

Table 1 – Issues to Inform Impact Assessment Agency of Canada's Decision on Whether an Impact Assessment is Required

Issues	Proponent Response
Fish and Fish Habitat	
<p>Provide clarification on the presence of fish species in Trout Creek and in Parsons Brook, which are the proposed diversion channels. Provide clarification on any fish and fish habitat downstream of the proposed diversion channels that could be impacted. If present, describe how the Project would be designed to manage potential adverse effects on fish and fish habitat (e.g., spawning, nursery, foraging, including timing windows of importance) in these watercourses, and describe measures that will be taken to address any potential adverse effects.</p>	<p>A desktop review of available data is ongoing to gather fish assemblage records for Trout Creek and Parsons Brook. If existing data inadequate or incomplete, supplemental fieldwork may be conducted to fill the gaps.</p> <p>Fish habitat assessments have been completed, and data analysis is underway. The results, along with interpretations of potential effects on fish habitat and corresponding mitigation measures, will be included in the Environmental Impact Assessment (EIA).</p> <p>Engagement with Fisheries and Oceans Canada (DFO) is ongoing to integrate regulatory considerations and best practices for fish and fish habitat protection into Project planning and design.</p>
<p>Provide information (e.g., maps) on changes to water levels downstream of the diversion channels, including the Kennebecasis River and tributaries. Clarify consideration of 1-in-100- year events and combined flows from the Parsons Brook and Trout Creek. Describe the capacity downstream of the proposed diversion channel to handle the potential changes to flows, and water levels downstream of the proposed diversion channels.</p>	<p>The effects of diverting flood water from Parsons Brook to Trout Creek and the Kennebecasis River on water levels, velocities, bank and channel erosion, and sediment transport in all three watercourses are being modeled in detail and will be fully considered before completing detailed design. The modelling will account for a range of storm return periods, including both historic and projected future 100-year return period events. All publicly available modelling information developed to date is conceptual and based on worst-case conditions. The potential impacts of flood diversion on all three watercourses, as defined by the detailed modelling, will be available for public review and comment during the pending provincial Environmental Impact Assessment (EIA).</p>
<p>Provide information on changes to water quality, including contaminants that could be transported downstream through soil, surface and groundwater during and after flood events, along with the potential sources of these contaminants. Describe:</p> <ul style="list-style-type: none"> - measures that will be taken to avoid or reduce these contaminants; - any potential adverse effects on fish and fish habitat from these contaminants; and - measures that will be taken to address any potential adverse effects on fish and fish habitat. 	<p>No changes to water quality or impacts to fish and fish habitat are anticipated from the construction or operation of the flood diversion channels and associated infrastructure. Detailed modeling is assessing all changes in water flow and velocity, which will be fully considered during detailed design. The potential impacts of flood diversion on all three watercourses, as defined by the modelling, will be available for public review and comment during the pending provincial Environmental Impact Assessment (EIA).</p> <p>Potential changes to the sediment transport regime and erosion potential in Parsons Brook, Trout Creek and the Kennebecasis River will be evaluated during detailed design. Any negative changes will be mitigated to the satisfaction of provincial and federal regulatory agencies.</p> <p>The likelihood of encountering existing contamination along the direct project alignment during excavation and construction of the diversion channels and associated infrastructure is low, as no known contaminated sites are present. Any contamination encountered during construction will be disposed of in accordance with best industry practices or encapsulated in place to eliminate environmental exposure pathways.</p> <p>The Project's impact on existing contamination outside the direct project alignment, such as in the floodplain of the watercourses, is not expected to be large enough during or after flood events to mobilize contaminants through soil suspension, surface water flow, or groundwater flow.</p>
Migratory Birds and their Habitat	
<p>Provide information on measures that will be in place to manage potential adverse effects (e.g. due to wetland habitat or nest loss, sensory disturbance) to migratory birds, including avifauna that are species at risk (SAR) or species of conservation concern (SOCC). Clarify how the Project will comply with the Migratory Birds Convention Act (MBCA), the Species at Risk Act (SARA) and their respective regulations.</p>	<p>All Valued Components (VC) identified during the Environmental Impact Assessment (EIA) process will be subject to comprehensive studies to establish existing conditions, followed by an assessment of the Project's potential effects. For avifauna, including migratory birds, species at risk (SAR), and species of conservation concern (SOCC), potential adverse effects - such as wetland habitat or nest loss and sensory disturbances - will be quantified and evaluated.</p> <p>Mitigation measures will be developed to minimize these effects and will be outlined in the Environmental Impact Assessment. The Project will adhere to the requirements of the <i>Migratory Birds Convention Act</i> (MBCA) and the <i>Species at Risk Act</i> (SARA), as well as their respective regulations, ensuring compliance with federal conservation standards.</p>
Structures, Sites, or Things of Historical, Archaeological, Paleontological, or Architectural Significance to Indigenous Peoples	
<p>Provide details on the methodology that will be used for archaeological studies, including timing on when they will be conducted. Describe mitigation measures, including avoidance and protection measures, that will be taken in the event of any archaeological findings. Describe how Indigenous communities will be involved in the process. Provide details on legislation or guidance that will be followed.</p>	<p>A preliminary investigation supporting the Archaeological Impact Assessment (AIA) was conducted in 2024 by Colbr Consulting Inc (Colbr), with the assistance of a Certified Indigenous Archaeological Field Technician and a representative from Mi'gmaawēl Tplu'taqnn Inc (MTI). This investigation was carried out in accordance with <i>The Guidelines and Procedures for Conducting Archaeological Assessments in New Brunswick</i> (2012).</p> <p>The next phase involves conducting archaeological testing of the Project footprint during the 2025 field season to ascertain the presence or absence of archaeological resources. This testing will incorporate Indigenous archaeological monitoring. If any archaeological sites are identified, mitigation measures will be implemented, which may include avoidance, additional testing, follow-up monitoring, or a combination of these approaches. Furthermore, if the planned ground disturbance extends beyond the currently surveyed areas, additional archaeological surveys will be undertaken in those regions with potentially elevated archaeological significance. Colbr will then provide recommendations on how to proceed with the Project based on the testing outcomes.</p> <p>In addition, Colbr will prepare a Heritage Resource Emergency Management Plan that details the procedures and response protocols for any discoveries of known or suspected heritage resources, including human remains, during the Development as well as Operating and Maintenance phases.</p>
Engagement with Indigenous Peoples	
<p>Provide details of engagement efforts that will be carried out with potentially impacted Indigenous communities who may be impacted by the Project or have interests in the area. Describe how communities will identify activities and preferences on how they wish to be engaged as the Project is developed, and in operation.</p>	<p>Engagement efforts will continue with potentially impacted Indigenous communities, including Wolastoqey Nation in New Brunswick (WNNB) and Mi'gmaawēl Tplu'taqnn Inc. (MTI). These communities will be invited to identify their preferred engagement activities and methods. An engagement plan will be co-developed with them to ensure their needs and interests are addressed through the Project's Construction and Operation phases. Regular meetings, progress updates, and a feedback mechanism will be established to ensure any concerns are promptly identified, communicated, and addressed.</p>

<p>Indigenous Peoples' Current Use of Lands and Resources for Traditional Purposes, and Exercise of Aboriginal and/or Treaty Rights</p>	
<p>Describe potential impacts of the Project on the rights of the Indigenous Peoples of Canada, as recognized and affirmed by section 35 of the <i>Constitution Act, 1982</i>, and proposed mitigation measures to address these impacts. Include a summary of key issues or concerns and any issues that relate to the adverse impact that the designated project may have on the rights of the Indigenous Peoples of Canada recognized and affirmed by section 35 of the <i>Constitution Act, 1982</i>, and on the current use of lands and resources for traditional purposes by Indigenous Peoples.</p>	<p>The Project will assess potential impacts on the rights of Indigenous Peoples of Canada - as recognized and affirmed by section 35 of the <i>Constitution Act, 1982</i> - by conducting a comprehensive review of several key areas. This review will examine how the Project might affect the current use of lands and resources for traditional purposes and will address any adverse effects on Indigenous rights. Specifically, the assessment will focus on:</p> <ul style="list-style-type: none"> •Traditional Land Use and Access: Evaluating whether the Project may restrict access to traditional territories used for hunting, fishing, trapping, ceremonial activities. This includes an examination of anticipated changes in wildlife populations, plant species, or water quality that could affect harvesting practices. •Cultural and Spiritual Practices: Determining potential impacts on sacred sites, burial grounds, and other culturally significant locations, including effects from noise, pollution, or other disturbances. •Economic and Livelihood Effects: Assessing whether the Project might adversely affect local Indigenous employment or economic opportunities. •Governance and Self-Determination: Evaluating if the Project could interfere with Indigenous decision-making processes, self-government rights, or affect ongoing land claims and treaty rights. •Health and Social Well-being: Identifying any potential impacts on the health, social services, or overall well-being of Indigenous communities. <p>Based on this assessment, mitigation measures will be co-developed with Indigenous representatives to ensure all strategies are consistent with First Nations' laws, traditional knowledge, and perspectives. These measures are designed to prevent or minimize any adverse effects on Indigenous rights and the traditional use of lands and resources.</p>
<p>Describe how Indigenous perspectives will be considered in identifying plant species of significance to the Mi'gmaq First Nations and/or the Wolastoqey Nations within 5 km of the Project area. Describe measures that could be taken to address potential adverse effects to species that are identified.</p>	<p>Indigenous perspectives will be central to identifying and assessing plant species of cultural, medicinal, spiritual, and ecological significance to Mi'gmaq First Nations and/or the Wolastoqey Nation within 5 km of the Project area. Indigenous representatives, including a First Nation Monitor and knowledge holders, will be invited to participate in baseline survey work to ensure locally significant species are documented. Additionally, GEMTEC has engaged an Environmental Monitoring Assistant, a representative of Mi'gmaqwe'l Tplu'taqnn Inc (MTI), to participate in vegetation surveys during the 2025 field season.</p> <p>Should significant plant species, potentially impacted by the Project be identified, mitigation measures will be developed in consultation with Indigenous representatives and other relevant stakeholders. These measures may include:</p> <ul style="list-style-type: none"> •Avoidance: Adjusting the Project to prevent impacts on important species •Minimization: Implementing practices to reduce the magnitude or duration of any impacts •Mitigation/Compensation: Restoring habitat or relocating affected species if residual effects are identified <p>The Proponent has engaged with Mi'gmaqwe'l Tplu'taqnn Incorporated (MTI), which represents eight Mi'gmaq First Nations in New Brunswick, through information-sharing meetings. Additionally, a high-level project description was sent in June 2024 to the Chiefs of all Mi'gmaq and Wolastoqey First Nations. Engagement and consultation with Indigenous Nations will continue throughout the planning of the Project, ensuring opportunities for meaningful participation in studies assessing potential health, social, and economic effects. The results of all consultation efforts will be documented in the Indigenous Consultation section of the Environmental Impact Assessment (EIA).</p>
<p>Provide information on the potential cumulative environmental, social, health, and economic effects of past, present, and reasonably foreseeable future projects within the vicinity of the Project (and particularly in the Kennebecasis River and its associated watershed), in combination with project effects, and their potential to affect public and Indigenous Peoples' health and impact on Indigenous Peoples' rights.</p>	<p>The Project will systematically identify all Valued Components (VC) representing potential physical, environmental, and socioeconomic effects that may interact with the Project. The Environmental Impact Assessment (EIA) will provide a comprehensive description of the existing conditions for each VC and include a section on cumulative effects. This section will evaluate the combined impact of past, current, and foreseeable future projects in the area - particularly within the Kennebecasis River and its associated watershed - in conjunction with any identified effects of the Project.</p> <p>This approach ensures interactions among projects are fully assessed and mitigation strategies are implemented to prevent or minimize adverse impacts on all identified VCs. Each VC will be evaluated within defined spatial boundaries to capture impacts at varying scales:</p> <ul style="list-style-type: none"> •Project Description Area (PDA): Where direct interactions with the Project are anticipated •Local Assessment Area (LAA): Where potential impacts may extend beyond the PDA •Regional Assessment Area (RAA): Where cumulative effects could occur on a larger regional scale <p>For example, while the Kennebecasis River watershed will serve as the primary spatial boundary to define potential impacts on aquatic ecosystems (e.g., fish and fish habitat), the spatial boundary will differ for socioeconomic factors such as public health, safety, and local economy. Furthermore, the watershed's significance as a traditional resource for Indigenous groups will guide the assessment of impacts on Indigenous Peoples' rights, including access to traditional lands, cultural practices, and overall community well-being.</p>

<p>Indigenous Peoples' Health, Social, and Economic Conditions</p> <p>Describe studies that will be undertaken to understand potential adverse effects of the Project on health, social, and economic conditions of Indigenous Peoples, measures that could be taken to address potential adverse effects, and how Indigenous communities will be involved in the studies.</p>	<p>The socioeconomic Valued Component (VC) of the Environmental Impact Assessment (EIA) will describe existing conditions related to public health and safety, community well-being, local economy, transportation and infrastructure, and land and resource use within the surrounding area. The results of this review will inform the assessment of potential adverse effects across Project phases.</p> <p>The EIA will analyse these effects to identify impact pathways and present mitigation measures aimed at avoiding or reducing risks to socioeconomic components, with a particular focus on potential effects on residents of Sussex and Kings county, as well as Indigenous Peoples. Once all feasible mitigation measures have been identified, a residual effects analysis will be conducted to determine any remaining impacts.</p>
<p>Project Activities and Design</p> <p>Provide information on how the Project would be designed, including where possible identifying applicable mitigation measures, to:</p> <ul style="list-style-type: none"> - avoid impacts existing septic tanks and groundwater wells, including during and after a flood event; - avoid erosion and runoff at the Kennebecasis River due to loads from Trout Creek; - prevent water from the Kennebecasis River returning through the Trout Creek channel; - prevent the Parsons Brook diversion channel from flooding the Provincially Designated Wellfield zone and pumping station, and the Sussex Corner Elementary School; - prevent downstream discharge of the Trout Creek diversion channel on neighboring communities, local residents and business owners, agricultural lands, municipal bridges, NB transmission line, and the Canada National Railway Agency's train bridge around the proposed outlet; and, - consider climate change assumptions for potential annual precipitation, in consideration of local and regional factors, man-made alterations to the landscape, and loss of vegetation cover that accelerate runoff at the surface, that contribute to flooding events within the area. 	<p>The general design philosophy for the Project is to balance project benefits (reduced flood damages) with project detriments (i.e., altered flood flows and flood risks in sections of Trout Creek and the Kennebecasis River) and incorporate measures to mitigate project detriments. A Climate Lens Assessment has been performed for the Project. Both the potential impacts of climate change on the Project (i.e., increases in precipitation intensity and frequency) and the potential impacts of the Project on the processes driving climate change (GHG emissions) have been considered and will be considered again during detailed design. The urbanization effects of the Project on the local flood dynamics and flood risks will be evaluated during the detailed modelling.</p> <p>Specific measures to mitigate project detriments may include (but will not be limited to):</p> <ul style="list-style-type: none"> •Flood proofing potable water supply wells and venting septic tanks, •Providing erosion protection and constructing channel modifications to maintain the existing sediment transport regimes of all three affected watercourses, •Grading the Parsons Brook and Trout Creek diversion channels to prevent the backflow of water from Trout Creek and the Kennebecasis River, respectively, •Flood proof measures (e.g., berms, terps and bulkheads) to mitigate incremental flood risks to protect the Sussex Corner Elementary School and nearby municipal potable water supply well and pump house, and •Measures (e.g., berms, vegetation, flow deflectors, armour stone, floodplain flow attenuation) that mitigate incremental flood risks to downstream infrastructure (e.g., bridges, roads, transmission lines), communities, and developments.

Table II – Other Comments, Advice, and Recommendations	
Issues	Proponent Response
<p>Alternative Means</p> <p>Concerns about how cost-benefit analyses were considered in the assessment of alternative means of the project, including consideration of any potential financial losses due to property damage within and outside of the town limits during a flood event.</p>	<p>A cost-benefit assessment was performed to assess alternative project means based on preliminary hydrologic and hydraulic modelling. This assessment did consider potential financial losses within and outside of the municipality of Sussex, and produced five scenarios with varying flooding extents, flood damages and flood mitigation measure costs. The preliminary cost-benefit analysis was deemed to be sufficiently detailed to confidently identify the most effective approach for the Project.</p> <p>Detailed hydrologic and hydraulic modelling will refine the cost-benefit analysis and will inform the detailed project design. The results of the detailed modelling and associated cost-benefit analysis will be available for public review and comment as part of the pending provincial Environmental Impact Assessment (EIA).</p>
<p>Health, Social and Economic Conditions</p> <p>Importance of security measures to prevent unauthorized access to the diversion channels.</p>	<p>The Project will incorporate security and safety measures to manage access to the diversion channels and public safety risks. Project design considerations include gradual diversion channel side slopes and intake structure design features to ensure gradual water level and flow increases in the diversion channels during flood events.</p>
<p>Navigation</p> <p>Importance of consulting with Transport Canada about the applicability of the <i>Canadian Navigable Waters Act</i> (CNWA) to project components on Parsons Brook, Trout Creek and of bridges and the overpass.</p>	<p>Transport Canada will be consulted on the applicability of the Canadian Navigable Waters Act (CNWA) to Project components involving the Kennebecasis River, Trout Creek, and Parsons Brook, as well as bridge and overpass structures spanning these watercourses.</p> <p>None of these watercourses are currently listed in the CNWA Schedule. However, the CNWA may apply to non-scheduled navigable waters on a case-by-case basis.</p> <p>The Project includes raising existing bridge structures, ensuring existing clearances are maintained or improved. No interference with potential navigability is anticipated and will be confirmed through discussions with Transport Canada.</p>
<p>Public Engagement</p> <p>Describe further engagement plans with potentially affected landowners within and outside the town borders, neighbouring municipalities, business owners and stakeholders, and how concerns about the comprehensiveness of public engagement conducted by the proponent to date, including the way information has been communicated to potentially affected stakeholders, will be addressed.</p>	<p>The Town of Sussex has maintained open and transparent lines of communication with residents, neighbouring municipalities, business owners, and stakeholders in Kings County. Regular project updates on the Town's website, public access to project information, and pathways to submit comments in response to the Initial Project Description (IPD) have supported this effort. Multiple open meetings have allowed community members to voice concerns, which have influenced Project direction and informed key design considerations.</p> <p>The Town remains committed to engaging with potentially affected landowners within and outside its borders, as well as with neighbouring municipalities, businesses, and stakeholders. Public engagement efforts will continue through open meetings and direct communication channels, ensuring concerns are heard and addressed.</p>
<p>Species at Risk</p> <p>Importance of including plans to obtain additional baseline information (i.e., the desktop review and surveys, including detailed survey methodology) for finding species at risk (SAR) and species of conservation concern (SOCC) in the Project area. Importance of including tables of biophysical survey results, figures, or maps, where relevant.</p>	<p>A comprehensive desktop review and field studies prepared for a provincial Environmental Impact Assessment (EIA). The desktop review included obtaining a data report from the Atlantic Canada Conservation Data Centre and searching relevant databases including the Maritimes Breeding Bird Atlas, eBird, and local conservation organizations records.</p> <p>Field studies characterized the existing Project area conditions through wetland delineations, breeding bird surveys, turtle surveys, botany surveys, nightjar surveys, stream assessments, and surface water sampling.</p> <p>The provincial EIA will present findings from the desktop review and field surveys in a clear, structured manner. It will describe survey methodologies, summarize biophysical survey results, and include figures or maps to illustrate key findings, particularly for species at risk (SAR) and species of conservation concern (SOCC).</p>
<p>Concerns about the potential adverse effects to wildlife SAR and SOCC, including from accidental events, habitat loss, sensory disturbance from light, worker presence, etc. Importance of describing how the Project will comply with the <i>Species at Risk Act</i> (SARA) and other relevant federal or provincial legislation, and describe measures to avoid or mitigate potential adverse effects on wildlife SAR and SOCC, and any relevant follow-up or monitoring programs, particularly after a flood event.</p>	<p>The existing conditions data, as described above, will inform the assessment of potential adverse effects across all Project phases. The Environmental Impact Assessment (EIA) will analyse these effects, identify impact pathways, and present mitigation measures to avoid or reduce risks to wildlife, particularly species at risk (SAR) and species of conservation concern (SOCC). Following the identification of mitigation measures, a residual effects analysis will determine remaining impacts.</p> <p>The provincial EIA will also evaluate the potential for cumulative effects by considering past, ongoing, and foreseeable future project near the Project area. This approach ensures interactions between projects are assessed, and appropriate mitigation strategies are implemented to prevent or minimize adverse effects on SAR and SOCC.</p> <p>The Project will comply with all federal and provincial legislation, including the <i>Species at Risk Act</i> (SARA). The provincial EIA will identify applicable regulatory requirements and outline the required measures to ensure compliance. Follow-up and monitoring programs will be developed based on a review of guidance documents and early engagement with regulatory agencies such as Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (DFO), and the New Brunswick Department of Environment and Local Government (NBDELG).</p>
<p>Vulnerable Population Groups (GBA+)</p> <p>Importance of describing how Gender-Based Analysis Plus would be applied to understand potential adverse social and health effects on various population groups, including Indigenous peoples living in the Town of Sussex and Kings County, and that may be disproportionately affected as a result of the carrying out of the Project.</p>	<p>During the detailed project design phase, the Gender-Based Analysis Plus (GBA+) framework will define potential social and health impacts on various population groups, including Indigenous Peoples in Sussex and Kings County, and guide mitigation measures. The provincial Environmental Impact Assessment (EIA) will outline these considerations and describe how equity-focused measures will be incorporated into the Project design to promote inclusion and minimize adverse impacts.</p>