

Comment Index

Six Mile Brook Pit Expansion Project Publication Date: June 3, 2024

Government

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Number	Source	Date	
1	KMKNO	May 9, 2024	

Public

Number	Source	Date
1	Anonymous	April 13, 2024
2	Maritime Aboriginal Peoples Council	May 9, 2024

RE: Six Mile Brook Pit Expansion and Reclamation of Historic Workings - Environmental Assessment Registration

Ferris, Kevin (HC/SC) < Kevin.Ferris@hc-sc.gc.ca > on behalf of

IA-ATL / EI-ATL (HC/SC) <ia-atl-ei-atl@hc-sc.gc.ca>

Mon 2024-04-15 4:29 PM

To:Quinn, Candace M <Candace.Quinn@novascotia.ca> Cc:Allain, Jérémie (HC/SC) <jeremie.allain@hc-sc.gc.ca>;ia / ei (HC/SC) <ia-ei@hc-sc.gc.ca>

1 attachments (131 KB)

Human Health Considerations in IA.pdf;

** EXTERNAL EMAIL / COURRIEL EXTERNE **

Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

Hello Candace,

As per your email below regarding Six Mile Brook Pit Expansion and Reclamation of Historic Workings Project, please identify any project-related human health impacts to which you require advice and guidance from Health Canada.

HC's role in Impact/Environmental Assessment is founded in statutory obligations under the Canadian Impact Assessment Act, and its knowledge and expertise can be called upon by reviewing bodies (e.g., Impact Assessment Agency of Canada, review panels, Indigenous groups and/or other jurisdictions). In the absence of such a request from one of the above noted groups, HC is unable to carry out a comprehensive review of the project. However, HC is able to accommodate specific requests for human health advice and guidance related to provincial environmental assessments within a reasonable timeframe.

Health Canada currently possesses expertise in the following areas related to human health: air quality, recreational and drinking water quality, traditional foods (country foods), noise, and methodological expertise in conducting human health risk assessment.

To help with your review of human health impacts, I have attached a document of common human health considerations in project reviews and links to Health Canada's guidance documents.

Kind regards,

Kevin Ferris

Regulatory Operations and Enforcement Branch Health Canada / Government of Canada kevin.ferris@hc-sc.gc.ca

Direction générale des opérations réglementaires et de l'application de la loi Santé Canada / Gouvernement du Canada kevin.ferris@hc-sc.gc.ca

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Human Health Considerations in Impact Assessment

Health Canada (HC) provides the following generic considerations for evaluating human health impacts in environmental/impact assessment (EA/IA). Please note that this is not an exhaustive list of human health concerns that may result from projects, and that issues will vary based on project specifics. Please also note that HC does not approve or issue licenses, permits, or authorizations in relation to the IA. HC's role in Impact Assessment is founded in statutory obligations under the Canadian Impact Assessment Act, and its knowledge and expertise can be called upon by reviewing bodies (e.g., Impact Assessment Agency of Canada, review panels, Indigenous groups and/or other jurisdictions). In the absence of such a request from one of the above noted groups, HC is unable to carry out a comprehensive review of the project. However, HC is able to accommodate specific requests for human health advice and guidance related to provincial environmental assessments within a reasonable timeframe.

HC currently possesses expertise in the following areas related to human health: air quality, recreational and drinking water quality, traditional foods (country foods), noise, and methodological expertise in conducting human health risk assessment. Based on Health Canada's "Guidance for Evaluating Human Health Impacts in Environmental Assessment", please consider the following information on these topics to assist in your review.

It is important to clearly describe the location and distance from the proposed site(s) to all potential human receptors (permanent, seasonal or temporary), taking into consideration the different types of land uses (e.g. residential, recreational, industrial, etc.), and identifying all vulnerable populations (e.g. in schools, hospitals, retirement or assisted living communities). Note that the types of residents and visitors in a particular area will depend on land use, and may include members of the general public and/or members of specific population subgroups (Indigenous peoples, campers, hunters, etc.) If there is the potential that project-related activities could affect	Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Human Health Risk Assessment. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. https://publications.gc.ca/collections/collection 2024/sc-hc/H129-54-6-2023-eng.pdf
r r a s	proposed site(s) to all potential human receptors (permanent, easonal or temporary), taking into consideration the different types of land uses (e.g. residential, recreational, industrial, etc.), and dentifying all vulnerable populations (e.g. in schools, hospitals, etirement or assisted living communities). Note that the types of esidents and visitors in a particular area will depend on land use, and may include members of the general public and/or members of pecific population subgroups (Indigenous peoples, campers, nunters, etc.)

Atmospheric Environment

Project impacts to the atmospheric environment include changes to air quality and noise, and can occur in both the construction, operation and decommissioning phases of the project. Project impacts to air quality are commonly caused by emissions from equipment or vehicles as well as by dust. Noise impacts are commonly caused by equipment as well as by activities such as blasting.

- If there are receptors that could be affected by project-related activities, impacts to the atmospheric environment should be considered. Changes to the atmospheric environment that may impact human health include:
 - impacts to air quality (dust or fumes including PM_{2.5}, NO_x, SO_x, PAHs)
 - o increased noise from construction or operations
- If there are receptors who could be impacted by project-related noise, it may be necessary to inform receptors prior to loud activities, such as blasting.
- If there is the potential for impacts to human receptors from noise and/or air quality changes from the project, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.

Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario

https://publications.gc.ca/collect ions/collection 2024/schc/H129-54-3-2023-eng.pdf

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf

Recreational and Drinking Water Quality

The proponent should consider whether any nearby waterbodies are used for recreational (i.e. swimming, boating, or fishing) or drinking water purposes, as well as whether there are any drinking water wells in the area potentially impacted by the project. Nearby drinking and/or recreational water quality may be impacted by

If there is the potential for impacts to drinking and/or recreational water quality from the project site, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Drinking and Recreational Water Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

https://publications.gc.ca/collect ions/collection_2024/schc/H129-54-2-2023-eng.pdf accidents or malfunctions, such as a fuel spill; by dust and increased sediment runoff; and by other chemical discharges to the environment. Additionally, wells in the area potentially impacted by the project may be impacted by activities such as blasting.

- The proponent should consider preparing a response plan in the event of an accident or malfunction with the potential to impact drinking and/or recreational water quality. Response plans should include a spill response kit, adequate spill response training, and a communication plan to notify all recreational and drinking water users in the impacted area as well as all relevant authorities.
- In some cases, for projects that are likely to have an impact on drinking and/or recreational water quality, the proponent should consider conducting water monitoring prior to the start of the project (to establish a baseline). Monitoring would continue throughout the construction, operation and decommissioning phases of the project (as applicable) to monitor for any changes in water quality or quantity.

Country Foods

If there are plants or animals present in the area potentially impacted by the project that are consumed by humans, there may be potential for impacts to country foods. The proponent should consider all country foods that are hunted, harvested or fished from the area potentially impacted by the project. Impacts to country foods may occur from the release of contaminants into soil or water (including from an accident or spill) or from deposition of air borne contaminants.

- If there is the potential for impacts to country foods from the proposed project, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.
- The proponent should consider preparing a response plan in the event of an accident or malfunction with the potential to impact country foods. Response plans should include a spill response kit, adequate spill response training, and a communication plan to notify all potential consumers of country foods in the impacted area as well as all relevant authorities.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Country Foods. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

https://publications.gc.ca/collections/collection 2024/sc-hc/H129-54-5-2023-eng.pdf

For more information on HC's guidelines for evaluating human health impacts in environmental assessments, please see:

Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario

https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf

Appendix B of this guidance document provides a checklist that may be beneficial in verifying that the main components of a noise environmental assessment are completed.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of an air quality environmental assessment are completed.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Drinking and Recreational Water** Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. https://publications.gc.ca/collections/collection/2024/sc-hc/H129-54-2-2023-eng.pdf

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of a water quality environmental assessment are completed.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Country Foods**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-5-2023-eng.pdf

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of a country foods environmental assessment are completed.

Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Human Health Risk Assessment**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-6-2023-eng.pdf

Appendix B of this guidance document provides a checklist that may be beneficial in verifying that the main components of a human health risk assessment are completed.



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

Date: May 7, 2024

To: Candace Quinn, Environmental Assessment Officer

From: Air Quality Unit

Subject: Six Mile Brook Pit Expansion, Pictou County, Nova Scotia

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

List of Documents Reviewed:

- Six Mile Brook Pit Expansion and Reclamation of Historic Workings Project EA Registration Document
- Appendix B

Details of Technical Review:

S.W. Weeks Construction Ltd of Pictou, Nova Scotia proposes to expand the existing Six Mile Brook pit to continue to have reserves of specialty aggregate products available to serve the local market. The proposed undertaking involves expanding the existing 27 Ha NSECC approved pit by an additional 3.5 Ha with an estimated 500 000 m³ of aggregate to be produced. The plan also includes the remediation of 10 Ha of historic workings from before S.W. Weeks took ownership of the site in 1997.

The native material at the site is well graded and poorly sorted. Therefore, the production rate of individual aggregate types is dependent on the gradation of native material. The proponent states that the overall production rate cannot be accurately estimated due to fluctuation in local market demand for certain aggregates and the production of byproducts. While these by-products are not wasted, they are processed into different types of aggregate for future use, they may require long-term storage at the pit until purchased later.

Impacts on air quality from this project are most likely to occur during clearing/grubbing, screening/washing/stockpiling of aggregate, operation of heavy equipment (e.g. crushers, earthmovers), and onsite routine operations. Operation of the pit has the potential to generate dust and combustion emissions. The proponent states that dust management will be undertaken, including the use of water sprays, and covering materials during transportation to reduce fugitive dust emissions. Combustion emissions reduction shall be accomplished by using low-emission engines and emission control technologies on heavy equipment, such as diesel particulate filters. Operational best practices will also be implemented, such as minimizing idling times.

Overall, the impacts to air quality are expected to be similar to the existing operation. Decommissioning of the site should be addressed at the appropriate time to minimize dust impacts from site operations.

Key Considerations: (provide in non-technical language)

The Air Quality Unit notes the following key considerations:

• It is unclear how effective dust management will be in the absence of a dust management plan with a clear chain of responsibility for actions, including timely complaint resolution.

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

Date: May 7, 2024

To: Candace Quinn, Environmental Assessment Officer

From: Air Quality Unit

Subject: Six Mile Brook Pit Expansion, Pictou County, Nova Scotia

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

List of Documents Reviewed:

• Six Mile Brook Pit Expansion and Reclamation of Historic Workings Project EA Registration Document

Details of Technical Review:

S.W. Weeks Construction Ltd of Pictou, Nova Scotia proposes to expand the existing Six Mile Brook pit to continue to have reserves of specialty aggregate products available to serve the local market. The proposed undertaking involves expanding the existing 27 Ha NSECC approved pit by an additional 3.5 Ha with an estimated 500 000 m3 of aggregate to be produced. The plan also includes the remediation of 10 Ha of historic workings from before S.W. Weeks took ownership of the site in 1997.

The native material at the site is well graded and poorly sorted. Therefore, the production rate of individual aggregate types is dependent on the gradation of native material. The proponent states that the overall production rate cannot be accurately estimated due to fluctuation in local market demand for certain aggregates and the production of byproducts. While these by-products are not wasted, as they are processed into different types of aggregate for future use, they may require long-term storage at the pit until purchased later.

The proponent has not undertaken any baseline noise monitoring/modelling at the site and has not provided expected sound levels produced by equipment/operations at the site. The proponent states that the operation will ensure that heavy equipment does not exceed the noise limits specified in the Nova Scotia Pit and Quarry Guidelines; however, the proponent has not assessed against the permissible sound levels set out in the Guidelines for Environmental Noise Measurement and Assessment (GENMA).

Noise from the proposed expansion of the quarry is expected to be similar to that already produced at the site. Occasional night-time operations may be required. The nearest residential receptor is within 500m of the proposed expansion and therefore noises from the proposed expansion have the potential to impact the nearby receptors.

The proponent states the noise mitigation will include maintaining appropriate operational buffers, maintaining vehicles and heavy equipment in operational order, and giving attention to traffic patterns around the site to reduce the need for heavy equipment to use back-up signals.

Key Considerations: (provide in non-technical language)

The Air Quality Unite notes the following key considerations:

- In the absence of a noise assessment (i.e. noise modelling), it is unclear if the proposed expansion has the potential to exceed the GENMA daytime permissible sound levels for a rural area.
- 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.





DATE: May 7, 2024

To: Candace Quinn, Environmental Assessment Officer

FROM: Christina Lovitt, Provincial Director of Planning

SUBJECT: SIX MILE BROOK PIT EXPANSION PROJECT, MUNICIPALITY OF THE COUNTY OF PICTOU

Comment:

As requested, the Department of Municipal Affairs and Housing (DMAH) has reviewed the Registration Documents provided by S.W. Weeks Construction LTD for the environmental assessment of the Six Mile Brook Pit Expansion Project. All components considered under DMAH's areas of mandate have been adequately addressed.

Scope of Review:

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

Technical Comments:

There is currently no designated municipal zoning in this area of Pictou County. The proponent has reached out once to the Municipality of the County of Pictou to provide information on the project and ask for comment, but has not received any response by the date of the submission.

Statements of Provincial Interest:

- Drinking Water: No anticipated impact. Not near a source of municipal drinking water or residential properties.
- Agricultural Land: No anticipated impact. No agricultural land in the area.
- Flood Risk: No anticipated impact. Not in an identified flood risk area.
- Infrastructure: No anticipated impact.
- Housing: No anticipated impact. No residential structures are located within the required 90m setback distance for pit operations.

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

The proponent should make further efforts to ensure that the Municipality has an opportunity to comment on the proposed pit expansion. The Municipality is currently in the process of developing its Municipal Planning Strategy and Land Use By-Law; it would be beneficial to ensure that there will not be any future land-use conflicts prior to the adoption of zoning for the area of the pit.



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

Date: May 1, 2024

To: Candace Quinn, Environmental Assessment Officer

From: Environmental Health Consultant, Environmental Health and Food Safety Branch,

Sustainability and Applied Science Division.

Subject: Six Mile Brook Pit Expansion, Pictou County, NS

Scope of review:

The mandate of environmental health is to protect public health from hazards originating from the environment. The environmental health program assesses the impacts of undertakings and activities on human health and strives to mitigate public health impacts.

List of Documents Reviewed:

Six Mile Brook Pit Expansion and Reclamation of Historic Workings Project Environmental Assessment Registration Document (EARD)

Details of Technical Review:

The proponent has identified within the EARD a number of measures that will be taken to mitigate noise and air quality impacts on human health.

Key Considerations: (provide in non-technical language)

The proponent should develop a complaints handling procedure for noise and air quality impacts related to the project. These measures will form a process for the proponent to be made aware of project related impacts from residents and other land users in the area, and provide guidance for project personnel to respond to and mitigate project impacts.

It is anticipated that impacts to public health can be mitigated and managed through the implementation of best management practices for this project, along with the 4 guiding principles identified in the EARD; namely honesty, inclusivity, integrity and transparency,.



Date: May 8, 2024

To: Candace Quinn, Environmental Assessment Officer

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

Subject: Six Mile Brook Pit Expansion and Reclamation of Historic Workings Project

Scope of review:

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

List of Documents Reviewed:

SMBPE EA Registration Document SMBPE Appendix H

Details of Technical Review:

Risks to Nova Scotia's sportfishery are expected to be minimal as the proponent identifies that no watercourses will be altered as part of the proposed expansion. The proponent notes there will be vegetated buffers between exposed ground and adjacent watercourses as a mitigation measure to reduce potential effects of the expansion.

There are three licenced seafood buyers/processors located within proximity to the project area in Pictou County. The project is adjacent to Lobster Fishing Area (LFA) 26A waters where commercial fishing takes place from May 15th to June 30th. In addition, communal-commercial, livelihood, and Food, Social, and Ceremonial (FSC) fishing activities of Indigenous communities occur within LFA 26A. However, as this project is land-based with no proposed marine activities or interactions, it is not expected to pose any negative impacts to lobster and other commercial marine fisheries adjacent to the project area.

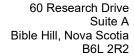
There are a total of 0 rockweed leases and 7 aquaculture sites within 25km of the proposed project. Of these, 4 are marine shellfish sites, 0 are marine finfish sites, 1 is a land-based aquaculture facilities, 1 is a land-based U-fish, and 1 is a proposed marine shellfish site.

The proponent notes that Control measures will be implemented on site to manage erosion and sedimentation. If the active mitigation steps outlined by the proponent are applied appropriately, the risk of negative effects from sedimentation aquaculture sites and rockweed leases should be low. The proponent identifies that surface runoff will be controlled through drainage ditches surrounding exposed soils. Given the use of water brought to site and rainwater, no required alterations to watercourses, and the direction of wastewater to sedimentation ponds, the risks of negative effects on aquaculture sites and rockweed leases is expected to be low if appropriate mitigation steps are taken.

The proponent should be made aware of the <u>Fisheries and Coastal Resources Act</u>, Provincial <u>Aquaculture License and Lease Regulations</u>, Provincial <u>Aquaculture Management Regulations</u>, and the <u>Nova Scotia Rock Weed Harvesting Regulations</u>. In addition, the proponent should be directed to the <u>Site Mapping Tool - Government of Nova Scotia</u>, Canada for information on aquaculture operations within the area.

Key Considerations: (provide in non-technical language)

- Potential adverse impacts on the aquaculture and rockweed harvesting industries from sediments are expected to be minimal provided that the monitoring and mitigation measures identified by the proponent are effectively implemented.
- The Department does not anticipate risks to commercial fishing or marine activities within the Department's mandate as the project is land-based.
- The Department does not anticipate any risks to Nova Scotia's sportfishery provided the proponent follows its identified mitigation measures.





Agriculture

Date: May 8, 2024

To: Candance Quinn, Environmental Assessment Officer

From: Heather Hughes, Executive Director, Policy and Corporate Services,

Nova Scotia Department of Agriculture

Subject: Six Mile Brook Pit Expansion and Reclamation of Historic Workings

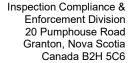
Project

Six Mile Brook, Pictou County, Nova Scotia

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

No agricultural impacts are anticipated given that:

- The proposed expansion area is located on class 3 and class 4 soils, which range from having moderately severe to severe limitations for agricultural purposes.
- The closest registered farm is 2.6km away from the proposed expansion area.





Date: May 8, 2024

To: Candace Quinn, Environmental Assessment Officer

From: Eastern Region – ICE Division

Subject: Six Mile Brook Pit Expansion and Reclamation of Historic Workings, Pictou

County, Nova Scotia

Scope of review:

Regional Hydrogeologist

This review focuses on the following mandate: description of the undertaking and biophysical environment components with concentrating on geology, surface water, groundwater, wetlands in the registration documents.

Regional Engineer

This review focuses on the following mandate: surface water, groundwater, air quality, watercourse alteration, erosion and sedimentation control, environmental and emergency management.

Environment Officer

This review focuses on the following mandate: surface water, groundwater, air quality, watercourse alteration, erosion and sedimentation control, environmental and emergency management.

List of Documents Reviewed:

Regional Hydrogeologist

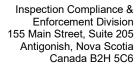
Registration Document for a Class 1 Undertaking Under Section 9 (1) of the Nova Scotia Environmental Assessment Regulation, Six Mile Brook Pit Expansion and Reclamation of Historic Workings, S.W. Weeks Construction LTD, Main report, Appendix E: 2023 Wetlands Baseline Report, and Appendix H: 2023 Biophysical Baseline Report, December 2023.

Regional Engineer

- Letter of Intention
- Registration Document
- Appendices A, B, C, D

Environment Officer

- Letter of Intention
- Registration Document
- Appendices A, B, C, D





Details of Technical Review:

Regional Hydrogeologist

According to the registration documents, the pit floor has been established at 119 m and the elevation of the groundwater table has been established at 112.5m (no groundwater monitoring well has been installed though). All current excavation occurs above the groundwater table. The expansion area will take up portions of properties of PID00834739 and PID00834721, be approximately 3.5 hectare of forested land, and will be expected to excavate above the groundwater table. There are six existing ponds including the ponds for the wash plant on site. These ponds can have overflow. One additional sedimentation pond is designed for the expansion activity. Surficial geology is composed of colluvial, glaciofluvial, and ground moraine deposits with high permeability. Bedrock consists of fluvial sandstone, calcrete limestone, conglomerate and mudstone. Several wetlands and watercourses are identified within the study area. Two classes of these wetlands were observed: swamp and marsh. Swamps located at the base of hillslopes may function as groundwater seepage or discharge areas. Marshes are dominated by shallow water have periodic or persistent standing water or slow-moving surface water; source water for marshes within the site can be runoff from surrounding area, precipitation, and groundwater discharge. Water quality for the identified watercourses and Six Mile Brook was measured in-situ for temperature, pH, and conductivity.

Regional Engineer

- Figure 2-1 and Appendix B, Specific coordinates for the proposed pit area boundaries are not included on the site plan provided.
- Figure 2-1 and Appendix B, site plan does not include locations of wetlands or watercourses and the separation distances from the undertaking to wetland or water course features.
- Appendix B, Site plan appears to show the disturbed area of the pit encroaching along the south and south east portions of PID 65229494.
- 3.1.2, the Proponent is proposing using NTU criteria for effluent instead of TSS, which is the criteria in the Pit and Quarry Guidelines.
- 5.3.14, no fuel storage on site and fuel will be provided daily by a fuel truck, but does not specify a refueling location.
- 5.4.8, reference the Pit and Quarry Guidelines, but not the Environmental Noise Measurement Guidelines.
- 6.1.7, the registration document does not reference the Air Assessment Guidelines.
- 6.2.2.1, states that a local septic tank pumping company previously used the facility as a disposal site for residential sewage. The old septic tank system on site was pumped out, crushed, and abandoned in-situ.
- 6.2.2.2 references the On-site Sewage Disposal System: Technical Guidelines, but not the new On-site Sewage Disposal System Guidelines.





 The registration document does not mention a Community Liaison Committee (CLC).

Environment Officer

No Comment

Key Considerations:

Regional Hydrogeologist

The registration documents did not provide baseline water quality information including general chemistry and metals; it is unknown if the pond water quality is affected by the site activities and if the pond overflow meets Canadian Water Quality Guidelines for the Protection of Aquatic Life. The processes of extracting and crushing, and washing stone aggregate may affect water-rock interactions with resulting in elevated metal concentrations in water including surface water and groundwater.

Regional Engineer

Information regarding surface water, groundwater, air quality, watercourse alteration, erosion and sedimentation control, environmental and emergency management can be addressed through an IA amendment.

Environment Officer

No Comment



J.W. Johnston Building 1672 Granville Street 6th Floor Halifax, Nova Scotia Canada B3J 2N2

Date:

8 May 2024

To:

Candace Quinn, Environmental Assessment Officer

From:

Department of Public Works, Environmental Services - Jason Rae, P.Eng.

Manager.

Subject:

Six Mile Brook Pit Expansion and Reclamation of Historic Workings

Scope of review:

This review focuses on the following mandate: <u>Traffic Engineering and Road Safety</u>

List of Documents Reviewed:

Six Mile Brook Pit Expansion and Reclamation of Historic Workings

Details of Technical Review:

The proponent is expanding an existing pit, for the purpose of replacing existing production. There is no increase in truck traffic anticipated and no changes are required for the existing access.

Public works is a substantial aggregate consumer in the region of Pictou 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 aggregate. This should lead to more competitive pricing and reduce any supply constraints which may have been present in the past.

DPW does not have any comments or concerns on this EA.

Pêches et Océans Canada P.O. Box 1006, Station P500 Dartmouth, Nova Scotia B2Y 4A2

Date: May 9, 2024

To: Candace Quinn, Environmental Assessment Officer

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

Program

Subject: Six Mile Brook Pit Expansion and Reclamation, Pictou 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 Six Mile Brook Pit Expansion and Reclamation 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:

We did not identify any potential impacts to fish or fish habitat during our review of the Six Mile Brook Pit Expansion and Reclamation Environmental Assessment Registration Document, and therefore do not have any comments or recommendations on the document. Date: May 10, 2024

To: Candace Quinn, Environmental Assessment Officer

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

Dera, Director of Consultation

Subject: Six Mile Brook Pit Expansion and Reclamation of Historic Workings, Pictou

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.

List of Documents Reviewed:

Environmental Assessment Registration Document (EARD)

Details of Technical Review:

4. Public Involvement

In this section, the Proponent notes that engagement with the Mi'kmaq of Nova Scotia occurred through contact with the Kwilmu'Kw Maw-Klusuaqn Negotiations Office (KMKNO) and was performed by Black Spruce Heritage Services on October 17 2023. This engagement was undertaken as part of data collection for the Archaeological Resource Impact Assessment (ARIA) report.

6.1.4.1 Wetlands Information

This section states that a comprehensive survey within the Study Area identified a total of five wetlands, comprising swamps and complexes with combinations of swamps and marshes. These wetlands cover a total area of 7.07 Ha. This section further notes that one wetland supports Species at Risk habitat, indicating its potential designation as Wildlife Significant Sites pending review by Nova Scotia Environment and Climate Change. OLA is aware that wetlands support a wide variety of species and plants, including those that the Mi'kmaq consider to be for sacred, ceremonial, and medicinal purposes.

6.1.6.1 Fish and Fish Habitat Information

This section states that baseline biophysical reports revealed the presence of three fish species, including Atlantic salmon and brook trout, with certain areas identified as priority habitat. OLA is aware that both Atlantic salmon and brook trout are species of significance to the Mi'kmaq of Nova Scotia.

Key Considerations:

Crown consultation with the Mi'kmaq of Nova Scotia is ongoing for this project. The Mi'kmaq of Nova Scotia may provide additional information that informs the regulator in assessing the proposed project's potential impacts to established and/or asserted Mi'kmaw Aboriginal and Treaty rights and appropriate accommodation and mitigation measures. At this time, OLA is able to provide the following considerations:

OLA encourages the Proponent to continue to engage with the Mi'kmaq of Nova Scotia, not just through the KMKNO, but also directly with the community in closest proximity to the proposed project to provide regular updates throughout the duration of the Project. Please note the Six Mile Brook Pit is located approximately 20km from Boat Harbour West 37, a Pictou Landing First Nation satellite community.

A Mi'kmaq Communication Plan would be helpful to achieve the sharing of information and providing a mechanism for input from the Mi'kmaq regarding monitoring plans and reclamation work.

RE: Six Mile Brook Pit Expansion and Reclamation of Historic Workings - Environmental Assessment Registration

Fazeli, Maryam (elle | she, her) (ECCC) < Maryam. Fazeli@ec.gc.ca>

Fri 2024-05-10 9:48 AM

To:Quinn, Candace M <Candace.Quinn@novascotia.ca>
Cc:Hingston,Michael (il | he, him) (ECCC) <Michael.Hingston@ec.gc.ca>

** EXTERNAL EMAIL / COURRIEL EXTERNE **

Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

Hello Candace,

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) has reviewed the environmental assessment registration for the proposed Six Mile Brook Pit Expansion and Reclamation of Historic Workings, and we have the following comments:

Terrestrial SAR

For projects undergoing environmental assessment, CWS recommends that adverse effects of the project on species at risk (SAR) and critical habitat (CH) are identified, and, if the project is carried out, mitigation measures are taken to avoid or lessen those effects. We recommend that mitigation measures:

- be consistent with best available information including any Recovery Strategy, Action Plan or Management Plan in a final or proposed version; and
- respect the terms and conditions of the Species at Risk Act (SARA) regarding protection of individuals, residences, and critical habitat of Extirpated, Endangered, or Threatened species.

We also recommend follow-up monitoring to verify impact predictions, and adequacy of mitigation measures, and adaptive management in the event that species at risk or their critical habitat are adversely affected by the project.

Landbird SAR

Four landbird species at risk were detected in the Study Area: Canada Warbler, Eastern Wood-pewee, Olive-sided Flycatcher, and Wood Thrush. It is our understanding that none of these birds were detected within the proposed Project footprint; however, some of the birds were detected at the edge of the expansion area.

CWS generally recommends buffers for this landbird SAR as follows during the breeding season:

- Low disturbance activities 50 m
- Medium disturbance activities 150 m
- High disturbance activities 300 m

Loss of wetland habitat function for these species would result in instances (if any) where vegetation conditions of forested wetlands would be removed or altered by the project and would not be reestablished for the life of the project. As a measure to compensate for the lost habitat function for passerine SAR in instances where such habitat cannot be avoided, we recommend the use of

conservation allowances as the preferred form of the compensation step in the mitigation hierarchy of avoidance, minimization, and compensation.

Herpetofauna SAR

In Table 3-6 of Appendix G, the Proponent identifies herpetofauna with the potential to be present in the Project Area, including turtle SAR. However, no surveys were conducted to target herpetofauna SAR. The Proponent should clarify how it will determine whether herpetofauna SAR are utilizing the Project Area, and if so how it would avoid/minimize adverse effects of the Project on these species.

Please note that for terrestrial SAR not protected under the MBCA, we recommend that provincial SAR biologists be consulted for species-specific technical information regarding these species.

Pileated Woodpecker

According to Section 3.2.6 of Appendix F, Pileated Woodpecker was identified incidentally during non-bird biophysical surveys. This should be followed up with a Pileated Woodpecker nesting cavity survey.

The Migratory Birds Regulations have been modernized, and the new Migratory Birds Regulations, 2022 came into force on July 30, 2022. Previously, the Migratory Birds Regulations (MBR) provided year round protection for nests from being disturbed, destroyed or taken, anywhere in Canada where they were found, for as long the nest existed, for all 395 migratory bird species that are included in the Migratory Birds Convention Act. The Migratory Birds Regulations, 2022 (MBR 2022) change protection from all nests of migratory birds always being protected to most nests being protected only when they contain a live bird or viable egg. This supports conservation benefits, as the nests of most migratory birds only have conservation value when they are active (contain a bird or viable egg), and also provides flexibility and predictability for stakeholders to manage their compliance requirements as they undertake activities on the landscape that may affect migratory bird nests.

For 18 species of migratory birds identified on Schedule 1 of the MBR, 2022, including the Pileated Woodpecker, the amended regulations provide year-round nest protection until they can be deemed abandoned. If the nest of a Schedule 1 species has not been occupied by a migratory bird for the entirety of the waiting time indicated in the MBR 2022, it is considered to be abandoned, and to no longer have high conservation value for migratory birds.

Since the Pileated Woodpecker is one of the species listed on Schedule 1 of MBR, 2022, the nesting cavities of this species are protected year-round, including when they are not occupied by a migratory bird or viable eggs.

In the event that a Pileated Woodpecker nesting cavity is ultimately abandoned, and a proponent wishes to destroy this unoccupied nest, they must submit a notification through the Abandoned Nest Registry, and if the nest remains unoccupied by Pileated Woodpeckers and other migratory bird species for 36 months, it may at that point be destroyed by cutting down the tree.

A Pileated Woodpecker Cavity Identification Guide is available for reference at: <u>Pileated Woodpecker Cavity Identification Guide</u>.

Further information on the *Migratory Bird Regulations*, 2022 is available at:

Migratory Birds Regulations, 2022 (justice.gc.ca)

New Migratory Birds Regulations, 2022 - Canada.ca

Continued evolution of the Migratory Birds Regulations, 2022 - Canada.ca

Notice: Abandoned Nest Registry - Canada.ca

Fact sheet: Nest Protection under the Migratory Birds Regulations, 2022 - Canada.ca

Frequently Asked Questions: Migratory Birds Regulations, 2022 - Canada.ca

<u>Service standards and performance: permits for Migratory Birds Regulations</u>

Bird Surveys

- The Proponent should have provided the time of day when Breeding Bird Point Count surveys were conducted. For breeding bird surveys, CWS generally recommends that Proponents start the daily survey effort 30 minutes before sunrise and go no later than 9:30 – 10AM.
- For surveys conducted in 2023, it appears that the Proponent utilized the 2022 guidance for nightjar surveys. We note that one of the Proponent's 2 nightjar survey dates fell in the appropriate window for 2023 Eastern Whip-poor-will surveys. For future reference however, CWS recommends Birds Canada guidance (available at <u>Canadian Nightjar Survey Birds Canada | Oiseaux Canada</u>). The timing for nightjar surveys is tied to the lunar cycle, and <u>survey windows for Eastern Whip-poor-will change annually</u>. Proponents should therefore refer to Birds Canada guidance for appropriate dates for each survey year.
- The Proponent started nightjar survey one hour before sunset; however, the Canada Nightjar Survey protocol indicates that the survey should begin 30 minutes before sunset.

Additional Comments

- Lighting for the safety of the employees should be shielded to shine down and only to where it is needed, without compromising safety.
- Street and parking lot lighting should also be shielded so that little escapes into the sky and it is directed where required. LED lighting fixtures are generally less prone to light trespass and should be considered.
- Since even small spills of oil can have serious effects on migratory birds, every effort should be
 taken to ensure that no oil spills occur. The Proponent should ensure that all precautions are taken
 by staff to prevent fuel leaks from equipment, and contingency plans in case of oil spills should be
 prepared.
- CWS recommends that a variety of species of plants native to the general project area be used in revegetation efforts. Should seed mixes for herbaceous native species for the area not be available, it should be ensured that plants used in revegetation efforts are not known to be invasive.

CWS also recommends that measures to diminish the risk of introducing invasive species be developed and implemented. These measures could include:

- cleaning and inspecting construction equipment prior to transport from elsewhere (not limited to out of province equipment) to ensure that no plant matter is attached to the machinery (e.g. use of pressure water hose to clean vehicles prior to transport); and
- regularly inspecting equipment prior to, during and immediately following construction in wetland areas and in areas found to support Purple Loosestrife to ensure that plant matter is not transported from one construction area to another.
- Certain species of migratory birds (e.g. Bank Swallows) may nest in large piles of soil left
 unattended/unvegetated during the most critical period of breeding season (April 15th through
 August 15th). To discourage this, the proponent should consider measures to cover or to deter
 birds from these large piles of unattended soil during the breeding season. If migratory birds take
 up occupancy of these piles, any industrial activities (including hydroseeding) will cause
 disturbance to these migratory birds and inadvertently cause the destruction of nests and eggs.

Alternate measures will then need to be taken to reduce potential erosion, and to ensure that nests are protected until chicks have fledged and left the area. For a species such as Bank Swallow, the period when the nests would be considered active would include not only the time when birds are incubating eggs or taking care of flightless chicks, but also a period of time after chicks have learned to fly, because Bank Swallows return to their colony to roost.

See also for example the following guidance concerning beneficial management practices that should be considered for implementation when designing mitigation measures for Bank Swallows, provided at Bank Swallow (Riparia riparia): in sandpits and quarries - Canada.ca

Certain species of migratory birds may nest on the sides of buildings, bridges or other pieces of
infrastructure. Additionally, some species may nest on equipment, if they are left unattended/idle
for long periods of time.

CWS recommends the following beneficial management practices:

- The proponent should ensure that project staff are aware of the potential of migratory bird bests on infrastructure, buildings, and bridges, if applicable.
- If a nest is discovered, the proponent should conduct no activities around the nest that may cause the nest to be abandoned or destroyed. Activities should be suspended until the chicks have fledged and left the area.
- If the proponent anticipates that birds may nest on infrastructure, the proponent should install antiperching and nesting exclusion devices (e.g. snow fencing, chicken wire fencing, etc.) before any nest attempts are made.
- If there is ultimately a need to decommission a building or structure used for nesting by migratory birds, CWS should be consulted in a timely manner in advance of any proposed decommissioning activities for species-specific considerations.
 - Beaver dam removal could impact migratory birds using the associated ponds. If waterfowl and/or waterbirds are using ponds created by beaver dams for nesting or raising chicks, the proponent should not alter beaver dams until waterfowl and/or waterbirds have raised their young.
 - The Proponent should ensure that provisions for wildlife response are identified in emergency prevention & response plans. The following information should be included:
 - Mitigation measures to deter migratory birds from coming into contact with polluting substance (e.g. oil);
 - Mitigation measures to be undertaken if migratory birds and/or sensitive habitat becomes contaminated:
 - The type and extent of monitoring that would be conducted in relation to various spill events.

ECCC-CWS "Guidelines for Effective Wildlife Response Plans" (available at https://publications.gc.ca/collection_2023/eccc/cw66/CW66-771-2021-eng.pdf) are recommended as a reference in the development of emergency prevention and response.

Applicable Legislation

• Migratory Birds Convention Act

The *Migratory Birds Convention Act* (MBCA) protects most bird species in Canada however, some families of birds are excluded. A list of species under MBCA protection can be found at https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/list.html

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The federal Migratory Birds Convention Act, 1994 (justice.gc.ca) and its regulations protect migratory birds and their eggs and prohibit the disturbance, damage, destruction or removal of migratory bird nests that contain a live bird or a viable egg. Migratory birds are protected at all times; all migratory bird nests are protected when they contain a live bird or viable egg; and the nests of 18 species listed in Schedule 1 of the MBR 2022 are protected year-round. These general prohibitions apply to all lands and waters in Canada, regardless of ownership. For more information, please visit: Avoiding harm to migratory birds - Canada.ca.

For migratory birds that are listed as Endangered, Threatened or Extirpated on Schedule 1 of the *Species at Risk Act* S.32 (protection of individuals) and S.33 (protection of residences) apply to all land tenure types in Canada. For some migratory bird species listed under the *Species at Risk Act* (SARA), the residence prohibition will protect nests that are not active but are re-used in subsequent years (please note that the residence of a migratory bird may not necessarily be limited to their nest).

Section 5.1 of the MBCA describes prohibitions related to depositing substances harmful to migratory birds:

- "5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.
- (2) No person or vessel shall deposit a substance to be deposited in any place if the substance, in combination with one or more substances, result in a substance in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area that is harmful to migratory birds."

It is the responsibility of the proponent to ensure that activities comply with the MBCA and regulations. In fulfilling its responsibility for MBCA compliance, the proponent should take the following points into consideration:

- Information regarding regional nesting periods can be found at https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html. Some species protected under the MBCA may nest outside these timeframes.
- Most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, but several species nest at ground level (e.g., Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in head ponds created by beaver dams. Some migratory birds (e.g., Barn Swallow, Cliff Swallow, Eastern Phoebe) may build their nests on structures such as bridges, ledges or gutters.
- One method frequently used to minimize the risk of destroying bird nests consists of avoiding certain activities, such as clearing, during the regional nesting period for migratory birds.
- The risk of impacting active nests or birds caring for pre-fledged chicks, discovered during project
 activities outside the regional nesting period, can be minimized by measures such as the
 establishment of vegetated buffer zones around nests, and minimization of activities in the
 immediate area until nesting is complete and chicks have naturally migrated from the area. It is
 incumbent on the proponent to identify the best approach, based on the circumstances, to
 complying with the MBCA.

Further information can be found at https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html

• Species at Risk Act

The *Species at Risk Act* (SARA) "General prohibitions" apply to this project. In applying the general prohibitions, the proponent, staff and contractors, should be aware that no person shall:

- kill, harm, harass, capture or take an individual;
- possess, collect, buy, sell or trade an individual, or any part or derivative;
- damage or destroy the *residence* of one or more individuals.

General prohibitions only apply automatically:

- on all federal lands in a province,
- to aquatic species anywhere they occur,
- to migratory birds protected under the *Migratory Birds Convention Act* (MBCA) 1994 anywhere they occur.

Section 33 of SARA prohibits damaging or destroying the residence of a listed threatened, endangered, or extirpated species. For migratory birds species at risk (SAR), this prohibition immediately applies on all lands or waters (federal, provincial, territorial and private) in which the species occurs.

For project assessments, SARA requires that:

- 79 (1) Every person who is required by or under an Act of Parliament to ensure that an assessment of the environmental effects of a project is conducted, and every authority who makes a determination under paragraph 82(a) or (b) of the *Impact Assessment Act* in relation to a project, must, without delay, notify the competent minister or ministers in writing of the project if it is likely to affect a listed wildlife species or its critical habitat.
- (2) The person must identify the adverse effects of the project on the listed wildlife species and its critical habitat and, if the project is carried out, must ensure that measures are taken to avoid or lessen those effects and to monitor them. The measures must be taken in a way that is consistent with any applicable recovery strategy and action plans.

For species which are not yet listed under SARA, but are listed under provincial legislation only or that have been assessed and designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), it is best practice to consider these species in EA as though they were listed under SARA.

For species-specific technical information for terrestrial SAR not protected under the *Migratory Birds Convention Act* (MBCA), ECCC recommends that the Province of Nova Scotia be consulted.

Water Quality

Pollution prevention and control provisions of the Fisheries Act are administered and enforced by ECCC. Subsection 36(3) of the *Fisheries Act* prohibits "anyone from depositing or permitting the deposit of a deleterious substance of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter such water".

It is the responsibility of the proponent to ensure that activities are managed so as to prevent the release of substances deleterious to fish. In general, compliance is determined at the last point of control of the substance before it enters waters frequented by fish, or, in any place under any conditions where a substance may enter such waters. Additional information on what constitutes a deposit under the Fisheries Act can be found here: https://www.canada.ca/en/environment-climate-change/services/managing-pollution/effluent-regulations-fisheries-act/frequently-asked-questions.html

Please don't hesitate to contact me should you have any questions regarding our comments.

Sincerely,

Maryam Fazeli

Coordinator, Environmental Assessment, Environmental Protection Operations Directorate - Atlantic Environment and Climate Change Canada / Government of Canada maryam.fazeli@ec.gc.ca

Coordinatrice, Évaluation environnementale, Direction des activités de protection de l'environnement Environnement et Changement climatique Canada / Gouvernement du Canada <u>maryam.fazeli@ec.gc.ca</u>

From: Quinn, Candace M < Candace. Quinn@novascotia.ca>

Sent: Monday, April 8, 2024 8:11 AM

To: Creamer, Amber < Amber. Creamer@novascotia.ca>; Alward, Emily < Emily. Alward@novascotia.ca>; Mitchell, David A <David.Mitchell@novascotia.ca>; Mosher, Elaine <Elaine.Mosher@novascotia.ca>; Hurlburt, Donna D <Donna.Hurlburt@novascotia.ca>; Wildlife EA <WildlifeEA@novascotia.ca>; Crewe, Tara <Tara.Crewe@novascotia.ca>; Power, Terrance <Terrance.Power@novascotia.ca>; Drake, Carrie L <Carrie.Drake@novascotia.ca>; Mahoney, Meagan <Meagan.Mahoney@novascotia.ca>; Blackburn, Lori M <Lori.Blackburn@novascotia.ca>; Boudreau, Susan M <Susan.Boudreau@novascotia.ca>; Steele, Cynthia <Cynthia.Steele@novascotia.ca>; McPherson, Robyn <Robyn.McPherson@novascotia.ca>; MacPherson, George E <George.MacPherson@novascotia.ca>; Hearn, Scott <Scott.Hearn@novascotia.ca>; Webber, Diane E <Diane.Webber@novascotia.ca>; Wickson, Mark <Mark.Wickson@novascotia.ca>; Nelson, Karen <Karen.Nelson@novascotia.ca>; MacDonald, Brent A <Brent.MacDonald@novascotia.ca>; MacQuarrie, Rebecca M < Rebecca. MacQuarrie@novascotia.ca>; Cormier, John < John. Cormier@novascotia.ca>; Lewis, Beth J <Beth.Lewis@novascotia.ca>; Hernould, Alexandra S <Alexandra.Hernould@novascotia.ca>; Slauenwhite, Melissa <Melissa.Slauenwhite@novascotia.ca>; Poirier, Colin <Colin.Poirier@novascotia.ca>; Rideout, Bill E <Bill.Rideout@novascotia.ca>; Weatherby, Anthony <Anthony.Weatherby@novascotia.ca>; Ramen, Satya <Satya.Ramen@novascotia.ca>; NSE-SAS-Division <NSE-SAS-Division@novascotia.ca>; Keats, Paul J <Paul.Keats@novascotia.ca>; MacAulay, Kenny M <Kenny.MacAulay@novascotia.ca>; Lovitt, Christina <Christina.Lovitt@novascotia.ca>; Zanth, Kathy M <Kathy.Zanth@novascotia.ca>; Projects / Projets (IAAC/AEIC) <projects-projets@iaac-aeic.gc.ca>; IA-ATL / EI-ATL (HC/SC) <ia-atl-ei-atl@hc-sc.gc.ca>; beverly.ramoscasey@canada.ca; RCF Surveiller / FCR Tracker (ECCC) <FCR_Tracker@EC.GC.CA>; 'referralsmaritimes@dfompo.gc.ca' <ReferralsMaritimes@dfo-mpo.gc.ca>; dfo.fppmar-pppmr.mpo@dfo-mpo.gc.ca Subject: Six Mile Brook Pit Expansion and Reclamation of Historic Workings - Environmental Assessment Registration

Good Morning,

This is to advise that on April 12, 2024, **SW Weeks Construction Ltd.** will register the <u>Six Mile Brook Pit Expansion and Reclamation of Historic Workings Project, Pictou County</u> for environmental assessment, in accordance with Part IV of the Environment Act.

Project Description:

EA Project Description: The purpose of the proposed undertaking is to expand an existing gravel pit located on the Six Mile Brook Road, Six Mile Brook, Pictou County, Nova Scotia (PID#00834739). The existing pit has been owned by S.W. Weeks for approximately 27 years. The land associated with the expanded pit will occupy a maximum of 20.5 hectares, which includes the existing pit footprint. Over the lifetime of the project S.W. Weeks expects to

extract approximately 500,000 cubic meters of material, with continued seasonal operation until stockpiles are depleted. Based on current production rates the project is expected to have a 10-20 year lifespan. The expanded pit will support continued extraction and production of aggregate products used primarily in road construction within Pictou County. It is expected that the continued use of the pit will be identical, or very similar, to historic use at the site.

Accessing EA Documents and data:

Documents can be downloaded from the Nova Scotia Government FTP site which will be sent to you in the next email.

- -For NS ECC Reviewers in SAS: Please let me know you will be reviewing or have been assigned this project and I will email you the FTP.
 - -If you're a NS government's employee, use your personal login and password to sign on.
- -Reviewers outside NS government should use your email address as the username and the temporary password that will be provided to you in the email (if this is the first-time assessing NS FTP website).
- -If you are outside NS government, but you have accessed NS FTP in the past, you will need to use your previous password (an option to reset your password should also be available).

If you have any problems at all accessing the documents on the FTP site please do not hesitate to contact me. On April 12, 2024, the Registration Documents will also be available on our website at http://www.novascotia.ca/nse/ea/.

Note that GIS data regarding project location and environmental feature shapefile data can also be downloaded from the above-mentioned site (Note: the GIS may not be available until April 12. It will be uploaded as soon as it is provided by the proponent). The GIS data must not be distributed outside of the government and should be used only for this review.

Response Template:

Ensuring a clear, consistent and predictable review of EA projects is key to clarifying and streamlining the EA process. We have developed a template and guidance to support you in your role as reviewer to help achieve this goal. Sign-off of this completed template by Managers/Directors (for provincial departments) is requested prior to submission of final comments to the EA Branch. Please consider the attached 3 documents to provide your comments:

- 1. EA Reviewer Template (this is a suggested format for comments, not required).
- EA Reviewer Guidance (this should <u>not</u> be included as part of your comments back to the EA Branch)
- 3. Generic EA Mitigations Pits and Quarries

Deadlines:

Please note that <u>all comments must be provided by May 12, 2024</u>, to be considered in this environmental assessment. Please provide comments via email if possible. If there are no comments, please also reply indicating so. On or before June 1, 2024, the Minister of Environment and Climate Change will decide if the project can be granted conditional environmental assessment approval. All submissions received will be posted on the Department's website for public viewing.

If you have any questions, please do not hesitate to contact me.

Thank you,



Candace Quinn (She/Her) Environmental Assessment Officer Policy Division, EA Branch

1903 Barrington Street, Suite 2085 PO Box 442, Halifax, NS B3J 2P8 (902) 499-2578 (2) Candace.Quinn@novascotia.ca



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

Date: May 10, 2024

To: Candace Quinn, Environmental Assessment Officer

From: Climate Change Division, Nancy Rondeaux, Executive Director

Subject: Six Mile Brook Pit Expansion and Reclamation of Historic Workings, Pictou County

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:

- 5.3.6 Sedimentation Ponds and Drainage Ditches mentions that the existing sedimentation ponds and drainage ditches are sized to accommodate the 1 in 10 year rainfall event.
- 5.4.5 Water Management mentions that drainage ditches shall be sized to accommodate the 1:100 year 24hr rain event.
- 6.1.2.1 Surface Water Information provides an expected discharge for water course #2 during a 1 in 100 year rainfall event.

Intense rainfall events are projected to become more common as the climate continues to warm, meaning that Intensity-Duration-Frequency (IDF) curves based on historical observations alone may not be adequate for infrastructure design. Environment and Climate Change Canada has made climate change-adjusted IDF curves available through the national climate data portal, ClimateData.ca. A climate change-adjusted IDF curve could be used in relation to 5.3.6, 5.4.5, and 6.1.2.1 to inform the sizing of sedimentation ponds, drainage ditches, and discharge calculations if the proponent desires upgrades to account for climate change in stormwater management.

8. Effects of the Environment on the Undertaking does not offer a specific assessment of potential climate change impacts or risks to the project, which may be helpful to determine the risk category of the project (e.g., low risk / no risk).

Mitigation:

- In section 6.1.7 Atmospheric conditions and air quality, the EA focuses on dust and exhaust gases from heavy equipment usage. Proponent does not quantify the greenhouse gas emissions expected from the quarry project. It is, however, expected that emissions will be generated by the operation of vehicles and equipment. The quantity of greenhouse gas emissions generated could be considered negligible.
- The proponent proposes emission mitigation practices that could apply to reduce

the emission of greenhouse gases. Emission reduction shall be accomplished in the following ways:

- 1. By emission control technologies on heavy equipment, such as diesel particulate filters, catalytic converters, and low-emission engines to minimize air pollutant emissions. Operational best.
- 2. Measures such as regular maintenance of equipment.
- 3. Proper tire inflation and reduced idling times will also be implemented to mitigate emissions.

The suggested emission reduction approaches suffice for the level of greenhouse gas emissions expected from similar projects.

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

The proponent may wish to consider reviewing localized climate projection data available through Canada's national climate data portal (ClimateData.ca) to explore potential climate impacts and risks to project operations and support mitigation measures. In particular, reviewing climate change-adjusted IDF curves may be helpful for designing or upgrading stormwater management infrastructure.

Mitigation:

Given the scale of greenhouse gas emissions expected for the project, no further mitigation measures are recommended.

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

Date: May 13, 2024

To: Candace M. Quinn, Environmental Assessment Officer

From: Beth Lewis, Director of Special Places Protection

Subject: Six Mile Brook Pit Expansion and Reclamation of Historic Workings - Environmental

Assessment Registration

Scope of review:

This review focuses on the following mandate: Archaeology and Paleontology

(Examples: hydrology and surface water quantity; surface water quality; air quality; species at risk recovery; wildlife species and habitat conservation; contaminated sites, etc.)

List of Documents Reviewed:

Environmental Assessment Registration document; EA Report; Heritage Research Permit A2023NS188 Six Mile Creek Final Report

Details of Technical Review (Archaeology):

Dr. Fred Schwarz conducted an archaeological resource impact assessment for the proposed development area. After Mi'kmaq engagement, background research, field reconnaissance, and subsurface testing, Dr. Schwarz concluded that the area was of low potential for encountering archaeological resources and that no further archaeological mitigation was recommended. CCTH reviewed the 2023 report and concurred with Dr. Schwarz's findings. The EA Document is in line with Dr. Schwarz's conclusions.

Section 6.3 in the document discusses the search for historical resources. Please reference the Archaeological Resource Impact Assessment completed by Black Spruce Heritages Services, Permit Number A2023NS188. Please include as an additional Appendix, the ARIA report approval letter from John Cormier, Coordinator of Special Places at CCTH.

The 6.3 paragraph should also note that the ARIA was not simply a search for historical resources but additionally, Mi'kmaw presence or occupation on the expansion parcel.

Details of Technical Review (Paleontology):

Based on the geology information in the project documents, it does not seem likely that any significant fossil material will be encountered. The documentation of the bedform

features encountered during excavation may provide interesting scientific information for interpretation of surficial geology processes at the site and wider region. No paleontology issues are anticipated.

Key Considerations:



1741 Brunswick Street, 3rd Floor PO Box 456, STN Central Halifax, NS B3J 2R5 902-424-8443

April 29, 2024

Dr. Fred Schwarz 12 Paddy's Head Road Indian Harbour, NS B3Z 3N8 Dear Dr. Schwarz:

RE: Heritage Research Permit Report

A2023NS188 – Archaeological Resource Impact Assessment of Six Mile Brook Pit Expansion, Pictou County, NS

We have received and reviewed the report on work conducted under the terms of Heritage Research Permit A2023NS188 – Archaeological Resource Impact Assessment of Six Mile Brook Pit Expansion in Pictou County, Nova Scotia in 2023.

S.W. Construction Ltd. plans an expansion of their existing sand/gravel extraction pit at Six Mile Brook in Pictou County, Nova Scotia. S.W. Construction retained Black Spruce Heritage Services (Black Spruce) to conduct an archaeological resource impact assessment (ARIA) for the proposed development area. This ARIA involved Mi'kmaq engagement, background research, field reconnaissance, and subsurface testing.

Field reconnaissance showed the development area to be situated within the northeastern end of a once-longer esker. The southwestern edge is defined by a stepped, steep-sided face, the result of past quarrying, while the southeastern, northern and northwestern edges are defined by overgrown heavily disturbed, sunken heavy equipment trails flanked on the inside by steep slopes rising to the crest of the esker, and to the outside by relatively level lowland terrain, in places consisting of swamp-forest wetland. Background research and field reconnaissance indicated that "broadly speaking", the proposed development area is of moderate to high potential for encountering precontact archaeological materials. However, although the esker landform has macrolocational attributes indicating potential for precontact remains, high-potential microlocational attributes associated with settlement (dry, level terrain) are scarce. Two areas on the esker (SMB23-1 & SMB23-2) were subjected to subsurface testing. A total of fourteen (14) subsurface test (SMB23-1 – 10 & SMB 23-2 – 4) pits were conducted with negative results. The proposed development area was assessed as being low to moderate potential for encountering historic European archaeological materials. One historic cemetery was recorded 700 m south of the PDA. An attempt was made to relocate BjCr-1. Dr. Schwarz noted the coordinates for this site are incorrect, but the likely location of the site is nevertheless over 1 km west of the PDA. Neither the cemetery nor BjCr-1 are close enough to be impacted by the planned quarry expansion.

Based on the above, Dr. Schwarz concluded that there are no recommendations for further archaeological assessment or mitigation of the Six Mile Brook pit expansion PDA.

CCH Staff have reviewed the report and find it acceptable as submitted. Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Jøhn Cormier

Coordinator, Special Places



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

Date: May 13, 2024

To: Candace Quinn, Environmental Assessment Officer

From: Water Branch- Paul Currie, Acting Director

Subject: Six Mile Brook Pit Expansion and Reclamation of Historic Workings Project, Pictou

County, Nova Scotia

Scope of review:

This review focuses on the following mandate: <u>Surface water quality and quantity</u>, <u>Groundwater quality and quantity</u>, and <u>Wetlands</u>

List of Documents Reviewed: Environmental Assessment Registration Document (EARD) Submission, including Appendices.

Details of Technical Review:

Surface Water

It is understood that there is 17 ha of existing disturbance, and that the proposed activity is for 3.5 ha of additional quarry area. The submission outlines fish habitat within the Study Area suitable for priority fish species, particularly brook trout.

While the EARD concludes that there will be limited impact to surface water quantity and local hydrology, studies to support and validate these statements such as an evaluation of pre and post development conditions were not presented. The submission does not include details on the design or approaches for surface water management to support an assessment of whether the proposed mitigations (e.g., sediment ponds and their outlet structures) will be successful.

Information to understand the approaches and effectiveness of the current site operations has not been provided in the EARD. It is stated in the EARD that an Erosion and Sediment Control Plan (ESCP) has been developed, but details to support understanding its objectives and potential effectiveness were not provided. Information describing the design basis for proposed mitigations and a monitoring plan is needed evaluate whether the strategies proposed and the sediment control ponds on site will effectively manage and mitigate the risks associated with the transport of sediment off-site. In addition, where no water quality sampling or assessment was provided in the EARD, it is unclear whether there are any additional water quality concerns associated with the surface water collected on site and discharged to the Six Mile Brook system.

Groundwater

S.W. Weeks Construction Ltd. proposed a 3.5 ha expansion of their existing approved area at the 6 Mile Brook Pit. The area to be excavated is an esker, approximately 230m x 37m. The proponent provided information in the Environmental Assessment Registration Document (EARD) to assess background groundwater conditions and level of risk to groundwater receptors. The primary relevant points from this work are as follows:

The EARD (p. 18) states the intention to conduct all operations above bedrock and the water table.

According to the EARD, the elevation of the groundwater table has been established at 112.5 meters. Details were not provided regarding the method(s) used to establish groundwater elevation. Availability of monitoring wells or monitoring well data was not mentioned; therefore, it is assumed there are currently no monitoring wells on the site. The location of the true groundwater table is typically determined through the installation of groundwater monitoring wells.

If the project is approved, a monitoring well program should be established in conjunction with the Department. The proponent's willingness to install monitoring wells and implement a groundwater monitoring plan is identified in the EARD (p. 18), which is of primary importance for determining the water table elevation and background groundwater quality.

According to the EARD, due to the high permeability of the existing soils, there is a risk of groundwater contamination due to potential spills of fuel and/or oil. The EARD (p. 19) indicates the proponent's recognition of this risk and willingness to mitigate.

Residences in the area are serviced by private wells. As noted in the EARD, there are five residences at 500 m and four additional residences at 1 km, measured from the outermost property line of the pit. According to available information, water supply wells in the area are drilled into the deeper bedrock aquifer.

No other groundwater receptors or concerns related to groundwater have been identified, based on the EARD and the site location at this time. If surrounding conditions change over time (for example construction of new residences in nearby locations), additional monitoring may be needed.

<u>Wetlands</u>

The EARD states, "All activities in this project will occur further than 30m from a watercourse, water body, or wetland". Wetland 2, however, appears to be closer than 30m to the pit expansion area. If direct or indirect alteration is expected, then a Wetland Alteration Approval Application should be submitted to NSECC for approval. The proponent has committed to implementing Erosion and Sediment Control measures that will direct surface water to the settling ponds. Due to the proximity of Wetland 1 to the settling ponds, there is potential for indirect impacts, and this should be monitored. If additional surface water flows are expected within Wetland 1, a Wetland Alteration

Approval would be required. The proponent has avoided direct impacts to the other wetlands and will operate above the water table, so no impacts to those wetlands is anticipated.

Key Considerations: (provide in non-technical language)

Surface Water

As part of achieving the mitigations outlined in the submission, it is suggested that erosion and sediment control plans focused on mitigating identified risks to surface water quality and aquatic species and habitats be developed by a qualified professional prior to further site development taking place. The design plan should include water quality objectives to be achieved (e.g., reduction of Total Suspended Solids to a defined level prior to discharge), and also considerations for the construction of the access road around the proposed area of new development.

It is further suggested that a more detailed surface water management plan be submitted prior to the expansion of the quarry. The surface water management plan should outline the design basis and rationale for the surface water management features proposed, including settling pond design, settling pond outlet structures, and proposed stormwater conveyance features (e.g., ditches).

Water quality in the sediment ponds should be characterized and compared against water quality guidelines if decant water is released directly (surface overflow) or indirectly (infiltration) into nearby watercourses. Sampling is intended to confirm that releases will not adversely impact aquatic life downstream or whether additional surface water management mitigations are needed.

Groundwater

The EARD has provided information to determine the potential environmental sustainability of the proposed expansion, in relation to groundwater. Based on the information provided, impacts to the groundwater table are not anticipated. To confirm work remains above the groundwater table, a groundwater monitoring program should be established. The Department defines work above the groundwater table as work conducted a minimum of 1 m above the annual high-water table level, as measured in a permanent monitoring well network.

Impacts to groundwater quality, from activities on site, are likely to be negligible, provided the proponent implements an adequate emergency response plan in the event of any spills or releases on the site.

The nearest residential water wells are unlikely to be affected by the current proposed plans, provided operations are maintained above bedrock and the water table, as stated in the EARD.

Wetlands

It is unclear if Wetlands 1 and 2 are going to be impacted based on the information provided in the EARD. 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.





Date: May 13, 2024

To: Candace Quinn, Environmental Assessment Officer

From: Department of Natural Resources and Renewables

Subject: Six Mile Brook Pit Expansion, Pictou County

Scope of review:

This review focuses on the following mandate: subsurface energy, geoscience health and safety, mineral exploration, mineral development, abandoned mines openings, species at risk recovery and wildlife species and habitat conservation.

List of Documents Reviewed:

Geoscience and Mines Branch:

- 1. Six Mile Brook Quarry Expansion Project E.A. document
- 2. NS Mineral Occurrence Database
- 3. Google Earth
- 4. NovaROC: Mineral Rights Online Registry System
- 5. GeoNova portal
- 6. Nova Scotia Geoscience Atlas

Forestry and Wildlife Branch:

- Six Mile Brook Pit Expansion and Reclamation of Historic Workings Registration Document
- Appendix E: Six Mile Brook Pit Expansion Project 2023 Wetlands Baseline Report
- Appendix F: Six Mile Brook Pit Expansion Project 2023 Avifauna Biophysical Baseline Report
- 4. Appendix G: Six Mile Brook Pit Expansion Project 2023 Terrestrial Biophysical Baseline Report
- 5. Appendix H: Six Mile Brook Pit Expansion Project Fish and Fish Habitat 2023 Biophysical Baseline Report

Details of Technical Review:

Geoscience and Mines Branch:

Minerals:

• Two mineral occurrences are under 4 km from the edges of the Six Mile Brook Pit and include the Six Mile Brook Cu, Au Occurrence (~1.7 km east) and the Scotsburn Zn, Pb Occurrence (~3.4 km south). Therefore, likely limited exploration within the footprint of the quarry site.

Geology

• It is possible to have some potential for acid rock drainage (ARD), however, the risk is low.

Historic mining

• There are no records of underground mining, but there is historic quarrying in the area as noted in the registration.

Forestry and Wildlife Branch:

Although adequate information was provided to meet most baseline survey requirements, the registration document requires more thorough information to ensure impacts to Species at Risk (SAR) and their habitat are adequately mitigated. For example, mitigation measures appropriately indicated that avoidance of habitat and establishment of vegetative buffers will be applied but lacked information on buffer distances and appropriate timing of operations to avoid sensitive times of years. This information is required to determine if mitigation measures are appropriate to avoid significant impact to species and their associated habitat.

The registration document should include all Species at Risk observed during surveys, along with appropriate species-specific mitigation measures (i.e. Rusty Blackbird, Olive-sided Flycatcher, Canada Warbler) rather than relying solely on baseline reports included within the appendices. For example, WL5 included observations of Canada Warbler and Rusty Blackbird and was identified as supporting suitable habitat for both species. WL5 also included a watercourse border with shrubs which is likely to be used in foraging activities by these species, especially Rusty Blackbird. Mitigation measures should maintain both nesting and foraging habitat for these species.

The wetland baseline report identified that two wetlands had observations of Species at Risk (Appendix E pg 14). However, only WL5 was mentioned in the wetland baseline report, excluding an Olive-sided Flycatcher observed in WL2 (Appendix F, Avifauna report). The wetland baseline report (Appendix E) suggested that WL5 can be considered as a Wetland of Special Significance due to the presence of SAR species and suitable habitat. WL2 should be given the same consideration due to the presence of SAR that return to the same complex year-after-year for nesting. The registration document suggests WL2 may be impacted by the expansion project; appropriate mitigation for SAR should be included. The only mitigation for wetlands provided was a vegetated buffer and sediment control, but size of the buffer was not specified.

Appendix G: Terrestrial Biophysical Baseline Surveys. The watercourses within the Study Area feed into known watercourses with records and identified critical habitat for Eastern Waterfan within 8 km. Lichen surveys were not completed by a surveyor recognized as a qualified lichenologist by the Department of Natural Resources and Renewables, which raises concerns that lichen surveys may not be complete.

Table 3-3 in Terrestrial Biophysical Baseline Surveys: the potential for Northwestern Moose (*andersonii subspecies*) is indicated. However, given this is mainland Nova Scotia, there is higher potential for the Endangered Mainland Moose (*americanus subspecies*).

No targeted herpetofauna surveys were completed in the Study Area, despite the identification of suitable habitat for Wood Turtle and Snapping Turtle along the watercourses in the Study Area (Table 3-6). Since both species have the potential to be attracted to pit quarries for nesting, the registration document should provide appropriate mitigation for turtle species.

Lastly, the registration document indicates that 10 Ha of previously disturbed area will be reclaimed to mitigate for the expansion and will provide habitat for displaced species. However, reclamation activities or timelines were not identified within the document or appendices. Information on reclamation plans, timelines and habitat considerations are required to understand any potential benefits to wildlife.

Key Considerations: (provide in non-technical language)

Subsurface Energy Development Branch:

No comments.

Geoscience and Mines Branch:

- Since they are removing surficial cover and exposing bedrock, monitoring for ARD should be considered for this project.
- Landowner permission is required for mineral license holders to access land and perform exploration. While the prospectivity is noted to be low for the area, should mineral exploration be proposed for this site, we look to encourage dialogue among potential parties to ensure access for mineral exploration activities in the province.

Forestry and Wildlife Branch:

The department offers the following recommendations:

- Obtain all necessary permits to undertake the project as required under legislation related to wildlife, Species at Risk and habitat alterations.
- Clearly outline mitigations to avoid or minimize impacts to flora and fauna, including mitigations for all wetlands with Species at Risk (WL5, WL2).

- Provide digital waypoints and/or shapefiles for all flora and fauna surveys, and all species detected during flora and fauna surveys, including 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.
- The following field surveys would allow a full SAR/SOCI risk assessment to be completed and contribute to the development of a Wildlife Management Plan with appropriate mitigations, where necessary. These include:
 - Lichen surveys by a NRR-approved lichenologist.
 - Watercourse surveys for Eastern Waterfan and herpetofauna.
- Prior to work commencement, develop a Wildlife Management Plan (WMP) in consultation with NRR and ECCC which shall include:
 - Communication protocol with regulatory agencies, including procedure for reporting SAR, SOCI and other observations.
 - General wildlife concerns (e.g., training and mitigations for human-wildlife conflict avoidance; mitigations to avoid wildlife entrapment in quarry)
 - 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, how to recognize those features (by sight, behaviour), and how to appropriately respond to those encounters.
 - o Noise, dust, lighting, blasting, and herbicide use mitigations.
 - 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.
 - An annual turtle nesting monitoring plan to protect and mitigate against potential impacts to nesting or hatchling turtles in the project area.
 - Measures to protect and mitigate against adverse effects to migratory birds during construction and operation. The incidental take of breeding birds, as well as their nests and/or eggs, is not permitted under the *Migratory Birds Convention Act* and the *NS Wildlife Act*. Mitigations 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, and other best management practices. Mitigation to avoid raptor and owl breeding and nesting seasons should also be addressed.
 - 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.
 - 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.

- Mitigation to deter Common Nighthawk nesting, and an approach for inspecting and protecting nests that are encountered.
- o 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, including monitoring impact to sensitive habitats, and detail on the proposed duration of the quarry expansion and how the proponent will address changes to Species at Risk listings over time. Additional biodiversity and Species at Risk surveys may be required periodically to ensure no impacts to SAR or biodiversity under revised and updated legislation.
- Revegetate cleared areas using native vegetation or seed sources following consultation with NRR.
- Develop and implement a plan to prevent the spread of invasive species both on and off site in consultation with NRR. The plan should include monitoring, reporting, and adaptive management components.
- Provide a decommissioning and site reclamation plan and reclaim areas no longer in use in consultation with NRR.
- 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.

Impact Assessment Agence d'évaluation d'impact du Canada

Atlantic Region 200–1801 Hollis Street Halifax NS B3J 3N4

Région de l'Atlantique 200-1801, rue Hollis Halifax (Nouvelle-Écosse) B3J 3N4

May 17, 2024

Candace Quinn **Environmental Assessment Officer** Department of Environment and Climate Change Province of Nova Scotia Candace.Quinn@novascotia.ca

SUBJECT: Six Mile Brook Pit Expansion and Reclamation of Historic Workings - Environmental Assessment Registration

Dear Candace Quinn:

Thank you for the opportunity to review the registration document for the Six Mile Brook Pit Expansion and Reclamation of Historic Workings project (the Project), received on April 8, 2024.

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.

On October 26, 2023, following the Supreme Court of Canada's (SCC) decision on the constitutionality of the IAA, the Government of Canada released the Statement on the Interim Administration of the IAA Pending Legislative Amendments (Interim Statement). The guidance provided in the Interim Statement will be followed until targeted and meaningful legislative amendments are made to the IAA to align with the decision of the SCC.

The Interim Statement indicates that where the Impact Assessment Agency of Canada (the Agency) is of the opinion that no impact assessment is required, this will be indicated to proponents, in order to provide certainty as early as possible.

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

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.

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 proposed Six Mile Brook Pit Expansion and Reclamation of Historic Workings project, the Agency is of the opinion that, as proposed, the project would not have been 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 the Agency if, in their view, any proposed project activities may be described in the Regulations.

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. In the SCC's decision, the Court found that the sections in the IAA pertaining to the assessment process set out for non-designated projects located on federal lands were constitutional. Determinations made by federal authorities should continue as usual for such projects.

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 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.

Sincerely,

Erin Norton

Project Manager (Acting), Atlantic Regional Office Impact Assessment Agency of Canada / Government of Canada Erin.Norton@iaac-aeic.gc.ca / Tel : 902-399-8838



75 Treaty Trail Truro, NS B6L 1W3

Tel (902) 843 3880 Fax (902) 843 3882 Toll Free 1 888 803 3880 Email info@mikmaqrights.com www.mikmaqrights.com

May 9th, 2024

Candace Quinn
Environmental Assessment Officer
Nova Scotia Environment and Climate Change, EA Branch
Candace.quinn@novascotia.ca

RE: Consultation with the Mi'kmaq of Nova Scotia on Six Mile Brook Pit Expansion and Reclamation of Historic Workings Project, Pictou County.

I write to acknowledge receipt of your letter dated April 11th, 2024, with respect to continued 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.

Given that this project will require an Environmental Assessment (EA) approval, kindly advise when these documents are available for our office for review and comment. It is our expectation that our office will have an opportunity to continue consultation on this proposed project.

Your letter states that an Archaeological Resource Impact Statement (ARIA) has been completed and when CCTH's review is complete, the final ARIA will be provided. While our Archaeological Resource Department will review the ARIA once provided, please accept the following preliminary comments.

We do not support clearances without subsurface testing. Mi'kmaw archaeological sites have developed since time immemorial and may not be identified from the surface character of the current landscape, one cannot conclusively eliminate potential for Mi'kmaw archaeological heritage without subsurface testing. 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 and landscapes that exhibit waterways or wetlands.

Waterways, regardless of size, have continued to be important features in Mi'kmaw cultural landscapes. Whether for navigation, by boat or foot, drinking water, or harvesting areas, these features all are significant in Mi'kmaw cultural landscapes. The Mi'kmaq hunters track animals near brooks and streams, so the waterways have always been culturally significant as much as the rivers, lakes, bays, and oceans. It is important to keep in mind if any watercourses or low lying marshy areas are altered, fish and fish habitat may also be disrupted. This should be avoided.

We note that an MEKS has not be completed. While the project is planned to be situated entirely on private lands, an MEKS would help to identify ecological impacts to the area. We highly recommend that a Mi'kmaq Ecological Knowledge Study (MEKS) be completed in accordance to the Mi'kmaq Ecological Knowledge Protocol. Should this project be approved, it is strongly recommended that the completion of a MEKS by the proponent be incorporated into the terms and conditions of the approval.

We also encourage you to continue to reach out to Pictou Landing First Nation, especially if the expansion will result in additional employment opportunities for community members.

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 Director of Consultation

Cc.

Melissa Slauenwhite, Nova Scotia Office of L'nu Affairs Marc Theriault, Nova Scotia Environment and Climate Change, ICE Division Mark Flemming, Nova Scotia Environment and Climate Change, ICE Division Bonnie MacDonald, Nova Scotia Environment and Climate Change, ICE Division

Proposed Project Comments

@gmail.com>

Sat 2024-04-13 8:07 PM

To:Environment Assessment Web Account <EA@novascotia.ca>

** EXTERNAL EMAIL / COURRIEL EXTERNE **

Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

Project: six-mile-brook-pit-expansion Comments: We will hold Weeks accountable to ensure no increased truck traffic is experienced on Six Mile Book Road. This will be affirmed with documented traffic counts from previous years. Additionally, what work will be done to ensure the safety and livability of this neighbourhood? There are no shoulders or sidewalks on Six Mile Brook Road for children or pedestrians. The roads edge, in places, is directly at the edge of steep banks leading to the brook with no shoulder at all. Furthermore, the noise of trucks will greatly impact residents, and many are very upset about the possibility of additional traffic. The pavement on this road is already in ill repair, and trucks will worsen this situation. Often, rocks and dust are kicked up by gravel trucks, and children, pets, and residents walk on this road to improve their quality of life and overall wellness. We must find an alternative to heavy truck traffic and disruptions to the residents. It is dangerous to have trucks on this road. It is impossible to have quality of life living on a rural road with heavy truck traffic. This is a budding neighbourhood with multiple young families and professionals. The livability of Pictou Countys rural areas must be considered in the planning of this type of project. There needs to be alternatives for truck traffic that avoids rural neighbourhoods. I am vehemently opposed to any plans that will increase truck traffic to any degree. Name: Six Mile Resident Email:

@gmail.com Address: Six Mile Brook Municipality: Scotsburn email_message: Privacy-Statement: agree x: 57 y: 22

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: chieflaugustine@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 902-368-7464 Fax: Email: chief@ncpei.com May 12th, 2024

Environmental Assessment Branch P.O. Box 442 Halifax, Nova Scotia **B3J2P8**

RE: Six Mile Brook Pit Expansion

To Whom it May Concern,

On behalf of the Native Council of Nova Scotia (NCNS), the Maritime Aboriginal Aquatic Resources Secretariate (MAARS) is providing comments to the Environmental Assessment Branch of the Nova Scotia Department of Environment and Climate Change regarding the Environmental Assessment Application for the Six Mile Brook Pit Expansion and Reclamation of Historic Workings proposed undertaking.

Introductory vectors for invasive alien species (IAS) are one concern given that IAS are predisposed to establish themselves in recently disturbed areas, due to the localized eradication of natural predators and the removal of resource competition from anthropogenic activity. Activities such as grubbing are one of such heavy stressors on the environment that will provide an opportunity for IAS to establish themselves. As the environment is stressed, there is an increased potential for IAS to be successfully introduced via vehicles, mobile facilities, on the boots of workers, and other vectors if no preventative measures are taken. MAARS requests S.W. Weeks develop procedures to mitigate introductory vectors for IAS. This could include mandated practices to clean mobile facilities and vehicles prior to entry of the project site, to ensure they do not act as introductory vectors. Additionally, we request clarification if an IAS survey has been performed, and if not, that one be conducted.

Even though there are no intentions for on-site fuel storage, there lacked any mention of an EPP or SCP, which we understand is typically a part of the Industrial Approval. To gather a fuller understanding of the potential impacts of this project, especially as it relates to water quality and fish habitat, MAARS would like to request a copy of the current or proposed Environmental Protection Plan and Spill Contingency Plan be

forwarded for review. As well, we are requesting further information on whether these plans have been updated considering the expansion proposal given that there are further potentials for harmful impacts to water quality and fish habitat. What types of changes are expected as part of these plans to ensure the ecosystem integrity?

As part of Section 3.1.2 Consideration of Alternative, S.W. Weeks has proposed to use National Turbidity Units (NTUs) rather than Total Suspended Solids (TSS) as prescribed in the Nova Scotia Pit and Quarry Guidelines. As a measure of water quality, we understand that this is recognized as a better measure of overall water quality according to the *Guidelines for Canadian Drinking Water Quality*. We would stress that according to the United Stated Environmental Protection Agency, long-term turbidity over 10 NTUs can cause acute stress to aquatic life. The Canadian Council of Ministers for the Environment also sets out seasonality requirements as low as 5 NTUs between January 1st to April 31st, and November 1st to December 31st. With this considered, MAARS would recommend that any results over 10 NTUs automatically trigger a requirement to complete further testing through water samples for TSS to gather more details around the high NTU results. Additionally, MAARS would request that S.W. Weeks completes regular, random sampling, with a minimum of 12 samples per year, equivalent to at least one sample per month, to ensure that the NTUs remain a consistent measure of water quality. As well, since turbidity can increase following significant rainstorms, we would also request that S.W. Weeks complete TSS water sampling following any significant rainstorms.

Within the EA in Section 5.2.1 Screening and Washing, there is a statement that S.W. Weeks may look to restore the on-site wash plant. If this is to happen, would the restoration of this wash plant require a new EA or IA?

As part of the Appendix G, the Terrestrial Biophysical Baseline Report indicates that while there are no at-risk lichens listed, based on the *At-Risk Lichens - Special Management Practices* for Nova Scotia, there are two species listed as Species of Conservation Interest (SOCI). These two species are corrugated shingles lichen (*Fuscopannaria sorediata*) and spotted camouflage lichen (*Melanohalea olivacea*). Despite not being legally required by the province of Nova Scotia to provide a buffer around these species, MAARS would request at S.W. Weeks, in following a precautionary approach to ecosystem management, apply these species the same buffer as would be required if they were listed within the provincial special management practices.

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 Indian, and Lands reserved for the Indians" and that the "word Indians" in s.91(24) includes Métis and non-Status Indians". Since 2004, in multiple decisions

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

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 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.

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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

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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

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 would appreciate an opportunity to engage on the Six Mile Brook Pit Expansion undertaking directly with the proponent, S.W. Weeks Construction Ltd. We look forward to further dialogue as we continue to advocate for the rights of Off-Reserve Status and Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples of Nova Scotia. To continue to represent the interests and needs of the off-Reserve Aboriginal Community in Nova Scotia, we would like to request the opportunity to participate in early engagement in future Environmental Assessment Reviews.

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 Native Council of Nova Scotia