

FOR DISCUSSION PURPOSES ONLY - PRELIMINARY EVALUATION BASED ON A VERBAL PROJECT DESCRIPTION AND TO BE EVALUATED AGAIN ONCE A WRITTEN PROJECT DESCRIPTION IS DEVELOPED

Environmental Attributes & Potential Impacts to be Considered for an Environmental Impact Assessment

Project 15899.

Environmental Attributes	Project Impact Examples	Pozzolan Project Considerations	Information Requirement	Potential Mitigation
Air Quality	<ul style="list-style-type: none"> >Particulate/smoke, dust, odours, visibility, NOx, SOx, secondary chemical loadings, greenhouse gases, etc. >Impacts likely during construction and operational phases. 	<ul style="list-style-type: none"> >Construction activities >Particulate/dust during quarrying at the site >Particulate/dust during transportation to the Port >Particulate/dust generated at the marine location to pulverize Pozzolan into dust 	<ul style="list-style-type: none"> >Engineering studies that describe how this process will work and how particulate/dust will be managed >Greenhouse Gas contribution 	<ul style="list-style-type: none"> >Likely can be mitigated with engineering controls (<i>i.e.</i>, closed systems), Environmental Protection Plan and best management practises.
Sound Emissions	<ul style="list-style-type: none"> >Sounds levels from site activities above ambient levels which could cause annoyance or health concerns to nearby residence and wildlife. 	<ul style="list-style-type: none"> >Construction machinery activities and work schedule >Operational sound generation >Proximity of the site to residences and other sensitive (<i>i.e.</i>, school) receptors 	<ul style="list-style-type: none"> >Baseline, preconstruction sound monitoring >Inventory of equipment and predicted sound levels >Construction and operational schedules >Municipal requirements and Bylaws 	<ul style="list-style-type: none"> >Likely can be mitigated with engineering controls (<i>i.e.</i>, sound dampers), Environmental Protection Plan and best management practises. >Commitment to follow-up on complaints during operations
Surface Water Quality and Quantity	<ul style="list-style-type: none"> >Quantity of flowing and standing water, quality of water (<i>i.e.</i>, nutrients, pH, pesticides, chlorinated organics, trace metals, hydrocarbons, misc. toxins, salinity, taste, odour, and floating debris). 	<ul style="list-style-type: none"> >Shipyard Brook would be impacted, likely requiring complete removal >Assuming much of the site would be impacted, effecting vegetative cover, habitat, <i>etc.</i> > These impacts would be irreversible for the duration of the Project. 	<ul style="list-style-type: none"> >Environmental study of Shipyard Brook to determine if the brook is fish bearing >Engineering study for the realignment of Shipyard Brook. 	<ul style="list-style-type: none"> >Engineered solution for the removal of Shipyard Brook (<i>i.e.</i>, possible catchment area with discharge point into existing brook further downstream) >WAWA permit from the NBDELG and DFO authorization
Wetlands	<ul style="list-style-type: none"> >Change in wetland size, or quality 	<ul style="list-style-type: none"> >Partial or complete removal of wetlands is likely required >Quarrying may impact wetland quality for any remaining wetlands 	<ul style="list-style-type: none"> >Wetland delineation completed September 2022. 	<ul style="list-style-type: none"> >It is recommended to work with the community to find an urban restoration/compensation opportunity near the project site >WAWA permit from the NBDELG will be required for impacts to wetlands.
Groundwater	<ul style="list-style-type: none"> >Aquifer quantity and well yields impacted, quality, base flow to streams/springs/seepages, depth to water table (mounding, drawdown, <i>etc.</i>), flow direction, recharge potential, potable water supplies. 	<ul style="list-style-type: none"> >Extraction of pozzolan will intercept with the groundwater table >Potential dewatering of the mine to prevent water from entering the work area >Impacts to nearby residence on a drilled well water supply 	<ul style="list-style-type: none"> >Engineering study to model baseline conditions and project impacts as a result of mining activities >Study likely to include on-site monitoring wells and data collection. >Study to include identifying all users near the project area. 	<ul style="list-style-type: none"> >Likely can be mitigated with engineering controls (<i>i.e.</i>, site dewatering and/or connecting nearby residential users to the municipal supply and/or replacment or deepening of existing wells).
Terrestrial Flora and Fauna	<ul style="list-style-type: none"> >Loss of vegetation, wildlife habitat, <i>etc.</i> 	<ul style="list-style-type: none"> >Impacts during construction and operation >The project will result in the loss of topsoil, nutrients and seed bank essential for plant growth >The project site would not want any interaction of wildlife entering onto the site 	<ul style="list-style-type: none"> >Desktop and potentially field study to identify the type of wildlife and abundance in the project area. 	<ul style="list-style-type: none"> >Site barrier to prevent wildlife from entering >Environmental Protection Plan for best management practises

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Aquatic Flora and Fauna	>Dredging of the harbour will impact the aquatic flora and fauna habitat	>Will dredging be required to deepen the port? >Will dredging or side casting be needed to install a mooring dolphin?	>Engineering study on the Port Facility to identify improvements needed. If dredging is required, we will need to either dispose of the dredge materials at sea or on land. Depending on the quality, quantity and location selected, permits will be required.	>Secure the necessary permits >EIA from the Province or Disposal at Sea from the Federal government as required.
Labour and Economy	>Skilled labour will be required to build and operate the project >Demand for local goods like construction materials and services like construction equipment, restaurants and hospitality will increase.	>Demand for services will grow during construction and be sustained during operations >Improved local unemployment rate	>Employment numbers during construction and operations	>Not required
Transportation Network	>There will be an increase in truck traffic at the site. Can the existing infrastructure support the increase?	>Increased truck traffic on local roads during construction and operations. >The project interacts with quiet residential streets.	>Engineers estimate of traffic increase during construction and operations.	>Environmental Protection Plan with mitigation measures. >Limit traffic in residential areas, especially during school pickup and drop off.
Commercial Fisheries	>Loss of fishing ground because of increased marine traffic	>Marine export will increase the number of ships coming to the Port. Will this impact the lobster fishing that currently takes place in the vicinity?	>Understanding of the fishery in Dalhousie, for example, the number of boats, where they fish, their route of travel, etc.. Are there established shipping channels in and out of the port?	>Environmental Protection Plan with mitigation measures.
Aesthetics	>Decrease in enjoyment of property as a result of a change to visual aesthetics >Although currently not active, Dalhousie has had industry located within the core of the community in past	>Industrial facility with two active sites (mine and processing area) linked by a linear conveyor >Nighttime lighting >Continuous operations	>Model and share the visual impacts so that they are well understood by all stakeholders.	>Use best available technology to minimize impacts. >Develop strategies and techniques to minimize visual impact, for instance vegetated earthen berms or downcast lighting >best management practices to suppress dust.
Recreation and Tourism	>Loss of recreation areas and impacts to tourism as a result of the development. >Loss of natural area impacts the aesthetics of the region >Increased employment in the area may increase spending on recreation and tourism activities in the region	>The project will result in the loss of hiking and ATV trails at the mine site which have been historically open to the general public >The project conveyor system has the potential to impact the Marina and Campground	>Meet with stakeholders impacted by the project to fully understand the impacts and brainstorm on solutions and mitigation.	>Develop mitigation as a result of the impact >Relocate ATV and hiking trails, improve existing trails, etc. >Set aside land in the back of the property for conservation and recreation purposes.

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Health and Safety	<ul style="list-style-type: none"> >Increased traffic will increase the probability of vehicle accidents >Construction worker health and safety. 	<ul style="list-style-type: none"> >Construction and operations will result in working conditions that could cause health and safety issues >Large excavations and steep slopes as a result of the mining activities will result in safety concerns of falling from significant heights 	<ul style="list-style-type: none"> >Develop and implement a Health and Safety Plan for construction and operational activities. >Provide adequate resources to identify and address all safety concerns. >Create a culture of safety. 	<ul style="list-style-type: none"> >Personnel protection, training, security fencing, signage, etc.
Archaeological & Cultural Resources	<ul style="list-style-type: none"> >Disturbance of the land destroys potential artifacts that may be located at the site 	<ul style="list-style-type: none"> >Artifacts, if found during the construction of the project, may delay site activities. 	<ul style="list-style-type: none"> >Archaeological study that would start as a desktop analysis and could proceed to a site investigation if the potential for artifacts is high 	<ul style="list-style-type: none"> >Depending on the findings, the mitigation could involved a controlled dig at areas of contact. >Environmental Protection Plan should include provisions for unknown artifacts encountered during construction or operations.

NBDELG - New Brunswick Department of the Environment & Local Government
 DFO- Department of Fisheries and Oceans
 WAWA - Watercourse and Wetland Alteration
 EIA - Environmental Impact Assessment