

**Colpton Quarry Expansion Project
Water Balance Assessment
Post-Expansion Catchment Areas**

Sketch Date: July 28, 2023

- | | | | |
|------------------------------------|-------------------------|------------------------|------------------------|
| NSE Approved Permit Area (3.86 ha) | Topo Lines (1:10,000) | Catchment A (691.8 ha) | Catchment C (235.3 ha) |
| Proposed Expansion Area (42.0 ha) | Watercourses (1:10,000) | Catchment B (161.4 ha) | Catchment D (32.8 ha) |

Legend

Colpton Quarry Water Balance Factors

Catchment	Development Stage	Scenario	Total Catchment Area m ²	Total Quarry Area in Catchment m ²	Land Area ¹		Topography ²			Cover				Soils			Total Infiltration Factor
					Open Water Bodies & Wetlands m ²	Land Area m ²	Quarry (flat land) m ²	Other Slope (hilly land) m ²	Area - Ratio Infiltration Factor	Quarry m ²	Roads (impervious) m ²	Forested (woodland) m ²	Area - Ratio Infiltration Factor	Quarry m ²	Sandy Loam Soil m ²	Area - Ratio Infiltration Factor	
Catchment B	Existing Conditons	Impervious Quarry Floor	1,398,000	40,000	122,000	1,276,000	40,000	1,358,000	0.11	40,000	0	1,358,000	0.19	40,000	1,358,000	0.15	0.446
Catchment B	Quarry Mid-Development	Impervious Quarry Floor	1,503,000	219,000	122,000	1,381,000	219,000	1,284,000	0.13	219,000	0	1,284,000	0.17	219,000	1,284,000	0.13	0.428
Catchment B	Quarry Full Development	Impervious Quarry Floor	1,614,000	420,000	122,000	1,492,000	420,000	1,194,000	0.15	420,000	0	1,194,000	0.15	420,000	1,194,000	0.11	0.411
Catchment B	Existing Conditons	Pervious Quarry Floor	1,398,000	40,000	122,000	1,276,000	40,000	1,358,000	0.11	40,000	0	1,358,000	0.19	40,000	1,358,000	0.15	0.450
Catchment B	Quarry Mid-Development	Pervious Quarry Floor	1,503,000	214,000	122,000	1,381,000	214,000	1,289,000	0.13	214,000	0	1,289,000	0.17	214,000	1,289,000	0.15	0.450
Catchment B	Quarry Full Development	Pervious Quarry Floor	1,614,000	420,000	122,000	1,492,000	420,000	1,194,000	0.15	420,000	0	1,194,000	0.15	420,000	1,194,000	0.15	0.450
Catchment B	Quarry Reclamation	Pervious Quarry Floor	1,614,000	420,000	122,000	1,492,000	420,000	1,194,000	0.15	420,000	0	1,194,000	0.15	420,000	1,194,000	0.15	0.450
Catchment D	Existing Conditons		399,000	0	32,000	367,000	0	399,000	0.10	0	0	399,000	0.20	0	399,000	0.15	0.450
Catchment D	Quarry Full Development		328,000	0	32,000	296,000	0	328,000	0.10	0	0	328,000	0.20	0	328,000	0.15	0.450
Catchment D	Quarry Reclamation		328,000	0	32,000	296,000	0	328,000	0.10	0	0	328,000	0.20	0	328,000	0.15	0.450

Infiltration Factors³

<u>Topography</u>	
Flat Land (average slope <0.6 m/km)	0.3
Rolling Land (average slope 2.8 m/km to 3.8 m/km)	0.2
Hilly Land (average slope (28 m/km to 47m/km or 2.8% to 4.7%)	0.1
<u>Soils</u>	
Tight impervious clay	0.1
Sandy Loam Soil	0.15
Medium combinations of clay and loam	0.2
Open sandy loam	0.4
<u>Cover</u>	
Cultivated land	0.1
Partial Woodland	0.15
Woodland	0.2
<u>Impervious</u>	
Roads, etc.	0

Assumptions

Quarry floor slope = flat land
 Forested area = partial woodland due to historic tree harvesting in the area
 Soils = sandy loam soil

¹ Estimated using Google Earth Imagery

² Estimated using provincial 1:10,000 topography data

³ Ontario Ministry of Environment, Conservation and Parks, SWM Planning and Design Manual

APPENDIX G
PUBLIC CONSULTATION DOCUMENTATION

Environmental Assessment Registration Document:
Colpton Quarry Expansion
Colpton, Lunenburg County
Nova Scotia

Colpton Quarry Environmental Assessment - Public, First Nations, and Regulatory Engagement Summary.

First Nations Contact	Description of Engagement	Summary of Engagement
Acadia First Nation Chief Deborah Robinson	July 21, 2023 Engagement Letter – sent via Canada Post	<ul style="list-style-type: none"> Engagement letter, including brief description of project and anticipated timelines, offer to discuss the project, and commitment to send a follow up notification letter prior to EA registration. No response received
	January 9, 2024 Notification Letter – sent via email	<ul style="list-style-type: none"> Notification letter, including EA registration date, copy of draft public notice and publish locations, location of hard and electronic copies available for review, deadline for submission of comments, offer to meet to discuss
Kwilmu'kw Maw-klusuaqn Negotiation Office Ms. Twila Gaudet Director of Consultation Mr. Shawn Taylor Consultation Projects Support Officer	July 21, 2023 Engagement Letter – sent via Canada Post	<ul style="list-style-type: none"> Engagement letter, including brief description of project and anticipated timelines, offer to discuss the project, and commitment to send a follow up notification letter prior to EA registration. No response received
	October 31, 2023 Meeting (with Shawn Taylor)	<ul style="list-style-type: none"> Meeting to discuss the Colpton Quarry expansion project. Discussed the scope of existing operations and the proposed expansion. Reviewed select constraint mapping (LiDAR DEM, wetlands and watercourses, and species of interest) and drone photos. Discussed the proximity of the quarry to mainland moose habitat. Following the meeting Dexter forwarded a sketch showing mainland moose habitat in relation to the quarry. Discussed the proximity of the quarry to adjacent wetlands, potential reclamation opportunities, and future wetland monitoring. Discussed geology, potential for acid generating rock, and efforts to sample and assess rock samples for ARD. KMK noted that an MEKS will likely be requested during the EA review process. Confirmed that Dexter will follow up with a Notification Letter when environmental studies have been complete and EA registration date has been confirmed.
	January 9, 2024 Notification Letter – sent via email	<ul style="list-style-type: none"> Notification letter, including EA registration date, copy of draft public notice and publish locations, location of hard and electronic copies available for review, deadline for submission of comments, offer to meet to discuss
Native Council of Nova Scotia Chief Lorraine Augustine Ms. Vanessa Mitchell Executive Director, MAARS & Projects Ms. Christine Davis Habitat Impact Advisor	June 23, 2023 Meeting (with Vanessa Mitchell and Christina Davis)	<ul style="list-style-type: none"> Meeting to discuss on-going pit and quarry expansion projects. High level discussion of typical Industrial Approval requirements and the requirement for an EA to expand the site. Explained the scope of existing operations and the scope of proposed expansion. Confirmed that Dexter will follow up with a Notification Letter when environmental studies have been complete and EA registration date has been confirmed.
	July 21, 2023 Engagement Letter – sent via Canada Post	<ul style="list-style-type: none"> Engagement letter, including brief description of project and anticipated timelines, offer to discuss the project, and commitment to send a follow up notification letter prior to EA registration. No response received
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First Nations Contact	Description of Engagement	Summary of Engagement
Office of L'Nu Affairs Ms. Gillian Fielding Consultation Advisor	July 21, 2023 Engagement Letter – sent via Canada Post	<ul style="list-style-type: none"> Engagement letter, including brief description of project and anticipated timelines, offer to discuss the project, and commitment to send a follow up notification letter prior to EA registration.
	July 21, 2023 Engagement Letter – sent via email	<ul style="list-style-type: none"> Forwarded a copy of early engagement letter via email.
	January 9, 2024 Notification Letter – sent via email	<ul style="list-style-type: none"> Notification letter, including EA registration date, copy of draft public notice and publish locations, location of hard and electronic copies available for review, deadline for submission of comments, offer to meet to discuss



July 21, 2023

Native Council of Nova Scotia
129 Truro Heights Road
Truro, Nova Scotia
B6L 1X2

Attn: Chief Lorraine Augustine

Re: Colpton Quarry Expansion Project, Lunenburg County

Dexter Construction Company Limited (Dexter) operates many aggregate quarries around Nova Scotia with the purpose of supplying construction aggregates for local projects as well as Nova Scotia Department of Public Works (NSDPW) projects. Meaningful engagement with the Indigenous community is important as quarries are developed and expanded. By way of this letter we would like to notify you of a quarry expansion project that we are currently working on.

Dexter is proposing to expand the existing Colpton Quarry, located in Lunenburg County, Nova Scotia. We would like to involve the Native Council of Nova Scotia in the planning process so that we can better understand potential impacts and adequately identify and address Indigenous concerns.

For your reference, attached is a Project Summary, including a map identifying the Project location in relation to nearby First Nation communities. Dexter plans to register the Colpton Quarry Expansion Project for Environmental Assessment in the fall of 2023. We will follow up with a letter in the weeks leading up to Project registration to confirm the registration timeline.

We would appreciate the opportunity to meet with you and share details about the Project, discuss typical quarry operations, and learn about potential Indigenous concerns. If you are interested in contributing to the Project, please contact me at your convenience to schedule a meeting.

Sincerely,

DEXTER CONSTRUCTION COMPANY LIMITED

Gary Rudolph, P.Eng
Director of Aggregates

grudolph@dexter.ca

902-832-6346



COLPTON QUARRY EXPANSION PROJECT

KEY DETAILS

Existing NSE Industrial Approval: 2010-074832-01

Current NSE Approved Quarry Footprint: 3.87 hectares

Anticipated Environmental Assessment Registration Date: Fall 2023

EA Study Area: 77± hectares (proposed quarry expansion to be fully within the EA Study Area)

Operating Schedule: Seasonal, when Dexter has a local project. No change in frequency or scope from past use.

PROJECT OVERVIEW

Dexter Construction Company Limited (Dexter) operates an existing Nova Scotia Environment and Climate Change (NSECC) approved rock quarry at 7275 Highway 325, Colpton, Lunenburg County, Nova Scotia. The *Colpton Quarry* has been an NSE approved quarry for approximately 12-years and serves as an important source of construction aggregate for local and Nova Scotia Department of Public Works Projects (NSDPW) in the area.

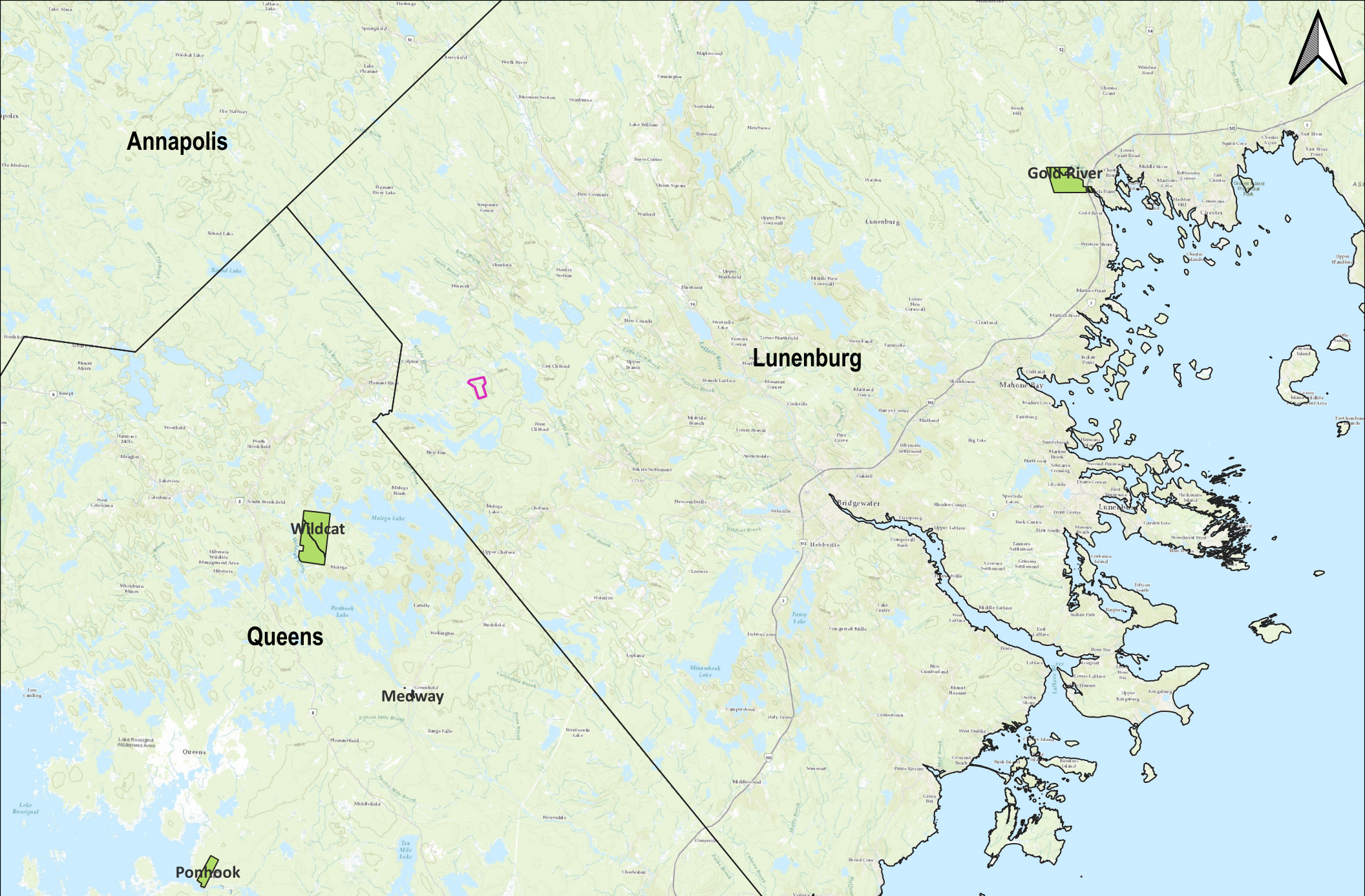
The Quarry is seasonally operated on an as needed basis to support local construction projects in the area (primarily highway work). When Dexter has a project in the area requiring use of the Quarry, site activities will typically occur over a 4-6 week period. All equipment used at the site is portable in nature and is mobilized to the site when required. At the conclusion of site activities all equipment is removed from the quarry.

Common quarry activities include clearing of vegetation and grubbing of overburden, drilling and blasting of exposed bedrock, crushing and stockpiling of various aggregate products, and loading and hauling of finished aggregate products. Depending on the scope of a project, a NSECC approved portable asphalt plant may be temporarily set up onsite.

If Dexter is unsuccessful in securing work in the area during the construction season, then the Quarry typically remains inactive. It is not uncommon for the site to be inactive for several years in between projects. During periods of inactivity the site is managed as a typical rural Nova Scotia quarry, with periodic inspections to verify the integrity of safety and environmental controls.

Historic development of the site has resulted in the depletion of the aggregate deposit within the NSECC approved permit area. Dexter is proposing to expand the quarry operating footprint to increase available aggregate material and ensure that a long-term aggregate supply is available to support local project and infrastructure needs in the future. Other than an increase in the total footprint of the site, site activities are not planned to increase in scope or frequency from past use.


Environmental studies associated with the proposed quarry expansion project have been undertaken by environmental consultants and include a review of publicly available data sources, a Biophysical and Socioeconomic Assessment (including botany surveys, bird surveys, wetland surveys, lichen surveys, wildlife surveys, water quality assessment, fish habitat assessment), and an Archaeological Resource Impact Assessment (ARIA). Dexter intends to register the project for Environmental Assessment in Fall 2023.




**Colton Quarry Expansion Project
First Nation Reserve Lands**

Sketch Date: July 20, 2023

Legend

 Study Area for Proposed Quarry Expansion Project

 Acadia First Nation



0 7.5 15 km





July 21, 2023

Acadia First Nation
10526 Highway #3
Yarmouth, Nova Scotia
B5A 5J7

Attn: Chief Deborah Robinson

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Dexter is proposing to expand the existing Colpton Quarry, located in Lunenburg County, Nova Scotia. The Wildcat Reserve is located approximately 11 km away and is the nearest Mi'kmaq community to the Project. We would like to involve Acadia First Nation in the planning process so that we can better understand potential impacts and adequately identify and address Indigenous concerns.

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902-832-6346

Copy: Twila Gaudet, Director of Consultation, Kwiłmu'kw Maw-klusiaqn Negotiation Office
Gillian Fielding, Consultation Advisor, Office of L'Nu Affairs



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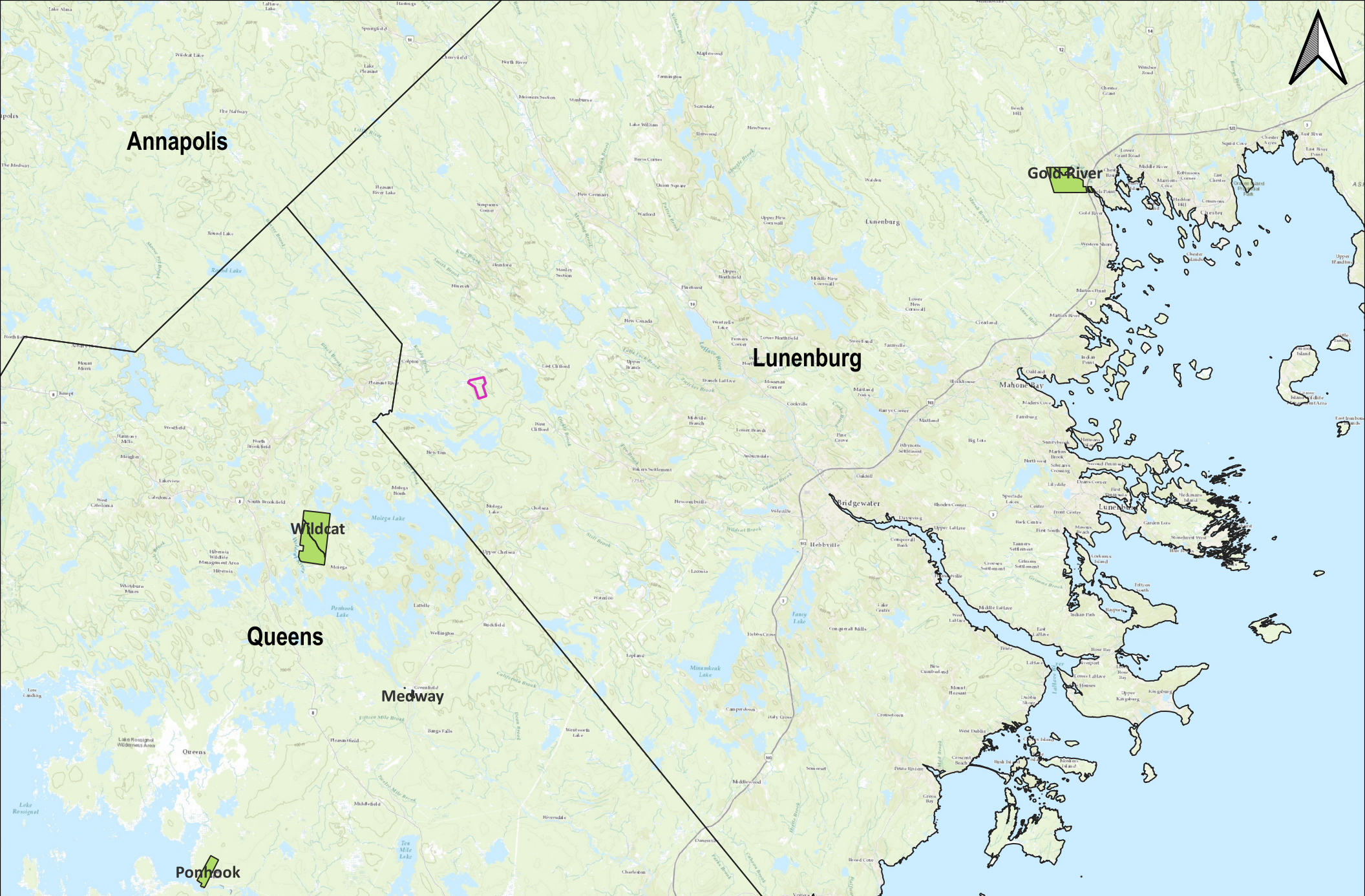
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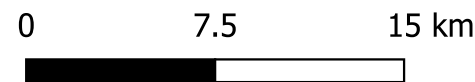
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First Nation Reserve Lands**

Sketch Date: July 20, 2023

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 Acadia First Nation



January 9, 2024

Native Council of Nova Scotia
129 Truro Heights Road
Truro, NS
B2N 5N2

Attn: Chief Lorraine Augustine

**Re: Colpton Quarry Expansion Project, Queens County
Class 1 Undertaking Under Section 9(1) of the Environmental Assessment Regulations**

Further to our letter of July 21, 2023 regarding the proposed Colpton Quarry Expansion Project (the Project), this letter is to inform you that Dexter Construction Company Limited (Dexter) will be registering the Project for Environmental Assessment (EA) on January 24, 2024. A Public Notice accompanying the registration will appear in the Chronicle Herald and South Shore Breaker on the registration date (a copy of the draft Notice is attached). Hard copies of the EA Registration Document will be available for review at the New Germany Canada Post Office, South Brookfield Canada Post, and the Nova Scotia Environment and Climate Change (NSECC) Regional Office in Bridgewater, Nova Scotia. An electronic copy of the document will be available through the NSECC EA website (<https://www.novascotia.ca/nse/ea/>).

Any questions or comments regarding the Project can be forwarded to Dexter or the NSECC EA Branch (EA@novascotia.ca), until February 23, 2024.

We would be pleased to meet with you to share additional details about the Project. If you are interested in discussing this Project please contact us at your convenience.

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Director of Aggregates

grudolph@dexter.ca

902-832-6346

Copy: Twila Gaudet, Director of Consultation, KMKNO
Gillian Fielding, Consultation Advisor, Office of L'Nu Affairs

NOTICE

Registration of Undertaking for Environmental Assessment ENVIRONMENT ACT

This is to advise that on January 24, 2024, MUNICIPAL ENTERPRISES LIMITED (MEL) registered the COLPTON QUARRY EXPANSION PROJECT for environmental assessment, in accordance with Part IV of the *Environment Act*.

The purpose of the proposed undertaking is to expand the existing less than 4-hectare quarry located at 7275 Highway 325, Colpton, Lunenburg County, Nova Scotia. The existing quarry has been in operation for approximately 15 years. The land associated with the expanded quarry will occupy a maximum of 42.0 hectares, which includes the existing quarry footprint. The expanded quarry will support continued extraction and production of quality aggregate products used primarily in the road construction industry in Lunenburg County. It is expected that the continued use of the quarry will be identical, or very similar, to historic use at the site, including occasional drilling and blasting, and temporary operation of a portable rock crusher to process, stockpile, and transport aggregate materials when MEL has work in the area. The project is anticipated to commence during the 2024 construction season with production volumes of approximately 50,000 tonnes per year during years in which the quarry is active. A project life of 40-years is expected.

Copies of the environmental assessment registration information may be reviewed at the following locations:

- Canada Post, 5263 NS Trunk 10, New Germany, NS
- Canada Post, 6995 NS-208, South Brookfield, NS
- Nova Scotia Department of Environment and Climate Change, Regional Office: 81 Logan Road, Bridgewater, NS
- NSECC EA website (when available) <https://www.novascotia.ca/nse/ea/>

The public is invited to submit written comments to:

Environmental Assessment Branch,
Nova Scotia Environment and Climate Change
P.O. Box 442, Halifax, Nova Scotia B3J 2P8

on or before February 23, 2024 or contact the Department at 902-424-3600, 902-424-6925 (Fax), or e-mail at EA@novascotia.ca.

All comments received from the public consultation will be posted on the Department's website for public viewing. In the case of an individual, the address, email and contact information will be removed before being placed on the website. By submitting your comments, you are consenting to the posting of your comments on the Department's website.