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Middle River Pit Expansion Project

Publication Date: August 17, 2023

Government

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1	Kwilmu’kw Maw-Klusuaqn Negotiation Office	July 19, 2023

Public

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1	Native Council of Nova Scotia and Maritime Aboriginal Resources Secretariat	July 28, 2023



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Date: June 28, 2023

To: Helen MacPhail, Environmental Assessment Supervisor, Nova Scotia Department of Environment and Climate Change

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

Subject: Middle River Pit Expansion

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

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

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

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

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

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

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

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

Thank you,

Trevor Ford

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M E M O

DATE: July 20, 2023

TO: Helen MacPhail, Environmental Assessment Officer

FROM: Provincial Director of Planning, Planning Services Branch

SUBJECT: MIDDLE RIVER PIT EXPANSION PROJECT, MUNICIPALITY OF THE COUNTY OF VICTORIA

Comment:

As requested, the Department of Municipal Affairs and Housing (DMAH) has reviewed the Registration Documents provided by Municipal Enterprises Limited Partnership for the environmental assessment of the Middle River Pit Expansion Project. All of the 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 Middle River / Victoria County. The proponent has had a meeting with the area councillor and the municipal warden to provide information on the project.

Statements of Provincial Interest:

- **Drinking Water:** No anticipated impact. Not near a source of municipal drinking water, and nearby homes use primarily drilled wells, which are unlikely to be impacted by activities at the pit.
- **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. There are no residential structures located within the required 90-meter setback distance for pit operations.

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

There are no outstanding information and/or conditions. All components considered under DMAH's areas of mandate have been adequately addressed.



Environment and Climate Change

Date: July 17, 2023
To: Helen MacPhail, Environmental Assessment Supervisor
From: Climate Change Division Staff
Subject: Middle River Pit Expansion Project, Middle River, Inverness County, NS

Scope of review:

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

Technical Comments:

Adaptation

Section 7.0 Effects of the Environment on the Undertaking provides some general statements about climate change trends, including high rainfall and the potential for a longer operating season. However, the section does not reference any specific climate change projections. Reviewing localized climate projection data relevant to the lifespan of the Project may be helpful for planning; this information is readily accessible through the national climate data portal ClimateData.ca.

While noting that the site will generally not be impacted by weather, the registration document does not include a specific assessment of the climate change risk category, as per the *Guide to Considering Climate Change in Environmental Assessments in Nova Scotia*.

Appendix D, Section 4.1.1 Climate and Winds includes a graph with 30-year climate normal values for Baddeck for the period 1981-2010. Averages are presented, but not extreme historical values for temperature, precipitation, or wind. Including a summary of extreme climate events would align with the recommendations in the *Guide to Considering Climate Change in Environmental Assessments in Nova Scotia*.

Mitigation

The proponent for the project does not directly quantify greenhouse gas emissions. They indicate the occasional use of heavy-duty vehicles that may lead to some emissions and propose mitigative practices to reduce the emissions which they already deem negligible. The details provided are sufficient for a project of this nature which does not have significant sources of greenhouse gases.

Guidance for Reviewers – Environmental Assessments

Environmental Assessment Branch, Environment and Climate Change

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

Adaptation

Recommend reviewing localized climate projection data available through Canada's national climate data portal (ClimateData.ca) to determine potential impacts to Project operations and support mitigation measures.

Encourage the proponent to complete an assessment of the climate change risk category according to the *Guide to Considering Climate Change in Environmental Assessments in Nova Scotia*.

Consider reviewing historical extreme weather data, in addition to the data already included in the climate normals chart in Appendix D, Section 4.1.1.

Mitigation

No further recommendation on greenhouse gas mitigation is suggested however the proponent should consider quantifying the total greenhouse emissions expected from the project including the heavy-duty equipment and vehicles.

Fisheries and Aquaculture

Date: July 21, 2023

To: Helen MacPhail, Environmental Assessment Supervisor, Nova Scotia
Environment and Climate Change

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

Subject: Middle River Pit Expansion Project, Middle River, Inverness County, Nova
Scotia – Environmental Assessment

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

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

- The Department does not anticipate any impacts to commercial fishing, or sportfishing activities and interests within the Department’s mandate.
- Within a 25km radius of the project, there are 9 (nine) aquaculture sites: 1 (one) land-based finfish operation (u-fish), 5 (five) marine finfish farms, and 2 (two) shellfish farms and 1 (one) finfish/shellfish farm.

Date: July 24, 2023

To: Helen MacPhail, Environmental Assessment Supervisor

From: Water Resources Management Unit, Sign-off by Elizabeth Kennedy,
Director, Sustainability and Applied Science Division

Subject: Middle River Pit Expansion Project, Middle River, Victoria County, NS

Scope of review:

This high level review focuses on the following mandate:

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

Technical Comments:

Surface Water Quantity and Quality

The EARD indicates assessment of potential impacts was completed based on the fact that the existing pit and proposed pit expansion operate above groundwater water table. The assessment of potential impacts to surface water quantity and quality in the Environmental Assessment Registration Document (EARD) indicates no significant impacts, however limited information was provided as evidence:

- Limited information and quantitative analysis were provided on the capacity of the pit area in retaining and infiltrating precipitation, i.e., can the pit area manage and infiltrate water from extreme precipitation events. Commitments were made to include surface water management plans, erosion and sediment control plans and surface water quality monitoring in support of Industrial Application, however there wasn't evidence or analysis to demonstrate that these mitigations will be sufficient to prevent flooding on site and sediment delivery to watercourses in extreme precipitation events. Limited information was provided on validation of the selected water balance model (e.g., comparison with field monitoring data). This means the confidence level of the water balance modeling results in predicting hydrological changes/impacts due to proposed pit expansion is unknown.
- The Cultural Resource Management Report Letter (Appendix E) indicates the northern portion of the study area represents a former floodplain associated with Leonard MacLeod Brook and flooding of this watercourse would be seasonal. The Biophysical Assessment (Appendix D) indicates the pit is excavated in a raised alluvial gravel ridge, resulting in steep banks around the pit floor on the north and east and open on the west, where it meets natural

floodplain of Leonard MacLeod Brook. Limited information was provided on the current natural floodplain of Leonard MacLeod Brook, and whether the proposed pit expansion area will extend into this floodplain.

If surface water management and erosion and sediment control during the proposed pit expansion are not able to accommodate extreme precipitation events, there is a potential risk of periodic flooding (flooding on site due to precipitation, or flooding from Leonard MacLeod Brook if the proposed pit expansion area extends into the floodplain of the brook) and associated sediment releases into the small unnamed watercourse to the northwest of the pit area and/or Leonard MacLeod Brook during/following certain extreme precipitation events. The risk of the flooding occurring is unknown based on the current level of information provided in the EARD.

Groundwater Quantity and Quality

There has been a sufficient base level of work conducted for the site to assess background geological and groundwater conditions and level of risk appropriate to identified groundwater receptors. If approved, the site pit excavation operations present potential groundwater risk to:

- Off site wetlands and watercourses
- Off-site residential water supply wells

The risk includes potential for negative impacts from both groundwater quantity changes (dewatering or flooding) as well as potential for negative groundwater quality chemical changes.

In the EARD the proponent does commit their site operations to a number of important aspects including:

- Maintaining pit excavation levels to not go below the groundwater table across the site
- Installing and managing a monitoring well network on the site to ensure water levels and water quality are understood and maintained

If the site is approved there are some additional details to site operations, not currently specified, that would provide a better level of groundwater risk reduction and ability to provide mitigation, than currently proposed.

Additional details described above would include:

- 1) Specification that excavation levels remain at least 1.0 metres above the annual, seasonally high-water table elevation level as measured in the monitoring well network. – this is a standard ECC operational condition that helps ensure a margin of safety for expected seasonal fluctuations in groundwater levels and site conditions outside of operator control (for example extreme precipitation events). Operating 1.0 m above the water table ensures that no groundwater dewatering or drainage from the site will affect adjacent wetlands or watercourses and water quality effects are minimized through less disturbance.
- 2) Conducting a baseline water well survey for the nearest two residential locations with water supply wells along the MacIntyre Road that potentially could be affected by groundwater quantity or quality changes. Collecting baseline data for

water well supplies is beneficial should any changes be noted that are attributable to site operations and require mitigation. The data can also help identify existing water supply issues that would not be related to future site operations.

Wetlands

The proponent has avoided direct impacts to wetlands and will be operating above the water table, therefore, no impacts to wetland from groundwater drawdown is anticipated. Furthermore, the proponent has committed to a 30 m vegetated buffer from all wetlands outside the proposed expansion area and will be deploying appropriate erosion and sediment control measures.

Summary of Technical Considerations:

Surface Water Quantity and Quality

As limited information was provided to support the assessment of no significant impacts of the proposed pit expansion to surface water quantity and quality, and the risks of flooding on/to the proposed pit area occurring is unknown based on the current level of information provided in the EARD, the following considerations would further help mitigate potential risks of impact to surface water resources.

Consider ongoing assessment of the retaining and infiltrating capacity of the active pit areas during expansion in relation to precipitation (including appropriately and clearly defined extreme events) to support planning of appropriate surface water management measures. It is recommended to factor climate change into this ongoing assessment. The assessment of potential risks of impacts to surrounding watercourses (e.g., the small unnamed watercourse to the northwest of the pit area) as a result of water retention and increased infiltration on site, and/or overflow from site due to extreme precipitation events can inform additional mitigations that may be necessary.

Consider including surface water quantity monitoring into proposed surface water monitoring plan to collect necessary data in surrounding watercourses to validate the conclusion of negligible impacts of pit expansion to local hydrological regimes. In addition to monitoring locations mentioned in the EARD, consider planning appropriate monitoring frequencies to collect sufficient information for ongoing assessment of impacts from the proposed pit expansion (including shutdown) to inform additional mitigations that may be necessary.

Consider identifying the current floodplain of Leonard MacLeod Brook in relation to, and if any, associated risks of flooding to the proposed pit expansion area, with corresponding mitigations implemented when necessary.

Groundwater Quantity and Quality

The Middle River Pit Expansion EARD has provided a base level of information sufficient to determining the potential environmental sustainability of the proposed operations in relation to groundwater resources.

Work as proposed involves aggregate extraction conducted above the water table. If approved, operating above the water table in a consistent and reliable manner is a key component for this project to avoid potential impacts to adjacent wetlands, surface watercourses and residential water supply wells. In order to confirm this the Department typically requires that work be conducted a minimum of 1.0 metre above the annual high-water table level, as measured in a permanent monitoring well network.

A baseline water supply well survey of the two closest down-gradient residential receptors along the MacIntyre Road would help to identify and, if necessary, address future concerns regarding potential for off-site groundwater quantity and quality negative changes that may occur during the life of the proposed project.

Wetlands

Based on the information provided (operating above the water table, implementation of vegetated buffers and erosion and sediment control measures), no further additional wetland mitigations are required.

Date: July 25, 2023

To: Helen MacPhail, Nova Scotia Environment & Climate Change

From: Coordinator Special Places, Culture and Heritage Development

Subject: Middle River Pit Expansion Project, Victoria County - EA Registration

Staff of the Department of Communities, Culture, Tourism, and Heritage has reviewed the Middle River Pit Expansion Project, Victoria County - EA Registration documents and have provided the following comments:

Archaeology

Staff reviewed the sections of the EA document pertaining to archaeology. An archaeological resource impact assessment (ARIA) was conducted for the Middle River Pit Expansion Project under heritage Research Permit A2021NS046 – Middle River Quarry in 2021 by CRM Group archaeologist Emily Redden. Ms. Redden concluded that based on the assessment of the study area and surrounding landscape, the background research, and field reconnaissance conducted by CRM Group it is determined that the study area property does not exhibit elevated potential for encountering either Mi'kmaq (both Pre-contact and historic) or Euro-Canadian archaeological resources. Ms. Redden made the following recommendations:

1. It is recommended that the study area, as defined and depicted in this report, be cleared of any requirement for future archaeological investigation.
2. In the event that archaeological deposits or human remains are encountered during activities associated with the development of the Middle River Pit, all work in the associated area(s) should be halted and immediate contact made with Special Places (John Cormier, Coordinator: 902-424-6475).

The ARIA was reviewed and approved by CCTH Staff.

The Environmental Assessment is in line with the conclusions and recommendations of the ARIA:

“Significance and Mitigation

The impact of the proposed pit expansion on archaeological, cultural, or historical features is expected to be negligible. If an archaeological, cultural, or historical feature of significance is encountered during on-site activities, the impact will be reduced by halting operations and consulting with experts in the field to ensure the artefact or feature is not disturbed and is adequately documented and preserved. If the feature is suspected to be of Mi'kmaq origin, the appropriate Mi'kmaq authorities will be contacted.” (Municipal Enterprises, 2023. Page 15).

“The Archaeological Resource Impact Assessment (ARIA)(CRA 2021) concluded that the site exhibits low potential for encountering either Mi'kmaq (both Pre-contact and historic) or Euro-Canadian archaeological resources. Moderately to steep slopes; relatively large distances from the coast and travel routes; and extensive occurrence of sink holes that would have made the landscape difficult and dangerous to live upon, all would limit the likelihood of past colonization or of finding archaeological resources (CRM 2021). Pit operations, however, may come across other bones or teeth of pre-historic animals such as mastodon. Pit personnel should be alerted that if any archaeological or paleontological remains are found, operations will be stopped and the Nova Scotia Museum of Natural History should be contacted as soon as possible for assistance in assessing potential significance. The museum may assist in pre-operational assessments of the potential for palaeontological remains (NSCCH 2021).”(Enviroshphere, 2023. Page 52).

We have no archaeological concerns for this project at this time.

Botany

No staff were available to review the sections of the EA document pertaining to botany.

Palaeontology

Staff have reviewed the sections of the EA document pertaining to palaeontology. The general location of the Middle River Pit Expansion has been the site is close by an area where mastodon bones were found, associated with ancient sinkhole deposits along the river. The surficial geology in the area is not expected to contain fossil material, so the quarry operations are not likely to yield fossil material. However, if the operators encounter unknown bones, teeth, or tusks, they can contact the Museum for information and advice.

Zoology

Staff have reviewed the sections of the EA document pertaining to zoology. Records indicate the presence of the Yellow-banded bumblebee (*Bombus terricola*) within 5km of the study site. This species is listed as special concern under COSEWIC and SARA and as vulnerable provincially.

It is concerning that the chimney swift (*Chaetura pelagica*) has been observed within 0.8km of the study site (see ACCDC report). There appears to be no discussion of this in the EA Registration document or associated Enviroshphere documentation. This species is listed as threatened under COSEWIC and SARA and as endangered provincially. Given the gregarious nature of the species, which share communal roosts, care should be taken to identify potential

roost sites that might exist within and around the project area. Activities at the pit site have potential to disturb birds during nesting, feeding and roosting.



Date: July 26, 2023

To: F. Helen MacPhail, Environmental Assessment Supervisor

From: Stacey Nurse, Regulatory Review Senior Biologist, Fish and Fish Habitat Protection Program

Subject: Middle River Pit Expansion Project, Victoria County, Nova Scotia

Scope of review:

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

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

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

Recommendations: (provide in non-technical language)

- DFO has not identified any gaps for the works outlined in the Middle River Pit Expansion Environmental Assessment Registration Document, as there are currently no plans to excavate below the water table and there are no foreseen impacts to the surrounding watercourses, ponds and wetlands in close proximity to the proposed pit expansion.
- If it is determined through the proposed water monitoring program that there may be indirect impacts to watercourses, ponds and wetlands and if there is not a requirement for a provincial watercourse or wetland alteration approval then we recommend that the proponent submit a DFO Request for Review application. DFO will then conduct a regulatory review of the proposed project under the *Fisheries Act*, *Species at Risk Act*, and *Aquatic Invasive Species Regulations* to determine if an authorization under the *Fisheries Act* and/or a *Species at Risk* permit is required.

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

Date: 26 July, 2023

To: Helen MacPhail, Environmental Assessment Supervisor

From: Environmental Services, Nova Scotia Public Works

Subject: **Middle River Pit Expansion Project, Middle River, Victoria County, NS**

Scope of review:

This review focuses on the following mandate: Traffic Engineering and Road Safety

Technical Comments:

1. The proponent is proposing to expand an existing pit, where the production from the new expansion will be replacing the existing production, so no increase in truck volumes is expected as a result of this expansion. Site Access is via a gated gravel road from MacIntyre Road. No changes to this access are proposed.
2. The intersection of MacIntyre Road and the Cabot Trail has been noted as reduced sightlines and that extra care is required. Mitigation with regards to Truck Turning Traffic signage are referenced, however; the wording in the report indicates a possible future requirement for these signs. As this is an existing pit, if this signage has been used in the past, this reference should be updated to reflect that.
3. In Appendix D, under the Transportation section (Section 4.3.15, page 56 of the Appendix), there is a reference to "fast moving trucks passing nearby residents as a potential hazard". In that same section, there is a reference to narrow sight lines" and the "turning radius onto the Cabot Trail is minimal posing a potential hazard for commuting trucks and vehicles". Safe driving practices would need to be followed in all cases to minimize these issues, and the proponent has indicated that these are currently being implemented.
4. Collision history was checked for the last 15 years and found no history of collisions on MacIntyre Road, or any collisions occurring at the intersection of MacIntyre Road and the Cabot Trail, so the mitigation for truck turning signage would be appropriate and adequate, as well as reducing truck speeds where appropriate.

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

1. For any erection of signage or changes to speed limits, please contact the Local Area Manager (as noted in email distribution, Steve MacDonald) who will review requirements with the District Traffic Authority as required.
2. Mitigation measures in terms of truck turning signage and safe driving practices are appropriate and to be continued for the pit expansion.

Date: July 28, 2023

To: Helen MacPhail, Environmental Assessment Manager

From: Nova Scotia Office of L'nu Affairs – Consultation Division *Reviewed by Claire Rillie, Acting Director of Consultation*

Subject: Middle River Pit Expansion Project, **Victoria 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 Treaty rights.

Technical Comments:

Appendix H Public Consultation Documentation should be renamed to “Mi'kmaq Engagement Documentation” given that the materials in Appendix H are related to engagement efforts with the Mi'kmaq of Nova Scotia.

Section 4.0 Public Consultation and Stakeholder Engagement includes information regarding Mi'kmaq engagement efforts. The Proponent should be advised that the Mi'kmaq of Nova Scotia are not considered “stakeholders” rather they are rights holders. As such, engagement with the Mi'kmaq of Nova Scotia should not be categorized under the title of public consultation or stakeholder engagement and the Mi'kmaq of Nova Scotia should not be referenced as “stakeholders”. Information in engagement with the Mi'kmaq of Nova Scotia should be moved to its own section with the heading “Mi'kmaq of Nova Scotia. Section 4.0 should be renamed to “Public and Stakeholder Engagement.”

Summary of Recommendations:

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 comments and recommendations:

Table 1 summarizes Mi'kmaq engagement efforts and includes communications with Wagmatcook First Nation and the KMKNO. OLA recommends that the Proponent continue to engage with these groups and provide them with regular updates throughout the duration of the Project.



Agriculture

Date: July 28, 2023

To: Helen MacPhail, Environmental Assessment Supervisor

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

Subject: Middle River Pit Expansion Project
Middle River, Victoria 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 project is located on class 4 soils, Canada Land Inventory. Class 4 soils have severe limitations that restrict the range of crops or require special conservation practices.
- There are two farms located within 2 km of the proposed expansion area, with the closest active agricultural land approximately 300 m away from the nearest expansion boundary.

Date: July 28, 2023

To: Helen MacPhail, Environmental Assessment Supervisor

From: Department of Natural Resources and Renewables

Subject: Middle River Pit Expansion Project, Middle River, Inverness County, NS

Scope of review:

This review focuses on the following mandate: Authorities and approvals required from the Land Services Branch, Mineral and Water Resource Evaluation and Responsible Development, Public Health and Safety, biodiversity, species at risk status and recovery, wildlife species and habitat management and conservation, including Old Growth Forest.

Technical Comments:

Land Services Branch:

The Project does not include Crown lands and does not join Crown lands, so no authorizations/permits are required.

Geoscience and Mines Branch:

The Department supports the development of the province's natural resources provided that such development is undertaken in both an environmentally and socially responsible manner.

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

The review of the Environmental Assessment Registration Document was conducted based on the department's experience with similar undertakings, and with the intention of identifying potential concerns which may be proactively addressed prior to the initiation of the expansion, or throughout the completion of this project.

The following comments are provided regarding the project and is limited to the review of selected sections of the Environmental Assessment Registration Document submission:

1. Notably, the proposed development footprint is within a designated Crown Limestone area, and the company is currently not entitled to this resource. In addition, the information provided does not delineate source material to be

excavated within the proposed pit boundaries. While the document does refer to quarrying of aggregates for the purpose of construction, it is not clearly defined if this is only surficial extraction or will bedrock be part of this proposal.

2. Appendix G outlines that this area is a high-level risk area for karst but does not adequately identify and address the risks associated with operating in a karst environment and there are no recommendations for management of sinkholes and karst. Numerous sinkholes are visible in LiDAR imagery of the proposed expansion area as well as surrounding areas and it is reasonable to expect that additional sinkholes may develop during the proposed life of the pit expansion. It is noted that the excavation of the area has potential to increase water interaction with underlying soluble bedrock, increasing the risk of sinkhole development.
3. The EA document does not demonstrate how the removal of surficial material impacts the regional aquifer, including impacts to Leonard MacLeod Brook and Middle River. The high permeability of the surficial sediments has greater implications than highlighted in the EARD to the groundwater regime.

Biodiversity Branch:

1. The methodologies for bird surveys, particularly nocturnal bird surveys, lack detailed information regarding survey protocol (e.g. whether playback was used) and environmental conditions (wind, precipitation, moon phase during owl survey); this information is required to assess whether survey effort was appropriate. Further, the Department has concerns with the methodology information provided:
 - a. Owl surveys were conducted in mid-June, more than 2 weeks past the Cape Breton Nocturnal Owl Survey timing window for 2021. While a mid-June survey at the appropriate time of night is valuable for assessing potential presence of Common Nighthawks, this is too late for surveying owls. The nighttime survey was conducted at 02:30, which is not suitable for detecting Common Nighthawks; the *Canadian Nightjar Survey Protocol – 2018* states that nighthawks become active approximately 30 minutes before sunset and remain active until 60 or 90 minutes after sunset.
 - b. Breeding bird surveys were only conducted on one date; typically, it is recommended that at least 2 surveys spaced at least 1 week apart be completed during the main breeding season (June to early July) in order to detect early- and late-nesting species. A separate survey for owls and other early breeders such as raptors and woodpeckers should be completed in late April or May.
2. Information on vegetation, lichen, and fish and fish habitat survey methodologies are incomplete. Additional detail on search effort (e.g. survey routes and duration of minnow trap deployment) should have been included.

3. The Biophysical Report states that “Bald Eagles nest in late March to early April”; it should be clarified that the Bald Eagle nesting season extends into late July and August.
4. The Biophysical Report lists Blue-winged Warbler as being found at multiple point count locations, which is a very unusual species for Nova Scotia. The locally common Black-and-White Warbler has a similar four-letter bird code and this is likely an error in data entry.
5. Section 4.2.10 of the Biophysical Assessment Report states that “no animals of particular conservation concern *per se* have been reported at the site.” However, two species of conservation concern, Spotted Sandpiper and Evening Grosbeak were reported during breeding bird surveys, with Spotted Sandpiper observed nesting on the pit floor.
6. There is potential for interaction between Accidents (Fires & Spills) and Species At Risk. Table 10 in the Biophysical Report should reflect this potential.
7. In Table 11 (Summary of impacts and mitigation on Valued Environmental Components, Middle River Pit Expansion),
 - a. It is important to assess the likelihood of impacts; for example, with proper mitigations in place, accidental spills (which would have a negative impact with varying degrees of severity depending on the size of the spill) would presumably be unlikely to occur, whereas removal of existing forest communities is certain to occur.
 - b. For Terrestrial Flora & Fauna & Habitat, the Suggested Mitigations for *Construction – Removal of Existing Forest Communities* should include avoidance of sensitive timing windows such as bird nesting season for vegetation clearing (as is indicated in the body of the EA report). For *Construction & Operation – Accidental contaminant releases, contamination of habitat*, mitigation measures should include considerations such as appropriate equipment maintenance and avoiding refueling close to sensitive habitats (e.g. wetlands and watercourses).

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

Geoscience and Mines Branch:

1. A more comprehensive review and presentation of all historical geoscience data is needed for the development footprint and project area to clearly identify proposed areas of excavation. This information will also be used to develop potential mitigation or avoidance procedures for the development of sinkholes. At a minimum this should include the following elements:
 - a. Detailed geological study of the project area that demonstrates the impacts of removing surficial material in or adjacent to a glacial floodplain in a karst environment.
 - b. Development of a karst management plan to ensure appropriate protections are in place for the environment, human health, and safety.
2. A more robust modelling of the hydrogeological regime that details excavation of the pit as it progresses, with the consideration of flash flooding and climate change included as model inputs. This will be used in the preparation of a karst management plan.
3. GMB is requesting that details regarding what the monitoring will consist of, and that report be generated and delivered to the Branch for review and comment during the life of the pit, up to and including final remediation and monitoring of the site. As well, all karst management plans should be predicated on the hydrogeological modelling previously requested and reviewed by GMB for comment as part of any approval process for those plans.
4. For information on mineral tenure related to the designated Crown Limestone area, please contact the Registrar, Mineral and Petroleum Titles.

Biodiversity Branch:

The department offers the following recommendations:

- It is the responsibility of the proponent to ensure compliance with federal and provincial legislation and regulations regarding resident, migratory and at-risk bird species and their habitats (e.g., *Species at Risk Act*, *Migratory Birds Convention Act*, *Fisheries Act*, *NS Endangered Species Act*, *NS Wildlife Act*, and their regulations).
- Obtain all necessary permits as required under legislation related to wildlife and species at risk in order to undertake the project. Should work commence prior to the development of a Wildlife Management Plan, the proponent should contact NRR (biodiversity@novascotia.ca) to discuss permits, particularly if the project has potential impacts on threatened or endangered species. The absence of effective mitigations may lead to breaches in prohibitions as per s.13(1) of the *Endangered Species Act*.
- Provide digital way points and/or shapefiles for all Species at Risk, 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, and all S1, S2 and S3 species) and all flora and fauna surveys. Data should adhere to the format prescribed in the NRR Template for Species Submissions for EAs and are to be provided within two (2) months of collection.

- Prior to the development of a Wildlife Management Plan (WMP), field surveys should address methodology limitations and information gaps described in the technical comments that prevent a full risk assessment to SAR or SOCC. Methodology and timing must follow standard science-based protocols and must be of sufficient scale and detail to inform the development of mitigation measures and should include:
 - A second season of breeding bird surveys to address deficiencies in current monitoring
 - Appropriate seasonal timing for owl surveys
 - Appropriate timing for Common nighthawk (Nightjar) surveys
 - Breeding bird surveys need to capture early and late breeders
 - Complete survey detail for vegetation, lichen, fish and fish habitat surveys

- Develop a Wildlife Management Plan (WMP) based on standard, science-based practices, which shall include:
 - Communication protocol with regulatory agencies.
 - General wildlife concerns (e.g., human-wildlife conflict avoidance).
 - Mitigation measures to promote safety and prevent spread of Avian Influenza.
 - Education sessions and materials for project personnel on Species at Risk, non-Species at Risk wildlife, and other important biodiversity features they may encounter on-site and how to appropriately respond to those encounters.
 - Noise, dust, lighting, blasting, and herbicide use mitigations.
 - Measures to protect and mitigate against adverse effects to migratory birds during construction and operation. This may include avoidance of certain activities (such as vegetation clearing) during the regional nesting period for most birds, buffer zones around discovered nests, limiting activities during the breeding season around active nests, and other best management practices.
 - 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 (e.g., Bank swallow, Common nighthawk, Migratory and Non-migratory bats, Turtles, especially Wood turtle, Canada lynx).
 - Details on monitoring and inspections to assess compliance with the WMP.
 - The components of the WMP that address expected impacts during each phase of the project must be finalized before that phase begins (this includes the construction phase).
 - Details on the proposed duration of operation of the proposed quarry expansion and the progressive reclamation/rehabilitation of areas no

longer required for aggregate production or supporting activities

- Details on invasive species management, particularly invasive plants, including revegetation of cleared areas using native vegetation or seed sources
- Measures to address changes in status of listed species over time

NOTE: Consultation on the Wildlife Management Plan with relevant regulatory agencies is strongly recommended. Review of the WMP by NRR can reduce the risk of impacts to biodiversity and to breaching prohibitions related to statutes.

- Consider cumulative effects and impacts of the project on landscape-level connectivity for wildlife and habitat (e.g., habitat fragmentation, loss of intact forested habitat, increased road density). Measures proposed to mitigate those effects should be provided.

IMPORTANT:

- Always provide a response back to the EA Branch, even if it is simply to confirm that there is “no comment.”
- The comments will be published on the EA website on decision day (privacy review is NOT conducted on comments from government).

Date: July 28, 2023
To: Helen MacPhail, Environmental Assessment Supervisor
From: Environmental Health
Subject: Middle River Pit Expansion Project, Middle River, Inverness County, NS

Scope of review:

The scope of this review is to evaluate the potential for project activities to impact public health. Specifically, this review focuses on impacts to air quality, noise and residential wells.

Air Quality and Noise

The proponent has identified a number of activities that may be undertaken to control project related impacts on air quality and noise.

It is anticipated that the adoption of best management practices for this project can sufficiently mitigate air quality and noise impacts, and protect public health.

Recommendation:

The project should implement a complaints handling protocol to establish a process for the public to communicate to the proponent project related impacts to air quality and noise.

Residential Wells

The report states that project activities will not intercept the groundwater table, and blasting will not occur.

The project will develop a groundwater monitoring program to measure and monitor groundwater quality, and groundwater levels.

Recommendation:

Observed impacts to groundwater quality or levels should be appropriately investigated, and potential impacts to residential wells assessed.

Date: July 28, 2023

To: Helen MacPhail, Environmental Assessment Supervisor

From: Eastern Region (Sydney) ICE Division

Subject: Middle River Pit Expansion Project, Middle River, Victoria County, NS

Scope of review:

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

Technical Comments:

- Figure 2 and Appendix B drawings, specific coordinates of the proposed pit area are not included on the site plan provided.
- Regarding VECs, Section 3.3 states that where interactions were identified, and there was potential for significant impacts, mitigating actions or activities have been suggested that will avoid the impacts or reduce it to acceptable levels before the project proceeds. Section 6.3.1 and Table 11 identifies significant negative impacts related to noise, dust, light, erosion & sedimentation.
- Section 3.4, the proponent acknowledged that the Industrial Approval would include conditions specifically related to surface and groundwater monitoring.
- Section 5.1, states that current operations approached but did not extract below water table. Section 5.2 states that aggregate operation will not take place below the groundwater table or, if needed, a hydrogeological study will be completed, and the IA would be amended.
- Section 6.3.7, states that a contingency plan is needed and will include procedures and processes for responding to environmental emergencies including spill or release occurrences that could potentially impact groundwater in the area.

Summary of Technical Considerations:

- A Site Plan including NAD 83 coordinates of the proposed pit area should be provided with the IA amendment application.

- Groundwater and surface water monitoring plans should be provided with the IA amendment application.
- A Surface Water Management Plan should be included with the IA amendment application.
- An updated sedimentation and erosion control plan should be provided with the IA amendment application.
- Settling pond details should be included as part of the IA amendment application. Details shall include, as a minimum, settling pond(s) treatment capacity, required updates (if deemed necessary) to the current ponds as the pit area expands, and proposed site effluent monitoring.
- An updated Contingency Plan should be included as part of the IA amendment application and should include, as a minimum, procedures for responding to environmental emergencies that could affect local water resources.
- The specific depth above the water table to which the proponent is permitted to extract aggregate should be identified in the EA. Otherwise, those details should be included with the IA amendment application.
- Light and Noise Management Plans should be included as part of the IA amendment application.

Skeir, Tina

Subject: FW: Middle River Pit Expansion Project, Victoria County, NS (EAS# 23-NS-015)
Attachments: CanadianNightjarSurvey_Data-Sheets_2022.pdf; CanadianNightjarSurveyProtocol_2022.pdf;
CanadianNightjarSurveySummaryProtocol_2022.pdf

From: Wade,Suzanne (ECCC) <suzanne.wade@ec.gc.ca>
Sent: Monday, July 31, 2023 11:26 AM
To: MacPhail, Helen <Helen.MacPhail@novascotia.ca>
Cc: Keeping,Brent (ECCC) <Brent.Keeping@ec.gc.ca>; Hingston,Michael (il, lui | he, him) (ECCC) <Michael.Hingston@ec.gc.ca>; Wade, Suzanne (EC) <suzanne.wade@canada.ca>
Subject: Middle River Pit Expansion Project, Victoria County, NS (EAS# 23-NS-015)

You don't often get email from suzanne.wade@ec.gc.ca. [Learn why this is important](#)

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Hi Helen,

Environment & Climate Change Canada (ECCC) has reviewed the proposed Middle River Quarry Expansion Project, located in Middle River, Nova Scotia. The project would involve the expansion of an existing working pit slope aggregate quarry (less than 4ha) approved in 2010 to include a 14.83 ha expansion area, clearing and grubbing of vegetation, portable crusher and stockpiles on company owned land. The Proponent indicated that there will be no blasting activities required, and vegetation clearing activities will occur outside of the bird breeding season (April to September).

WILDLIFE COMMENTS

Attachments:

- The Canadian Nightjar Survey Protocol (2022)
- The Canadian Nightjar Survey: Quick Reference Protocol Summary (2022)
- The Canadian Nightjar Survey Datasheets (2022)

Site-Specific Comments:

1. Per the Canada Gazette Part II, published on June 8, 2022 ([Canada Gazette, Part 2, Volume 156, Number 12: Migratory Birds Regulations, 2022](#)) the modernized *Migratory Birds Regulations* (MBRs) came into effect on July 30, 2022, which allows for flexibility with respect to the removal of nests. Per the new provisions under the modernized MBRs, the nests of all migratory bird species are protected when they contain a live bird or a viable egg (i.e. during the nesting period), excluding the nests of 18 species whose nests are reused and remain protected year-round (listed in Schedule 1 of the MBRs).

ECCC-Canadian Wildlife Service (CWS) notes one observation of Pileated Woodpecker during the 2021 breeding bird Survey 2022. Pileated Woodpecker are listed on Schedule 1 of the amended MBRs (2022) and their nest have year-round protection, unless they have been shown to be abandoned. For more information on the amended nest protections, frequently asked questions on how these protections apply to migratory birds, including Pileated Woodpecker, and responsibilities for reporting abandoned nests, please visit [Fact Sheet Nest Protection Under the Migratory Birds Regulations, 2022](#) and [Frequently Asked Question, Migratory Birds Regulations, 2022](#).

Information on Pileated Woodpecker nest cavities can be found on ECCC's website: [Pileated Woodpecker Cavity Identification Guide](#), [Damage or Danger Permits for Nest Destruction: Pileated Woodpecker nesting cavities - Canada.ca](#) and [Damage to the Use of the Land: Pileated Woodpecker nesting cavities - Canada.ca](#)

2. ECCC-CWS notes the potential for ground nesting species at risk, and species of conservation concern, to be attracted to the quarry, stockpiles and previously cleared areas and fields for nesting, such as, Bank Swallow, Common Nighthawk, Spotted Sandpiper, Killdeer, Wilson Snipe and American Woodcock.

Proposed mitigation measures identified in Appendix D, Table 11 Summary, include: “*Educating personnel to look for bird life prior to activities; periodically conduct nesting bird survey at site to identify bird issue*”.

Given that Spotted Sandpiper have previously found nesting in the quarry, and the potential for other species at risk and species of conservation concern, ECCC-CWS recommends including additional detail to mitigation and adaptive management measures should a nest be found.

ECCC-CWS generally recommends buffers for landbird species at risk as follows during the breeding season:

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

The proposed project-related activities are likely to fall into the medium to high disturbance categories. Therefore, ECCC-CWS recommends that project-related activities be scheduled outside the breeding season for landbird species at risk if found in the area when recommended buffers can not be implemented.

3. Common Nighthawk (CONI) (*Chordeiles minor*) are listed Special Concern (SARA Schedule 1). CONI may choose nest sites in open areas (e.g. gravel or sand) or cleared areas (e.g. forest harvest blocks, recent cleared land, and recent burns) in a wide range of habitats and a variety of substrates. Common Nighthawks may establish nest sites in newly cleared habitats, such as lands cleared for industrial development. Common Nighthawk are very cryptic in coloration and finding a bird on the nest or a nest site can be challenging. The use of active nest searching techniques must be carefully evaluated because the risk of disturbing active nests is high. Flushing nesting birds increases the risk of predation of the eggs or young, or may cause the parent birds to abandon the nest.

Should an adult be flushed from the ground or display agitated behaviour, it should be suspected that a nest or chicks are present, work in the area should be halted, and CWS should be contacted for further advice.

ECCC-CWS recommends using the Canadian Nightjar Survey Protocol (2022) (attached) if planning to conduct nightjar surveys at this site to determine breeding activity.

4. ECCC-CWS notes that Wood Turtle (SARA listed Threatened) and Snapping Turtle (SARA listed Special Concern) occur within the Baddeck/Middle River watershed, but have not been observed within eight km the study area. There is potential for female turtles to be attracted to the quarry/pit and access road for nesting and/or thermoregulation, and individuals may be found traveling to and from nesting and overwintering areas.

ECCC-CWS recommends in the Proponent identify mitigation measures for avoiding impacts to turtle species at risk nests and individuals should they be found in the study area during operational activities.

ECCC-CWS notes that September is the pre-overwintering period when Wood Turtles are in the forest. If Wood Turtles are present at this site, ECCC recommends that clearing occur no earlier than mid-October to avoid risk of destruction of individual travelling to overwintering sites.

The Recovery Strategy for Wood Turtle (*Glyptemys insculpta*) in Canada [Final](2020) available at: <https://species-registry.canada.ca/index-en.html#/consultations/2864>

5. ECCC-CWS notes that there is candidate critical habitat for the Wrinkled Shingle Lichen (listed as Threatened on Schedule 1 of SARA and the *NS Endangered Species Act*) located approximately 650m to the east north east of this site along the Middle River. This leafy brownish grey wrinkled lichen grows in wet areas and colonizes almost exclusively on the trunks of mature deciduous trees, most often Red maple, and is known from 56 occurrences in the Atlantic provinces, 90% of the occurrences are present in Nova Scotia. Scientific estimate that the species has declined by 30% over the past 30 years. Threats include forest harvesting leading to removal of host trees, and the impact of climate change, leading to reduction in the amount of suitable moist climate.

The Proponent is encouraged to conduct epiphytic lichen surveys and search areas within mature forests areas that have high humidity and trees that are at least 50 years old with rough bark.

Once the Recovery Strategy is finalized, the critical habitat will consist of a 100-meter radius around each lichen. Moreover, if another record of the lichen is found within 500 meters, a 200-meter-wide corridor will be established between them, which is also considered critical habitat. These corridors play a vital role in supporting the lichen's survival, colonization, and population growth.

6. For species-specific technical information for terrestrial species at risk not protected under the *Migratory Birds Convention Act* (MBCA), ECCC-CWS recommends that Nova Scotia Department of Natural Resources and Renewable species at risk biologists.

Additional Comments

The proponent should retain raw data (e.g., information on individual tracks) until appropriate data standards have been developed. Proponents are encouraged to share and store data with the Atlantic Canada Conservation Data Center (<http://accdc.com/en/contribute.html>).

General "Standard" ECCC Advice and Recommendations:

Migratory Birds Convention Act

Migratory birds, their eggs, nests, and young are protected under the *Migratory Birds Convention Act* (MBCA). Migratory birds protected by the MBCA generally include all seabirds (except for cormorants and pelicans), all waterfowl, all shorebirds, and most landbirds (birds with principally terrestrial life cycles). The list of species protected by the MBCA can be found at <https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/convention-act.html>. Bird species not listed may be protected under other legislation.

Under Section 5(1) of the *Migratory Bird Regulations, 2022* (MBR), it is forbidden to capture, kill, take, injure or harass a migratory bird; or damage, destroy or take a nest or egg of a migratory bird, excluding under the exceptions listed in 5(2) of the MBRs, or under the authority of a permit. It is important to note that under the MBR, no permits can be issued for the harm of migratory birds caused by development projects or other economic activities.

Furthermore, 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 are managed so as to ensure compliance with the MBCA and associated regulations.

Vegetation Clearing

Clearing vegetation may cause disturbance to migratory birds, and may inadvertently cause the destruction of their nests and eggs. 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. In developing mitigation measures, it is incumbent on the proponent to identify the best approach, based on the circumstances, to complying with the MBCA. The following should be considered during project planning:

- Avoid scheduling high disturbance activities, such as vegetation clearing, during the regional nesting period for migratory birds. 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.
- The risk of impacting active nests or birds caring for pre-fledged chicks discovered during project activities *outside* of 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.
- In developing and implementing a wildlife management plan, preventative measures to minimize the risk of impacts on migratory birds should be considered (see “Avoiding harm to migratory birds: guidelines to reduce the risk to migratory birds” at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html>).

Nest Searches

ECCC-CWS generally does not recommend nest searches or sweeps in vegetation prior to clearing during the breeding season. Nests in complex habitat are difficult to locate, and adult birds avoid approaching their nests in a manner that would attract predators to their eggs or young. In many circumstances, harm to migratory birds is still likely to occur even when active nest searches are conducted prior to development activities, except when the nests searched are known to be easy to locate without disturbance (e.g. previously cleared area, simple habitats, low vegetation).

Nest surveys may be carried out successfully by experienced observers using scientific methodology in the event that activities would take place in simple habitats (often in human-made settings) with only a few likely nesting areas or a small community of migratory birds. Examples of simple habitats include:

- An urban park consisting mostly of lawns with a few isolated trees;
- A vacant lot with few possible nest sites;
- A previously cleared area where there is a lag between clearing and construction activities and where ground nesters may have been attracted to nest in cleared areas or in stockpiles of soil; or,
- A structure such as a bridge, a beacon, a tower or a building (often chosen as a nesting spot by robins, swallows, phoebes, Common Nighthawk, gulls and others).

Nest searches can also be considered when looking for:

- Conspicuous nest structures (such as nests of Great Blue Herons, Bank Swallows, Chimney Swifts);
- Cavity nesters in snags (such as woodpeckers, goldeneyes, nuthatches); or,
- Colonial-breeding species that can be located from a distance (such as a colony of terns or gulls).

Should any nests or unfledged chicks be discovered, protection with an appropriate-sized buffer is expected. Note: Nests should not be marked using flagging tape or other similar material as this increases the risk of nest predation. ECCC CWS can be contacted for further advice on bird monitoring and/or mitigation if a nest is found.

Stockpiles

Certain species of migratory birds (e.g. Bank Swallows) may nest in unattended/vegetated soil/material stockpiles and banks in pits and quarries during the most critical period of the breeding season (April 15th through August 15th).

To discourage this, measures should be considered 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 (i.e. the burrow – ‘residence’) 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 Description of Residence for Bank Swallow (*Riparia riparia*) in Canada: [Description of Residence for Bank Swallow \(Riparia riparia\) in Canada - Document search - Species at risk registry](#)).

The Government of Canada (GoC) guidance document “*Bank Swallow (Riparia riparia) in Sandspit and Quarries*” (GoC 2020) offers advice in preparing mitigation measures in the management of stockpiles during construction activities: <https://species-registry.canada.ca/index-en.html#/documents/1602>

Noise Disturbance

Anthropogenic noise produced by construction and human activity can have multiple impacts on birds, including causing stress responses, avoidance of certain important habitats, changes in foraging behavior and reproductive success, and interference with songs, calls, and communication. Activities that introduce loud and/or random noise into habitats with previously no to little levels of anthropogenic noise are particularly disruptive.

ECCC-CWS recommends the following best management practices:

- The proponent should develop mitigations for programs that introduce very loud and random noise disturbance (e.g. blasting programs) during the migratory bird breeding season for their region.
- The proponent should, where possible, prioritize construction works in areas away from natural vegetation while working during the migratory bird breeding season. Conducting loud construction works adjacent to natural vegetation should be completed outside the migratory bird breeding season.
- The proponent should keep all construction equipment and vehicles in good working order and loud machinery should be muffled if possible.

Fuel Leaks

The proponent must ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared. Furthermore, the proponent should ensure that contractors are aware that under the MBR, “*no person shall deposit or permit to be deposited oil, oil wastes or any substance harmful to migratory birds in any waters or any area frequented by migratory birds.*” Biodegradable alternatives to petroleum-based chainsaw bar oil and hydraulic for heavy machinery are commonly available from major manufacturers. Such biodegradable fluids should be considered for use in place of petroleum products whenever possible, as a standard for best practices. Fueling and servicing of equipment should not take place within 30 meters of environmentally sensitive areas, including shorelines and wetlands.

ECCC-CWS recommend incorporating a Wildlife Emergency Response Plan into emergency response contingency plans for scenarios that may impact avifauna directly (injury or mortality e.g. polluting incident) or indirectly (collisions causing mortality, stranding due to light attraction).

For consideration in emergency response and contingency planning related to accidents and malfunctions, ECCC has prepared *Guidelines for Effective Wildlife Response Plans* (ECCC 2022) available online at: <https://www.canada.ca/en/services/environment/wildlife-plants-species/national-wildlife-emergency-framework.html>.

Plans should include:

- Measures to deter migratory birds from coming into contact with the oil or polluting substance;
- Measures undertaken if individuals of migratory birds and/or sensitive habitat become contaminated; and,
- The type, extent of monitoring, and reporting in relation to various spill events.

The proponent is responsible for ensuring that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan is prepared in the case of spills. Furthermore, the proponent should ensure that contractors are aware of section 5.1 MBCA prohibitions.

Revegetation

A variety of species of plants native to the general project area should 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.

Invasive Species

Measures to diminish the risk of introducing invasive species should be developed and implemented during all project phases. These measures could include:

- Cleaning and inspecting construction equipment prior to transport from elsewhere to ensure that no vegetative matter is attached to the machinery (e.g., use of pressure water hose to clean vehicles prior to transport).
- Regularly inspecting equipment prior to, during and immediately following construction in areas found to support Purple Loosestrife to ensure that vegetative matter is not transported from one construction area to another.

Species at Risk

For federal impact assessments, the *Species at Risk Act* ss. 79(1) states that, "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", and, SARA ss.79(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".

For provincial/territorial environmental assessment processes, ECCC-CWS recommends a similar approach be undertaken. Measures should be:

- 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 SARA regarding protection of individuals, residences, and critical habitat of Extirpated, Endangered, or Threatened species.

For species which are not 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 the environmental assessment as though they were listed under SARA.

The provincial department responsible for SAR be contacted for technical expertise on species at risk under their responsibility (e.g. bats, reptiles, amphibians, land-mammals, insects, plants, lichen, and birds not protected by the MBCA, such as raptors).

Wetlands

Federal Policy on Wetland Conservation in Canada

The FPWC was introduced “to promote the conservation of Canada’s wetlands to sustain their ecological and socio-economic functions, now and in the future”. The policy recognizes the importance of wetlands to the environment, the economy and human health, and promotes a goal of **No Net Loss of Wetland Function** as a result of the Government of Canada (GoC) exercising a duty, function, or power. The Government of Canada (GOC) requires all agents of the Crown to consider the goals and objectives of the *Federal Policy on Wetland Conservation* (FPWC) while undertaking their duties (e.g. issuing permit, authorization - making a decision, providing federal funding). A copy of the FPWC can be found at: <http://publications.gc.ca/site/eng/9.686114/publication.html>.

The FPWC identifies the importance of planning, siting and designing a project in a manner that accommodates a consideration of mitigation options in a hierarchical sequence – avoidance, minimization, and as a last resort, compensation (e.g. conservation allowances).

In support of the FPWC, ECCC-CWS recommends the following:

- Developments on wetlands should be avoided;
- Where development does occur in the vicinity of wetlands, a minimum vegetation buffer zone of 30 metres should be maintained around existing wetlands areas;
- Hydrological function of the wetland should be maintained;
- Runoff from development should be directed away from wetlands;
- The use of a 30 metre buffer from the high water mark of any water body (1:100 Flood Zone) in order to maintain movement corridors for migratory birds. Please see <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html>.

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>

ACCIDENTS AND MALFUNCTIONS

Hazardous materials (e.g. fuels, lubricants, hydraulic oil) and wastes (e.g. waste oil) should be managed so as to minimize the risk of chronic and/or accidental releases. For example, the proponent should encourage contractors and staff to undertake refueling and maintenance activities on level terrain, at a suitable distance from environmentally sensitive areas including watercourses, and on a prepared impermeable surface with a collection system.

The proponent is encouraged to prepare contingency plans that reflect a consideration of potential accidents and malfunctions and that take into account site-specific conditions and sensitivities. The Canadian Standards Association publication, *Emergency Preparedness and Response*, CAN/CSA-Z731-03, reaffirmed 2014), is a useful reference.

All spills or leaks, such as those from machinery or storage tanks, should be promptly contained and cleaned up (sorbents and booms should be available for quick containment and recovery), and reported to the 24-hour environmental emergencies reporting system (Maritime Provinces 1-800-565-1633)

If you have any questions, please direct any further correspondence to ECCC's environmental assessment window for coordination at: FCR_Tracker@ec.gc.ca.

Suzanne Wade

Environmental Assessment Analyst, Environmental Stewardship Branch
Environment and Climate Change Canada/Government of Canada
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July 19th, 2023

F. Helen MacPhail
Environmental Assessment Officer
Environmental Assessment Branch
Nova Scotia Environment and Climate Change
1903 Barrington Street, Suite 2085
Halifax, N.S., B3J 2P8
Email: Helen.MacPhail@novascotia.ca

RE: Consultation with the Mi'kmaq of Nova Scotia on the Middle River Pit Expansion Project, Victoria County.

Ms. MacPhail,

I write in response to your letter dated June 23, 2023, requesting consultation under the *Terms of Reference for a Mi'kmaq-Nova Scotia-Canada Consultation Process* (ToR) as ratified on August 31, 2010, on the above noted project. We wish to proceed with consultation.

EA Registration Document

3.3 Scope of the Environment Assessment

The Middle River Pit Expansion Project Environmental Assessment Registration Document (EARD) states, "...Mi'kmaw engagement and field reconnaissance to identify, document, interpret and make management recommendations for potential cultural resources within the proposed impact area."

However, it is unclear whether a Mi'kmaw Ecological Knowledge Study (MEKS) has been conducted, or what vegetation may have been documented. Further, without a flora and fauna inventory, we are unable to determine to what extent the proposed expansion will have to Mi'kmaq rights. If a MEKS has been completed, please provide for our review. If not, a MEKS is requested to be completed.

A desktop study revealed that within the study area as noted in, *Figure 2. Site Location and Adjacent Land Use of the Middle River Pit Expansion Project Environmental Assessment Registration Document*, there is a high-risk non-mobile site. Due to the sensitivity of this site, we are requesting no less than a 100-meter buffer be implemented from the proposed expansion boundary to Makenzie Pond.

4. Public Consultation and Stakeholder Engagement

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

6.2.4 Recreational, Commercial and Mi'kmaq Fishing

Any impacts to fish and fish habitat are impacts on Mi'kmaq rights, even if they are expected to be low. Please provide the Surface Monitoring Plan for our review and comment to ensure mitigation efforts are sufficient to protect these rights.

6.2.5 Archaeological/Cultural/Historical

The Kwilmu'kw Maw-Klusuaqn (KMK) Archaeology Research Division (ARD) has reviewed an Archaeological Resource Impact Assessment (ARIA), A2021NS046, for the Middle River Expansion Project located in Victoria County. The ARIA was conducted by Cultural Resource Management Group Limited (CRM Group Ltd.) and included a background study and a pedestrian survey. There was no subsurface testing. No areas of high potential were identified in the ARIA and the Study Area was recommended to "be cleared of any requirement for future archaeological investigation" (CRM Group ARIA 2021, 31).

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

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

6.3.1 Air Quality, Noise and Light

What monitoring is planned for dust particulate? What are the proposed monitoring locations off site for noise, dust and light? Have there been exceedances of the current limits outlined in the Industrial Approval?

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

It is worth noting that increased disturbance from additional traffic and lighting will impact Mi'kmaq harvesters' ability to hunt.

6.3.4 Freshwater Aquatic Environments and Wetlands

With the project boundary approaching adjacent wetlands, it is recommended that a Wetland Monitoring and Offsetting plan be developed. The Mi'kmaq expect to be involved in the development of the plan through review and comment.

6.3.5 Terrestrial Habitats & 6.3.9 Species at Risk

States that, "No unique habitats were identified at the site. Suspected sink holes were observed but did not support unique plant communities. Dust from operations may affect adjacent forest communities although the impacts are likely to be negligible."

However, 6.3.9 Species at Risk (SAR) has identified species at risk within the study area; and while some species at risk were noted within the project area with mitigative efforts in place i.e., *Collema leptaleum*, others, like the American Marten and Canada Lynx, were documented with no noted conservation efforts or indication of whether the study area had been identified as core habitat. Hence, we are requiring clarification on this matter.

We expect that SAR permitting will be required for the proposed work and will require sufficient time to review and provide comments.

6.3.7 Fish and Fish Habitat

Due the sensitivity and increased biodiversity within riparian zones we require larger than the current forestry buffer zones for water course. For fish bearing streams and major watercourses, we continue to ask for a 50-to-100-meter watercourse buffer to preserve habitat and protect cultural values that may be present on site, depending on the value present.

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

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

Finally, the Mi'kmaq 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 Negotiation Office

c.c.:

Kwilmu'kw Maw-Klusuaqn
Kendra Gorveatt, Nova Scotia Office of L'nu Affairs
Malcom MacNeil, Nova Scotia Environment and Climate Change
Ellis Greig, Nova Scotia Environment and Climate Change



Maritime Aboriginal Peoples Council



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

Forums

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

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

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

Governmental APRO Councils

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

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

New Brunswick Aboriginal
Peoples Council
320 St. Mary's Street
Fredericton, New Brunswick
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Tel: 506-458-8422
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Email: chief@nbapc.org

Native Council of
Prince Edward Island
6 F.J. McAuley Court
Charlottetown
Prince Edward Island
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Tel: 902-892-5314
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Email: chief@ncpei.com

July 28th, 2023

Dexter Construction
Attn: Rhett Thompson
Box 48100
Bedford, NS
B4A 3Z2

RE: Middle River Pit Expansion

Dear Rhett Thompson,

On behalf of the Native Council of Nova Scotia (NCNS), and the Maritime Aboriginal Aquatic Resources Secretariate (MAARS) we would like to thank you for taking the time to discuss the Middle River Pit Expansion Environmental Assessment Registration on June 23rd, 2023. We would like to take this opportunity to summarize the discussion to ensure they are captured for the Environmental Assessment review. Some of the key points raised during our meeting included the reclamation process, lifespan and operational cycle of the pit, and the site inspection schedule.

Firstly, we discussed the reclamation process which was of particular interest to MAARS. Dexter mentioned that the site will likely be seeded throughout the progressive reclamation of this site; however, MAARS noted that, rather than hydroseed with highway mix, opting to plant site-specific species to revegetate this area to a more natural state would be preferable. This could also include the planting of at-risk tree species to promote growth of these species if the site is appropriate.

Secondly, the lifespan and operational cycle were of interest given the significant area increase for this pit. Dexter explained that this site is expected to be active for approximately another 30 to 40 years, with active operations on the site once every three to four years. During operations, the site is expected to run 12 hours per day for six days per week, on a project-to-project basis.

Lastly, of interest was the frequency of site inspections of these pits given that they may sit dormant for several years. Concerns around the potential for erosion of piles left behind, as well as potential for use of the sites by endangered species were raised. The inspection frequency

was noted to be at least once per year, with active sites being inspected more frequently for the above-described issues.

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

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

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

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

We appreciate the opportunity to engage with Dexter Construction to discuss the Middle River Pit Expansion project. Now that we have made this important connection, we look forward to further dialogue as we continue to advocate for the rights of Off-Reserve Status and non-Status, Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples of Nova Scotia.

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

Habitat Impact Advisor, MAARS

Executive Director, MAARS & MAPC Projects

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