

Comment Index

Blair Road Pit Expansion Project

Publication Date: **July 14, 2023**

Government

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| 1 | Native Council of Nova Scotia | June 29, 2023 |



Environment and Climate Change

Date: May 26, 2023
To: Jeremy Higgins, Environmental Assessment Officer
From: Neil Morehouse, Manager, Protected Areas and Ecosystems
Subject: **Blair Road Pit Expansion ,Nova Scotia**

Scope of review:

This review focuses on the following mandate: Protected Areas

Technical Comments:

This is the expansion of an existing pit does is not close to any protected areas

Summary of Recommendations: (provide in non-technical language)

We have no comments on this project

Fisheries and Aquaculture

Date: June 14, 2023

To: Jeremy W. Higgins, Environmental Assessment Officer, Nova Scotia
Environment and Climate Change

From: Lesley O'Brien-Latham, Executive Director, Policy and Corporate Services
Nova Scotia Department of Fisheries and Aquaculture

Subject: Blair Road Pit Expansion Project, Waterville, Nova Scotia – Environmental
Assessment

Thank you for the opportunity to review the Blair Road Pit Expansion Project (“Project”) documents.

Based on the information you provided, the Nova Scotia Department of Fisheries and Aquaculture (“Department”) has the following comments:

- The Department does not anticipate any impacts to commercial fishing, sportfishing or aquaculture activities and interests within the Department’s mandate.

M E M O

DATE: June 15, 2023
To: Jeremy Higgins, Environmental Assessment Officer
FROM: Provincial Director of Planning, Planning Services Branch
SUBJECT: BLAIR ROAD PIT EXPANSION PROJECT, KINGS

Comment:

As requested, the Department of Municipal Affairs and Housing (DMAH) has reviewed the Environmental Assessment Registration Documents for the Blair Rd Pit Expansion Project and offer the following comments:

We highlight the Statement of Provincial Interest regarding Agricultural Land and suggest that the Department of Agriculture review the viability of the method proposed to return the land to agricultural use during decommissioning.

Scope of Review:

This review focuses on the following mandates: the Statements of Provincial Interest and engagement with municipalities.

Technical Comments:

The project site is zoned Agricultural (A1). The proponents reviewed the Kings Municipal Planning Strategy (MPS) and Land Use By-law and state that the land will be returned to agricultural use to meet the intent of the Kings MPS. The proponents have not indicated whether they have discussed their plans with the Municipality, as no structures are proposed and municipal permits are not required.

Statements of Provincial Interest:

- Drinking Water: No anticipated impact. There are no municipal wellfields close to the study area.
- Agricultural Land: The proponents have stated that no topsoil will be removed from the project site and that it will be reserved in order to return the lands for agricultural use during decommissioning. It may be beneficial to receive comments from the Department of Agriculture on the viability of this method of returning the land to agricultural use. Due to clearing and topography alterations that will take place during operations, there will be a net gain of agricultural land at the end of the project which aligns well with the SPI.
- Flood Risk: No anticipated impact. Although the project site is close to Fishwick Brook and Cornwallis River, which are zoned Environmental Constraints (O1), there will be no structures associated with the project; there is a minimum 30m buffer between the project site and wetlands.
- Infrastructure: No anticipated impact. There are no municipal services in this area.
- Housing: No anticipated impact. The project site is zoned for agricultural uses and is not intended for residential development.

Summary of Recommendations (Provide in non-technical language):

The Department suggests that the Department of Agriculture review the viability of the method proposed to return the land to agricultural use. All other components considered under DMAH's areas of mandate have been adequately addressed.

Date: June 19, 2023

To: Jeremy W. Higgins, Environmental Assessment Officer

From: Nova Scotia Office of L'nu Affairs – Consultation Division; **Reviewed by Beata Dera, Director of Consultation**

Subject: Blair Road Pit Expansion Project, **Kings County, Nova Scotia**

Scope of review:

The following review considers whether the information provided will assist the Province in assessing the potential of the proposed Project to adversely impact established and/or asserted Mi'kmaw Aboriginal and/or Treaty rights.

Technical Comments:

Section 4 Mi'kmaq and Public Engagement

The Proponent should be advised that the Mi'kmaq of Nova Scotia are not considered "stakeholders" rather they are Rights holders. As such, engagement with the Mi'kmaq of Nova Scotia should not be categorized under the title of public engagement or public consultation and the Mi'kmaq of Nova Scotia should not be referenced as "stakeholders".

Summary of Technical Considerations: (provide in non-technical language)

Section 4.1 Mi'kmaq

This section states that a letter of introduction and brief description of the project was sent to Annapolis Valley First Nation and copied to the KMKNO. OLA recommends that the Proponent continue to engage with Annapolis Valley First Nation, given the communities close proximity to the proposed Project, as well as the KMKNO and provide regular updates throughout the duration of the Project.

Date: June 21, 2023

To: Jeremy Higgins, Environmental Assessment Officer

From: Environmental Health

Subject: Blair Road Pit Expansion Project, **Kings County, Nova Scotia**

Scope of review:

This review focuses on the mandate to protect public health from physical, chemical and biological hazards present in the environment. More specifically this review concentrates on 2 VC that were assessed for environmental impacts as part of the EA: **Atmospheric Environment and Acoustic Environment.**

Comments:

The project, as proposed, incorporates a number of measures designed to minimize and mitigate impacts to the atmospheric and acoustic environment. The adoption of best management practices through all stages of the project will minimize impacts to human health.

Recommendation:

Develop a complaints management system that enables individuals to report noise and air quality impacts related to the project, allowing the proponent to investigate complaints, and undertake mitigations as necessary.



Public Works

Date: June 21, 2023
To: Jeremy W. Higgins, Environmental Assessment Officer
From: Environmental Services, Nova Scotia Public Works
Subject: Blair Road Pit Expansion Project, Waterville, NS

Scope of review:

This review focuses on the following mandate: Traffic Engineering and Road Safety Impacts for the Blair Road Pit Expansion

Technical Comments:

1. The proponent has indicated that there will be an expansion of the existing sand pit off Blair Road. While there are no additional accesses or changes to the existing access that are required as a result of this proposed expansion, there are various additional truck movements that are being considered to gain access to the sand pit from Black Rock Road.
2. The proponent had engaged Englobe to complete a Truck Analysis and Traffic Statement. It is comprehensive in its approach and methodology and in addition to truck volumes and turning movements, it also addresses road preservation, spring weight restrictions, as well as stopping sight distances and volume counts at various intersections in the immediate area of the pit location (i.e. "the Study Area").
3. The Truck Analysis indicated some deficiency in sight distances at some intersections at pit entrances off of Black Rock Road, and as a result, recommended Trucks Turning warning signage be installed upstream and downstream of the intersections in question on Black Rock Road. The specifics of the sign locations would need to be approved by the District Traffic Authority (DTA). The DTA can be contacted through the local Area Manager to complete this process.
4. The Truck Analysis recommends different trucks for different turn movements that have been analyzed. The recommendations for the different truck types for the different intersections appear appropriate, given the analysis. The mitigation measures identified in Section 7.4.6 of the report and in the Truck Analysis would achieve that purpose and goal. The proponent would need to ensure that this is effectively communicated to the trucking community with regards to this and the designated transportation routes.

Summary of Technical Considerations: (provide in non-technical language)

1. Contact local Area Manager (Currently noted in email, Logan Webb) for communication as required with the District Traffic Authority to receive any necessary approvals for any new required signage on Black Rock Road.
2. Continue mitigation measures indicated in the EA report, in collaboration with the trucking community and DPW as required for the balance of this pit expansion.

Date: June 21, 2023

To: Jeremy Higgins, Environmental Assessment Officer

From: Air Quality Unit (reviewed by Director, Air Quality and Resource Management)

Subject: Blair Road Pit Expansion Project, Waterville, NS

Scope of review:

This review focuses on the following mandate: Air Quality

Technical Comments:

The Blair Road Pit expansion project seeks to increase the footprint of the existing 3.99 hectare pit to 31.8 hectares, extending the lifetime of the quarry for a further twenty years. The expansion would continue to produce sand for local construction, with operations proceeding under similar conditions to the current pit i.e., wintertime production. There will be no on-site processing, instead, the sand will be loaded directly onto trucks and transported off-site. There will be no stockpiles of commercial sand, although some overburden will be retained on-site for reclamation purposes.

Under this proposal, the footprint of the pit will extend in all directions from the existing site. The EARD reports that the nearest off-site structure is located approximately 500m from the site. A review of the location of the existing pit shows that the site is located in an area characterized by woodland, agricultural land, and other commercial lands, and is delineated to the south by the Cornwallis River. The expansion would result in activities moving closer to receptors, particularly on Shaw Road and Maple Street. Forest buffers would continue to offer some shielding from potential impacts.

Air quality impacts may occur due to heavy vehicles travelling on unpaved roads, sand handling and exhaust emissions. The EARD indicates that existing mitigation methods will be used to limit air quality impacts from the site.

Summary of Technical Considerations: (provide in non-technical language)

If approved, the site management should continue to use dust management methods to limit air quality impacts, along with best operating practices e.g., no idling.

Date: June 21, 2023
To: Jeremy Higgins, Environmental Assessment Officer
From: Air Quality Unit (reviewed by Director, Air Quality and Resource Management)
Subject: Blair Road Pit Expansion, Waterville, NS

Scope of review:

This review focuses on the following mandate: Noise

Technical Comments:

The Blair Road Pit expansion project seeks to increase the footprint of the existing 3.99 hectare pit to 31.8 hectares, extending the lifetime of the quarry for a further twenty years. The expansion would continue to produce sand for local construction, with operations proceeding under similar conditions to the current pit i.e., wintertime production. There will be no on-site processing, instead, the sand will be loaded directly onto trucks and transported off-site. There will be no stockpiles of commercial sand, although some overburden will be retained on-site for reclamation purposes.

Under this proposal, the footprint of the pit will extend in all directions from the existing site. The EARD reports that the nearest off-site structure is located approximately 500m from the site. A review of the location of the existing pit shows that the site is located in an area characterized by woodland, agricultural land, and other commercial lands, and is delineated to the south by the Cornwallis River. The expansion would result in activities moving closer to receptors, particularly on Shaw Road and Maple Street. Forest buffers would continue to offer some shielding from potential impacts.

Noise impacts may occur due to the excavation and movement of sand. The EARD indicates that existing mitigation methods will be used to limit noise impacts from the site.

Summary of Technical Considerations: (provide in non-technical language)

If approved, the site management should continue to use noise management methods to limit noise impacts, along with best operating practices e.g., limiting the necessity for reversing.

Date: June 24, 2023
To: Jeremy Higgins, Environmental Assessment Officer
From: Department of Natural Resources and Renewables
Subject: Blair Road Pit Expansion Project, Kings County, NS

Scope of review:

This review focuses on the following mandate: Parks, Clean Energy, biodiversity, species at risk status and recovery, wildlife species and habitat management and conservation, including Old Growth Forest, forestry, Mineral Resources Act and Regulations, Authorities and approvals required from the Land Services Branch

Technical Comments:

Clean Energy Branch:

No comments.

Parks Branch:

No concerns from a provincial park or designated protected beach program perspective.

Land Services Branch:

This project is located entirely on private land, with no Crown lands in the vicinity. No authorities or approvals are required from the Land Services Branch.

Geoscience and Mines Branch:

The Branch is generally supportive of developing the province's natural resources provided that such development is undertaken in both an environmentally and socially responsible manner.

Note that construction aggregates are not considered a mineral under the *Mineral Resources Act*, and therefore do not require the issuance of either a Mineral Lease or a Non-Mineral Registration.

Biodiversity Branch:

This Environmental Assessment Registration Document has been reviewed by Natural Resources and Renewables biologists. The review focused on the following mandates: biodiversity, species at risk status and recovery, wildlife species and habitat management and conservation, including Old Growth Forests.

Registration Document

7.3.6. Fauna, Habitat, and Species at Risk

Wood turtle. Although no turtle species were found during the surveys, the Project site abuts significant habitat where wood turtle is known to occur. It is possible that undetected wood turtles may use the site, particularly during the nesting season when females may be attracted to disturbed substrate in which to lay their eggs.

7.3.6.2 Predicted Environmental Effects, Proposed Mitigation and Monitoring

Sand extraction will primarily occur in winter months when disturbance to birds and other wildlife will be minimal; delineate timing windows for heavy equipment and sand extraction so they do not overlap with the activity and breeding windows for wood turtles, common nighthawks, and bank swallows.

Summary of Technical Considerations: (provide in non-technical language)

Geoscience and Mines Branch:

Prior to development, the proponent should provide a technical summary that:

- a. Identifies safe depth to develop the pit such that impacts upon aquifers is minimized.

Forestry Branch:

No comments.

Biodiversity Branch:

Based upon a review of the information in the addendum, the following recommendations are provided:

- o It is the responsibility of the proponent to ensure compliance with federal and provincial legislation and regulations regarding resident, migratory, and at-risk

species and their habitats (e.g., *Species at Risk Act*, *Migratory Birds Convention Act*, *Fisheries Act*, *NS Endangered Species Act*, and their regulations). This compliance includes monitoring and mitigation measures to adhere to legislation.

- Obtain all necessary permits as required under legislation related to wildlife and species at risk in order to undertake the project.
- Provide digital way points and/or shapefiles for all Species at Risk and Species of Conservation Concern to NRR (those species listed and/or assessed as at risk under the Species at Risk Act, Endangered Species Act, COSEWIC, as well as all S1, S2 and S3 species). Data should adhere to the format prescribed in the NRR Template for Species Submissions for EAs and is to be provided within two (2) months of collection.
- Should work commence prior to the development of a Wildlife Management Plan, the proponent should contact NRR (biodiversity@novascotia.ca) to discuss permits, particularly if the project has potential impacts on threatened or endangered species. The absence of effective mitigations may lead to breaches in prohibitions as per s.13(1) of the Endangered Species Act.
- Develop a Wildlife Management Plan (WMP) based on standard, science-based practices, which shall include:
 - Communication protocol with regulatory agencies;
 - General wildlife concerns (e.g., human-wildlife conflict avoidance);
 - Details on monitoring and inspections to assess compliance with the WMP;
 - Noise, dust, lighting, blasting, and herbicide use mitigation plans;
 - Emergency response plans for accidental spills, pollution, chemical exposure, and fire;
 - A blasting plan with a completed pre-blast survey, a blast monitoring plan, and a blast damage response;
 - Mitigation measures for bank swallows to ensure any stockpiles or banks have a slope of less than 70 degrees to deter bank swallow nesting in high disturbance areas;
 - Measures to protect and mitigate against adverse effects to migratory birds during construction and operation. This may include avoidance of certain activities (such as vegetation clearing) during the regional nesting period for most birds, buffer zones around discovered nests, limiting activities during the breeding season around active nests, restricting lighting use at night during seasonal migration periods, and other best management practices;
 - Measures to protect and mitigate against adverse effects to nesting turtles, including the endangered wood turtle. This may include the avoidance of certain activities (such as the operation of heavy machinery) during the terrestrial and breeding activity periods, and other best management practices;
 - Education sessions and materials for project personnel on Species at Risk, non-Species at Risk-wildlife, and other important biodiversity

features they may encounter on-site and how to appropriately respond to those encounters. As part of daily operations staff should be trained to survey the site, identify issues, and consult as appropriate for solutions when wildlife is found to be utilizing artificial or existing habitat conditions during the operation of the site. It is recommended that the proponent ensures standard practices are established during development, construction, and operation of the site to prevent wildlife interactions that may result in entanglement, entrapment, or injury.

- Note: Review of the WMP by NRR may reduce the risk of impacts to biodiversity.
- Revegetate cleared areas using native vegetation or seed sources.
- Develop a plan to prevent the spread of invasive species both on and off site. The plan should include monitoring, reporting, and adaptive management components.
- Provide a decommissioning and site reclamation plan and reclaim site at the end of project.
 - If possible, during final decommissioning (and preparation for future agriculture) leave some pit walls in a condition that would encourage successful future nesting of Bank Swallows.
- Describe the impacts of the project on landscape-level connectivity for wildlife and habitat (e.g., habitat fragmentation, loss of intact forested habitat, increased road density). An assessment of the cumulative effects of the project on landscape-level connectivity and habitat loss, and the measures proposed to mitigate those effects, is recommended.



Environment and Climate Change

Date: June 22, 2023
To: Jeremy Higgins, Environmental Assessment Officer
From: Climate Change Division Staff
Subject: Blair Road Pit Expansion

Scope of review:

This review focuses on the following mandate: Climate Change Adaptation and Mitigation

Technical Comments:

Adaptation

- In Section 5.2, “Climate Setting,” the proponent provides 30-year climate normal values (1981-2010) for the project area, in keeping with guidance. Values for extreme and average temperature and average precipitation are provided; however, values for extreme precipitation are not. Impacts of extreme precipitation events are discussed later in the document, so understanding historical baselines would be useful.
- In Section 9, “Effects of the Environment on the Project,” climate change and associated potential impacts (e.g. extreme precipitation events, flooding, wind) are discussed in general terms. The proponent should strengthen this section by using climate projections for the lifespan of the project available through ClimateData.ca.
- In Section 9, “Effects of the Environment on the Project,” the proponent states that climate change impacts are not anticipated to be a concern for the lifespan of the project. The proponent should justify this conclusion by including a specific assessment of the climate change risk category, as detailed in the *Guide to Considering Climate Change in Project Development in Nova Scotia* (2011, p. 13-26).

Mitigation

The proponent indicates that Greenhouse gas emissions from activities on this project will be minimal and has proposed mitigation steps to further reduce its impact. While the mitigation plans are sufficient, the estimated quantity of GHGs from activities have not been provided.

Guidance for Reviewers – Environmental Assessments

Environmental Assessment Branch, Environment and Climate Change

Summary of Technical Considerations: (provide in non-technical language)

Adaptation

- We recommend that the proponent include values for extreme precipitation in the climate normal table in Section 5.2.
- The proponent should include climate projections for the local area available through ClimateData.ca in order to assess the potential impact of climate change on the project.
- We encourage the proponent including a specific assessment of the climate change risk category, as per the guidance in the *Guide to Considering Climate Change in Project Development in Nova Scotia*.

Mitigation

It is recommended that the proponent provides a number-estimate of the Greenhouse gases expected from potential sources using published quantification methods.

Date: June 22, 2023

To: Jeremy Higgins, Nova Scotia Environment & Climate Change

From: Coordinator Special Places, Culture and Heritage Development

Subject: Blair Road Pit Expansion, Waterville, NS - EA Registration

Staff of the Department of Communities, Culture, Tourism, and Heritage has reviewed the Blair Road Pit Expansion, Waterville, NS - EA Registration documents and have provided the following comments:

Archaeology

Staff reviewed the sections of the EA document pertaining to archaeology. There are no archaeological concerns at this time. Three ARIA projects were completed for this proposed development and the results are reflected in the EA document. Appendix K also presents the 3 report review and acceptance letters from CCH.

Botany

Staff have reviewed the sections of the EA document pertaining to botany. There were no moss or lichen species of concern observed in the study area, and the few vascular plants of concern were far enough outside of the project footprint that only indirect negative impacts (e.g., through hydrological changes) could be expected.

Proposed mitigations for the presence of faunal species at risk are mostly sufficient, although any milkweed that is planted to replace lost Monarch butterfly habitat should be swamp milkweed (*Asclepias incarnata*), rather than common milkweed (*Asclepias syriaca*), for the sake of ensuring the plant does not become a problem for local farmers, and to ensure the company is not violating the weed control act.

Consideration of greenhouse gas emissions is minimal, with only 'best practices' and 'no idling' cited in the EA report as mitigation strategies, and no plan to offset lost storage and sequestration capacity in the landscape. Considering the 20 year lifespan of the project, and the loss of forested lands for this duration, this omission is problematic. The proponent should consult the [Nova Scotia guide to considering climate change in impact assessments](#), and NS ECC for guidance in this.

Palaeontology

Staff have reviewed the sections of the EA document pertaining to palaeontology. The surficial and bedrock geology identified in the Blair Road Pit proposal are not expected to result in fossils being encountered. Fossils might be encountered in the Wolfville Formation bedrock, but the proposal states the bedrock is not anticipated to be excavated. If rare fossils of glacial age are encountered within the excavated sand layer the museum can be contacted for information or advice.

Zoology

Staff have reviewed the sections of the EA document pertaining to zoology. The document highlights a several cases where there are SOCI/SAR species that have been identified immediately outside the study area and in the vicinity of the project. It appears to be a reasonable assessment of the zoological setting for the site and immediate-adjacent area.

For future documentation, it is recommended that the taxonomic names of animals be consistently included throughout the documentation provided for evaluation.

Agriculture

Date: June 22, 2023

To: Jeremy Higgins, Environmental Assessment Officer

From: Heather Hughes, Executive Director, Policy and Corporate Services,
Nova Scotia Department of Agriculture

Subject: Blair Road Pit Expansion Project
Waterville, Kings County, Nova Scotia

Thank you for the opportunity to review the documents for the above-noted project.

Departmental review of the project documents has identified the following:

- The project is located on class 4 soil which is suitable for agriculture with limitations of the range of crops and/or requires special conservation practices.
- There are approximately 136 hectares of land being used for agriculture that are within 2 km of the proposed expansion area.
- Of the 17.5 hectares of land proposed to be used for the expansion, 5.4 hectares are in agriculture production and will be lost.

Protection of Agriculture land is a key priority for the industry and is reflected in the Nova Scotia Statement of Provincial Interest for Agriculture.



Date: June 22, 2023

To: Jeremy Higgins, Environmental Assessment Officer

From: Donald Sam, Regulatory Review Biologist, Fish and Fish Habitat Protection Program

Subject: Blair Road Sand Pit Expansion, Kings County, Nova Scotia

Scope of review:

Fisheries and Oceans Canada (DFO) is responsible for administering the fish and fish habitat protection provisions of the *Fisheries Act* (FA), the *Species at Risk Act* (SARA), and the *Aquatic Invasive Species Regulations*.

DFO's review focused on the impacts of the works outlined in the Blair Road Sand Pit Expansion Project Environmental Assessment Registration Document to potentially result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat, which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*;
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*; and
- the introduction of aquatic species into regions or bodies of water frequented by fish where they are not indigenous, which is prohibited under section 10 of the *Aquatic Invasive Species Regulations*.

Recommendations: (provide in non-technical language)

DFO recommends that the proponent:

- During our review we have not identified any gaps for the works outlined in the Blair Road Sand Pit Expansion Environmental Assessment Registration Document.
- If it is determined that there may be indirect impacts to watercourse and wetlands and it is not a requirement for a provincial watercourse or wetland alteration approval then we recommend that the proponent submit a DFO Request for Review application. DFO will conduct a regulatory review of the proposed project under the *Fisheries Act*, *Species at Risk Act*, and *Aquatic Invasive Species Regulations* to determine if an authorization under the *Fisheries Act* and/or a *Species at Risk* permit is required; and

- Refer to DFO's website, <https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>, for further information on DFO's regulatory review process and for further measures to protect fish and fish habitat.



Suite 200
1801 Hollis Street
Halifax NS B3J 3N4

Bureau 200
1801 rue Hollis
Halifax, NE B3J 3N4

Date: June 26, 2023

To: Jeremy Higgins, Environmental Assessment Officer, Nova Scotia Department of Environment and Climate Change

From: Trevor Ford, A/Project Manager, Impact Assessment Agency of Canada

Subject: Blair Road Pit Expansion

The federal environmental assessment process is set out in the [Impact Assessment Act](#) (IAA). The [Physical Activities Regulations](#) (the Regulations) under IAA set out a list of physical activities considered to be “designated projects.” For designated projects listed in the Regulations, the proponent must provide the Agency with an Initial Description of a Designated Project that includes information prescribed by applicable regulations ([Information and Management of Time Limits Regulations](#)).

The relevant entry in the Regulations for this type of project is:

19(f). The expansion of an existing stone quarry or sand or gravel pit if the expansion would result in an increase in the area of mining operations of 50% or more and the total production capacity would be 3 500 000 t/year or more after the expansion.

Based on the information submitted to the Province of Nova Scotia on the proposed Blair Road Pit Expansion, it does not appear to be described in the Regulations. Under such circumstances the proponent would not be required to submit an Initial Description of a Designated Project to the Agency. However, the proponent is advised to review the Regulations and contact the Agency if, in its view, the Regulations may apply to the proposed project.

The proponent is advised that under section 9(1) of the IAA, the Minister may, on request or on his or her own initiative, by order, designate a physical activity that is not prescribed by regulations made under paragraph 109(b) if, in his or her opinion, either the carrying out of that 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. Should the Agency receive a request for a project to be designated, the Agency would contact the proponent with further information.

The proposed project may be subject to sections 82-91 of IAA. Section 82 requires that, for any project occurring on federal lands, the federal authority responsible for administering those lands or for exercising any power to enable the project to proceed must make a determination regarding the significance of environmental effects of the project. The Agency is not involved in

this process; it is the responsibility of the federal authority to make and document this determination.

The proponent is encouraged to contact the Agency at (902) 426-0564 if it has additional information that may be relevant to the Agency or if it has any questions or concerns related to the above matters.

Thank you,

Trevor Ford

A/Project Manager, Atlantic Regional Office
Impact Assessment Agency of Canada / Government of Canada
Trevor.Ford@iaac-aeic.gc.ca / Tel: 902-476-7635

I/Gestionnaire de projets, Bureau régional de l'Atlantique
Agence d'évaluation d'impact du Canada / Gouvernement du Canada
Trevor.Ford@iaac-aeic.gc.ca / Tél. : 902-476-7635

Reviewer Guidance for Environmental Assessments
Environment and Climate Change



Environment and Climate Change

Date: June 23, 2023
To: Jeremy Higgins, Environmental Assessment Officer
From: Inspection, Compliance and Enforcement Division, Kentville Office
Subject: Blair Road Pit Expansion Project, Waterville, Kings County, NS

Scope of review:

This review focuses on the following mandate: Public consultation; surface water quality, reclamation, groundwater quality, wetland conservation

Technical Comments:

- 1) 4.2 Neighbouring Land Owners: A Community Liaison Committee is not discussed.
- 2) 5.5 Operation and Maintenance – The equipment refuelling location is unclear (only specified as occurring outside the Project Footprint).
- 3) 5.6 Decommissioning and Reclamation: The anticipated disturbed area at a given time or phasing plan is not specified.
- 4) 5.6 Decommissioning and Reclamation: The extent of revegetation is unclear. Borehole logs indicate a thin layer of topsoil, which may not be sufficient to promote the establishment of vegetation over slopes and pit floor.
- 5) 5.6 Decommissioning and Reclamation: The method(s) of establishing native grasses and other plant material is unclear, including whether a post-closure monitoring program will be conducted to confirm revegetation.
- 6) 5.6. Decommissioning and Reclamation: Monitoring well decommissioning is not discussed.
- 7) 7.3.3 Groundwater / Appendix F: Groundwater was measured as shallow as 0.66 m in Monitoring Well 21-MW4, indicating limitations on extraction in some areas.
- 8) 7.3.3 Groundwater: Groundwater levels measurements were limited to a 9-month period. A groundwater monitoring program during construction/operation/reclamation was not recommended.
- 9) 7.3.4 Wetlands: Demarcation of the 30 m buffer between disturbed areas and wetlands is unclear.

Guidance for Reviewers – Environmental Assessments

Environmental Assessment Branch, Environment and Climate Change

- 10) With increased frequency of 100 year storm events what will be done to ensure the pit can withstand 100 year storm events and intense sudden rain events?
- 11) 7.3.3.1.2 Baseline Groundwater Evaluation: Groundwater elevations on the site are indicated to have fluctuated more than 2 m in the baseline sample data from only 9 months of sampling. A longer duration of sampling throughout the lifetime of the pit's groundwater monitoring may indicate groundwater fluctuates more than 2 m. Provide an explanation of how the upper groundwater elevation will be determined by the operator on site and how separation distance from upper groundwater elevation will be maintained.
- 12) 7.3.3.1.3 Groundwater Chemical Quality: The groundwater assessment does not appear to comply with the Contaminated Sites Regulations and Ministerial Protocols. Provide an evaluation of groundwater compliant with the Contaminated Sites Regulations and Ministerial Protocols.
- 13) 7.3.3.2 Predicted Environmental Effects, Proposed Mitigation and Monitoring: Due to the high permeability of the pit floor will one meter separation be enough to protect the groundwater?
- 14) 7.3.4 Wetlands 7.3.4.1 Existing Conditions: Was Wetland Ecosystem Services Protocol for Atlantic Canada (WESP-AC) used to assess and delineate the wetlands?
- 15) 7.3.6 Fauna, Habitat and Species at Risk: What is going to be done to replace the lost bird habitat?
- 16) 9 Effects of The Environment on the Project: Climate change: what mitigations will be put in place to prevent the pit from causing environmental harm because of climate change? For example if the Cornwallis river breaks through the 30 m separation distance and causes catastrophic sedimentation of the Cornwallis River rather than a gradual changing river as would be expected in the mature river.

Summary of Technical Considerations: (provide in non-technical language)

- 1) Was forming a Community Liaison Committee (CLC), using the *Nova Scotia Environment Guide for the Formation and Operation of a Community Liaison Committee* as guidance, considered? Why is a CLC not proposed?
- 2) Where is the equipment refuelling location(s) and what are the associated separation distances (e.g., to wetlands and watercourses, public/common roads, property boundaries)?
- 3) What is the anticipated disturbed area at a given time or phasing plan?
- 4) Does capping with topsoil and stabilization extend to the pit floor. Will there be sufficient topsoil to establish vegetation for stabilization and allow for agricultural activities over the entire disturbed area or will topsoil be required to be imported and/or soil amended?
- 5) Will/how will native grasses and other plant material be actively seeded, transplanted or left to naturally regenerate? Will/how will a post-closure monitoring program be conducted to confirm revegetation?

Guidance for Reviewers – Environmental Assessments

Environmental Assessment Branch, Environment and Climate Change

6) Will/when will monitoring wells be decommissioned?

7) What are the expected excavation depths/elevations across the Project footprint?

8) Elaborate/add to the rationale for not implementing a groundwater monitoring program. Will/how will groundwater levels continue to be monitored (e.g., over a minimum 12-month period) to inform the elevation of the pit floor (i.e., maintain the 1 m separation to groundwater)?

9) How will operators be informed of the buffers, specifically between disturbed areas and wetlands, and how will its boundaries be demarked so that operators do not infringe upon it?

10) With increased frequency of 100 year storm events what will be done to ensure the pit can withstand 100 year storm events and intense sudden rain events?

11) Groundwater elevations on the site are indicated to have fluctuated more than 2 m in the baseline sample data from only 9 months of sampling. A longer duration of sampling throughout the lifetime of the pit's groundwater monitoring may indicate groundwater fluctuates more than 2 m. Provide an explanation of how the upper groundwater elevation will be determined by the operator on site and how separation distance from upper groundwater elevation will be maintained.

12) The groundwater assessment does not appear to comply with the Contaminated Sites Regulations and Ministerial Protocols. Provide an evaluation of groundwater compliant with the Contaminated Sites Regulations and Ministerial Protocols.

13) Due to the high permeability of the pit floor will one meter separation be enough to protect the groundwater?

14) Was Wetland Ecosystem Services Protocol for Atlantic Canada (WESP-AC) used to assess and delineate the wetlands?

15) What is going to be done to replace the lost bird habitat?

16) Climate change: what mitigations will be put in place to prevent the pit from causing environmental harm because of climate change? For example if the Cornwallis river breaks through the 30 m separation distance and causes catastrophic sedimentation of the Cornwallis River rather than a gradual changing river as would be expected in the mature river.

Date: June 22, 2023

To: Jeremy Higgins, Environmental Assessment Officer

From: Water Branch, Sign-off by Krysta Montreuil, Manager, Water Resources Management Unit

Subject: Blair Road Sand Pit Expansion Project, Kings County, Nova Scotia

Scope of review:

This high level review focuses on the following:

- Groundwater quantity and quality
- Wetlands
- Surface water quantity and quality

Technical Comments:

Groundwater quality and quantity

The proponent has proposed appropriate mitigation measures to ensure groundwater is not impacted by the proposed pit expansion. However, details related to a groundwater monitoring program were not provided.

Wetlands

It is indicated in the EA Registration Document (EARD) that the Project site has no wetland present within the proposed pit expansion area. As such, the wetlands program has no comments related to the quarry expansion Project.

Surface water quality and quantity

Information provided in the EARD does not support complete understanding and assessment of potential impacts to surface water quantity and quality in/near Project area. Specifically,

- The proponent intends to slope the working area towards the center to allow for infiltration of precipitation on site, which can also act as a water detention area for extreme precipitation events to prevent surface water (and associated sediment) from leaving the Project Footprint before it infiltrates through the pit floor and discharges into the Cornwallis River via shallow groundwater. No quantitative analysis was completed to support whether this approach will adequately manage water on the site (e.g. can the pit area manage extreme precipitation events, can the recharge from the shallow groundwater offset the

potential reduction on overland flows, and will there be potential impacts to water quality in the Cornwallis).

- The EARD states that nearby Fishwick Brook is upgradient of the Project Footprint based on the local topography and inferred groundwater flow direction. This assessment is not sufficiently supported and may lead to incomplete understanding and assessment of the potential impacts to Fishwick Brook due to the proposed pit expansion:
 - Topographic information is not provided to clearly support this assessment. Following a desktop review, it appears as though the surface topography slopes downwards from within the proposed pit expansion area to Fishwick Brook, indicating potential overland flow into the Brook which can impact its water quality.
 - Very limited information is provided on whether the cleared areas to northeast of phase 1 footprint is included for extracting commercial sand during proposed pit expansion. Generalized phasing of extraction (Figure 5-1, EARD) does not include this area as sand extracting areas while the same area is included within the scope of proposed pit expansion. This information is key to understanding whether there are overland flow contribution to Fishwick Brook from these areas and potential impact to Fishwick Brook due to changes on contributing areas and overland flow.
- 2021 NSE Tier 2 Pathway Specific Standards (PSS) was used to assess baseline water quality. These standards typically apply to contaminated sites and generally are not applied to sites that have not been designated as contaminated.

Summary of Technical Considerations:

Groundwater

The groundwater monitoring program should be updated to account for pit expansion including testing of groundwater for general chemistry and metals including ongoing water level monitoring to ensure pit floor is 1m from the maximum high groundwater table.

Wetlands

There are no considerations at this time, as wetlands adjacent to the project site will be buffered by 30 metres and no excavation is proposed within the water table.

Surface water

The proponent should consider ongoing assessment of the retaining capacity of the active working areas during pit expansion in relation to precipitation (including appropriately and clearly defined extreme events) to plan for sufficient mitigation

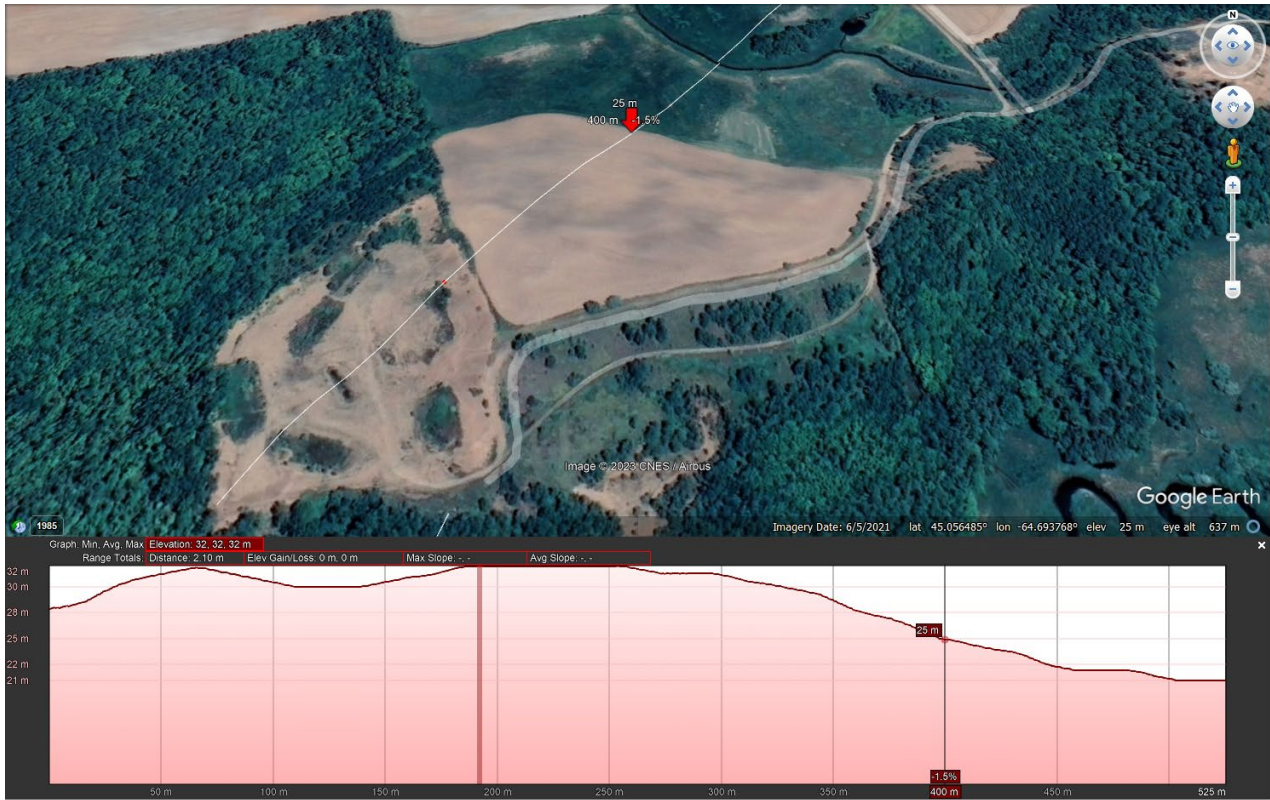
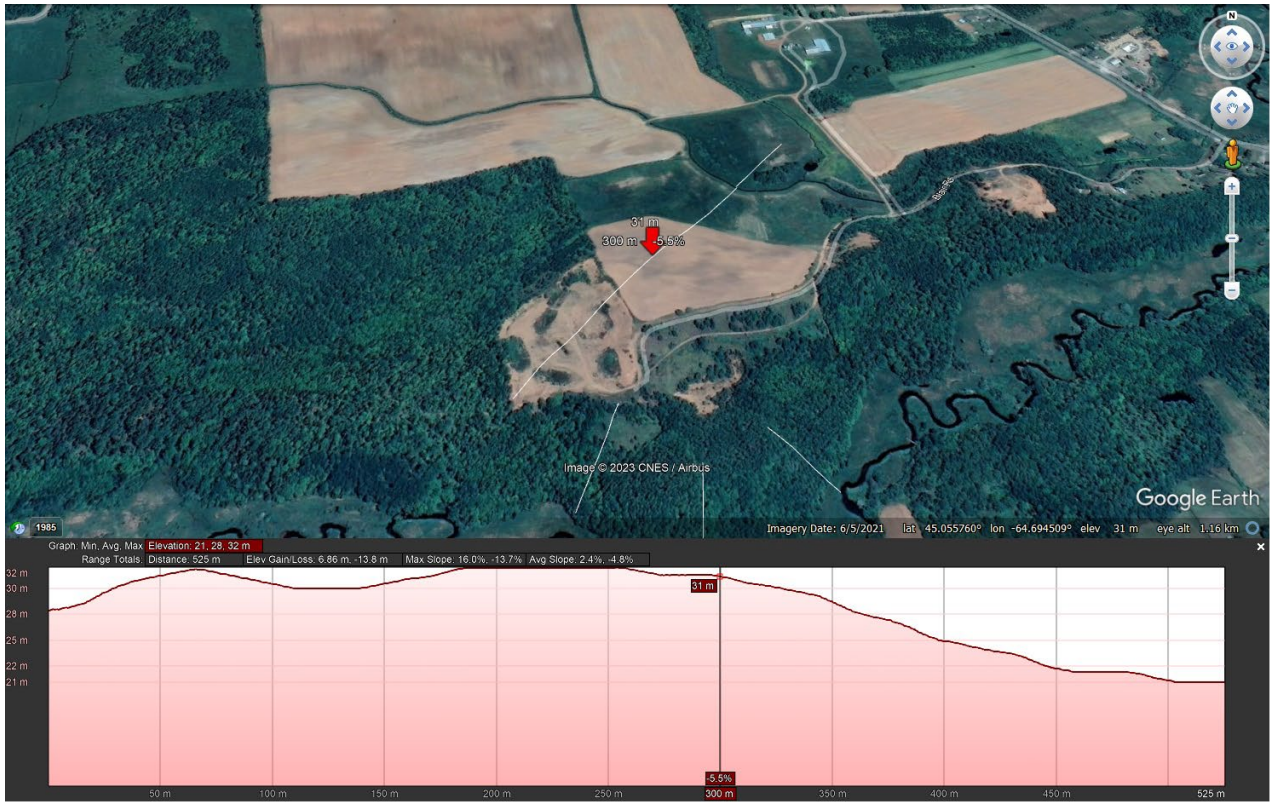
measures to prevent overflow into surrounding watercourses. It is recommended to factor climate change into this ongoing assessment. Any potential impacts in surrounding watercourses as a result of water retention and increased infiltration on site should be assessed, with additional mitigations implemented when necessary.

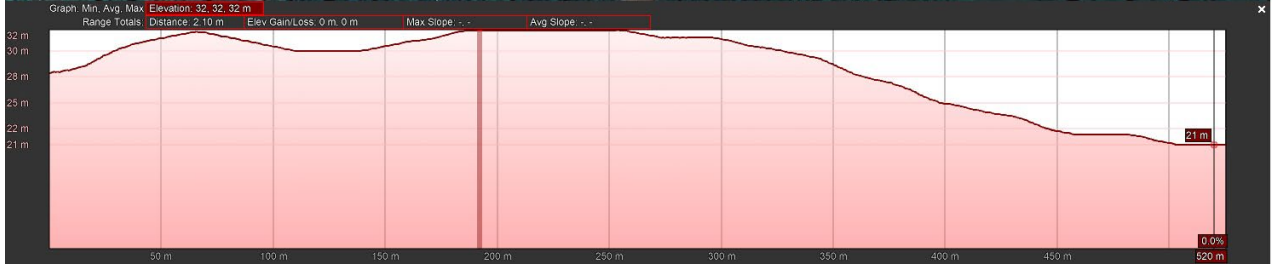
The proponent should also establish a surface water quantity monitoring plan to collect necessary data in surrounding watercourses (especially Fishwick Brook) to validate the conclusion of no overland flow into Fishwick Brook from proposed pit expansion area and its surrounding areas. If overland flow into Fishwick Brook is observed through monitoring, subsequent ongoing assessment should be completed for both surface water quantity and quality in Fishwick Brook, and associated mitigations should be planned as required.

In this case, the proponent should consider also including surface water quality monitoring for Fishwick Brook with clearly defined background conditions, monitoring locations, and sufficient frequencies to continuing assessing impacts from different phases of the proposed pit expansion (including shutdown). Monitoring parameters and appropriate water quality guidelines should be selected for assessment and include total suspended solids (TSS).

Appendix

Reference check of a randomly selected elevation profile for northeast area of proposed pit expansion on Google Earth. The profile indicates the surface topography slopes downwards from edge of the proposed pit area to Fishwick Brook, indicating potential overland flow into Fishwick Brook from the area near proposed pit expansion area.







June 29th, 2023

Jeremy Higgins
Environmental Assessment Officer
Environmental Assessment Branch
Nova Scotia Environment and Climate Change
Email: jeremy.higgins@novascotia.com

RE: Consultation with the Mi'kmaq of Nova Scotia on the Blair Road Pit Expansion Project, Kings County

Mr. Higgins,

I write in response to your letter dated May 25, 2023, requesting consultation under the *Terms of Reference for a Mi'kmaq-Nova Scotia-Canada Consultation Process (ToR)* as ratified on August 31, 2010, on the above noted project. We wish to proceed with consultation.

EA Registration Document:

4. Mi'kmaq and Public Engagement:

The Mi'kmaq of Nova Scotia are Rights Holders, not Stakeholders, and should be referred to as such.

7.3.2 Surface Water:

7.3.2.2 Predicted Environmental Effects, Proposed Mitigation and Monitoring

It is recommended that if any effluent leaves the site, a full sampling suite be conducted to confirm the quality of effluent.

7.3.4 Wetlands:

7.3.4.2 Predicted Environmental Effects, Proposed Mitigation and Monitoring

It is recommended that a Wetland Monitoring and Compensation Plan be developed due to the proximity of wetlands to the Project Area. The Mi'kmaq expect to be involved in the development of this plan through review and comment.

7.3.6 Fauna, Habitat and Species at Risk:

Are there any bat hibernacula located within 5km of the site?

It is recommended that a Wildlife Monitoring/Management Plan be developed for the site including specific mitigation measures to prevent harm to Species of Special Concern, Vulnerable, Threatened and Endangered Species. Particular attention should be paid to turtles (Wood, Painted and Snapping) and how to ensure their safety on site. The measures outlined in

the Contingency Plan are inadequate and should be bolstered. We look forward to providing comments upon our review of the document. The Mi'kmaq, as stewards of the land, reserve the right to protect and conserve all species within the province, including those not yet considered under COSEWIC or under provincial regulation for Species at Risk.

7.3.8 Atmospheric Conditions/Air Quality:

Please provide thresholds at which water application will be used to reduce dust. What monitoring is planned for dust particulate? What are the proposed monitoring locations off site?

7.3.9 Noise:

Have there been studies conducted to assess how noise will affect local wildlife? If so, please provide for our review.

What monitoring is proposed for noise? What are the proposed monitoring locations off site?

Archaeological and Cultural Resources:

It is worth noting that our office did not receive the Archaeological Resource Impact Assessment (ARIA) intended to be sent directly to the KMKNO – Archaeology Research Division (ARD). The ARD is currently reviewing the ARIA and will provide comments/recommendations under a separate communication.

Please provide the following documents for our review upon their completion:

- Surface Water Monitoring Plan
- Wetland Compensation and Monitoring Plan
- Wildlife and Vegetation Monitoring Plan

The Mi'kmaw Nation in Nova Scotia has a general interest in all lands and resources in Nova Scotia as the Mi'kmaq have never surrendered, ceded, or sold the Aboriginal Title to any of its lands in Nova Scotia. The Mi'kmaq have a Title claim to all of Nova Scotia and as co-owners of the land and its resources it is expected that any potential impacts to Rights and Title shall be addressed.

Yours in Recognition of Mi'kmaw Rights and Title,

Director of Consultation
Kwilmu'kw Maw-Klusuaqn Negotiation Office

c.c.:

Consultation Project Support Officer, Kwilmu'kw Maw-Klusuaqn Negotiation Office
Gill Fielding, Consultation Advisor, Nova Scotia Office of L'nu Affairs
Krista Ogletree, ICE Division, Nova Scotia Environment and Climate Change

Maritime Aboriginal Peoples Council



The Maritime Regional Aboriginal Leaders
Intergovernmental Council of Aboriginal Peoples
Continuing to Reside on Traditional Ancestral Homelands

Forums

- Leaders Congress
- MAPC Commissions/Projects
- MAARS Secretariate
- IKANAWTIKET SARA
- MAPC Administration

MAPC Regional
Administrative Office
80 Walker Street, Suite 3
Truro, Nova Scotia
B2N 4A7

Tel: 902-895-2982
Fax: 902-895-3844
Toll Free: 1-855-858-7240
Email: frontdesk@mapcorg.ca

Governmental
APRO Councils

Native Council of
Nova Scotia
P.O. Box 1320
Truro, Nova Scotia
B2N 5N2

Tel: 902-895-1523
Fax: 902-895-0024
Email: chiefaugustine@ncns.ca

New Brunswick Aboriginal
Peoples Council
320 St. Mary's Street
Fredericton, New Brunswick
E3A 2S4

Tel: 506-458-8422
Fax: 506-451-6130
Email: chief@nbapc.org

Native Council of
Prince Edward Island
6 F.J. McAuley Court
Charlottetown
Prince Edward Island
C1A 9M7

Tel: 902-892-5314
Fax: 902-368-7464
Email: chief@ncpei.com

June 29th, 2023

Shaw Group Limited
Attn: Stephen Warren
P.O. Box 60
Shubenacadie, NS
B0N 1Y0

RE: Blair Road Sand Pit Expansion

Dear Stephen Warren,

On behalf of the Native Council of Nova Scotia (NCNS), and the Maritime Aboriginal Aquatic Resources Secretariate (MAARS) we would like to thank you for taking the time to further discuss the Blair Road Sand Pit Expansion Environmental Assessment Registration Document (EARD) on June 27th, 2023. We would like to take this opportunity to summarize the discussion to ensure they are captured for the EARD review. Some of the key points raised during our meeting included the presence of Wood Turtle critical habitat and other species at risk within the study area, the operational timing and seasonality of the undertaking, and the expected lifespan of this undertaking.

Firstly, there were concerns raised over the proximity to critical habitat for Wood Turtles, as well as the potential presence of Bank Swallows within the open sand pits, which could provide nesting habitat. Mitigation measures for this were discussed, such as the avoidance of nesting season when operating as well as the use of drift fencing. For mitigation of Bank Swallow presence, the pits are angled as a preventative measure to discourage nesting. Given the potential presence of species at risk within the project footprint, MAARS would like to reiterate the value of these species and the importance of mitigating risks to these species, given their status and ecosystem value.

Similarly, there was some discussion around the seasonality of this operation as well as the anticipated lifespan. Shaw Group stated that the anticipated operations will take place over the winter season, above the water table, and will take place over three to four phases of extraction, with continuous reclamation taking place throughout each phase. The sand pit is expected to have a lifespan of approximately 20 years, which is highly dependent on the economic situation. Once the lifespan of the pit has been exceeded, it was stated that this area would be returned to the landowners for use as agricultural land.

At this time, MAARS and NCNS do not have any further commentary to provide related to this proposed undertaking; however, we would like to be kept apprised to any developments or changes to the project.

We assert that the Off-Reserve Aboriginal Communities, as Section 91(24) Indians, are undeniably heirs to Treaty Rights and beneficiaries of Aboriginal Rights as substantiated by Canada's own Supreme Court jurisprudence. As such, there is absolutely an obligation to consult with the Off-Reserve Community through their elected representative body of the NCNS. The Crown's duty to consult with all Indians extends beyond that only with Indian Act Bands, or as through the truncated Terms of Reference for a Mi'kmaq Nova Scotia Canada Consultation Process.

For contextual purposes, the Native Council of Nova Scotia was organized in 1974 and represents the interests, needs, and rights of Off-Reserve Status and Non-Status Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples continuing to reside on our Traditional Ancestral Homelands throughout Nova Scotia as Heirs to Treaty Rights, Beneficiaries of Aboriginal Rights, with Interests to Other Rights, including Land Claim Rights.

The Native Council of Nova Scotia Community of Off-Reserve Status and Non-Status Indians/Mi'kmaq/Aboriginal Peoples supports projects, works, activities and undertakings which do not significantly alter, destroy, impact, or affect the sustainable natural life ecosystems or natural eco-scapes formed with their multitude of in-situ biodiversity. Our NCNS Community has continued to access and use the natural life within those ecosystems and eco-scapes where the equitable sharing of benefits arising from projects and undertakings serve a beneficial purpose towards progress in general and demonstrate the sustainable use of the natural wealth of Mother Earth, with respect for the Constitutional Treaty Rights, Aboriginal Rights, and Other Rights of the Native Council of Nova Scotia Community continuing throughout our Traditional Ancestral Homeland in the part of the Mi'kma'ki now known as Nova Scotia.

We appreciate the opportunity to engage with Shaw Group Limited and EnGlobe Corp. to discuss the Blair Road Sand Pit Expansion project. As noted in our discussion, the KMKNO, individual Reserves, or any other organization, such as the Confederacy of Mainland Mi'kmaq, do not represent the needs and interests of the membership of the Native Council of Nova Scotia. Now that we have made this important connection, we look forward to further dialogue as we continue to advocate for the rights of Off-Reserve Status and non-Status, Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples of Nova Scotia.

Advancing Aboriginal Fisheries and Oceans Entities
Best Practices, Management, and Decision-making

Habitat Impact Advisor, MAARS

Executive Director, MAARS & MAPC Projects

CC: Chief & President, Native Council of Nova Scotia
Netukulimkewe'l Commission, NCNS