stakeholder Engagement</b>
Request information on proposed approach for increased and ongoing public engagement by the Proponent throughout the lifetime of the Project.
Requests for an Independent Design Review Panel for the Project that considers the historical, geographical, and heritage value of the Alexandra Bridge.
Request to form a Technical Advisory Committee to seek feedback from local municipal departments, including feedback on accessibility.
<b>Social and Economic Conditions</b>
Need for additional information on the number and types of jobs that would be created throughout all the phases of the Project.
Potential effects on the local economy (local businesses, tourism attractions, fisheries, commuters travelling to work, commercial vehicle operators).
Request for information regarding hiring and human resource strategies in relation to the Project.
Effects to active transportation users (pedestrians, cyclists, etc.) during deconstruction of the existing bridge and construction of the new bridge. Request for further information on proposed mitigation measures for these effects.
<b>Species at Risk, Wildlife, and their Habitat</b>
Request for a complete list of species at risk that may occur in or around the project area.
Potential effects on species at risk, such as bats and their roosting habitat, turtles (such as Eastern Musk Turtle), snake species at risk, Butternut and American Ginseng, due to the deconstruction of the existing bridge and construction of the new bridge. Need for further information on proposed mitigation measures for these effects.
<b>Traffic and Transit</b>
Potential effects on traffic and traffic congestion during the deconstruction of the existing bridge and construction of the new bridge. Need for further information on proposed mitigation measures for these effects, such as a traffic management plan.
Recommendation for the traffic management plan to consider wayfinding, reduction of vehicular traffic at peak times, impacts to individuals and communities along any formal or informal detour routes, sensitive areas, and measures to reduce greenhouse gas emissions.
<b>Vulnerable Population Groups (GBA Plus)</b>
Need for further information on employment barriers for various under-represented groups (Indigenous peoples, women, newcomers to Canada and immigrants, visible minorities, persons with disabilities, LGBTQ2, etc.), and how these groups will be included in economic opportunities created by the Project.
Need for details on the measures that would be taken by the Proponent to manage and address gender-based violence in relation to the Project.
Need for additional details on how the Proponent will engage and consult with sub-populations of Indigenous communities.
Need for further information on how the Proponent would apply a Gender-based Analysis Plus lens in identifying and mitigating potential effects on health, social, and economic conditions of underrepresented groups.

<b>Waste Management</b>
Request for further information regarding recycling of materials from the existing bridge to be reused for the construction of the new bridge.
<b>Water</b>
Need for further information on baseline groundwater and surface water quality and quantity (water current and flow).
Need for further information on potential effects to water quality of the Ottawa River from disturbance of potentially contaminated soil, sediment, or wood chips (on the riverbed) around the project area, and from management of potentially contaminated snow, stormwater, or groundwater. Need for further information on proposed mitigation measures for these effects, and measures to minimize potential downstream effects.
Potential effects on water levels and flows in the Ottawa River due to the deconstruction of the existing bridge and construction of the new bridge.
Need for further information on how water collected from dewatering activities and cofferdams would be managed (monitoring, treatment, and discharge).
Need for details related to the flow models used to estimate migration of sediments downstream of the Project, including any seasonal variations in flow and deposition rates.
<b>Wetlands and Riparian Habitat</b>
Potential effects on wetlands and riparian habitat that is near, or hydrologically connected to, the Project.