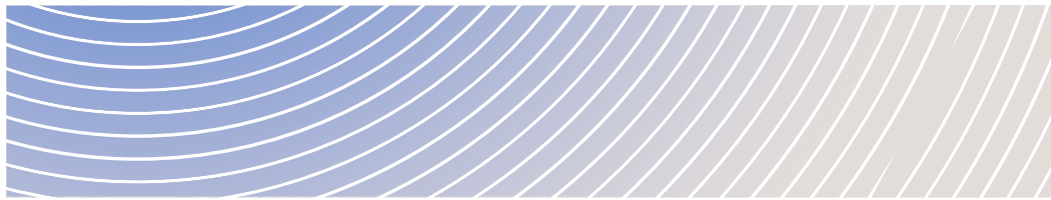


# Analysis Report



WHETHER TO DESIGNATE THE REID ROAD RESERVOIR  
QUARRY IN ONTARIO

December 2019



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## Context of Request

On July 9, 2019, the Minister of Environment and Climate Change (the Minister) received a letter dated July 4, 2019 from a former Member of Parliament. The letter included a request for a joint federal-provincial environmental assessment of the Reid Road Reservoir Quarry (the Project), as proposed by James Dick Construction Ltd. (the proponent). The request expressed concerns about project-related impacts on water levels for Milton and surrounding areas, Provincially Significant Wetlands, the habitats of endangered and threatened species, and significant woodlands. The letter also requested information regarding the negative impacts of increased truck traffic on local streets and project-related effects on local aquifers.

On July 19, 2019, the Impact Assessment Agency of Canada (the Agency) sent a letter to the proponent notifying them of the designation request and requesting information. The proponent responded on August 2 and August 6, 2019, with information about the Project, its potential adverse effects, proposed design and mitigation measures, and its view that the Project should not be designated. In addition, the Agency requested advice from federal authorities and provincial ministries. Advice on applicable legislative mechanisms and potential effects due to the Project was received from Environment and Climate Change Canada, Fisheries and Oceans Canada, and Natural Resources Canada. The Ministry of the Environment, Conservation and Parks, the Ministry of Natural Resources and Forestry, the Ministry of Transportation, and the Ministry of Tourism, Culture and Sport provided similar advice.

## Project Context

### Project overview

The Project would provide close-to-market aggregate resources required for high-density development and infrastructure within the Greater Golden Horseshoe. It is located on lands owned by the proponent (project property) approximately 1.5 kilometres west of the Hamlet of Campbellville in the Town of Milton. The Project would be bordered by provincial Highway 401 to the north, a Canadian Pacific Railway rail line and Campbellville Industrial Park to the south, and bisected by the Guelph Junction Railway (Figure 1).

The Project would involve the extraction of sand and aggregate<sup>1</sup> at a maximum production capacity of 990,000 tonnes per year. It would operate for approximately 20 years, subject to the rate of annual extraction and market demand.

The pit and quarry area proposed to be licensed (subject lands) is approximately 29.4 hectares with approximately 25.1 hectares proposed for extraction. The subject lands are located exclusively within the area zoned Extractive Industrial (MX) under the Town of Milton Comprehensive Zoning By-law 144-2003. These lands have been utilized for various forms of aggregate extraction since the 1960's.

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<sup>1</sup> Aggregate refers to gravel and dolostone aggregate.





## Project components and activities

The extraction of the aggregate resources is proposed to occur during five phases, creating a new quarry pond with a maximum depth of 262 metres above sea level and deepening the three existing ponds (Central, East and West Ponds) to the same depth as the new pond (Figure 2):

- Phase 1 would involve above-water sand and gravel extraction within the previously disturbed south-west portion of the subject lands, followed by underwater drilling, blasting and aggregate extraction, resulting in the creation of a new quarry pond. Unmarketable material from Phase 1 would be used to fill the western portion of the existing East Pond to develop an area to construct the processing plant. This material would also be used to fill the southern portion of the existing Central Pond to develop a haul truck route and a conveyor system connecting the new quarry pond to the existing Central and East Ponds.
- Phase 2 would involve underwater drilling, blasting and aggregate extraction within the existing West Pond and the north portion of the existing Central Pond.
- Phase 3 would involve underwater drilling, blasting and aggregate extraction of the eastern portion of the existing East Pond.
- Phase 4 would involve underwater drilling, blasting and aggregate extraction of the southern portion of the Central Pond and the southern and western edges of the existing West Pond.
- Phase 5 would involve underwater drilling, blasting and aggregate extraction of the existing western portion of the East Pond. The main processing plant would be relocated to allow for the extraction of aggregate and eventually removed from the property. Once the plant is removed, any unprocessed material would be hauled by customers to be processed off-site, within the Greater Golden Horseshoe, per customer requirements, and/or hauled by the proponent to another location to be processed at another existing processing plant owned by the proponent within the Greater Toronto Area. The off-site processing plant utilized to process aggregate from the Project would not require expansion or alteration to process the additional aggregate.

During all phases, the excavated and unprocessed aggregate would be stockpiled in above-water extraction areas and on working pad areas, and conveyed to the processing area to be crushed, screened and washed. The processed aggregate product would then be weighed and loaded onto trucks for transport. Aggregate products would be hauled from an existing site access road to Highway 401 via Reid Sideroad (approximately 1.5 kilometres). Reid Sideroad was constructed as an aggregate haul route for a previous quarry operation on the property to reduce truck traffic within the Hamlet of Campbellville.

Site rehabilitation would occur progressively during the phases. Rehabilitation activities include developing littoral areas, naturalized shorelines and wet meadow areas in a manner that would ensure adequate vegetation and drainage, and alleviate any compaction.



## **Analysis of Designation Request**

### **Authority to designate the Project**

The *Physical Activities Regulations* (the Regulations) of the *Impact Assessment Act* (IAA) identify types of projects that are designated projects. The Project, as described in the information provided by the proponent, with a maximum production capacity of 990 000 tonnes per year, is not included in the Regulations.<sup>2</sup>

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.

Given this understanding of the Project, the Agency is of the view that the Minister may consider designating this project pursuant to subsection 9(1) of IAA.

### **Potential adverse effects within federal jurisdiction**

The potential for adverse effects within federal jurisdiction, as defined in section 2 of IAA, would be limited through project design and by application of standard mitigation measures. There are no federal lands in the vicinity of the Project. The potential changes in the environment that would cause effects within federal jurisdiction would be managed through existing legislative mechanisms. Annex I and II provide a summary table of the potential adverse effects, mitigation measures proposed by the proponent, and anticipated legislative mechanisms if the Project proceeds.

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<sup>2</sup> The Regulations include quarry projects with a production capacity of 3 500 000 tonnes per year or more.



Figure 1: Project Location

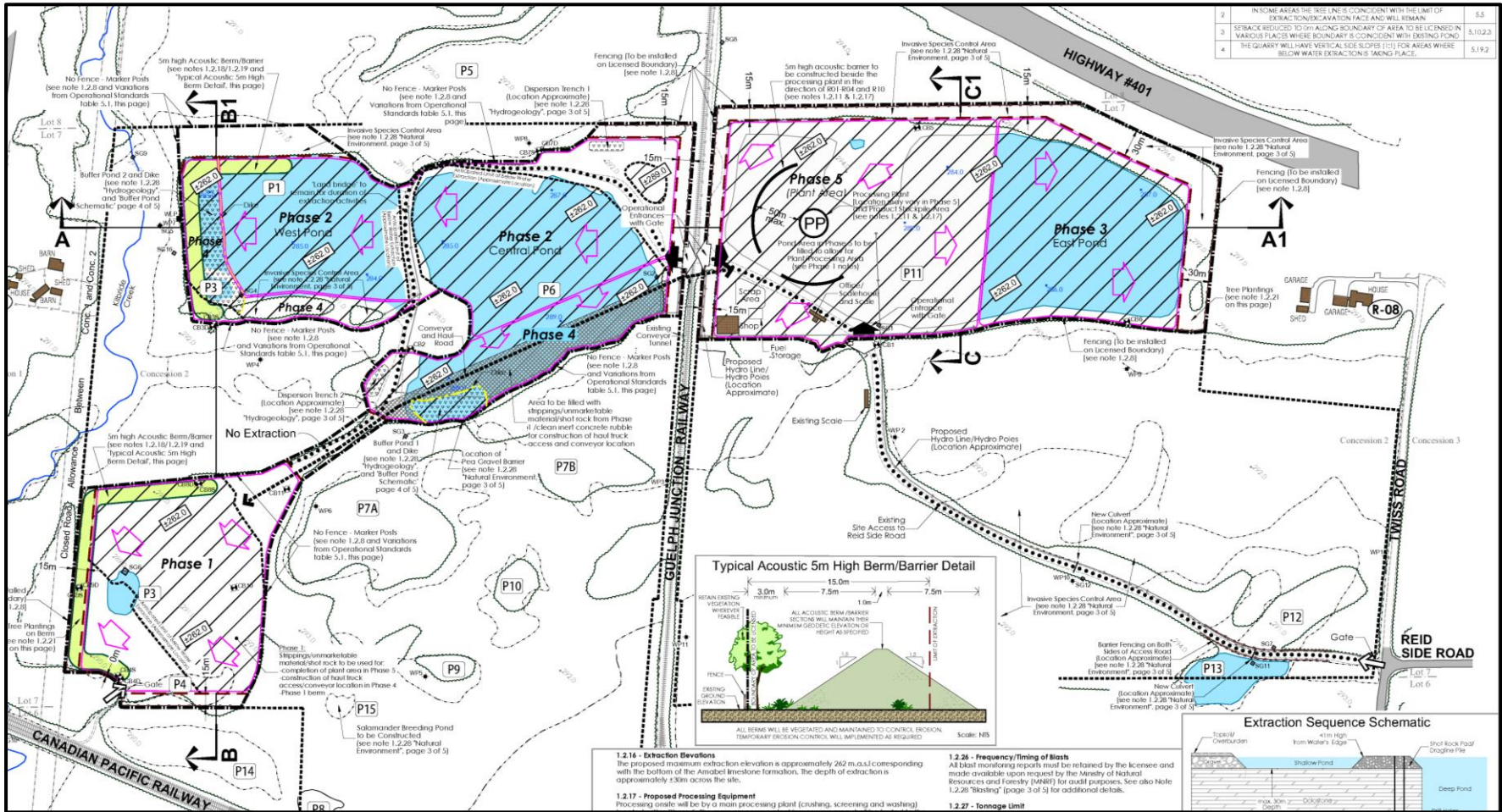


(Source: James Dick Construction Inc. August 2019)





Figure 2: Project Site Layout



(Source: James Dick Construction Inc. August 2019)



## 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.

With respect to the Project as described, no adverse direct or incidental effects are anticipated as no federal authority is expected to render a decision that would enable the Project to be carried out.

## 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 IAA. In addition to the concerns raised in the letter sent to the Minister, the Agency is aware of concerns within the public domain that are associated with the proponent's application for a licence under Ontario's *Aggregate Resources Act*. The concerns expressed by the requester and those in relation to the licence application relate to:

- local aquifers, including water availability and levels in Milton and surrounding areas;
- Provincially Significant Wetlands;
- endangered and threatened species and their habitats;
- significant woodlands;
- property values;
- vibrations due to blasting; and
- increased truck traffic.

These concerns generally do not relate to adverse effects within federal jurisdiction or adverse direct or incidental effects, as defined in section 2 of IAA. In addition, the Agency understands that these concerns are expected to be addressed through provincial legislative mechanisms (see Annex II).

## Potential adverse impacts on the rights of Indigenous peoples

The Agency is of the view that 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* (section 35 rights) would be low. Potential adverse effects within federal jurisdiction, as described in Annex I, that could impact section 35 rights are anticipated to be localized and mitigated between the property boundary and the nearest point of perception receptors (e.g., wells and residences within 120 metres). The Agency understands that aggregate extraction and processing would occur on previously disturbed, privately owned lands that have been used for industrial purposes since the 1960's and are currently being used for storage. In addition, the Agency notes that the Ministry of Natural Resources and Forestry would require any outstanding issues identified by potentially affected Indigenous groups to be addressed through hearings at the Local Planning Appeal Tribunal prior to the issuance of a licence under the *Aggregate Resources Act*.

In conducting this analysis, the Agency considered potential impacts to the Mississaugas of the Credit First Nation, Métis Nation of Ontario, Six Nations of the Grand River, and the Huron-Wendat Nation.







## Regional and strategic assessments

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

## Conclusion

The Agency is of the view that the Project does not warrant designation pursuant to subsection 9(1) of IAA. The potential for adverse effects, as described in subsection 9(1) of IAA, would be limited through project design, the application of standard mitigation measures and through existing legislative mechanisms (Annex I). The concerns expressed by the requester and those within the public domain that are known to the Agency are expected to be addressed through provincial consultation and oversight processes pursuant to the *Aggregate Resources Act*, *Environmental Protection Act* and *Ontario Water Resources Act* (Annex II).

To inform its analysis, the Agency sought and received input from the proponent, federal authorities (Environment and Climate Change Canada, Fisheries and Oceans Canada, and Natural Resources Canada) and provincial ministries (Ministry of the Environment, Conservation and Parks, the Ministry of Natural Resources and Forestry, the Ministry of Transportation, and the Ministry of Tourism, Culture and Sport). In addition, the Agency considered the concerns in the letter sent to the Minister and comments within the public domain associated with the proponent's application for a licence under Ontario's *Aggregate Resources Act*. 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 these would be low given the nature of the Project and its location.

## ANNEX I



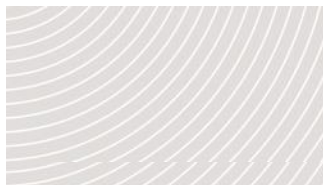
Annex I: Analysis Summary Table

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p>Fisheries and Oceans Canada advised that as proposed, the Project would not result in serious harm to fish.</p> <p>Blasting would occur only in ponds that are not connected to any natural waterbodies or watercourses during any point of the year.</p> <p>Underwater blasting has the potential to affect fish health in nearby fish habitat on the project property due to compressive shock and impacts on incubating eggs. The proponent would mitigate these effects by adhering to Fisheries and Oceans Canada's guidelines regarding water overpressure and ground vibration limits.</p> <p>Underwater aggregate extraction has the potential to affect water quantity in nearby fish habitat on the project property due to lowering of water levels. This effect would be mitigated by water balancing (with buffer ponds and pumping water from other waterbodies within the property) and operational adjustments.</p>	<ul style="list-style-type: none"> <li>• Fisheries and Oceans Canada advised that no authorization under the <i>Fisheries Act</i> would be required.</li> <li>• Category 1 and 2 Class A Licence, pursuant to Ontario's <i>Aggregate Resources Act</i>, which would set requirements to protect ground and surface water resources and their uses, as well as fish habitat.</li> <li>• Permit to Take Water, pursuant to the <i>Ontario Water Resources Act</i>, which would set limits for water taking to protect water levels in surrounding waterbodies.</li> </ul>
<p>A change to aquatic species, as defined in subsection 2(1) of the <i>Species at Risk Act</i></p>	<p>No adverse effects to marine plants are anticipated, as there is no interaction between the Project and the marine environment.</p>	<ul style="list-style-type: none"> <li>• Fisheries and Oceans Canada advised that a permit under the <i>Species at Risk Act</i> would not be required.</li> </ul>
<p>A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i></p>	<p>Environment and Climate Change Canada advised that adverse effects on migratory bird species at risk are not anticipated.</p> <p>Increased truck traffic on the project property has the potential to increase the risk of collisions with birds. The</p>	<ul style="list-style-type: none"> <li>• Category 1 and 2 Class A Licence, pursuant to Ontario's <i>Aggregate Resources Act</i>, which would set requirements to protect ground and surface water resources and their uses, as well as the natural environment,</li> </ul>



Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>proponent would mitigate this by enforcing a speed limit of 20 kilometres per hour on the property.</p> <p>The proponent has indicated that, in the event that tree removal is required, this activity would be done between November 1 and April 15 to avoid nesting periods of breeding birds.</p> <p>Underwater aggregate extraction would change groundwater levels. This change has the potential to affect nearby Provincially Significant Wetlands that may be suitable bird habitat. This effect on wetlands would be mitigated by water balancing and operational adjustments.</p> <p>The Ministry of Natural Resources and Forestry advised that as proposed, the Project would not adversely impact Provincially Significant Wetlands or significant woodlands.</p>	<p>including significant wetlands and woodlands.</p> <ul style="list-style-type: none"> <li>Permit to Take Water pursuant to the <i>Ontario Water Resources Act</i>, which would set limits for water taking.</li> </ul>
<p>A change to the environment that would occur on federal lands</p>	<p>No adverse environmental effects on federal lands are anticipated, as there are no federal lands in the vicinity of the Project. The nearest reserve (Six Nations Reserve No. 40) is approximately 40 kilometres southwest of the Project.</p> <p>Potential environmental effects are anticipated to be localized and mitigated between the property boundary and the nearest point of perception receptors (e.g., wells and residences within 120 metres).</p>	<ul style="list-style-type: none"> <li>Licences, permits and approvals required for the Project pursuant to the <i>Aggregate Resources Act</i>, <i>Environmental Protection Act</i> and <i>Ontario Water Resources Act</i> would set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</li> </ul>
<p>A change to the environment that would occur in a province other than the one in</p>	<p>No adverse transboundary effects in other provinces or outside Canada are anticipated. Potential environmental effects are anticipated to be localized</p>	<ul style="list-style-type: none"> <li>The Project would be subject to federal greenhouse gas emissions reporting, pursuant to the <i>Canadian Environmental</i></li> </ul>





Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
<p>which the project is being carried out or outside Canada</p>	<p>and mitigated between the property boundary and the nearest point of perception receptors (e.g., wells and residences within 120 metres). The nearest provincial and international borders are approximately 350 kilometres northeast and 65 kilometres east of the property, respectively.</p> <p>With respect to greenhouse gas emissions, the volume of emissions likely from the Project, given its size and proximity to market, would be low in magnitude. According to data from the 2016 reporting year, contributions to the national inventory from mining and quarrying activities in Ontario totaled 0.185 percent.</p>	<p><i>Protection Act, 1999</i>, if it emits 10 kilotonnes or more of greenhouse gas emissions, in carbon dioxide equivalent units per year.</p> <ul style="list-style-type: none"> <li>Licences, permits and approvals required for the Project pursuant to the <i>Aggregate Resources Act</i>, <i>Environmental Protection Act</i> and <i>Ontario Water Resources Act</i> would set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</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 physical and cultural heritage</p>	<p>Results of the Stage 1 Archaeological Assessment, completed pursuant to the <i>Ontario Heritage Act</i>, indicate that there is low potential for the recovery of historic archaeological resources with cultural value or interest within the subject lands.</p> <p>The Agency understands that the Ministry of Tourism, Culture and Sport does not anticipate adverse impacts to any Indigenous cultural heritage resources due to the Project.</p>	<ul style="list-style-type: none"> <li>The <i>Ontario Heritage Act</i>, which would require the proponent to follow protocols to protect any discovered archaeological resource.</li> <li>Category 1 and 2 Class A Licence, pursuant to Ontario's <i>Aggregate Resources Act</i>, which would require the proponent to address concerns raised by potentially affected Indigenous groups.</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>	<p>No impact on the current use of lands and resources for traditional purposes is anticipated. The Project is located on privately owned lands that are zoned for extraction activities, currently used for storage and previously disturbed from historical aggregate extraction activities. No traditional activities occur on these lands. In addition, project-related changes to lands and resources</p>	<ul style="list-style-type: none"> <li>Category 1 and 2 Class A Licence, pursuant to Ontario's <i>Aggregate Resources Act</i>, which would require the proponent to address concerns raised by potentially affected Indigenous groups.</li> </ul>





Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>would be localized and mitigated between the property boundary and the nearest point of perception receptors (e.g., wells and residences within 120 metres), which are within the municipal limits of the Town of Milton.</p>	
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on any structure, site, or thing that is of historical, archaeological, paleontological or architectural significance</p>	<p>No impacts are anticipated. The Stage 1 Archaeological Assessment, completed in accordance with the <i>Ontario Heritage Act</i>, indicated that there is no structure, site or thing that is of historical, archaeological, paleontological or architectural significance within the subject lands.</p>	<ul style="list-style-type: none"> <li>• The <i>Ontario Heritage Act</i>, which would require the proponent to follow protocols to protect any discovered archaeological resource.</li> <li>• Category 1 and 2 Class A Licence, pursuant to Ontario's <i>Aggregate Resources Act</i>, which would require the proponent to address concerns raised by potentially affected Indigenous groups.</li> </ul>
<p>Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada</p>	<p>No changes to the health, social or economic conditions of the potentially affected Indigenous groups are expected due to the Project, given the location, size and scale of the Project. The property is privately owned lands adjacent to an industrial park and a major highway. The closest reserve lands are approximately 40 kilometres away. The subject lands are previously disturbed due to historical aggregate extraction activities. Changes to air quality and local noise levels would be localized and mitigated between the project boundary and the nearest point of perception receptors (e.g., wells and residences within 120 metres).</p> <p>No changes to the local or regional population are anticipated, as the</p>	<ul style="list-style-type: none"> <li>• Category 1 and 2 Class A Licence, pursuant to Ontario's <i>Aggregate Resources Act</i>, which would require the proponent to address concerns raised by potentially affected Indigenous groups.</li> <li>• Building and Land Use Permit, pursuant to the <i>Planning Act</i> and <i>Public Transportation and Highway Improvement Act</i>, would set requirements for managing stormwater drainage and stockpiling material adjacent to provincial highways. In addition, the Ministry of Transportation expects haul trucks to comply with weight limits and emission standards.</li> </ul>





Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>required labour would be sourced locally.</p> <p>Increased truck traffic is not expected to have adverse impacts on residents, businesses or emergency services, according to the Traffic Impact Study.</p>	
Adverse direct or incidental effects	No adverse direct or incidental effects are anticipated as no federal authority is expected to exercise a power, or perform a duty or function under another Act of Parliament that would permit the carrying out of the Project. In addition, no federal authority is expected to provide financial assistance to enable the Project to be carried out, in whole or in part.	Not applicable
<p>Public concerns related to the above effects :</p> <ul style="list-style-type: none"> <li>effects on endangered and threatened species and their habitats</li> </ul>	<p>Environment and Climate Change Canada does not anticipate adverse effects on endangered or threatened species at risk in areas of federal jurisdiction.</p> <p>The Ministry of the Environment, Conservation and Parks advised that adverse effects on endangered or threatened species or their habitats are not anticipated.</p>	<ul style="list-style-type: none"> <li>The Ministry of the Environment, Conservation and Parks advised that no authorization under the <i>Endangered Species Act</i> would be required.</li> </ul>



## ANNEX II





Annex II: Potential Provincial Authorizations Relevant to the Project

Authorization	Description
<p>Class A licence (Category 1 &amp; 2) issued by the Ministry of Natural Resources and Forestry, pursuant to Ontario's <i>Aggregate Resources Act</i> (ARA)</p>	<ul style="list-style-type: none"> <li>• A Class A licence would include provisions to minimize adverse impacts on the environment, as well as set out requirements for land rehabilitation.</li> <li>• The licence application process includes consultation. Proponents are expected to address concerns raised by provincial ministries, Indigenous groups and the public.</li> <li>• Any outstanding issues identified by any party must be adjudicated and resolved via Local Planning Appeal Tribunal hearings to the satisfaction of the ministry prior to the issuance of a licence.</li> <li>• The licence application for the Project was initiated in June 2018.</li> </ul>
<p>Environmental Compliance Approvals (ECAs) 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 ECAs include requirements to assess, mitigate and monitor potential adverse effects on local air quality and noise levels due to project activities.</li> <li>• These authorizations require public consultation.</li> </ul>
<p>Environmental Compliance Approval (ECA) for industrial sewage issued by the Ministry of the Environment, Conservation and Parks, pursuant to Ontario's <i>Water Resources Act</i></p>	<ul style="list-style-type: none"> <li>• The ECA includes requirements to protect water quality as required for the regulation of recirculating discharge associated with aggregate washing.</li> <li>• This authorization requires Indigenous and public consultation.</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 taken and requires reporting. Additional conditions could include monitoring requirements, seasonal restrictions, modifications to discharge locations, and remediation.</li> <li>• The permit requires Indigenous and public consultation.</li> </ul>
<p>Building and Land Use Permit issued by the Ministry of Transportation, pursuant to Ontario's <i>Planning Act</i> and <i>Public Transportation and Highway Improvement Act</i></p>	<ul style="list-style-type: none"> <li>• Permit includes requirements for managing stormwater drainage and stockpiling material adjacent to provincial highways.</li> <li>• The permit requires the completion of a Traffic Impact Study to identify, assess and mitigate adverse impacts on traffic due to project activities. The study may include the identification and evaluation of transportation-related improvements or measures that may be included as a condition of permit approval.</li> </ul>