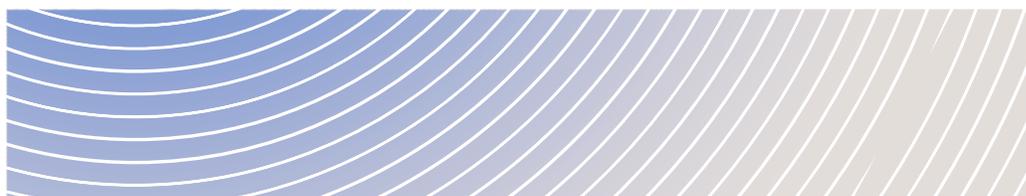


# Analysis Report



WHETHER TO DESIGNATE THE **ERIN WASTEWATER  
TREATMENT PLANT PROJECT** IN ONTARIO PURSUANT TO  
THE *IMPACT ASSESSMENT ACT*

May 2021



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# Purpose

The Impact Assessment Agency of Canada (the Agency) prepared this report for consideration by the Minister of Environment and Climate Change (the Minister) in deciding whether to designate the Erin Wastewater Treatment Plant Project (the Project) pursuant to section 9 of the *Impact Assessment Act* (the IAA).

# Context of Request

On February 25, 2021, the Minister received a request to designate the Project from the Coalition for the West Credit River<sup>1</sup> under section 9 of the IAA. The request expressed concerns about potential adverse project-related effects on Brook Trout and cold water fish habitat in the West Credit River, as well as cumulative effects from the project's treated effluent discharge; climate change; community population growth; and related groundwater use. Other concerns raised include potential adverse effects on aquatic species at risk, migratory birds, Indigenous peoples, social and economic conditions related to angling, and non-federal protected areas.

On March 8, 2021, the Agency sent a letter to the Town of Erin (the Proponent) notifying it of the designation request and requesting project-related information. In addition, the Agency requested advice and/or input from federal authorities, provincial ministries and the local conservation authority. On March 9, 2021, the Agency sent a letter to potentially affected Indigenous groups notifying them of the designation request and the opportunity to provide comments to inform the Agency's analysis.

The Proponent responded on March 19, 2021, with information about the Project, the potential adverse effects, proposed mitigation measures, the completed provincial environmental assessment, other regulatory approvals and permits that may be required, and its view that the Project should not be designated.

The Agency received advice and expert information on legislative and regulatory mechanisms applicable to the Project and its potential effects due to the Project from Environment and Climate Change Canada, Fisheries and Oceans Canada, Health Canada, Natural Resources Canada, Parks Canada, and Transport Canada. Input was also received from the provincial Ministry of the Environment, Conservation and Parks, Ministry of Heritage, Sport, Tourism and Cultural Industries, Ministry of Natural Resources and Forestry, Credit Valley Conservation and the Niagara Escarpment Commission. No input was received from the Ministry of Municipal Housing and Affairs.

The Agency did not receive responses from Indigenous groups.

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<sup>1</sup> The Coalition for the West Credit River includes six organizations: Belfountain Community Organization, West Credit River Watch, Izaak Walton Fly Fishing Club, Trout Unlimited Canada – Greg Clark Chapter, Ontario Streams, and Ontario Rivers Alliance.

# Project Context

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## Project overview

The Project would involve the construction, operation and maintenance of a new wastewater treatment plant located southeast of the Village of Erin in Wellington County, Ontario (Figure 1). The Project would provide wastewater servicing to the Village of Erin and Hillsburgh. As proposed, treated effluent would be discharged to the West Credit River at Winston Churchill Boulevard, upstream of the community of Belfountain.

The Proponent stated that the Project would remove the Town of Erin's reliance on aging, private septic systems that can be harmful to the environment, while creating opportunities for population growth.

The Proponent completed a Schedule 'C' Municipal Class Environmental Assessment (Class EA) for the Project and met the requirements of Ontario's *Environmental Assessment Act*. Class EAs apply to projects that are carried out routinely and have predictable environmental effects that can be readily managed. The Proponent is expected to implement the mitigation measures and commitments set out in its Class EA project documentation.

In June 2018, the Government of Ontario received three Part II Order requests from members of the public asking that the Proponent be required to prepare an individual environmental assessment instead of a Class EA. On August 29, 2019, the Government of Ontario decided that an individual environmental assessment is not required and allowed the Proponent to proceed with the Project, subject to any other permits or approvals required.

The Project is currently in the detailed design phase. Additional provincial permits and approvals are required. Additional federal permits and approvals may be required.

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## Project components and activities

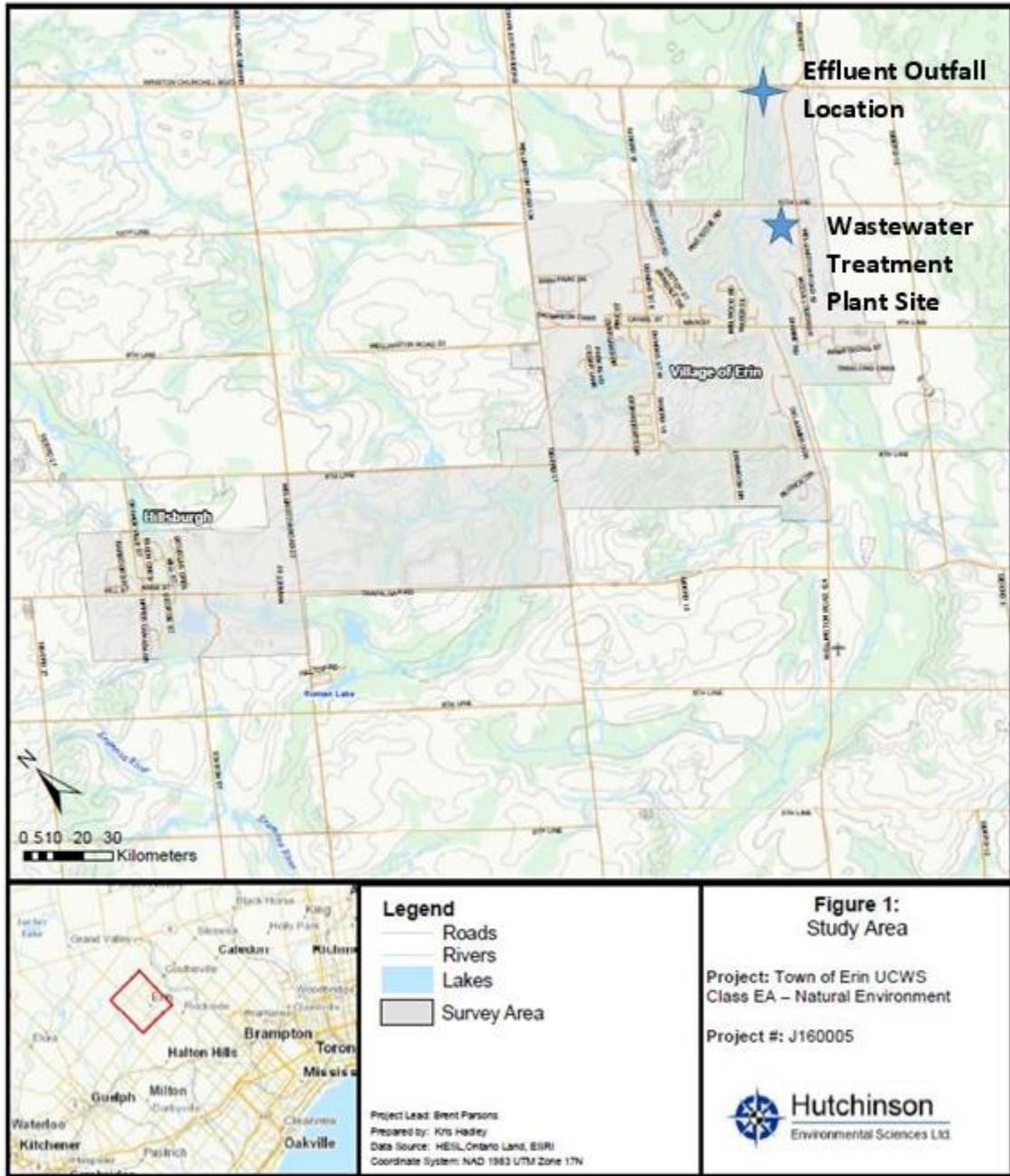
The Project components include:

- a wastewater treatment plant (Figure 2) with a flow capacity of approximately seven million litres per day and an enhanced membrane treatment technology to achieve high-quality effluent;
- a treated effluent outfall (Figure 3) in the West Credit River immediately upstream of a culvert crossing Winston Churchill Boulevard, including an effluent diffuser and stairs to the river;
- a two kilometre, buried effluent pipe from the wastewater treatment plant to the effluent outfall; and
- a wastewater collection system including pumping stations and buried forcemains and gravity sewers.

Project operations are anticipated in perpetuity; decommissioning and abandonment are not anticipated.



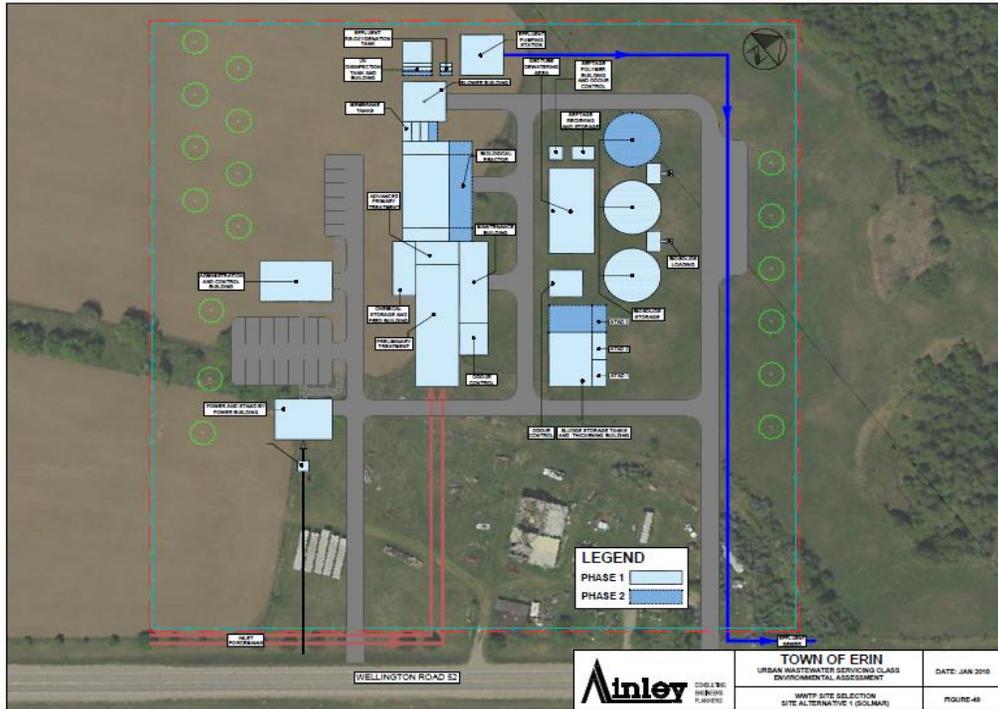
Figure 1: Project Location



Source: Modified from the Town of Erin, Urban Centre Wastewater Servicing Class Environmental Assessment, Environmental Study Report, 2019



Figure 2: Proposed Wastewater Treatment Plant Conceptual Design



Source: Town of Erin, Urban Centre Wastewater Servicing Class Environmental Assessment, Environmental Study Report, 2019

Figure 3: Proposed Effluent Outfall Location at the West Credit River



Source: Town of Erin, Urban Centre Wastewater Servicing Class Environmental Assessment, Environmental Study Report, 2019



# Analysis of Designation Request

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## Authority to designate the Project

The *Physical Activities Regulations* (the Regulations) of the IAA identify the physical activities that constitute designated projects. The Project would involve the construction, operation and maintenance of a wastewater treatment plant which is not a type of project described in the Regulations.

Under subsection 9(1) of the IAA, the Minister may, by order, designate a physical activity that is not prescribed in the Regulations. The Minister may do this, if, in the Minister's opinion, the physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation.

The carrying out of the Project has not substantially begun and no federal authority has exercised a power or performed a duty or function that would permit the Project to be carried out, in whole or in part<sup>2</sup>, therefore the Agency is of the view that the Minister may consider designating this project pursuant to subsection 9(1) of the IAA.

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## Potential adverse effects within federal jurisdiction

The potential for adverse effects within federal jurisdiction, as defined in section 2 of the IAA, would be limited through project design and application of standard mitigation measures, and would be managed through existing legislative and regulatory mechanisms, which include the completed Class EA.

Annex I provides a summary of analysis including the potential adverse effects within federal jurisdiction, mitigation measures proposed by the Proponent, and anticipated legislative mechanisms that would address the effects identified.

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## Potential adverse direct or incidental effects

Direct or incidental effects refer to effects that are directly linked or necessarily incidental to a federal authority's exercise of a power or performance of a duty or function that would permit the carrying out, in whole or in part, of a project, or to a federal authority's provision of financial assistance to a person for the purpose of enabling that project to be carried out, in whole or in part.

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<sup>2</sup> The Minister must not designate a physical activity if the carrying out of the physical activity has substantially begun, or a federal authority has exercised a power or performed a duty or function in relation to the physical activity (subsection 9(7) of the IAA).



As described, the Project may require the exercise of the following federal powers, duties, or functions:

- authorizations issued under the *Fisheries Act* and administered by Fisheries and Oceans Canada, for works associated with installing the effluent outfall at the West Credit River;
- a permit under the *Species at Risk Act* and administered by Fisheries and Oceans Canada, for any impacts on Redside Dace or its habitat as a result of the Project; and
- an approval issued under the *Canadian Navigable Waters Act* and administered by Transport Canada, for any construction works to occur in the West Credit River that may impact navigation.

The direct or incidental effects related to the described powers duties or functions would be limited, and would be addressed through requirements established by the federal authorities.

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## Public concerns

The Agency is of the view that the public concerns known to the Agency do not warrant designation under subsection 9(1) of the IAA.

The concerns raised in relation to the Project include:

- effects of effluent on sensitive Brook Trout and cold water fish habitat in the West Credit River, caused by changes in water quality and water temperature;
- effects on Redside Dace (endangered), Atlantic Salmon (extirpated and re-introduced) and other sensitive species downstream of the effluent outfall, including effects in non-federal protected areas such as the Forks of the Credit Provincial Park and the United Nations Educational, Scientific and Cultural Organization (UNESCO) Niagara Escarpment World Biosphere Reserve;
- cumulative effects of climate change, community population growth and increased groundwater usage on fish and fish habitat and aquatic species at risk;
- effects to migratory birds and terrestrial species at risk;
- effects to Indigenous peoples from changes to the environment;
- effects on social and economic conditions related to angling; and
- perceived inadequate public consultation by the Proponent.

Most concerns relate to adverse effects within federal jurisdiction, including effects on fish and fish habitat, migratory birds, aquatic species at risk and Indigenous peoples. The Agency is of the view that these concerns can be addressed through the application of standard mitigation measures and existing legislative and regulatory mechanisms (see Annex I and Annex II).

Annex III provides a summary table of the public concerns not within areas of federal jurisdiction, as defined in section 2 of the IAA, along with legislative and regulatory mechanisms that may be relevant to the concerns.

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## Potential adverse impacts on the rights of Indigenous peoples

The Agency, in relation to subsection 9(2) of the IAA, is of the view that while there is the potential for the Project to cause adverse impacts on the exercise of rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982* (section 35 rights), existing legislative and regulatory mechanisms would address potential impacts and would include (or have included) consultation with potentially affected Indigenous groups.

Potential adverse effects within federal jurisdiction, as described in Annex I, that could impact section 35 rights, are anticipated to be localized near project components within the West Credit River and the Village of Erin and Hillsburgh, and addressed with standard mitigation.

For this analysis, the Agency considered potential impacts to the Huron-Wendat Nation, Métis Nation of Ontario, Mississaugas of the Credit First Nation, and Six Nations of the Grand River (see Annex I). The Agency sent a letter to the groups notifying them of the designation request and the opportunity to provide comments to inform the Agency's analysis. No responses were received by the Agency.

The Proponent directly notified two Indigenous groups of the opportunity to participate in the Class EA for the Project. The Agency understands that no responses were received. The Proponent is committed to ongoing consultation with interested parties, including Indigenous groups, during project implementation.

Indigenous consultation would be required for any federal authorization that may be issued for the Project under the *Fisheries Act* or *Canadian Navigable Waters Act*. Some provincial permits and approvals may build on the consultation completed from the Class EA process; each permit and approval may have its own consultation requirements.

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## Regional and strategic assessments

There are no regional or strategic assessments pursuant to sections 92, 93 or 95 of the IAA that are relevant to the Project.

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## Conclusion

The Agency is of the view that the Project does not warrant designation pursuant to subsection 9(1) of the IAA. The potential for adverse effects, as described in subsection 9(1) of the IAA, would be limited through project design and by application of standard mitigation measures, and would be managed through existing legislative and regulatory mechanisms (Annex I), which include the completed Class EA.

Many concerns expressed in the request and that are known to the Agency have been considered through the Class EA process. Concerns would be further addressed through additional federal and provincial regulatory processes that may be required pursuant to the *Ontario Water Resources Act*, *Environmental Protection Act*, *Public Lands Act*, *Ontario Heritage Act*, *Endangered Species Act*, *Conservation Authorities*



*Act, Fisheries Act, Species at Risk Act, and Canadian Navigable Waters Act (Annex II).* The Proponent is committed to ongoing consultation with interested parties during project implementation.

To inform its analysis, the Agency sought input from the Proponent, relevant federal authorities and provincial ministries, the local conservation authority, and potentially affected Indigenous groups. Relevant correspondence and information received from members of the public were also considered, as appropriate. Further, the Agency considered the potential for the Project to cause adverse impacts on the rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982*, and is satisfied that the existing project design, mitigation measures, legislative and regulatory mechanisms and any associated consultation processes would address any potential impacts.

# ANNEX I

## Annex I: Analysis Summary Table

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i> (related to wastewater effluent)</p>	<ul style="list-style-type: none"> <li>• Brook Trout are sensitive and require cold, clean water with groundwater discharge. Wastewater effluent can be warm and contain contaminants, and has the potential to cause a change to fish and fish habitat.</li> <li>• During the Class EA, the Proponent considered the potential effects of effluent on Brook Trout and other sensitive fish species<sup>3</sup> in the West Credit River, with input from the Ministry of Environment, Conservation and Parks, Ministry of Natural Resources and Forestry, Credit Valley Conservation, and the public.</li> <li>• The Proponent would mitigate the potential effects of effluent through project design and standard measures including:               <ul style="list-style-type: none"> <li>◦ an enhanced membrane treatment technology to remove contaminants at a higher rate than conventional processes, and achieve higher quality effluent;</li> <li>◦ measures to minimize heating of wastewater at the treatment plant such as buried storage tanks and reflective coatings;</li> <li>◦ a buried, two-kilometre long effluent discharge pipe that will enable some cooling of effluent before it enters the river;</li> <li>◦ a commitment to adhere to a recommended upper temperature limit of 19°C in effluent discharge;</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Compliance Approval for sewage works, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i>. The approval would set limits for dissolved oxygen and un-ionized ammonia, but not chloride and temperature. All treatment plants are required to monitor dissolved oxygen, un-ionized ammonia, chloride and temperature as a condition of the Environmental Compliance Approval.</li> <li>• Compliance with subsection 36(3) of the <i>Fisheries Act</i>, which prohibits the deposit of deleterious substances (substance with a potentially harmful physical effect, including water temperature) into waters frequented by fish.</li> </ul>

<sup>3</sup>Other sensitive species includes re-introduced Atlantic Salmon. Atlantic Salmon are stocked in the West Credit River as part of a Lake Ontario Atlantic Salmon Restoration Program. The Lake Ontario population of Atlantic Salmon has been assessed as extinct federally; therefore, it is not listed under the *Species at Risk Act*. Canada's policy for conservation of wild Atlantic Salmon, does not include salmon re-introduced into rivers and streams of Lake Ontario as they are considered landlocked.



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
	<ul style="list-style-type: none"> <li>◦ location of outfall immediately upstream of a long culvert with degraded habitat, that purposefully avoids known spawning habitats further upstream (as documented by Credit Valley Conservation staff through spawning surveys); and</li> <li>◦ an agreement to require new subdivisions to install high efficiency water softeners that would reduce chlorides in wastewater.</li> <li>• Concerns were raised about dissolved oxygen, un-ionized ammonia, chloride levels and water temperature. Proponent modelling predicts that:               <ul style="list-style-type: none"> <li>◦ dissolved oxygen levels will remain above the Provincial Water Quality Objectives in the river at the outfall location;</li> <li>◦ un-ionized ammonia concentrations will meet Provincial Water Quality Objectives in the river within 153 metres of the outfall location;</li> <li>◦ chloride concentrations in the treated effluent may exceed the Canadian Water Quality Guidelines, based on data from communities with similar drinking water characteristics; and</li> <li>◦ effects on water temperature would be localized during the sensitive periods for Brook Trout spawning (October) and egg development (November through March).</li> </ul> </li> <li>• The Ministry of Environment, Conservation and Parks is satisfied that the Proponent's proposed effluent limits meet ministry requirements for wastewater treatment operations discharging to surface waters. The Ministry noted that the proposed outfall is not expected to cause any adverse effects on the survival, growth, and reproduction of Brook Trout.</li> <li>• Based on the results of the Class EA for the Project, the Ministry of Environment, Conservation and Parks decided temperature would not need to be regulated as an effluent parameter in its Environmental Compliance Approval. The Ministry of Environment, Conservation and Parks advised that temperature and chloride monitoring, amongst other parameters, will be required in the influent, effluent and receiver environment and will feed into an adaptive management framework.</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with the <i>Wastewater Systems Effluent Regulations</i>, under the <i>Fisheries Act</i>, that require operators to ensure effluent discharges meet specific conditions at the final outfall point. Environment and Climate Change Canada does not have an authorization to issue in relation to the Project.</li> </ul>



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
	<p>Contingency measures will be implemented based on trigger concentrations of the parameters of concern. Further, if operations are found to be causing an adverse effect on the natural environment, provincial Ministry officers have the power to require the facility to take actions to mitigate or ameliorate the adverse effects.</p> <ul style="list-style-type: none"><li>• Subsection 36(3) of the <i>Fisheries Act</i> prohibits the deposit of deleterious substances into waters frequented by fish, unless authorized by federal regulations such as the <i>Wastewater Systems Effluent Regulations</i>. Any substance with a potentially harmful chemical, physical (such as temperature) or biological effect on fish or fish habitat, including interference with spawning or respiration, for example, would be deleterious.</li><li>• Environment and Climate Change Canada noted that in designing and operating the treatment plant, the Proponent can take into account Canada's <i>Guidance Document: Environmental Effects Assessment of Freshwater Thermal Discharge</i><sup>4</sup>, and the Canadian Water Quality Guidelines for temperature for the protection of aquatic life. Environment and Climate Change Canada can support the design of any follow-up program to verify the accuracy of the thermal effects assessment. The <i>Wastewater Systems Effluent Regulations</i> requires operators to demonstrate that wastewater effluent is not acutely lethal to fish.</li><li>• A concern was raised about the potential for endocrine disruptors to exist in effluent. The Ministry of Conservation and Parks is satisfied that the advanced wastewater treatment process proposed can generally achieve high removal rates of endocrine disruptors, compared with conventional wastewater treatment processes, and is satisfied that the Proponent considered measures to reduce impacts.</li></ul>	

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<sup>4</sup> [Guidance Document: Environmental Effects Assessment of Freshwater Thermal Discharge](#)



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i> (related to wastewater effluent and cumulative effects)</p>	<ul style="list-style-type: none"><li>• Public citizens expressed concern that treated effluent combined with climate change, community population growth and related groundwater usage may cause cumulative adverse effects on Brook Trout, other sensitive species, and the cold water habitat that supports them.</li><li>• The Proponent's flow modelling included a 10% correction factor to account for potential impacts of climate change on water temperatures within the West Credit River. The Ministry Of Environment, Conservation and Parks and Credit Valley Conservation are satisfied with the correction for climate change. The Proponent noted the absence of any government guidance about how groundwater-fed rivers may respond to climate change.</li><li>• Groundwater taking associated with future housing developments and population growth will require a provincial permit. The Ministry of Environment, Conservation and Parks will not issue a permit to take water until it is satisfied that the proposed taking is unlikely to result in unacceptable impacts to existing water users or to the natural functions of the ecosystem.</li><li>• Finally, the Proponent will have to comply with the conditions of its Environmental Compliance Approval, and must take action to manage exceedances to safeguard the environment. If the Proponent proposes significant changes to the effluent criteria approved during the Class EA, an addendum to the completed Class EA may be triggered, as the potential impacts to the West Credit River may need to be revisited.</li></ul>	<ul style="list-style-type: none"><li>• Environmental Compliance Approval for sewage works, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i>. All treatment plants are required to monitor temperature as a condition of the Environmental Compliance Approval.</li><li>• Permit to Take Water, pursuant to the <i>Ontario Water Resources Act</i>, issued by the Ministry of the Environment, Conservation and Parks, which would set limits for water taking to protect water levels in surrounding waterbodies. Would be applicable to future projects that involve water taking.</li></ul>



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i> (related to physical works)</p>	<ul style="list-style-type: none"> <li>• Work in water and work on shorelands may be required to install the effluent outfall, effluent diffuser, and stairs, and has the potential to result in impacts to fish and fish habitat.</li> <li>• The Proponent would mitigate effects on fish and fish habitat through standard measures such as avoiding in-water works during timing windows for spawning fish; developing an Erosion and Sediment Control Plan to prevent runoff and solids from entering the river; and applying best management practices.</li> <li>• Fisheries and Oceans Canada indicated the Project is not expected to result in death of fish and/or harmful alteration, disruption or destruction to fish habitat. The sufficiency of mitigation will be determined when the Proponent submits information for its review. Fisheries and Oceans Canada noted that typically, physical footprints from outfalls can largely be mitigated and avoided, so it is unlikely that an authorization would be issued under the <i>Fisheries Act</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• Authorization pursuant to the <i>Fisheries Act</i> paragraph 34.4(2)(b), issued by Fisheries and Oceans Canada if the Project is likely to result in the death of fish.</li> <li>• Authorization pursuant to the <i>Fisheries Act</i> paragraph 35(2)(b), issued by Fisheries and Oceans Canada if the Project is likely to cause harmful alteration, disruption or destruction to fish habitat.</li> <li>• Permit pursuant to the <i>Conservation Authorities Act</i>, issued by Credit Valley Conservation, for a development activity that occurs within a regulated area of the Credit Valley Conservation.</li> <li>• Work permit pursuant to the <i>Public Lands Act</i>, issued by the Ontario Ministry of Natural Resources and Forestry for work on shorelands to install the effluent outfall on the West Credit River riverbed. Proponent will pursue whether required.</li> </ul>
<p>A change to aquatic species, as defined in subsection 2(1) of the <i>Species at Risk Act</i></p>	<ul style="list-style-type: none"> <li>• Redside Dace occur in the West Credit River, four kilometres downstream of the proposed effluent outfall location. Redside Dace is endangered federally and provincially. Some citizens are concerned that cumulative effects from the Project and forecasted urban development will threaten Redside Dace.</li> <li>• Project-related changes to water quality in the West Credit River would be localized and mitigated near the effluent outfall location. Treated effluent criteria would be</li> </ul>	<ul style="list-style-type: none"> <li>• Permit under the <i>Species at Risk Act</i> or an authorization under the <i>Fisheries Act</i>, issued by Fisheries and Oceans Canada, if an activity would affect Redside Dace.</li> </ul>



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
	<p>protective of all forms of aquatic life. The Proponent also plans to implement standard mitigation measures to address construction-related effects on fish and fish habitat at the outfall location. The Proponent can refer to Ontario's <i>Guidance for Development Activities in Redside Dace Protected Habitat</i><sup>5</sup>.</p> <ul style="list-style-type: none"> <li>• Fisheries and Oceans Canada has indicated the Project is unlikely to result in impacts on Redside Dace and a permit under the <i>Species at Risk Act</i> is unlikely to be required. No concerns about Redside Dace were raised by provincial ministries during the Class EA.</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with Ontario's <i>Endangered Species Act</i>, which prohibits killing, harming and harassment of species at risk, and prohibits the damage or destruction of their habitat.</li> </ul>
<p>A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i></p>	<ul style="list-style-type: none"> <li>• Forty-seven migratory bird species, including five migratory birds that are federally-listed species at risk<sup>6</sup>, were documented in the vicinity of the Project.</li> <li>• Individual mortality and the destruction of nests and eggs could occur during site preparation or from collisions with project vehicles and infrastructure. Sensory disturbances, such as noise, lights, and vibrations from excavation and machinery can also affect migratory birds.</li> <li>• The Proponent would mitigate effects on migratory birds through standard measures such as avoiding vegetation clearing during the breeding season (between early April and late August); undertaking a breeding bird and nest survey if activities are proposed during the general nesting period; and implementing an environmental management plan during construction.</li> <li>• The proponent intends to identify specific mitigation details during the design phase and can refer to Canada's <i>Guidelines to reduce risk to migratory birds</i>.<sup>7</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with the <i>Migratory Birds Convention Act, 1994</i>, which prohibits the harming of migratory birds, the nests of migratory birds and/or their eggs. Environment and Climate Change Canada indicated that neither a permit under the <i>Migratory Birds Convention Act, 1994</i>, nor a permit under the <i>Species at Risk Act</i> are anticipated to be required for migratory bird species.</li> <li>• Compliance with Ontario's <i>Endangered Species Act</i>. A permit under the Act is not anticipated to be required. The Proponent would instead be required to follow rules to mitigate</li> </ul>

<sup>5</sup> [Guidance for development activities in Redside Dace protected habitat | Ontario.ca](#)

<sup>6</sup> Bird species at risk include Bobolink (threatened), Eastern Meadowlark (threatened), Barn Swallow (threatened), Golden-winged Warbler (threatened), and Eastern Wood-Pewee (special concern).

<sup>7</sup> [Guidelines to reduce risk to migratory birds - Canada.ca](#)



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
	<ul style="list-style-type: none"><li>Bobolink and Eastern Meadowlark may be present near the proposed wastewater treatment plant site where there will be a small, permanent loss of habitat. Bobolink and Eastern Meadowlark are threatened federally and provincially. To comply with Ontario's <i>Endangered Species Act</i>, the proponent would create or enhance habitat for these species, and manage that habitat.</li></ul>	adverse effects to Bobolink and Eastern Meadowlark, as per exemption provisions in Ontario Regulation 242/08 (subsections 23.6) <sup>8</sup> .
A change to the environment that would occur on federal lands	<ul style="list-style-type: none"><li>Adverse environmental effects on federal lands are not anticipated, as there are no federal lands in the vicinity of the Project.</li></ul>	<ul style="list-style-type: none"><li>Not applicable.</li></ul>
A change to the environment that would occur in a province other than the one in which the Project is being carried out or outside Canada	<ul style="list-style-type: none"><li>No adverse transboundary effects in other provinces or outside Canada are anticipated. The nearest provincial and international borders are approximately 302 kilometres northeast and 77 kilometres southeast of the Project, respectively.</li><li>The construction and operation of the Project would result in greenhouse gas emissions. However, wastewater infrastructure projects are expected to support a shift toward lower emitting models of wastewater systems and decreased greenhouse gas emissions.<sup>9</sup></li></ul>	<ul style="list-style-type: none"><li>Not applicable.</li></ul>

<sup>8</sup> [Ontario Regulation 242/08: GENERAL \(ontario.ca\)](http://www.ontario.ca)

<sup>9</sup> Environment and Climate Change Canada (2019). Achieving A Sustainable Future: A Federal sustainable Development Strategy For Canada 2019 to 2022. Available at: [http://www.fsds-sfdd.ca/downloads/FSDS\\_2019-2022.pdf](http://www.fsds-sfdd.ca/downloads/FSDS_2019-2022.pdf).



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment on:</p> <ul style="list-style-type: none"> <li>physical and cultural heritage; and</li> <li>any structure, site, or thing that is of historical, archaeological, paleontological or architectural significance</li> </ul>	<ul style="list-style-type: none"> <li>No impacts are anticipated.</li> <li>As part of the Class EA process, the Proponent completed a cultural heritage resource assessment for the entire project area in accordance with guidelines published by the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries. The assessment took into account Indigenous land use and settlement. No cultural heritage resources of interest to Indigenous peoples were identified.</li> <li>The Proponent conducted Stage 1 and Stage 2 Archaeological Assessments, pursuant to the <i>Ontario Heritage Act</i>, within the area of the proposed wastewater treatment plant site, effluent pipe, and outfall location. No archaeological materials were identified so further assessment was not required. The proponent will conduct Stage 2 Archaeological Assessments for other project components during the project implementation stage.</li> <li>To comply with the <i>Ontario Heritage Act</i>, all work would stop if unexpected archaeological resources are encountered (or suspected) during physical activities. The site would be protected from impact until assessed by a licensed archaeologist. Consultation with relevant Indigenous groups would be initiated in the event that archaeological resources or human remains are discovered.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with the <i>Ontario Heritage Act</i> requires the Proponent to conduct archaeological assessments in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries Standards and Guidelines for Consultant Archaeologists (2011) and follow protocols to protect any discovered archaeological resource.</li> </ul>
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on current use of lands and resources for traditional purposes</p>	<ul style="list-style-type: none"> <li>No impacts are anticipated.</li> <li>Most project components are located on private lands intended for agriculture use or throughout residential and commercially developed areas, where current use of land and resources for traditional purposes is not anticipated to occur. Project-related changes to land would be localized, mitigated close to the source, and in many cases temporary during the construction of underground components.</li> <li>In the West Credit River, project-related changes to water quality would be localized and mitigated near the effluent outfall location. Treated effluent criteria would be protective of all forms of aquatic life. Effects on fisheries are not anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with <i>Ontario Water Resources Act, Public Lands Act, Ontario Heritage Act, Environmental Protection Act, Endangered Species Act, Conservation Authorities Act, Fisheries Act, Migratory Birds Convention Act, 1994, Species at Risk Act, and Canadian Navigable Waters Act</i>, including any relevant licenses, permits, approvals, or authorizations,</li> </ul>



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
		would ensure that effects are localized and mitigated.
Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada	<ul style="list-style-type: none"> <li>No impacts are anticipated.</li> <li>No changes to the health, social or economic conditions of the potentially affected Indigenous groups are anticipated given the location, size and scale of the Project. The nearest reserve is approximately 70 kilometres southwest of the Project.</li> <li>Project-related changes to land would be localized, mitigated close to the source, and in many cases temporary during the construction of underground components.</li> <li>In the West Credit River, project-related changes to water quality would be localized and mitigated near the effluent outfall location. Treated effluent criteria would be protective of all forms of aquatic life. Effects on fisheries are not anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with <i>Ontario Water Resources Act</i>, <i>Public Lands Act</i>, <i>Ontario Heritage Act</i>, <i>Environmental Protection Act</i>, <i>Endangered Species Act</i>, <i>Conservation Authorities Act</i>, <i>Fisheries Act</i>, <i>Migratory Birds Convention Act, 1994</i>, <i>Species at Risk Act</i>, and <i>Canadian Navigable Waters Act</i>, including any relevant licenses, permits, approvals, or authorizations, would ensure that effects are localized and mitigated.</li> </ul>
Adverse direct or incidental effects	<ul style="list-style-type: none"> <li>If required, authorizations from Fisheries and Oceans Canada, issued under the <i>Fisheries Act</i>, would include conditions requiring avoidance, as well as mitigation, offsetting, contingency and monitoring measures.</li> <li>If required, permit from Fisheries and Oceans Canada, issued under the <i>Species at Risk Act</i>, would include requirements to assess and mitigate effects on the species or its critical habitat or the residences of its individuals.</li> <li>If required, the review and approval process, under the <i>Canadian Navigable Waters Act</i> administered by Transport Canada, would include conditions to prevent severe impacts to navigation.</li> <li>The direct or incidental effects would be limited or addressed through the requirements set by the relevant federal authorities.</li> </ul>	<ul style="list-style-type: none"> <li><i>Fisheries Act</i> authorizations, issued under paragraphs 34.4(2)(b) and 35(2)(b) may be required.</li> <li><i>Species at Risk Act</i> permit may be required.</li> <li><i>Canadian Navigable Waters Act</i> approval under section 10(1)(a) may be required.</li> </ul>



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the IAA	Effects and Mitigation Proposed by the Proponent and the Agency's Findings	Relevant Legislative and Regulatory Mechanisms
Public concerns related to the above effects	<ul style="list-style-type: none"><li>• Potential effects on fish and fish habitat, aquatic species at risk, migratory birds, and Indigenous peoples along with relevant project design features and mitigation measures are summarized above.</li></ul>	<ul style="list-style-type: none"><li>• Relevant legislative and regulatory mechanisms for are summarized above.</li></ul>

# ANNEX II

## Annex II: Potential Federal and Provincial Authorizations Relevant to the Project

Authorization	Description
<p>Approval for outfall works, as defined under the works in navigable waters not listed by Transport Canada, pursuant to the <i>Canadian Navigable Waters Act</i>.</p>	<ul style="list-style-type: none"> <li>• The Proponent should self-assess whether the proposed outfall is listed as a minor work, as defined under the Minor Works and Waters Order, pursuant to the <i>Canadian Navigable Waters Act</i>. Minor works do not require an approval if the work meets the criteria and requirements found in the Minor Works and Waters Order.</li> <li>• For navigable waterways not listed, proponents are required to issue a public notice and provide information about proposed works (except for minor works) on all navigable waters.</li> <li>• The Proponent would either submit a voluntary application for an approval or undertake the public resolution process under section 10(1)(a) and 10(1)(b) of the <i>Canadian Navigable Waters Act</i>, respectively.</li> <li>• The approval requires that water levels or water flow is maintained for navigation purposes in navigable water.</li> <li>• This approval process requires public and Indigenous consultation, and will take into account existing consultation and regulatory processes.</li> </ul>
<p>Authorization issued by Fisheries and Oceans Canada, pursuant to paragraph 34.4(2)(b) of the <i>Fisheries Act</i>.</p>	<ul style="list-style-type: none"> <li>• A <i>Fisheries Act</i> paragraph 34.4(2)(b) authorization includes requirements to assess and mitigate effects arising from carrying out a work, undertaking or activity that results in the death of fish. The authorization must identify measures to offset those effects and monitoring commitments to address and assess the effectiveness of the offset measures.</li> <li>• An authorization will be required if the Project is likely to result in the death of fish.</li> <li>• The Proponent has committed to submit a Request for Project Review to Fisheries and Oceans Canada to determine whether this authorization would be required.</li> <li>• If an authorization were required, consultation with affected Indigenous groups would be conducted prior to its issuance.</li> </ul>
<p>Authorization, issued by Fisheries and Oceans Canada, pursuant to 35(2)(b) of the <i>Fisheries Act</i>.</p>	<ul style="list-style-type: none"> <li>• A <i>Fisheries Act</i> paragraph 35(2)(b) authorization includes requirements to assess and mitigate effects arising from carrying out a work, undertaking or activity that results in harmful alteration, disruption or destruction of fish habitat. The authorization must identify measures to offset those effects and monitoring commitments to address and assess the effectiveness of the offset measures</li> <li>• An authorization will be required if the Project is likely to cause the harmful alteration, disruption, or destruction to fish habitat.</li> </ul>



Authorization	Description
	<ul style="list-style-type: none"><li>• The Proponent has committed to submit a Request for Project Review to Fisheries and Oceans Canada to determine whether this authorization would be required.</li><li>• If an authorization were required, consultation with affected Indigenous groups would be conducted prior to its issuance.</li></ul>
Permit for Redside Dace issued by Fisheries and Oceans Canada, pursuant to section 73(1) of the <i>Species at Risk Act</i> .	<ul style="list-style-type: none"><li>• A <i>Species at Risk Act</i> permit includes requirements to assess and mitigate effects on the species or its critical habitat or the residences of its individuals.</li><li>• A permit under the <i>Species at Risk Act</i> could be required if an activity would affect Redside Dace.</li><li>• Prior to authorization, the minister of Fisheries and Oceans Canada must be satisfied that the activities will not jeopardize survival or recovery of the species at risk.</li></ul>
Compliance with subsection 36(3) of the <i>Fisheries Act</i> .	<ul style="list-style-type: none"><li>• Prohibits the deposit of deleterious substances (substance with a potentially harmful physical effect, including water temperature) into waters frequented by fish, unless authorized by a regulation such as the <i>Wastewater Systems Effluent Regulations</i>.</li><li>• A deleterious substance means:<ul style="list-style-type: none"><li>◦ any substance that, if added to water, would degrade or alter the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water; or</li><li>◦ any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water.</li></ul></li></ul>
Compliance with the <i>Wastewater Systems Effluent Regulations</i> under the <i>Fisheries Act</i> .	<ul style="list-style-type: none"><li>• Requires operators to ensure effluent discharges meet specific conditions, including effluent quality standards, at the final discharge point.</li><li>• Operators must provide routine reports to Environment and Climate Change Canada to demonstrate compliance with effluent quality limits and to demonstrate that wastewater effluent is not acutely lethal to fish.</li></ul>



Authorization	Description
Permit to undertake a development activity within a regulated area of the Credit Valley Conservation, and/or interfere with a watercourse or wetland, under the Ontario Regulation 160/06, pursuant to section 28 of the <i>Conservation Authorities Act</i> .	<ul style="list-style-type: none"><li>• The Credit Valley Conservation is an agency responsible for ensuring that natural hazards would be managed for project activities that may occur within their regulated area, which may include development activities such as site grading, placement of buildings or structures, and the installation/operation of the effluent outfall.</li><li>• The permit assesses for the control of natural hazards, such as flooding, erosion, dynamic breaches, pollution or the conservation of land that may be affected by a development activity.</li><li>• The approval process includes conditions to ensure that appropriate mitigation measures are in place prior to construction.</li></ul>
Compliance with subsection 23.6 of the Ontario Regulation 242/08, pursuant to the Ontario <i>Endangered Species Act</i> in relation to works within Bobolink and Eastern Meadowlark habitat.	<ul style="list-style-type: none"><li>• For any activities that damage or destroy less than 30 hectares of Bobolink and Eastern Meadowlark habitat, the Proponent must:<ul style="list-style-type: none"><li>◦ submit a notice of activity to the Minister through the Registry of the Ministry of Natural Resources and Forestry;</li><li>◦ prepare and implement a habitat management plan;</li><li>◦ create new habitat for Bobolink or Eastern Meadowlark or enhance an already existing habitat for Bobolink or Eastern Meadowlark;</li><li>◦ undertake annual monitoring of the created or enhanced habitat; and</li><li>◦ prepare and maintain a record in respect of the activity and the habitat created or enhanced.</li></ul></li></ul>
Authorization required for removal, demolition or transfer of heritage resources that may be impacted, issued by the Ministry of Heritage, Sport, Tourism and Cultural Industries, pursuant to the <i>Ontario Heritage Act</i> .	<ul style="list-style-type: none"><li>• The Ministry of Heritage, Sport, Tourism and Cultural Industries or prescribed public body requesting consent is responsible for the public and/or Indigenous consultation and shall include that information in the consent request.</li><li>• The Minister's consent for removal, demolition or transfer of heritage resources may include conditions.</li></ul>

Authorization	Description
<p>Environmental Compliance Approval for sewage works, issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i>.</p>	<ul style="list-style-type: none"> <li>• This Environmental Compliance Approval would include conditions for strict compliance with effluent limits to be protective of the natural environment, including the West Credit River, and would:               <ul style="list-style-type: none"> <li>◦ outline the effluent quality criteria and objectives to which the sewage works should be operated and maintained;</li> <li>◦ include legally enforceable rules of the operation for the Project, designed to protect the environment from emissions of contaminants, discharges and wastes produced; and</li> <li>◦ include requirements to complete routine sampling, monitoring and reporting that would feed into an adaptive management framework.</li> </ul> </li> <li>• The Ministry of Environment, Conservation and Parks determined that the Proponent has done sufficient consultation for the Class EA, which is required prior to issuing an Environmental Compliance Approval for the Project.</li> </ul>
<p>Permit to Take Water issued by the Ministry of the Environment, Conservation and Parks, pursuant to the <i>Ontario Water Resources Act</i>.</p>	<ul style="list-style-type: none"> <li>• The Permit to Take Water includes requirements to assess impacts to surface and groundwater quantity and quality due to project activities.</li> <li>• The permit places limits on the quantity and duration of water taking and requires reporting. Additional conditions could include monitoring requirements, seasonal restrictions, modifications to discharge locations, and remediation.</li> <li>• This permit would be applicable to future projects that involve water taking. The permitting process requires Indigenous and public consultation.</li> </ul>
<p>Environmental Compliance Approvals for air and noise, issued by the Ministry of the Environment, Conservation and Parks, pursuant to Ontario's <i>Environmental Protection Act</i>.</p>	<ul style="list-style-type: none"> <li>• These Environmental Compliance Approvals include requirements to assess, mitigate and monitor potential adverse effects on local air quality and noise levels due to project activities.</li> <li>• The Ministry of Environment, Conservation and Parks determined that the Proponent has done sufficient consultation for the Class EA, which is required prior to issuing an Environmental Compliance Approval for the Project.</li> </ul>
<p>Work permit may be required to install the effluent outfall on the West Credit River riverbed, issued by the Ministry of Natural Resources and Forestry, pursuant to the <i>Public Lands Act</i>.</p>	<ul style="list-style-type: none"> <li>• The Ministry of Natural Resources and Forestry issues work permits under the <i>Public Lands Act</i> to achieve effective stewardship of public land and to protect Crown interests from activities occurring on adjacent, privately owned shore lands.</li> <li>• This authorization process may include Indigenous consultation.</li> </ul>

# ANNEX III

## Annex III: Public Concerns Known to the Agency in Relation to the Project

Concern Expressed	Relevant Mechanisms to Address Concern
<p>Potential effects to sensitive species in the Forks of the Credit Provincial Park and the UNESCO Niagara Escarpment World Biosphere Reserve due to the Project</p>	<ul style="list-style-type: none"> <li>• The proposed effluent outfall is approximately 700 metres upstream of the border of the UNESCO Niagara Escarpment World Biosphere Reserve which also contains the Forks of the Credit Provincial Park.</li> <li>• The Proponent completed a Class EA pursuant to Ontario's <i>Environmental Assessment Act</i>. The Ministry of Environment, Conservation and Parks did not receive any concerns from the Niagara Escarpment Commission or Ontario Parks regarding potential effects of the Project.</li> <li>• Annex I provides information about potential effects on fish and fish habitat and aquatic species at risk. Project-related changes to water quality in the West Credit River would be localized and mitigated near the effluent outfall location. Treated effluent criteria would be protective of all forms of aquatic life.</li> </ul>
<p>Potential social and economic impacts related to angling due to the Project</p>	<ul style="list-style-type: none"> <li>• The Proponent completed a Class EA pursuant to Ontario's <i>Environmental Assessment Act</i>. Effects on fisheries are not anticipated.</li> <li>• The Ministry of the Environment, Conservation and Parks is satisfied that no impacts to fisheries and habitat are expected due to the Project that would disrupt social and economic conditions related to angling.</li> </ul>
<p>Potential impacts on reptiles and amphibians due to the Project</p>	<ul style="list-style-type: none"> <li>• The Proponent completed a Class EA pursuant to Ontario's <i>Environmental Assessment Act</i>. The Environmental Study Report includes an analysis of potential impacts on wildlife, including some species at risk (e.g., Snapping Turtle and Western Chorus Frog). In the Class EA, the Western Chorus Frog was heard at a station in a marsh, next to a trail where a forcemain will be buried. Proposed mitigation measures include habitat avoidance, limiting disturbances to the Project footprint (e.g., within the trail), erosion and sediment controls, and timing construction to avoid breeding periods.</li> <li>• The Ministry of Environment, Conservation and Parks is satisfied with the proposed mitigation measures for species at risk identified during the Class EA process.</li> <li>• With respect to Western Chorus Frog, Environment and Climate Change Canada noted that Critical Habitat mapped for the species, to date, does not overlap the Project. If the Proponent chooses to collect additional information about Western Chorus Frog occurrence, Environment and Climate Change Canada is available to provide technical advice.</li> </ul>
<p>Lack of consideration of alternatives</p>	<ul style="list-style-type: none"> <li>• The Proponent completed a Class EA pursuant to Ontario's <i>Environmental Assessment Act</i>. The Environmental Study Report includes an evaluation of wastewater servicing alternatives.</li> <li>• The Ministry of the Environment, Conservation and Parks is satisfied that the Proponent fulfilled the alternative evaluation requirements for the Class EA.</li> </ul>



Concern Expressed	Relevant Mechanisms to Address Concern
Insufficient public consultation	<ul style="list-style-type: none"><li data-bbox="461 352 1453 443">• The Proponent completed a Class EA pursuant to Ontario's <i>Environmental Assessment Act</i>. The Minister of the Environment, Conservation and Parks determined that the Proponent met the consultation requirements of the Class EA.</li><li data-bbox="461 464 1453 642">• The Proponent has committed to ongoing public and Indigenous consultation with interested parties during the implementation stages for the wastewater treatment plant and the wastewater collection system through an enhanced communication plan. This will include additional Public Information Centers, notification to interested parties and Indigenous groups about engagement opportunities, and a mechanism to submit online queries to the Proponent.</li></ul>