NOVA SCOTIA
Environment and Climate Change

Comment Index

Nictaux Sand Pit Expansion Project, Annapolis County

Comment Period End Date: June 23, 2025

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Nova Scotia Mi'kmaq

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2	Native Council of Nova Scotia (NCNS) / Maritime Aboriginal Aquatic Resources Secretariate (MAARS)	June 20, 2025

Impact Assessment Agency of Canada | Agence d'évaluation d'impact du Canada

Newfoundland and Labrador Office
901- 10 Barter's Hill
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Bureau de Terre–Neuve-et-Labrador
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May 22, 2025

Anthony Heggelin
Environmental Assessment Officer
Policy Division, Environmental Assessment Branch
Government of Nova Scotia
anthony.heggelin@novascotia.ca

SUBJECT : Nictaux Sand Pit Expansion Project

Dear Anthony Heggelin:

Thank you for the opportunity to review the registration document for the Nictaux Sand Pit Expansion Project (the Project), received on May 9, 2025.

The federal environmental assessment process is set out in the *Impact Assessment Act* (IAA). The *Physical Activities Regulations* (the Regulations) set out a list of physical activities considered to be "designated projects" under the IAA.

IAAC reviewed the Regulations and notes that item 19(f) is relevant for this type of project:

> *19(f) The expansion of an existing mine, mill, quarry or sand or gravel pit, in the case 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*

Although the increase in the area of mining operations for the proposed Project appears to be greater than 50%, it is understood that the total production capacity of the sand pit will be 590,000 tonnes per year which is less than the threshold identified in the Regulations

While it is the responsibility of proponents to determine whether their proposed project includes physical activities described in the Regulations of the IAA, based on the information submitted to the Province of Nova Scotia on the Nictaux Sand Pit Expansion Project, the Impact Assessment Agency of Canada (IAAC) is of the opinion that, as proposed, the project does not appear to be described in the Regulations. As such, the proponent would not be expected to submit an Initial Project Description of a Designated Project. If the project changes from what has been described in its provincial registration, the proponent is advised to contact IAAC if, in their view, any proposed project activities may be described in the Regulations.

The proponent is advised that under section 9(1) of the IAA, the Minister may, on request or on the Minister's own initiative, by order, designate a physical activity that is not prescribed by regulations made under the Regulations if, in the Minister's opinion,

the carrying out of that physical activity may cause adverse effects within federal jurisdiction or direct or incidental adverse effects. Should IAAC receive a request for a project to be designated, IAAC would contact the proponent with further information.

Please note that for physical activities not described in the Regulations, should the Project be carried out in whole or in part on federal lands, section 82 of the IAA would apply if any federal authority is required to exercise a power, duty or function under an Act other than IAA in order for the Project to proceed, or if a federal authority is providing financial assistance for the purpose of enabling the Project to be carried out. In that case, that federal authority must ensure that any Project assessment requirements under the applicable sections of the IAA are satisfied.

We also note that in proceeding with the Project, the proponent may still be required to obtain or seek amendment to other federal regulatory permits, authorizations and/or licences.

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

Samantha Zabudsky

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Agent d'évaluation environnemen, Bureau satellite de Terre-Neuve-et-Labrador
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Fisheries and Oceans Canada | Pêches et Océans Canada

Bedford Institute of Oceanography
1 Challenger Drive
P.O. Box 1006, Station P500
Dartmouth, Nova Scotia B2Y 4A2

Date: May 26, 2025

To: Anthony Heggelin, Environmental Assessment Officer, EA Branch

From: Kelley Fraser, Regulatory Review Biologist, Fish and Fish Habitat Protection Program

Subject: Nictaux Sand Pit Expansion Project, Annapolis County, Nova Scotia

Scope of Review:

Fisheries and Oceans Canada (DFO) is responsible for administrating 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 Nictaux Sand Pit Expansion Project Environmental Assessment Registration Document (EARD) 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:

DFO makes the following recommendations to the proponent:

- Watercourses outside of the Project Area include WC2, WC3, WC4 and Bald Hill Brook which all are tributaries to the Nictaux River. According to the EARD water balance modelling, these watercourses will also lose contributing draining areas (WC2 and WC 3 <1%; WC4 2.46% and Bald Hill Brook 6.83%) resulting in potential loss of fish habitat. Surface water runoff generated during construction activities will be directed to a settling pond to remove suspended solids prior to discharge to the receiving environment. Settling pond overflow will be discharged to Bald Hill Brook, WC3, and WC4 under operation and reclamation conditions. Sediment ponds do not typically capture all sediment, especially silts and clays which require long settling periods to settle out of the water column. These particles are known to adversely affect salmonid species (including Brook Trout), especially during sensitive life stages. DFO recommends sizing sediment ponds and using appropriate erosion and sediment control measures in a manner which will reduce potential impacts to fish and fish habitat.

- If blasting will be conducted, refer to Wright and Hopky 1998 (https://publications.gc.ca/collections/Collection/Fs97-6-2107E.pdf) for Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters; 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.

Further information can be provided through the NSECC watercourse and/or wetland alteration approval process(es), and/or through submission of a DFO Request for Review application to DFO to allow DFO staff to conduct a regulatory review of the project to identify potential impacts to fish and fish habitat, and to determine if an authorization under the *Fisheries Act* and/or a *Species at Risk* permit is required.

NOVA SCOTIA
Environment and Climate Change

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: May 23, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Janet MacKinnon Executive Director Sustainability and Applied Science

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of review:
This review focuses on the following mandate: protected areas

List of Documents Reviewed:
WAPA interactive Maps

Details of Technical Review:

Area is on private land and 3.5 Km from Torbrook nature reserve

Key Considerations: (provide in non-technical language)

No concerns

NOVA SCOTIA
Environment and Climate Change

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: May 27, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Environmental Health Consultant, Environmental Health and Food Safety Unit, Sustainability and Applied Science

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of Review:

This review focuses on the following mandate: Environmental Health

List of Documents Reviewed:

• EARP

Details of Technical Review:

The Nictaux Sand Pit Quarry Expansion Project consists of expanding the approved quarry (26 ha) to occupy an additional 99 ha, for a total permitted area of approximately 125 ha. Shaw intends to operate the Project for the purpose of extracting commercial sand at a rate of approximately 590,000 tonnes per year.

Based on the review of the above document, and with particular consideration given to potential health impacts related to air quality, noise, and drinking water wells, no additional Environmental Health concerns have been identified beyond those already addressed through the assessment of impacts, proposed mitigation measures, or existing legislative requirements.

Key Considerations:

Environmental Health concerns are either addressed within the provided documents, assessed for and deemed no negative effect, or are already covered withing existing legislative requirements. No additional un-addressed health related considerations have been identified based upon the information provided for this project.

Environment and Climate Change

Barrington Place
1903 Barrington Street
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Halifax, Nova Scotia
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Date: June 2, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Climate Change Division – Lori Skaine, Executive Director

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of review:
This review focuses on the following mandate: Climate change adaptation and mitigation

List of Documents Reviewed:
Environmental Assessment Registration Document

Details of Technical Review:

Adaptation

- Section 5.1.3 of the EA registration document includes a description of the local climate based on data from the Greenwood climate station from 1981-2010.
- Section 8.1 of the EA registration document (Effects of the Environment on the Undertaking) provides a summary of climate projection data (precipitation and temperature) prepared for the 2022 Climate Change Risk Assessment for Annapolis County. Increased frequency of intense storms and flooding, and resulting sediment and soil erosion, are identified as potential hazards of concern.
- Section 8.2 of the EA registration document identifies potential hazards from extreme weather events, such as drought, flooding, and wildfires.
- Potential high level strategies to mitigate some of these climate impacts are presented in the EA registration document, such as:
    - design of water management infrastructure to withstand increased intensity of storm systems; and
    - temporary operational closures or delayed activities to protect employees and infrastructure.
- Section 7.1 indicates that the capacity of settling ponds will be designed to include additional storage capacity to account for the effects of climate change.

Mitigation
The proponent does not provide a detailed analysis of greenhouse gas (GHG) emissions but likely assumes they are negligible, estimated to be below 10,000 tonnes of CO_2 per year. The primary sources of GHG emissions associated with the project include fuel combustion from vehicle use. While the projected emissions are expected to be low, the proponent has not presented a quantified estimate of GHG emissions.

Key Considerations: (provide in non-technical language)

Adaptation
We suggest the proponent consider using a risk management framework to better understand the relative importance of the identified impacts and plan adaptation measures.

The proponent is encouraged to review climate change-adjusted IDF curves through Canada's national climate data portal (ClimateData.ca), which may be helpful for designing stormwater management infrastructure as part of the process to create a Surface Water Management Plan under the proposed Industrial Approval amendment application.

Mitigation
The proponent is encouraged to quantify GHG emissions for various stages of the project and determine opportunities for reducing emissions.

NOVA SCOTIA
Communities, Culture, Tourism and Heritage
Special Places Protection

1747 Summer Street, 2nd Floor
Halifax, Nova Scotia, Canada B3H 3A6
902-424-6450 T
SPP@novascotia.ca E

Date: June 2, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Beth Lewis, Director of Special Places Protection

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of review:
This review focuses on the following mandate: ***Archaeology and Geology***

List of Documents Reviewed:
EA Document.

Details of Technical Review (Archaeology):

Section 5.11, pages 159-163, of the EA document details the archaeological work undertaken for the proposed sand pit expansion. The information provided aligns with the ARIA (Permit Number A2023NS234), therefore we have no concerns at this time.

It is recommended that the Appendices include the ARIA report approval letter from John Cormier at the Special Places Program, CCTH, dated February 28, 2024. This is a quick reference to the archaeological wok completed.

Key Considerations: (provide in non-technical language):

No concerns with the archaeology components of the EA document.

Details of Technical Review (Geology):

The surficial geology described in the project proposal is not likely to contain fossil material. The likelihood of encountering significant paleontology resources is considered very low.

Key Considerations: (provide in non-technical language):

No concerns from a palaeontology point of view.

NOVA SCOTIA
Fisheries and Aquaculture

Armoyan Centre
1800 Argyle Street
Suite 603
Halifax NS B3J 3N8

Date: June 4, 2025

To: Anthony J Heggelin

From: Lesley O'Brien-Latham, Executive Director, Policy and Strategic Advisory Services

Subject: Nictaux Sand Pit Expansion Project, Annapolis County

Scope of review:
The scope of this review follows the Department of Fisheries and Aquaculture's (DFA) legislated mandate to develop, promote and support fishing, aquaculture, seafood processing and sportfishing in Nova Scotia.

List of Documents Reviewed:
- Nictaux Sand Pit Expansion EA Registration Document and Appendices
- Appendix F – Baseline Biophysical Report

Details of Technical Review:
Aquaculture:
There are no rockweed harvesting leases or aquaculture operations within a 25km radius of the proposed project.

Marine Fisheries:
The proposed sandpit expansion is located inland in Nictaux, Annapolis County, Nova Scotia, and does not encompass any watercourses or waterbodies containing commercially valuable species within the project footprint. Consequently, there is no anticipated risk to commercially valuable aquatic species.

The nearest commercial fishing wharf is located in Parkers Cove, approximately 35 kilometers northwest of Nictaux. The L.J. Robichaud Fisheries plant in Middleton is about 1.6 kilometers from the project site. Given these distances and the nature of the project, it is reasonable to conclude that there will be no direct or indirect impacts on the commercial seafood sector.

The local economy in Nictaux is primarily based on agriculture and small-scale industries. The sand pit expansion is expected to continue supplying aggregate materials for regional infrastructure projects, consistent with its historical operations. There is no indication of overlap with commercial fisheries or seafood processing activities

Inland Fisheries:

The project proposal identified potential risks to local fish and fish habitat through alteration of flow regimes and surface runoff. The proponent indicated alteration of flows in the aquatic study areas would be less than 10%, which is the Fisheries and Oceans Canada threshold for Low-Risk classification of activities (relative to impacts on fish and fish habitat). The proponent identified water management plans and mitigation measures to prevent adverse impacts to the watercourses and fish within the project area.

Fish surveys conducted by the proponents found: brook trout, northern redbelly dace, creek chub, and threespined sticklebacks, living within or close to the project area.

Numbers of species did not line up with data presented in Appendix F. Text & Table 3.20 states 3 brook trout sampled, however, table 3.18 indicates 5 were sampled. The same is true for creek chub (14 stated, but 20 found in table 3.19).

Key Considerations: (provide in non-technical language)

- Project not a concern to sportfishing in Nova Scotia so long as project adheres to plans and applicable regulations,
    - However, should sediment control plan fail (to be submitted to Nova Scotia Environment and Climate Change; section 2.3.2.1), downstream waters of the Nictaux and Annapolis rivers (which support recreational fisheries) could be impacted.
- While there are no expressed concerns from DFA regarding the proposed project, proponents are encouraged to be made aware of the
    - Fisheries and Coastal Resources Act,
    - Provincial Aquaculture License and Lease Regulations,
    - Provincial Aquaculture Management Regulations,
    - the Nova Scotia Rock Weed Harvesting Regulations, and
    - the Department's Site Mapping Tool for information on the location of sites and leases in the area of their proposed project.

NOVA SCOTIA#
Natural Resources and Renewables
Energy#

1701 Hollis St.
PO Box 698
Halifax, NS B3J 2T9

Date: June 4, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Department of Natural Resources and Department of Energy

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of review:

This review focuses on the following mandate: Energy resource development, authorities and approvals required from the Land Services Branch, geoscience health and safety, mineral exploration, mineral development, abandoned mines openings, biodiversity, species at risk status and recovery, forest management planning, wildlife species and habitat management and conservation, including Old Growth Forest.

List of Documents Reviewed:

Wildlife Division:

- Nictaux Sand Expansion Project – Environmental Assessment Registration Document and all applicable appendices

Land Services Branch:

- Environmental Assessment Registration Document
- Appendices A-H
- GIS Shapefiles

Geoscience and Mines Branch:

- Nictaux Sand Expansion EARD document and Appendices (Parts A through H).
- Mineral Occurrence Database (MODB, Version 12, 2024)
- Google Earth
- Provincial Geoscience Atlas
- Nova Scotia's Registry of Claims (NovaROC)
- Open File Map ME 2019-006 Bedrock Geology Map of the Central Annapolis Valley Area, Nova Scotia C. E. White, scale 1:50,000.

Details of Technical Review:

Wildlife Division:

The Nictaux Sand Expansion Project – Environmental Assessment Registration Document and appendices detail a thorough understanding of both terrestrial and aquatic habitats.

Unknown presence of SAR within project footprint can result in mortality and long-term impacts to the breeding population by the unintentional creation of ecological sinks or unnecessary interaction with vehicles and heavy machinery. Atlantic Canada Conservation Data Centre (ACCDC) and other data indicate that wood turtle and bank swallow were observed near the project footprint. Known wood turtle streams exist to the east and west of the project footprint, and Watercourse 1 within the PA may provide suitable habitat for wood turtle foraging and movement. Bank Swallow were not detected on bird surveys; fall surveys may have been too late to detect colonies. ACCDC records suggest a colony was observed the same year in the existing sandpit, within 150m of the project area. Directed wood turtle and bank swallow surveys should be conducted to determine use of the area and develop mitigations. Wood turtle surveys should be completed during the pre-nesting period (April/early May in western NS).

Brook Floater, a freshwater mussel listed as Threatened under the provincial ESA and as Special Concern under the federal SARA special concern, was noted to be found or "potentially found" within the Annapolis River, 3 km to the north. The description of Watercourse 2 and the presence of fish host species and acceptable substrate indicates that this watercourse should be surveyed for Brook Floater, for which habitat exists lower in the watershed.

More detail on terrestrial mammal survey methodology, beyond opportunistic track and scat surveys, is required to understand impact and develop mitigations. Pellet group inventory or trail camera stations could be employed to better understand habitat use of this area. ARUs should be deployed to survey for bat presence in the noted possible bat roosting habitat during the breeding season and/or during fall migration.

Land Services Branch:

Based on the information provided, the Project is located on privately owned land, and it does not include/or adjoin Crown lands. No authorities or approvals are required from the Land Services Branch unless the scope of the project changes to include Crown lands.

We note that the Project Area GIS Shapefiles and Project Area Figure 2.2-2, Pit Areas Expansion include a small portion of private PID 05058268 (adjacent to PID 05291448 and PID 05286968) which is owned by Quality Concrete Inc., not the Proponent.

Geoscience and Mines Branch:

The geological characterization of the proposed site is appropriate and identifies the transition along the southern half of the PA from the Triassic Wolfville Formation to the Silurian-Devonian White Rock and Kentville Formations. The Hellgate Falls Formation of the Halifax Group is located in the southwestern most extent of the planned project footprint. Geological maps included in the application also display relative location to the planned project development area and

confirm the area to be dominated by thick glacial till deposits, in this case a large esker. Drilling completed in 2024, with borehole depths ranging from 9.10 metres (MW-05) to 30.50 metres (MW-07), failed to reach bedrock during preliminary deposit characterization drilling.

Proponent addresses potential for encountering ARD conditions and proposes mitigation measures should geohazards such as ARD and erosion and sedimentation be encountered during the development stage. Applicant also confirmed baseline till sampling completed in 1980s by NSDNR.

Mineral Occurrences

The proposed Project Area is considered to be within a high-level area for mineral and aggregate potential using the 2009 model with numerous surficial resources defined in the area comprised primarily of outwash sand and gravel deposits. No exploration licences are located within 5 km the Project Area. It is not anticipated that the proposed project will result in any negative impacts to the nearby mineral exploration licences. In addition, a documented abandoned mine opening is located within 600 metres southwest of the PA related to historic iron and manganese mining.

Of note, while no bedrock uranium occurrences have been identified to date in the Project area, the underlying Hellgate Falls Formation in the southwestern most part of the proposed footprint is deemed prospective for the occurrence of uranium mineralization within pyritic slate beds.

One uranium occurrence is located 1 km west southwest of the Project Area within the stratigraphic unit mentioned above. As the planned development area is overwhelmingly within the surficial deposit overlying the Triassic Wolfville Formation, it is not anticipated that this style of mineralization will be encountered. A baseline check for anomalous radioactivity levels using a hand-held scintillometer or spectrometer to rule out additional uranium occurrences may be recommended.

Key Considerations: (provide in non-technical language)

Forestry and Wildlife Branch:
Old Forest Division:
No comments

Forest Management Planning Division:
No conflict with silviculture research program

Forestry Division:
No comments

Wildlife Division:
Based upon a review of the information submitted, the following recommendations are provided:

Obtain all necessary permits to undertake the project as required under legislation related to wildlife, species at risk, watercourses and wildlife habitat alterations.

- Provide digital waypoints and/or shapefiles for all species detected during flora and fauna surveys, including Species at Risk and Species of Conservation Concern to DNR (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 DNR Template for Species Submissions for EAs and is to be provided within two (2) months of collection.
- Develop a Wildlife Management Plan (WMP) in consultation with DNR and ECCC which includes at minimum:
    - Communication protocol with regulatory agencies;
    - General wildlife concerns (e.g., human-wildlife conflict avoidance);
    - Education sessions and materials for project personnel on Species at Risk, especially bank swallows and turtles, non-Species at Risk-wildlife, and other important biodiversity features they may encounter on-site and how to appropriately respond to those encounters.
    - Noise, dust, lighting, blasting, and herbicide use mitigation and monitoring;
    - 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;
    - Apply standard best management practices for any material stockpiles to avoid creating artificial habitat for wildlife. 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 all project phases. The incidental take of migratory birds, as well as their nests and/or eggs, is not permitted under the *Migratory Birds Convention Act* and the *NS Wildlife Act*. 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.
    - Quarries and pits are known to provide suitable habitat for herpetofauna, include measures to protect and mitigate adverse effects to turtles during construction and operation. This may include timing windows for vegetation clearing, road construction, or blasting; buffer zones around discovered nests; and contingency plans for encountering turtles on the work site which would include consulting with DNR biologists.
    - Mitigation measures consistent with recovery documents (federal and/or provincial recovery and management plans, COSEWIC status reports) to avoid and/or protect Species at Risk/Species of Conservation Concern and associated habitats discovered through survey work or have the potential to be found on 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. 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.
- Details on monitoring and inspections to assess compliance with the WMP.

- Employ standard operational practices to minimize external lighting during any nighttime operations to mitigate potential influence on the behaviour of migratory birds including but not limited to, the use of directional lighting projected downward, eliminate all unnecessary lighting and cover only the areas needing illumination.
- Revegetate cleared areas using native vegetation or seed sources following consultation with DNR.
- Develop a plan to prevent the spread of invasive species both on and off site in consultation with DNR. The plan should include monitoring, reporting, and adaptive management components.
- In consultation with DNR establish a decommissioning and site reclamation plan to revegetate areas that are no longer operational with native plant species to aid in the control of invasive species that may be in the process of becoming established. The goal is to restore conditions that are similar to pre-existing conditions, allowing natural communities to reestablish.
- 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). Include an assessment of the cumulative effects of the project on landscape-level connectivity and habitat loss, and the measures proposed to mitigate those effects.
- Recommendations specific to this project, necessary to provide the information required to develop appropriate mitigations:
    - One additional season of wood turtle surveys to determine absence by conducting three surveys in the pre-nesting season (before mid-May in Western Nova Scotia). An annual turtle nesting monitoring plan may be required to protect and mitigate against potential impacts to nesting or hatchling turtles in the project area. This will identify needs around use of turtle exclusion fencing or other measures to reduce the potential for access to artificial nesting opportunities.
    - One season of additional bank swallow colony monitoring in the immediate vicinity of the project area. Annual monitoring of all bank swallow colonies near the project area.

Energy Resource Development Branch

No comments

Land Services Branch:

No further comments.

Geoscience and Mines Branch:

No further comments.

NOVA SCOTIA

Agriculture

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Suite A
Bible Hill, Nova Scotia
B6L 2R2

Date: June 6, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Philip Sampson, Director, Policy and Planning
Nova Scotia Department of Agriculture

Subject: Nictaux Sand Pit Expansion Project
South Mountain, Annapolis 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, as designated by the Canadian Land Inventory (CLI). Class 4 land has “severe limitations that restrict the range of crops”.
- Within a 2 km buffer of the proposed project site, lands are identified as 74.3% Class 4 soils, 5.3% Class 2 and 20.4% Class 7. Class 7 soils have “no capability for arable culture or permanent pasture”. However, there are 4,500 acres of Class 2 and Class 4 (combined) within the buffer that are among the highest value agricultural soils available in Nova Scotia.
- Three registered farms exist within 1.4 km of the project site.
- There are 48 active agricultural fields (710 acres total) and 88 acres of inactive agricultural fields within the 2 km buffer. The closest is a rotational crop field just 400m from the project site.

The Department has concerns with the proposed project given that protection of agricultural land is a key priority for the industry and is reflected in the Nova Scotia Statement of Provincial Interest for Agriculture. The proponent should implement mitigations to protect groundwater and manage any dust that could impact nearby agricultural operations.

NOVA SCOTIA
Public Works

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Canada B3J 2N2

Date: May 28, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Department of Public Works, Environmental Services – Brent MacDonald, P.Eng., Manager

Subject: **Nictaux Sand Pit Expansion Project, Annapolis, Nova Scotia**

Scope of review:
This review focuses on the following mandate: Traffic Engineering and Road Safety_____

List of Documents Reviewed:
Nictaux Sand Pit Expansion Project Environmental Assessment

Details of Technical Review:
The Proponent is expanding an existing sand and gravel pit near Nictaux in Annapolis County.

The Nova Scotia Department of Public Works provides the following comments on this EA Registration Document:

1. Freeman Street was identified as the access road to the original pit and expected to continue to be used. No modifications to the pit access were identified in the EA as part of this project, the proponent should clearly state that there will be no changes. If modifications to the access are expected, a Working Within Highway Right of Way Permit is required and can be accessed through the Local Area Manager.

2. The proponent mentions in the Transportation Section 5.9.5.3 (page 145) that there are "minor traffic hazards including height clearance concerns, small turning radii, and partially obstructed signage and driveways" along the haul route. The truck routing from the pit for the new expansion has been identified as using Freeman Street, left onto Route 201, right onto Trunk 10, right onto Trunk 1, left onto Victoria Road, and then onto Highway 101. The inherent and implied assumption is that these roads were part of the original truck routing, from the original mine, and that they were able to sufficiently handle the truck volumes and turning movements at the key intersections. The proponent should confirm if this route is the original route.

3. The projected volumes for the new mine expansion are stated in the document but the volumes of the original sand pit that was in operation for many years is not

discussed. If the two volumes are expected to be comparable, the existing truck route is likely adequate, provided that the issues identified in Transportation Section 5.9.5.3 (page 145) are satisfactorily addressed.

4. The proponent has completed a Traffic Impact Study based on the volumes being similar to another nearby facility that is nearly depleted (1516 S Bishop Road, Coldbrook [the Keddy Facility]). Since the new expansion is identified as replacing this facility, that assumption is reasonable in terms of projected volumes. The truck routing for the expansion project will be different than the Coldbrook facility which is analyzed in the Traffic Impact Study.

5. Four key intersections have been identified in the document: Route 201 at Bayard, Route 201 at Trunk 10, Trunk 10 at Trunk 1, and Trunk 1 at Victoria Road. It should be noted that an alternative route involving turning west from Trunk 10, onto Trunk 1, and then north onto Brooklyn Road to access Highway 101 at Exit 18 was also identified. However, a Level of Service analysis was not completed for the Trunk 1 at Brooklyn Road intersection, but the EA states that "projected traffic conditions are anticipated to be similar for both haul routes". This would not necessarily be the case; Exit 18 at Brooklyn Road on Highway 101 is a full diamond interchange that can accommodate both Eastbound and Westbound traffic, whereas Exit 18A at Victoria Road is a half diamond interchange that can only accommodate Eastbound traffic. As a result, for completeness, the intersection of Trunk 1 at Brooklyn Road should also be analyzed.

6. A 5% annual growth factor was applied to the existing volumes to arrive at current, projected 2026 and projected 2031 volumes to accommodate both existing and future background growth. A Level of Service analysis was completed for the key intersections identified, and all were found to have acceptable levels of service at the 2031 time horizon. Except for not having included the Brooklyn Road at Trunk 1 intersection, this approach looks to be reasonable in its assumptions. The conclusions regarding acceptable levels of service at the four main intersections identified are also a reasonable conclusion. This analysis must also be done for the Brooklyn Road at Trunk 1 intersection.

7. Section 7.2 Accidents – There are general statements regarding mitigating the accident risks made including "guided traffic patterns, speed limits, right -of -way signage and thorough training [which] will be implemented. Structural roadway designs will enhance mitigation measures, with roads designed to accommodate multiple vehicle types depending on planned usage". It's unclear if these measures have been completed already, are being proposed, or will be completed should an accident occur. Many of these mitigations identified will require DPW approval if done on a provincially owned road, and all necessary approvals must be obtained before any work can proceed.

Key Considerations: (provide in non-technical language)

1. The proponent should confirm if modifications to the Freeman Street access are required.

2. The proponent should confirm the truck route for the original sand and gravel pit that has been in operation over many years.
3. The proponent should confirm the product volume of the original sand and gravel pit.
4. The proponent should ensure that the Trunk 1 at Brooklyn Road is analyzed as part of the Level of Service analysis.
5. The proponent should confirm if the accident mitigations identified are currently in placed or are planned as part of this work. If these will be implemented, the proponent should communicate with the Local Area Manager.

Public works is a substantial sand and gravel consumer in the region of Annapolis County through both Capital Construction and Maintenance activities. Private industry expanding their capabilities, in accordance with the applicable regulatory review, in the region would enhance our access to said material. This should lead to more competitive pricing and reduce any supply constraints which may have been present in the past.

Environment and Climate Change

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: June 4, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Air Quality Unit

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of review:
This review focuses on the following mandate: Air Quality

List of Documents Reviewed:

- *Nictaux Sand Pit Expansion EA Registration Document*

Details of Technical Review:

The Shaw Group (the Proponent) proposes to extend the development area of the existing pit from the current 26-hectare footprint to approximately 125 hectares. The Proponent intends to operate the Project for the purpose of extracting commercial sand at a rate of approximately 590,000 tonnes per year. The Project will provide a source of high-quality sands for developments in Nova Scotia and the local market. Construction is proposed to commence in 2026, with operations continuing for an estimated 30 years, depending on market demand.

Impacts on air quality from this project are most likely to occur during excavation/drilling/crushing activities, clearing/grubbing, operation of heavy equipment, loading/unloading of materials, and onsite routine operations. These activities are most likely to contribute to increases in concentrations of total suspended particles (TSP), while vehicle emissions are likely to contribute to increases in fine particles ($PM_{2.5}$) and nitrogen oxides.

The Proponent states that dust mitigation will include the use of water sprays, reducing vehicle speeds on gravel roads, minimizing idling, and maintaining vehicles/equipment in good working order. The Proponent states that various mitigation measures were proactively incorporated into the Project design to eliminate, reduce and/or control the effects of Project activities on the environment.

No ambient air quality monitoring is included in the EA registration document, however the proponent states that monitoring will be implemented to ensure regulatory compliance. The NSECC Air Assessment Guidance Document provides guidance that would assist with the development of an ambient air monitoring plan.

Key Considerations:

The Air Quality Unit notes the following key considerations:

- The use of the dust management methods, outlined by the proponent, along with best operational practices would minimize air quality impacts.
- It is unclear how effective the dust mitigation approaches, as outlined by the proponent, will be, without a clear Dust Management Plan, including clear chains of responsibility for actions, including timely complaint resolution.

#
#NOVA SCOTIA
Environment and Climate Change

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: June 4, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Air Quality Unit

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of review:
This review focuses on the following mandate: Noise

List of Documents Reviewed:

- *Nictaux Sand Pit Expansion EA Registration Document*

Details of Technical Review:

The Shaw Group (the Proponent) proposes to extend the development area of the existing pit from the current 26-hectare footprint to approximately 125 hectares. The Proponent intends to operate the Project for the purpose of extracting commercial sand at a rate of approximately 590,000 tonnes per year. The Project will provide a source of high-quality sands to developments in Nova Scotia and the local market. Construction is proposed to commence in 2026, with operations following for an estimated 30 years, depending on market demand.

The Proponent has not included baseline noise monitoring/modelling but Table 5.2-2 provides expected sound levels produced by equipment/operations at the site and potential noise attenuation at various distances from the source. Under the NSECC Guidelines for Environmental Noise Measurement and Assessment (GENMA) the Project site is classified as a rural environment. The Proponent states that there is an agricultural facility approximately 760m to the north of the site and the nearest residential receptor is approximately 950m from the site. Given the predicted noise levels produced by equipment from Table 5.2-2, there is the potential for an exceedance of the GENMA 53dBA daytime permissible sound level (PSL) as a result of activity at the site.

The Proponent states that noise mitigation will include maintaining vehicles and heavy equipment in operational order, controlling vehicle speeds, and locating infrastructure where it minimizes noise experienced at receptors around the Project area. The Proponent states that noise caused by the Project will be low with the appropriate mitigation applied and is unlikely to impact the normal day to day life of local residents.

Key Considerations:

The Air Quality Unit notes the following key considerations:

- It is unclear if the proposed expansion has the potential to exceed the appropriate GENMA permissible sound levels at the nearest receptor (rural classification).
- It is unclear how effective noise management and mitigation will be in the absence of a Noise Management Plan with a clear chain of responsibility for actions, including timely complaint resolution.

NOVA SCOTIA
Environment and Climate Change

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: June 4, 2025

To: Anthony Heggelin, Environmental Assessment Officer

From: Water Resources Management Branch

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of review:
This review focuses on the following mandate: Groundwater quality and quantity, Surface water quality and quantity, and wetlands.

List of Documents Reviewed:
EARD, Appendices, GIS Files

Details of Technical Review:

Groundwater

In the EARD, the proponent has assessed background geological and groundwater conditions and the level of risk appropriate to most identified groundwater receptors – this includes the need for monitoring over time with the establishment of a site groundwater monitoring program. The primary relevant points from this work are as follows.

According to the EARD there is one (1) probable agricultural supply 850 m NW of the project area. There are an additional 5 wells showing in the database within 1 km of the site, although it is reported that no residences/structures could be confirmed for these database locations and the locations indicated may be of low accuracy. A check of online satellite mapping supports this observance of lack of buildings. Water supply well locations should be verified in the field.

The Middleton Well Field (MWF) is located to the northwest of the project area. It is approximately 3.5 km from the project area to the nearest pumping well and 2.5 km to the identified pumping wellfield capture zone. The Nictaux Sand Pit is upgradient (to the SE) and shallow groundwater flow is roughly towards Middleton to the NW. The MWF is across several Nictaux River meanders.

A baseline water quality sampling and well construction survey of water wells should be conducted for wells identified within 1.0 km of the site (currently 1 well identified).

Based on a drilling program, surficial, unconsolidated sands and gravel occur at the site at depths from about 9 to 30 metres below surface – only 1 well (MW4) encountered bedrock (at 10 m)

Nine (9) groundwater monitoring wells are in place across the site. Water level results were provided for two events (Aug 2024 and Oct 2024) in addition to water quality for two to three events (Mar, Aug, and Oct 2024 - general chemistry and metals) as well as hydraulic response

properties at one location (MW 05). No data was presented for winter season monitoring. The groundwater results are indicated to represent baseline conditions.

The elevation of the groundwater table at the site was assessed and water levels were shown to range widely, depending on site location, from about 2 – 10 m below surface except for MW 07 which had water levels greater than 25 m below surface.

A groundwater flow direction figure (EARD Appendix C, Figure 2) shows the groundwater flow direction to be to the NW (roughly towards the Town of Middleton)

The proponent intends to conduct excavation of commercial sand, when needed, below the water table by dredging. No dewatering is planned for this aspect of the operations and thus no anticipated changes to water table elevations.

No direct impacts of groundwater to wetlands are anticipated, and the proponent indicates that two peripheral wetlands identified will be avoided. There were no watercourses identified within the site expansion area.

Water supply usage of >23,000 L/d is proposed from a surface pond for which a Water Withdrawal Approval is anticipated. The water is to be used in washing aggregate and will be recycled back into surface ponds with appropriate sedimentation treatment. The report anticipates that no water level changes due to site withdrawals will occur outside the project area.

Operational spills or leaks from site activities, should they occur, will be addressed with a site Contingency Plan.

If surrounding groundwater conditions change over time, as evident in monitoring wells, or if new residences or water wells are established within 1 km of the site, additional monitoring could be necessary.

Surface Water

The project site is located within the Annapolis River primary watershed (1-DC), and the Annapolis River secondary watershed (1DC-3), but is divided between two tertiary watersheds: 1DC-3-CC in the west, draining to the Nictaux River, and 1-DC-EE in the east, which drains to Black Brook and ultimately the Annapolis River. The proponent identified five watercourses located within or downstream of the project development area (PDA), through a combination of provincial mapping and field-based watercourse delineation: Watercourses 1-4 (designated WC-1 through WC-4), and a fifth unnamed watercourse described therein as Bald Hill Brook (“BHB”).

The EARD reports that, although minimal surface water drainage is anticipated due to high till drainage, the proponent will design water management infrastructure, including settling ponds, a water clarifier, ditches, and a silt management area, with the primary goal of preventing the release of sediment-laden runoff to surrounding watercourses and wetlands. Further, it indicates that all surface water runoff will be directed to a sedimentation pond to settle solids prior to discharge.

The proponent indicates that operational activities will include the extraction of sand from below the groundwater table and on-site processing including screening, washing, and classifying sand, and the use of an unconfined closed-loop system to meet processing requirements, requiring more than 23,000 litres of water per day. This proposed volume of water use will require a water withdrawal approval in accordance with the Nova Scotia Environment Act and Activities Designation Regulations.

A water balance assessment was performed for baseline, operating, and reclamation conditions, assessing anticipated changes in the percent in area for all affected catchments as well as the changes in streamflow for watercourses therein. The assessment results were for most watercourses and associated catchment sizes to have changes ±1% of their current values. For the few values features exceeding a 1% change from predevelopment conditions, they were attributable to a redistribution in catchment area and remained below 10%.

The proponent conducted water quality monitoring at two watercourses located downstream of the project development area and found exceedances of aluminum and iron in both when compared to CCME Canadian Council of Ministers of the Environment Canadian Water Quality Guidelines for the Protection of Fresh Water Aquatic Life and the Nova Scotia Tier 1 Environmental Quality Standards for Surface Water. The proponent indicated that its process water will be directed to sedimentation ponds to allow for solids to settle prior to release to the receiving environments; with the intention of meeting the Canadian Water Quality Guideline for Total Suspended Solids.

The EARD indicates that the proponent intends to implement the following mitigations measures to reduce the potential for surface water contamination: avoiding sand excavation from areas containing excessive amounts of fine materials (i.e., silt and clay-sized particles), using dredging equipment to extract sand from below the water table, to avoid the requirement for dewatering processes, erosion and sedimentation control measures, ditching around stockpiles, maintaining on-site machinery, maintain watercourse buffers, avoid work within 30 metres of watercourses, and store hazardous products and to keep a spill kit available on-site where refuelling occurs.

In addition, the proponent committed to submitting a project-specific erosion and sedimentation control plan, as well as integrated groundwater and surface water monitoring plans to ensure the effectiveness of its erosion and sedimentation control plan, as part of its future Industrial Approval application.

The proponent indicated that any pit areas extracted beneath the water table would either be filled in with silts and clays generated from the washing process or left as pit lakes in the reclamation phase to maintain the adjacent water table elevation. No information was provided to indicate how the decision would be made, the implications of either decision on surface water resources, or alternative disposal options for silts and clays if not left in pit areas.

Wetlands

The EARD identified two wetlands within the Project Area (PA) totaling 4.8 ha within the PA and states that they extend outside the project area. Their placement outside the PA was not identified. It is suggested that any wetlands adjacent to the expansion area that have the potential to be altered should be identified.

The EARD indicates that the 2 wetlands (WL1 and WL2) will be avoided from direct alteration; however, it is unclear what indirect impacts could occur. The proponent states that there is the potential for changes in hydrology of the wetlands, however the magnitude of impacts is expected to be low or not significant. The proponent plans to mitigate indirect impacts by development of erosion and sediment control measures as well as water management infrastructure.

Key Considerations:

Groundwater

The Nictaux Sand Pit Expansion EARD has evaluated the environmental sustainability of the proposed operations in relation to groundwater. Based on the information provided, the statement made by the proponent - “In summary, after the implementation of applicable mitigation measures, significant impacts to groundwater quality are not anticipated beyond the LAA [Local Assessment Area] nor at identified residential water well locations.” (p.60). - is found to be reasonable.

- The nearest water supply, which is an agricultural receptor well within 850 m of the quarry (and any other field verified wells within 1 km of the project area), should have baseline water well survey/sampling information collected.

- A site Groundwater Monitoring Plan is proposed to be part of the further operations approvals. Regular monitoring of groundwater conditions should be conducted, primarily to ensure downgradient receptors are not affected by site operations.

- A Water Withdrawal application and documentation will need to be submitted for operational approval of the anticipated pond groundwater supply.

Surface Water

The surface water management plan should include detailed maps showing the current and proposed locations of water management infrastructure to show the location of settling ponds, ditches, and other features and how these are proposed to change throughout the proposed project lifespan.

Detailed plans for surface water management, surface water monitoring, erosion and sediment control should be developed by a qualified professional prior to the expansion of the quarry. These plans should outline the design basis and rationale for the management and mitigation measures proposed, including stormwater conveyance features (e.g., ditches) if any, and details of the existing sediment ponds that will be used for sediment settling and treatment and associated pond outlet structures. Water quality in the detention pond or discharge from the pond should be characterized and compared against applicable water quality guidelines to inform appropriate surface water management and erosion and sediment control measures design and implementation.

Wetlands

It is unclear if Wetlands 1 and 2 are going to be impacted indirectly based on the information provided in the EARD. Wetlands outside the PA were not identified. If wetlands outside the PA have the potential for indirect alteration, they should be identified as the expansion area boundary overlaps with the PA boundary for the majority of the site.

During detailed design, if potential indirect impacts are anticipated, the proponent should submit a Wetland Alteration Approval Application for review and approval for any wetlands proposed to be directly or indirectly altered and complete any necessary compensation and monitoring. The proponent should utilize Nova Scotia’s Wetland Alteration Application’s Guided Template for the permit applications.

NOVA SCOTIA
Department of Municipal Affairs

8th Floor North, Maritime Centre
1505 Barrington Street
PO Box 216
Halifax, NS B3J 2M4

DATE: June 3, 2025

TO: Anthony Heggelin, Environmental Assessment Officer

FROM: Christina Lovitt, Provincial Director of Planning

SUBJECT: **NICTAUX SAND PIT EXPANSION PROJECT, ANNAPOLIS COUNTY**

Scope of Review:
This review focuses on the following Department of Municipal Affairs' (DMA) mandates: Statements of Provincial Interest and engagement with municipalities.

Document Reviewed:
Registration Document

Details of Technical Review:
The project area (PA) is within the East End Planning Area, which is currently under review by the municipality. The majority of the land area is in the Agricultural (AG) zone, with the remainder in the Rural (R5) zone. Extractive-related facilities are permitted in the R5 zone, but not in the AG zone. The project may require a rezoning as structures related to pits are not currently permitted in the Agricultural (AG) zone. The EA notes that Shaw, the proponent, has engaged with the Municipality of the County of Annapolis regarding the plan review and alignment with the goal of protecting agriculture, and will continue to engage in 2025.

The proponent provided information packages to elected representatives for the local area and the Annapolis County CAO Chris MacNeill was contacted.

Statements of Provincial Interest (SPI):

- **Drinking Water**: Reasonably consistent. There are no Municipal Drinking Water Supplies identified in this area of Nova Scotia (2017 Map) and no designated protected water areas in close proximity to the study area. The nearest registered public drinking water supply location is approximately 2.2km northeast of the PA, and the Middleton Wellfield Protection Area is located approximately 3.8km northwest of the PA.
- **Agricultural Land**: The goal of this SPI is to protect agricultural land for the development of a viable and sustainable agriculture and food industry. Agricultural Land means active farmland and land with agricultural potential as defined by the Canada Land Inventory as Class 2, 3 and Class 4 land in active agricultural areas. The EA sets out that the *Project is in a rural area mainly on agricultural lands.* The PA appears to have Class 4 soils, which are considered conducive to agriculture.
  The Project will not give priority to agriculture or related uses. The Project may not eliminate the possibility of using the land for agricultural purposes in the future. Although there are no measures to reduce topsoil removal, the EA indicates that the removed topsoil will be stockpiled on site for later use in site reclamation activities and that the process will be completed progressively to minimize the extent of disturbed soils at any one time. Separation distances between agriculture and new non-agricultural developments tend to reduce land use conflicts. The nearest structure is an agricultural facility located approximately 850 m northwest of the PA. The EA contains several phased mitigation

measures, which include efforts to minimize dust.

- **Flood Risk**: Reasonably consistent. There are no Flood Risk Areas under the Canada-Nova Scotia Flood Damage Reduction Program. The Municipal Flood Line Mapping indicates that the property is not in a flood hazard area.
- **Infrastructure**: Reasonably consistent. There is no water or sewer servicing in this area.
- **Housing:** Reasonably consistent. The SPI Regarding Housing supports having a range of housing opportunities. The AG zone has very limited opportunities for non-farm residential uses. As the majority of the lands in the PA are in the AG zone, a range of housing options is currently not supported. A range of residential uses are permitted in the R5 zone. Housing development is to be concentrated in Nictaux, Middleton or Meadowvale where more services are available. The nearest residence is located approximately 980m southwest of the PA. There is ribbon development along Highway 201, with a subdivision to the north in the R7 zone in the vicinity of Freeman Street. There are 120 residences within 1.5km and 274 within 2km.

Key Considerations *(provide in non-technical language):*
We highlight the Statement of Provincial Interest Regarding Agricultural Land and suggest that the viability of the method proposed to return the land to agricultural potential during site reclamation be reviewed.

All other components considered under DMA's areas of mandate have been adequately addressed.

NOVA SCOTIA
Environment and Climate Change

Kentville Regional Office
136 Exhibition Street
2nd floor
Kentville, Nova Scotia
Canada B4N 4E5

Date: June 5, 2024

To: Anthony Heggelin, Environmental Assessment Officer

From: Inspection, Compliance and Enforcement Division, Kentville Office

Subject: **Nictaux Sand Pit Quarry Expansion, Annapolis County, Nova Scotia**

Scope of review:
This review focuses on the following mandate: Project description; Industrial Approval; Air, soil, and water quality; Consultation and engagement

List of Documents Reviewed:
GHD Limited (2025). Nictaux Sand Pit Expansion Project, Environmental Assessment Registration Document, 4389818 Nova Scotia Limited. Project Number 12584960. Dated May 2, 2025.

Details of Technical Review:

- General:
  - It is understood that the Project is an expansion of the Trimper Sand and Gravel Pit; however, it is unclear whether and which project elements and mitigations will be applied to the exiting pit, vis versa, or whether these are effectively two separate operations.

- 1.6 Regulatory Overview:
  - The Industrial Approval (IA) associated with the site has expired. As such, a new (rather than amended) IA is required. Different types (i.e., new vs. amended) of applications may have different application requirements.
  - Permitting pursuant to the *Petroleum Management Regulations* may apply, as noted in Section 2.3.2.3 Waste Management.

- 2.3.1 Construction; 2.3.3 Reclamation:
  - The approximate size of phased development and progressive reclamation is unclear. It is unclear whether the “Planned Facility Footprint” shown on Figure 2.2-2 represents the active area (less rehabilitated areas) or represents a fixed operation area (with disturbed areas associated with extraction being additional). It is understood that progressive reclamation details may be provided in the Reclamation Plan developed at the IA application phase, but this information would support the review of the Environmental Assessment, particularly in consideration of the limited Provincial guidance and requirements at the IA stage.

- 2.3.1 Construction; 5.8.3 Baseline Conditions:
    - The large, cleared forestry operations area within the Project Area is noted as ‘recently’ disturbed. Based on aerial imagery, clearing appears have been conducted between December 2022 and August 2023. Its impact on the Environmental Assessment and whether and how it relates to pit construction and mitigations is unclear in some sections.

- 2.3.2: Operation; 5.4 Groundwater Resource; 5.5 Surface Water Resources; Appendix C:
    - “Following extraction, any pit areas extracted beneath the water table will be left as pit lakes into the closure phase, maintaining the adjacent water table elevation.” Based on the geologic cross-sections (Figures 3 &4 in Appendix C), it appears that much of the extraction area will extend below the groundwater table. The areal extent, construction phasing and final locations of pit lakes, and whether the magnitude of pit lakes has an impact on the Environmental Assessment, are unclear.

- 3.1 Consultation and Engagement:
    - Key public stakeholders were not identified, specifically adjacent landowners and potential former complainants.

- 6. Other Undertakings in the Area:
    - Table 6.1-1:
        - The “pit” reference at PID 05007901 is an asphalt paving plant.
        - A pit that is located approximately 2 km from the Project Area and has been issued an IA is not included in the table.
        - The previously noted Quality Concrete Inc. pit project has been issued an IA and is not included in the table.

    - Table 6.1-2:
        - It is noted that the scope of review is limited to 2014, however:
            - The previously noted Quality Concrete Inc. pit project has been issued an Environmental Assessment Approval (EA Approval) (1993) and is not included in the table.
            - A pit that is located approximately 2 km from the Project Area and has been issued an EA Approval (2005) is not included in the table.

- 7. Accidents and Malfunctions:
    - The *Contingency Planning Guidelines* are applicable but not referenced or discussed.

Key Considerations: (provide in non-technical language)

- The Proponent should consider:

    - Clarifying how the new Project relates to the existing/planned pit. For example, which of the newly described processes and mitigations will be applied to the original pit? How does the size of the new planned active area compare to the existing active area? Will extraction be limited to westward from the existing active area or will the formerly approved areas be fully developed?

- Clarifying the approximate size and location of phased development, pit lakes, and progressive reclamation and discussing the potential impacts to the Environmental Assessment (including benefits (e.g., ecological, recreational, water supply, land use improvement) and planned mitigations.

- Specifying the timing of the forestry operations and discussing the potential impacts to Environmental Assessment and planned mitigations.

- Specifying key public stakeholders (e.g., adjacent landowners, other pit owners in the area) and summarizing any engagement, including previous public consultation for the existing pit and any public concerns received since that time.

- Listing and showing on figures the other two pits in the immediate area that have EA Approvals to aid in the evaluation of impacts and project alternatives.

Kwilmu'kw Maw-klusuaqn Negotiation Office
Mi'kmaq Rights Initiative
Our Rights. Our Future.

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Truro, NS B6L 1W3

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June 19, 2025

Anthony Heggelin
Environmental Assessment Officer
Nova Scotia Environment and Climate Change
Barrington Place
1903 Barrington Street, Suite 2085
PO Box 442, Halifax, NS B3J 2P8

RE: Consultation with the Mi'kmaq of Nova Scotia on the Nictaux Sand Pit Expansion Project

Mx. Heggelin,

I write in response to your letter dated May 14, 2025 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 Review

Our team at Kwilmu'kw Maw-klusuaqn has reviewed the EA Registration, Nictaux Sand Pit Expansion Project Environmental Assessment Registration document and has found that concerns have not fully been addressed.

5.2 Noise

Have there been studies conducted to assess how noise will affect local wildlife? If so, please provide for our review. Particular attention should be paid to fish and fish habitat.

5.4 Groundwater Resources & 5.5 Surface Water Resources

It is expected that revisions to the Surface Water Management Plan, Groundwater Management Plan and Environmental Protection Plan will be developed with input from the Mi'kmaq through review and comment.

5.6 Wetlands

Wetlands support thousands of aquatic, terrestrial, and flora species. In addition to playing an important role for Mi'kmaw who inhabited and steward the forest since time immemorial, they are essential for maintaining a healthy biodiversity within and over arching ecosystem. It is expected that a Wetland Monitoring and Compensation Plan will be developed with input from the Mi'kmaq through review and comment.

Though Provincial guidelines dictate a 30m minimum buffer around wetlands, it is recommended that a 50m buffer be utilized.

5.7 Fish and Fish Habitat

Any effects to fish and fish habitat are effects to Mi'kmaq rights, it is encouraged to set the boundary at 50 metres from the watercourse rather than the regulated 30 metres.

Is a *Fisheries Act* Authorization application anticipated for this project?

How will the watercourses remain navigable for Mi'kmaq use?

5.8 Terrestrial Environment

It is expected that the Wildlife and Vegetation Management Plan will be developed with input from the Mi'kmaq through review and comment.

It is understood that there were several attempts to survey for wood turtle but none were completed. It is recommended that the wood turtle survey be conducted.

There is concern with nesting of bank swallows in potential stockpiles. How does the proponent intend to mitigate nesting in stockpiles?

Sensory Disturbance

Over 70% of avian species are at night, with 30% relying solely on an undisrupted nighttime ecology. In addition to this, over half of the insect population is nocturnal. Lighting in remote areas significantly and negatively alters the performance of the night ecology in that area. Dark areas are becoming less predominant; it is important to acknowledge this moving forward on any and all development. Hence, we are recommending that night lighting be limited and/ or amber or red lighting be used.

Air Quality

Contamination of food sources for fauna and Mi'kmaq harvesters is a major concern with particulate. How can the proponent and the province guarantee these food sources will not become contaminated? What are the proposed monitoring locations for particulate? Have there been exceedances of the current limits outlined in the Industrial Approval? There are concerns with cumulative effects of particulate over the lifespan of the project. There are several watercourses near the project area, how does the proponent plan to monitor the health of these watercourses to ensure particulate does not adversely affect fish and fish habitat? The Mi'kmaq expect to be included in the development of a monitoring plan through comment and review.

Will monitoring for NO2 and SO2 be conducted onsite? It is recommended that monitoring locations be established.

5.11 Cultural and Heritage Resources

We consistently recommend in areas that will undergo impact, that subsurface testing be undertaken to confirm the presence, or lack of presence, of archaeological heritage. This is especially important in landscapes which will undergo significant permanent mechanical alteration associated with quarry activities. We wish to clarify that negative tests and negative evidence are considered relevant and important data, regardless of suspected disturbances or classifications of low potential to exhibit archaeological resources.

The Assembly of Nova Scotia Mi'kmaw Chiefs expects a high level of archaeological diligence with evidence-based decisions grounded in an understanding of the subsurface environmental data. The Maw-lukutijik Saqmaq (Assembly of Nova Scotia Mi'kmaw Chiefs) expects subsurface data, adequate to eliminate concern for presence, protection, and management of Mi'kmaw archaeological and cultural heritage as part of assessment of potential in advance of any development. Disturbance is defined, for archaeological purposes, as the dislocation of soils and/or sediments, such as that by heavily treaded or tracked vehicles, as well as purposeful excavation by heavy equipment.

We would recommend that all areas impacted be subjected to shovel testing prior to any development (both high and low potential areas) to eliminate concern for presence, protection, and management of Mi'kmaw archaeological and cultural heritage as part of assessment. We strongly recommend subsurface data, adequate to eliminate concern for presence, protection, and management of Mi'kmaw archaeological and cultural heritage as part of assessment of potential in advance of any development. Without subsurface testing, the evidence of a lack of concern in impact areas does not exist. We wish to clarify that negative tests and negative evidence are considered relevant and important data.

Additional comments will be provided upon review of the ARIA.

Additional Questions and Comments

- Have any Offsetting Plans been developed? If so, please provide for our review and comment

Finally, the Mi'kmaw Nation in Nova Scotia has a general interest in all lands, waters 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

C.C:
Candace Quinn, Office of L'nu Affairs
Beata Dera, Office of L'nu Affairs
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Brent Jackson, Environment and Climate Change
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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
- ☐ MAPC Administration

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June 20th, 2025

Shaw Group Limited

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RE: Nictaux Sand Pit Expansion Project

On behalf of the Native Council of Nova Scotia (NCNS), the Maritime Aboriginal Aquatic Resources Secretariate (MAARS) would like to thank Shaw Group Limited and their consultant GHD, for taking the time to discuss the Nictaux Sand Pit Expansion Project on May 29th, 2025. We would like to summarize and expand upon the discussion to ensure our comments are captured for the Environmental Assessment Review.

Regarding sand extraction, the EARD states that dredging will not impact the aquifer due to the absence of dewatering. Additionally, it is unclear what proportion of the site will be dredged versus using traditional extraction methods. Shaw clarified that the equipment used is specialized and does not require dewatering of the area to remove the sand materials. Also, it is expected that the entire area proposed for expansion will be done using this method for extraction.

In terms of water management and erosion, MAARS requested further information on whether water discharge will be tested before being released into the environment and how frequently this testing will occur. We recommend a minimum of 12 water quality samples per year-one per month-and additional sampling following major weather events. The EARD should also clarify that the 25 mg/L limit for Total Suspended Solids (TSS) is a total value, not in addition to existing levels, in accordance with Pits and Quarries Guidelines. Furthermore, the projected water withdrawal of 23,000 litres per day raises concerns about potential impacts on local groundwater, aquatic ecosystems, and biodiversity.

With respect to fuel storage, we requested clarification on whether a fuel tank currently exists on site. What is the rationale for on-site fueling rather than off-site refueling? Additionally, will other materials such as oil or lubricants be stored on site, and if so, how will they be safely managed? Shaw clarified that there is not currently any fuel storage on site, and if reliable fuel delivery is possible there may not be a need for the fuel storage; however, it is as a precautionary measure, allowing for future flexibility for fuel storage.

The Water Balance Assessment (Section 5.5.4.2) predicts a 7–8% change in water flow. While this is below the 10% threshold typically considered "significant," it remains noteworthy. Similarly, a 6.8% increase in the contributing drainage area and an 8.27% increase in streamflow for Bald Hill Brook could have a more pronounced impact on smaller waterbodies and should therefore be considered a contributing factor to the overall impact potential. A low probability of impact does not equate to no impact, and this should be clearly acknowledged in the assessment.

We are also concerned about the lack of fauna surveys. No surveys were completed for Wood Turtles or Mainland Moose. We also note that while migratory bats are not currently listed under the Species at Risk Act (SARA), they have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as endangered and are likely to be listed within the lifetime of the project. Despite a low likelihood of presence, these species are vulnerable, and proper surveys are essential to assess potential impacts. The use of the ACCDC database is not a sufficient one-to-one substitute for a ground survey. As presented, the Biophysical Assessment does not appropriately assess the potential impacts to the vulnerable and endangered species listed above, and a fulsome assessment of the project development area must be conducted.

Concerns have also been raised regarding community consultation. Many community members, including those living near the project site, were unaware of the proposal. The KMKNO does not represent the Off-Reserve Aboriginal Community who have elected to be represented by the NCNS since 1974.

Finally, cultural and heritage resources must be treated with the utmost care. Information shared with MAARS indicates that many arrowheads have been found in the area but often go unreported. Additionally, the classification of this impact as low significance is inappropriate. Even a small chance of disturbing cultural resources must be treated as a serious concern.

For contextual purposes

We would like to take this opportunity to reiterate that it is important for all proponents of projects to understand that the Off-Reserve Aboriginal Community represented by the NCNS is included within the definition of the word "Indian" of Section 91(24) of the *Constitution Act*, 1982. The Supreme Court of Canada in a landmark decision in *Daniels v. Canada (Indian Affairs and Northern Development)*, 2016 SCC 12. declared that "the exclusive Legislative Authority of the Parliament of Canada extends to all Indians, and Lands reserved for the Indians" and that the word "Indians" in s.91(24) includes the Métis and non-Status Indians[1]. Since 2004, in multiple

[1] Daniels v. Canada (Indian Affairs and Northern Development), 2016 SCC 12, [2016] 1 S.C.R. 99

decisions passed by the Supreme Court of Canada: *Haida Nation*[2]*, Taku River Tlingit First Nation*[3]*, and Mikisew Cree First Nation*[4], has established that,

Where accommodation is required in decision making that may adversely affect as yet unproven Aboriginal Rights and title claims, the Crown must balance Aboriginal concerns reasonably with the potential impact of the decision on the asserted right or title and with other societal interests.

Further, both the Government of Nova Scotia and the Government of Canada are aware that the "Made in Nova Scotia Process" and the *Mi'kmaq-Nova Scotia-Canada Consultation Terms of Reference* does not circumvent the Provincial Government's responsibility to hold consultations with other organizations in Nova Scotia that represent Indigenous Peoples of Nova Scotia. While the proponent may have to engage with the thirteen Mi'kmaq First Nations through the Assembly of Nova Scotia Mi'kmaq Chiefs, represented by the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO), the KMKNO does not represent the Off-Reserve Aboriginal Community who have elected to be represented by the NCNS since 1974.

We assert that the Off-Reserve Aboriginal Communities, as 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 is to consult with all Indians, not only the Indian Act Bands.

For over forty years, the three Native Council partners of the Maritime Aboriginal People's Council (MAPC) have continued to be the Aboriginal Peoples Representative Organizations representing and advocating for the Rights and issues of the Mi'kmaq/Wolastoqiyik/Peskotomuhkati/Section 91 (24) Indians, both Status and non-Status, continuing to reside on their unceded Traditional Ancestral Homelands. In the early 1970s, the communities recognized the need for representation and advocacy for the Rights and Interests of the off-Reserve community of Aboriginal Peoples, "the forgotten Indian". Women and men self-organized themselves to be the "voice to the councils of government" for tens of thousands of community members left unrepresented by Indian Act-created Band Councils and Chiefs. Based on the Aboriginal Identity question, Statistics Canada (2021 Census - 25% sample) enumerate 25,415 off-Reserve Aboriginal Persons in New Brunswick, 42,580 in Nova Scotia, and 2,865 in Prince Edward Island.

Each Native Council in their respective province asserts Treaty Rights, Aboriginal Rights, with Interest in Other Rights confirmed in court decisions, recognized as existing Aboriginal and Treaty Rights of the Aboriginal Peoples of Canada in Part II of the Constitution Act of Canada, 1982. Each Native Council has established and maintains Natural Harvesting Regimes, and each have a co-management arrangement with DFO for Food, Social, and Ceremonial use of aquatic species, through the: Najiwsgetaq Nomehs (NBAPC), the Netukulimkewe'l Commission (NCNS), and the Kelewatl Commission (NCPEI).

[2] Haida Nation v. British Columbia (Minister of Forests), (2004), 2 S.C.R. 511
[3] Taku River Tlingit First Nation v. British Columbia (Project Assessment Director), (2004), 3 S.C.R. 550
[4] Mikisew Cree First Nations v. Canada (Minister of Canadian Heritage), (2005), 3 S.C.R. 388

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 live 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 (NCNS) 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 as hills, mountains, wetlands, meadows, woodlands, shores, beaches, coasts, brooks, streams, rivers, lakes, bays, inland waters, and the near-shore, mid-shore and off-shore waters, to list a few, 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 Mi'kma'ki now known as Nova Scotia.

We appreciate the opportunity to engage directly with Shaw Resources Limited on the Nictaux Falls Sand Pit Expansion Project. We respectfully request that these concerns be addressed in full and that further engagement with the Native Council of Nova Scotia and local communities be prioritized as this project moves forward. We have taken an important step in this connection that we look forward to furthering as we continue to advocate for the rights of Off-Reserve Status and 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, NCNS
, Netukulimkewe’l Commission, NCNS