

## Waterloo Airport Runway Project - Summary of Issues

This document provides a high-level summary of the issues submitted to the Impact Assessment Agency of Canada (the Agency) regarding the Waterloo Airport Runway Project (the Project) during the comment period on the Initial Project Description submitted by the Region of Waterloo International Airport (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 #81452). Categories are listed in alphabetical order.

<b>Accidents and Malfunctions</b>
Potential effects—including effects to groundwater and surface water quality, soils, and wildlife and wildlife habitat—of accidents or malfunctions—including spills of hazardous substances or uncontrolled release of pollutants to the environment—and potential for residual effects following an accident or malfunction
Need for robust accident response procedures which include trajectory modelling, fate analysis, mapping of wildlife values and environmental sensitivity mapping for nearby waterbodies
Need for further information on potential effects and benefits of fluorine-free firefighting foam over traditional aqueous film forming foams
<b>Acoustic Environment</b>
Potential for disturbance, human health impacts, and disruption of recreational activity from stationary or mobile ground-level sources of noise during construction and operations
Potential for disturbance, human health impacts, and disruption of recreational activity associated with aircraft noise over residential areas, particularly Breslau
Need for further information on proposed noise mitigation measures during the construction phase, including detail of the complaint resolution process and information on noise monitoring and follow-up measures
Need for further information on noise abatement policies and measures to mitigate aircraft noise during the operations phase—such as the use of curfews or takeoff and landing paths to avoid residential areas—including information on noise monitoring and follow-up measures
Clarity on whether the proponent has considered Transport Canada Advisory Circular 302-002 in development of noise abatement policies and measures and whether the proponent intends to request that Transport Canada provide a technical review of its noise exposure forecast
Recommendation that the noise assessment be conducted in accordance with Health Canada's <i>Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise</i> , including consideration of potential cumulative effects with reasonably foreseeable projects in the area such as the expansion of the airport terminal building
Clarity on whether provincial regulatory mechanisms have been considered for noise assessment, including NPC-300 for stationary sources, and NPC-115 and NPC-118 for construction equipment

<b>Atmospheric Environment</b>
Need for air quality assessment including baseline sampling and dispersion modelling, for all substances or air pollutants generated during each phase of the Project: nitrogen dioxide, sulphur dioxide, dust, particulate matter, carbon monoxide, ozone, volatile organic compounds, polycyclic aromatic compounds, metals and other substances that may be released
Need for ambient air quality monitoring to confirm results of modelling and assess air quality against the Canadian Ambient Air Quality Standards to assess potential effects to human health from air pollutants, based on predicted concentrations
Need for further information on mitigation measures for air pollutants
Potential contribution of the Project to light pollution
<b>Climate Change and Greenhouse Gas Emissions</b>
Need for further information on potential project effects to carbon sinks, such as the Kossuth Wetland Complex
Need for further study on the resilience of the Project to climate change including possible effects that may be associated with climate change, mitigation measures and potential for residual effects after mitigation has been applied
Consideration of potential greenhouse gas emissions associated with alternative means of carrying out the Project and a description of whether greenhouse gas emissions were considered as a criterion in the alternatives selection
Consideration of measures to reduce the Project's greenhouse gas emissions to ensure net-zero emissions by 2050
<b>Cumulative Effects</b>
Potential for cumulative effects to wetlands and wetland functions due to historical development and wetland removals in the Grand River Watershed
Cumulative effects on Indigenous peoples, including the cumulative effects of impacts on their Aboriginal and/or treaty rights due to continuous development and urbanization in the traditional territories of potentially affected Indigenous groups
<b>Fish and Fish Habitat</b>
Need for further information to determine potential for effects to fish and fish habitat
Potential effects on fish and fish habitat in Randall and Breslau Drains from construction dewatering and culvert installation
Need for a clear map identifying names and locations of watercourses, waterbodies, and proposed in-water works
Need for further information on potential effects to open water wetland areas; potential effects to fish and fish habitat in wetlands
Clarity on the specific timing windows being considered to avoid or mitigate potential effects to fish
<b>Follow-up and Monitoring</b>
Where mitigation measures are proposed—need for information on the proponent's plans for monitoring and active management to ensure effectiveness of mitigation measures

<b>Human Health and Well-Being</b>
Potential effects on the quality of mental and physical health for residents and visitors in the area near the Project, particularly from the loss of trees in the forest adjacent to the Kossuth Wetland Complex
Need for information on monitoring potential effects to the social determinants of health and residual effects
Need for information on potential effects to drinking water sources and associated human health effects
<b>Indigenous and Stakeholder Engagement</b>
Recommendation that Indigenous and public engagement be undertaken with diverse subpopulations to ensure diverse perspectives are heard and understood
Need for further information on opportunities for on-going Indigenous engagement in the development and implementation of mitigation measures for the Project, including during the construction and operation phases of the Project
Need for further information on how the proponent has incorporated input provided by public stakeholders including the Cambridge Butterfly Conservatory and the Kossuth Bog Foundation
<b>Indigenous Peoples' Current Use of Lands and Resources for Traditional Purposes</b>
Need for further information on traditional food/harvesting activities and whether there are potential effects to wildlife used as food sources
<b>Indigenous Peoples' Health and Well-being</b>
Potential effects to drinking water sources such as the Grand River, and associated effects on Indigenous peoples' health
<b>Indigenous Peoples' Social and Economic Conditions</b>
Clarity on the intent to support diversity and inclusion through the proponents hiring and training strategies; need for a better understanding of the target percentage for hiring Indigenous people and if Indigenous people who live near the Project will receive priority employment and training opportunities
<b>Indigenous Peoples' Spiritual, Physical, and Cultural Heritage</b>
Potential presence of archaeological values near the Project and need for a Stage 2 Archeological Assessment; clarity on approach to on-site monitoring during construction and plans if historical sites or objects of importance to Indigenous peoples are discovered
<b>Migratory Birds and their Habitat</b>
Potential effects on migratory birds, eggs and nests from habitat removal, bird strikes, sensory disturbance due to noise and infrastructure lighting
Need for a list of migratory bird species potentially occurring on the project site <sup>1</sup> and seasonal surveys to adequately capture habitat use
Clarity on the specific timing windows being considered to avoid or mitigate potential effects to migratory birds

<sup>1</sup> In this document *project site* refers to the specific area where the Project will be carried out

<b>Social and Economic Conditions</b>
Concerns around the use of public funds for a capital expenditure of this magnitude in consideration of historical service levels and economic uncertainty due to COVID-19 and the proliferation of virtual work practices
Potential indirect effects to agricultural lands and activities surrounding the runway 14 extension during construction and operations
Potential adverse social and economic effects in communities near the Project, particularly Breslau, including impacts to the standard of living of nearby residents, property values, and impacts to nearby businesses
Need for information on employment opportunities and economic growth for nearby rural municipalities, such as the Townships of Woolwich, North Dumfries, Wellesley and Wilmot
Need for information on the proponent's hiring strategy, including anticipated training opportunities, description of the skills that may be required for potential candidates and whether there are employment barriers for under-represented groups in the labour market, such as Indigenous peoples, women, and persons with disabilities
Need for further information on the direct and indirect economic benefits to the broader regional economy, including the current economic context; need for further information on direct project benefits on the facilitation of trade, increased tourism, and improved business investment and innovation
Potential effects of the project on inter-regional transportation connectivity
<b>Species at Risk, Terrestrial Wildlife, and their Habitat wildlife</b>
Potential effects on species at risk including effects to individuals, residences and critical habitat
Need for a list of species at risk potentially occurring on the project site, including plant species at risk
Potential for aircraft strikes to cause increased wildlife mortality
Need for further information on species at risk habitat offsetting and management or compensation plans
Potential destruction of wildlife habitat and displacement of wildlife
Clarity on the specific timing windows being considered to avoid or mitigate potential effects to species at risk and terrestrial wildlife
Potential effects of de-icing activities on local terrestrial and aquatic environment components
<b>Vulnerable Population Groups (GBA+)</b>
Need for any further social and economic information to be disaggregated by identity factors (for instance, by sex/gender, age and ethnicity) to identify gaps or inequities among diverse group of the population

<b>Water – Groundwater and Surface Water</b>
Need for baseline water quality data, including levels of per- and polyfluoroalkyl substances in groundwater and—if found to be present in groundwater—in surface water in the Randall and Breslau Drains
Potential effects to groundwater quality by contaminants of concern such as benzene, chlorinated solvents, and perfluorochemicals, which are commonly used at the airport
Potential effects to groundwater quality in wellhead protection areas and need for further information on mitigation and monitoring measures, and the potential for residual effects
Potential changes to groundwater levels due to construction dewatering, or due to hydrological or land surface changes, and need for information on mitigation and monitoring measures and the potential for residual effects
Need for further information on rationale for dewatering the Randall Drain prior to diversion; need for a description of where water would be discharged and proposed measures to manage surface water quality during dewatering
Potential effects of construction dewatering on surface water quality in the receiving waterbody
Potential effects on surface water quality due to sedimentation and erosion; need for further information on sedimentation and erosion control plans
Need for further information on stormwater management strategy and how it may mitigate potential effects to surface water flow, surface water quality and groundwater
<b>Wetlands</b>
Potential effects on wetland communities and ecological function due to erosion and sedimentation during construction
Need for further information on the potential effects of invasive species introduced through project activities on wetland habitat
Concern around the effectiveness of wetland offsetting, including whether wetland offsetting would result in 1:1 replacement of ecosystem services and wetland functions of old growth wetland such as the Kossuth Wetland Complex, a Provincially Significant Wetland
Need for wetland replacement at a ratio higher than 1:1, that includes consideration of replacement and maintenance of wetland functions in the design of wetland offsets and enhancement or restoration
<b>Other</b>
Need for further information on cost and frequency of aircraft diversions due to poor weather conditions
Need for analysis on the effects of COVID-19 on regional transportation, including air travel and public transportation
Potential effects to built and cultural heritage resources, such as from vibration during construction or operations