

C & C ENTERPRISES INC. CAPE RAY QUARRY PERMIT

Environmental Assessment Registration Document

Submitted by:
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TABLE OF CONTENTS

	Page
1.0 NAME OF UNDERTAKING	1
2.0 PROPONENT	1
2.1 Name of Corporate Body	1
2.2 Address	1
2.3 Chief Executive Officer	1
2.4 Principal Contact Person	1
3.0 THE UNDERTAKING	2
3.1 Nature of the Undertaking	2
3.2 Purpose/Rationale/Need for the Undertaking	2
4.0 DESCRIPTION OF THE UNDERTAKING	2
4.1 Geographic Location	2
4.2 Physical Features	2
4.2.1 Project Site Description	2
4.2.2 Existing Biophysical Environment	8
4.3 Construction and Operation	8
4.3.1 Site Access	8
4.3.2 Site Clearing	9
4.3.3 Quarry Development and Operation	9
4.4 Potential Sources of Pollution During Construction and Operation	9
4.5 Potential Resource Conflicts During Construction and Operation	10
4.6 Occupation.....	11
4.7 Reclamation and Closure	12
4.0 APPROVAL OF THE UNDERTAKING	12
5.0 SCHEDULE	14
6.0 FUNDING	14
7.0 LIMITATIONS	14

LIST OF FIGURES

	Page
Figure 1: Project Location Map	3
Figure 2: Detailed Project Location Map	4
Figure 3: Quarry Permit Location Map 1	5
Figure 4: Quarry Permit Location Map 2	6
Figure 5: Human Receptor Location Map	7

LIST OF TABLES

	Page
Table 1: Active Quarry Permits in the Immediate Area of the Project	8
Table 2: Referral Agencies, Responses and Possible Permits Required	13

1.0 NAME OF UNDERTAKING

Cape Ray Quarry

- Quarry Permit Identification
 - File 711:12675 covering 6.5 ha

2.0 PROPONENT

2.1 Name of Corporate Body

C & C Enterprises Inc.

2.2 Address

25 Grand Bay West Rd
Channel – Port aux Basques, NL
A0M 1C0

2.3 Chief Executive Officer

Mr. Corey Allen
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2.4 Principal Contact Person

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3.0 THE UNDERTAKING

3.1 Nature of the Undertaking

The proposed project is a new 6.5 ha quarry permit (File 711:12675) that will be developed for its sand and gravel resources. It is located in southwestern Newfoundland near the Town of Channel – Port aux Basques.

3.2 Purpose/Rationale/Requirement for the Undertaking

The main purpose and rationale for the proposed 6.5 ha quarry area is to develop new sand and gravel resources to use as borrow (backfill material) for the public and private sectors in Channel – Port aux Basques and the surrounding communities.

4.0 DESCRIPTION OF THE UNDERTAKING

4.1 Geographic Location

The proposed project's location is approximately 12.3 km due northwest of the Town of Channel-Port aux Basques, and 3.8 km northeast of the Town of Cape Ray on NTS Map Sheet 11O/11 (**Figures 1 and 2**). The project is not located inside any municipal boundaries, but it is located partly within the Billys Pond watershed area, a potential future watershed area for the Town of Cape Ray. It is also located approximately 300 m away from the Trans-Canada Highway (TCH), which based on the TCH (Channel – Port aux Basques) Protected Road Zoning Plan is within a rural conservation zone (**Figures 3 and 4**).

The closest permanent human receptors are private property/residences located in the Town of Cape Ray, the nearest of which is located approximately 2.9 km west of the project. The JT Cheeseman Campground/Provincial Park is located approximately 2.8 km southwest of the project, and an abandoned government landfill is located approximately 450 m south of the project (**Figure 5**).

4.2 Physical Features

4.2.1 Project Site Description

The quarry permit area is located on a slight topographical high and partly in an area that has been historically excavated for its aggregate resources, as presented on **Figure 4**. The quarry is bound to the North, South, East, and West by existing quarry permits (see **Table 1**). The primary physical feature of this project will be the quarry itself.

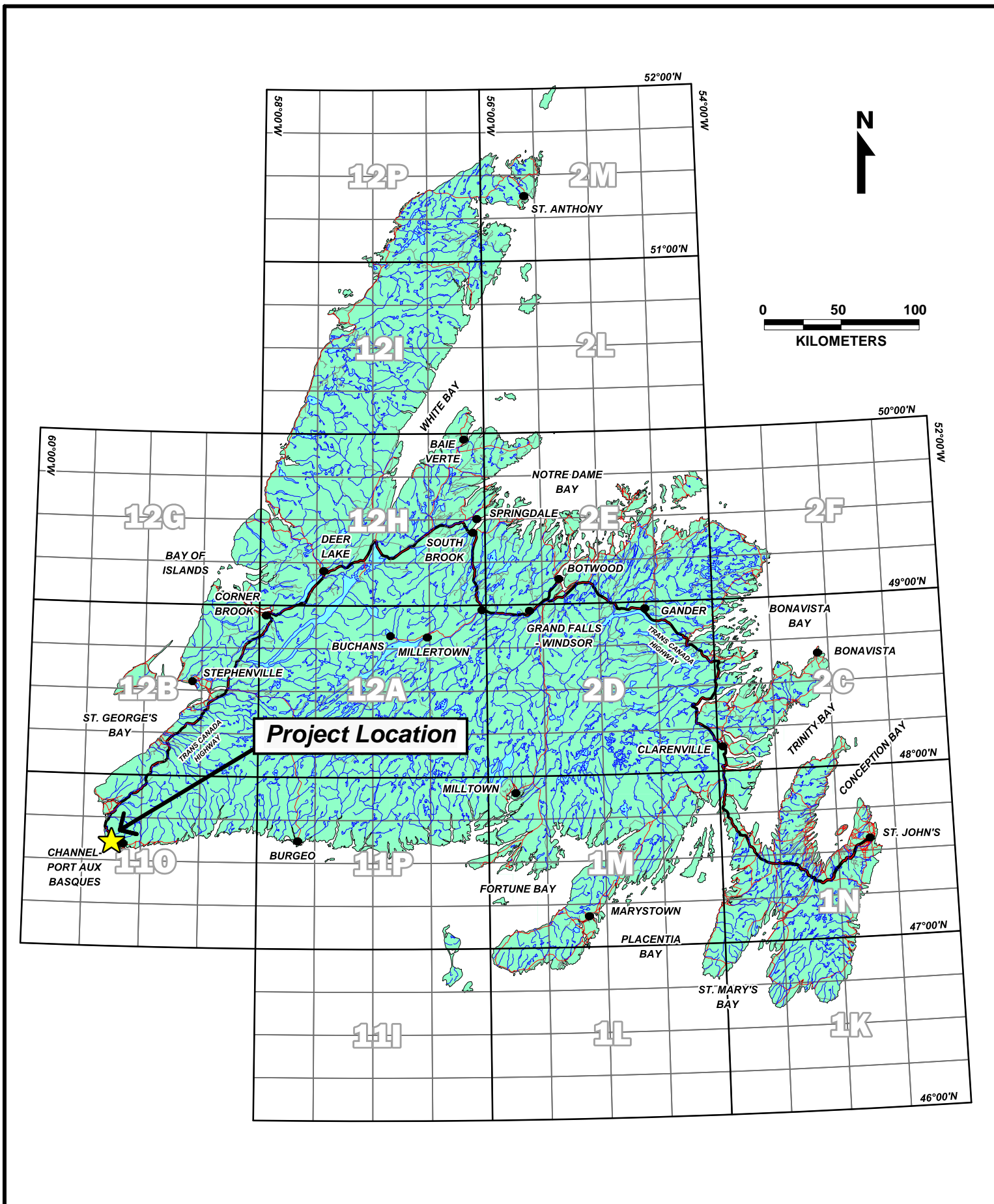


FIGURE 1: PROJECT LOCATION MAP (N.T.S. 110/11)

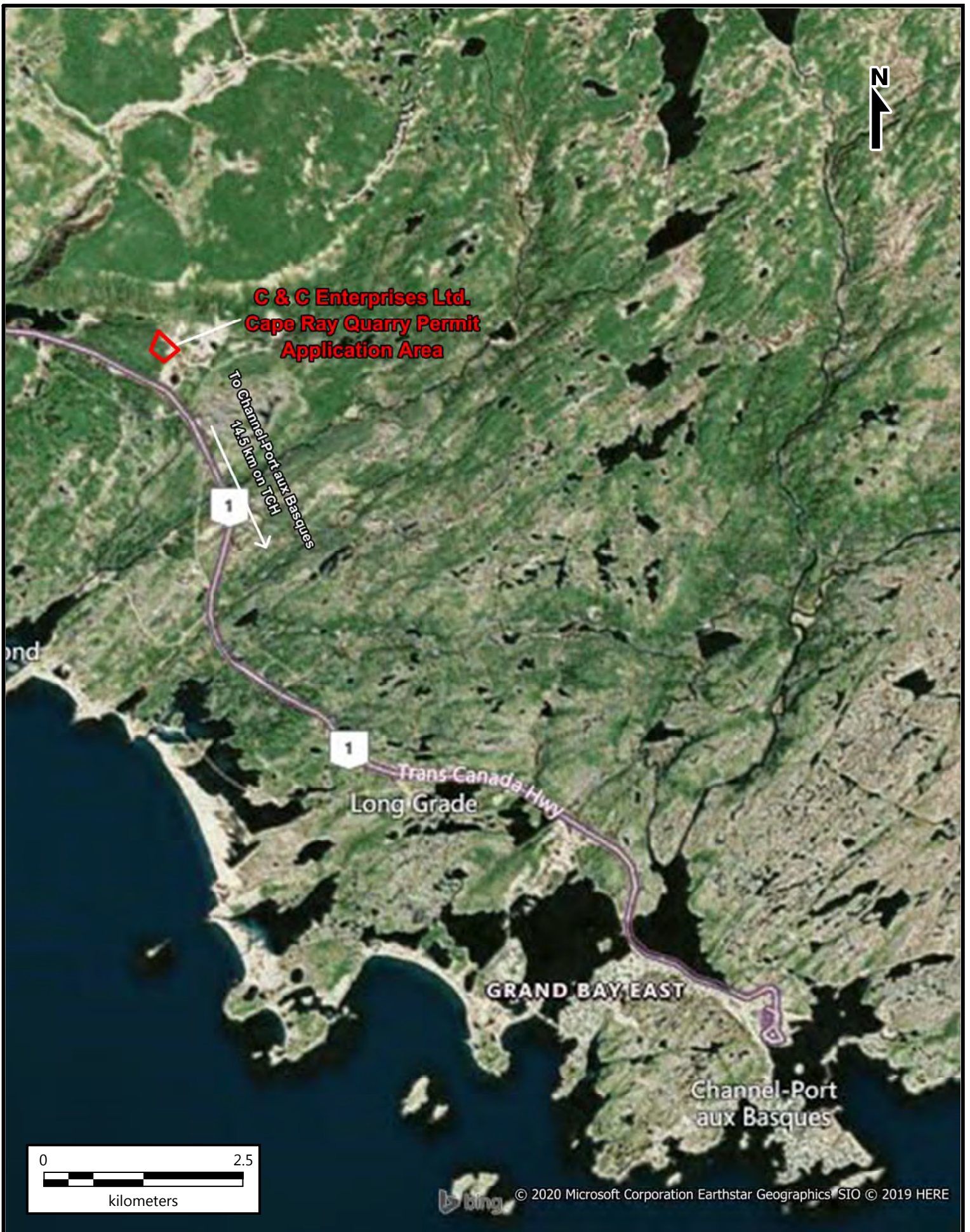


FIGURE 2: DETAILED PROJECT LOCATION MAP



FIGURE 3: QUARRY PERMIT LOCATION MAP 1

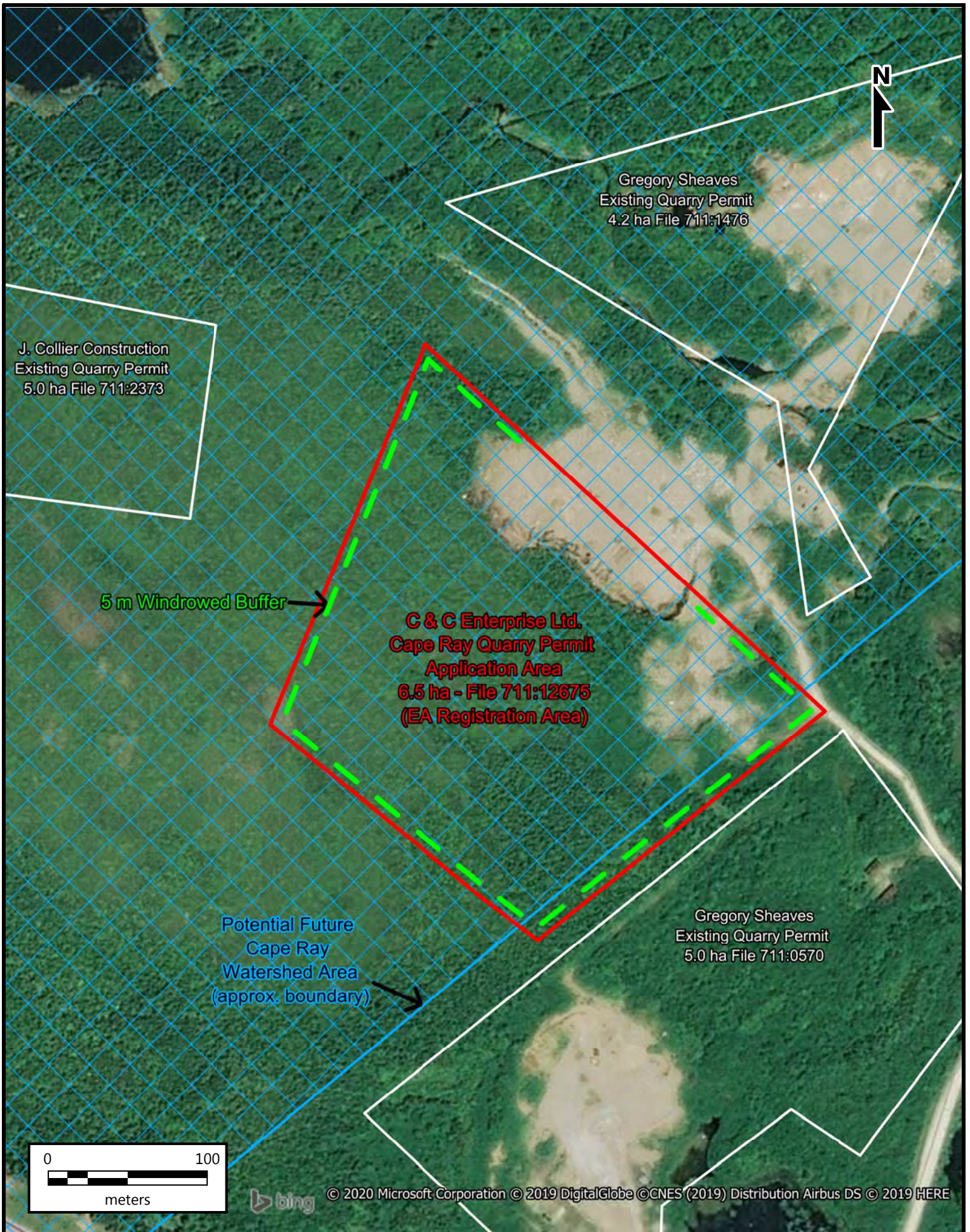


FIGURE 4: QUARRY PERMIT LOCATION MAP 2



FIGURE 5: HUMAN RECEPTOR LOCATION MAP

Table 1: Active Quarry Permits in the Immediate Area of the Project

File #	Permit ID	Permit Type	Comapny	Size/Area (ha)
140431	711:2373	Quarry Permit	J. Collier Construction	5.0
142052	711:1476	Quarry Permit	Gregory Sheaves	4.2
142053	711:0570	Quarry Permit	Gregory Sheaves	5.0
142047	711:0525	Quarry Permit	Clifford Sheaves	10.0

4.2.2 Existing Biophysical Environment

The proposed quarry site is located at a juncture between the *Maritimes Barrens Ecoregion* and the *Long-Range Barrens*. The climate in this region is characterized by cool summers with frequent fog and strong winds. Precipitation ranges from 1200 mm to 1600 mm annually. Vegetation is characterized by extensive barrens and scarce forested areas dependent on elevation, with higher elevations being rockier with less tree cover. Where tree cover is present it is dominated by balsam fir, tamarack and black spruce, with sporadic yellow birch present. Elevations in the vicinity of the project area generally ranges from 110 m to 130 m above sea level. Drainage in the overall Cape Ray quarry area containing the 4 existing quarry permits occurs in 2 different directions. Due to the topographical high drainage is both towards the West, Billys Pond located 1.015 km away, and to the East towards the Little Barachois River located 1.720 km away.

4.3 Construction and Operation

The construction aspect of this project will involve limited activity as the permit area is located in an area that has been historically quarried and where existing access is already present. The site was also previously partially cleared of trees allowing for initial excavation of some resources. Grubbing will be windrowed before proceeding with the removal of resources for future reclamation of the site. The access road to the immediate area of the quarry will also be secured with a locked gate to prevent unauthorized access.

4.3.1 Site Access

Access to the site is gained via an existing public gravel road. This road is also used to access other quarries in the vicinity. Its entrance is located on the TCH approximately 2.7 km east of the intersection of the TCH and Highway 408 to Cape Ray. As noted above a locked gate will restrict entry and prevent potential safety issues and illegal dumping.

4.3.2 Site Clearing

As mentioned, the site was previously partially cleared of trees, however shrubs and grubbing that remain in the area will be removed. The need for additional clearing of trees will arise in the future, in which case merchantable timber will be cleared by manpower and handheld chainsaws and will be harvested under a cutting permit issued by the Department of Fisheries and Land Resources. The wood will be stacked in 6 to 8 foot lengths and subsequently removed from site to be used as firewood. Surficial soils, subsoils and grubbing will be stripped and windrowed to the permit boundary before excavation of resources takes place. Any significant topsoil will be stockpiled separately and used for reclamation at a later date. This windrowed material will be used to construct perimeter berms as required and later used for rehabilitation of the site.

4.3.3 Quarry Development and Operation

Development of the quarry will expand from the existing quarry face in the center of the northeastern border of the quarry permit and towards the southwest. Annual production from the site is anticipated to be approximately 10,000 tonnes per year dictated by demand. Development activities to be undertaken will consist of the removal and stockpiling of organics to the perimeter of the site. Operational activities will consist of pit run removal and stockpiling of aggregate material within the quarry, this will be performed using heavy equipment such as excavators, front end loaders and dump trucks. Processing activities will include crushing and screening; washing of the material will not take place as the silt content of the resources is negligible and not of concern for the intended end use. Typical quarrying activities will take place intermittently between April/May and November/December of each year but will ultimately be dictated by the timing of seasonal spring melt and the onset of winter conditions.

4.4 Potential Sources of Pollution During Construction and Operation

Equipment such as front-end loaders, excavators, dump trucks, screeners and crushers will be used during the operational phases of the quarry and represent potential sources of pollution. This equipment and related activities represents a potential source of noise disturbance, exhaust emissions, the potential release of petroleum hydrocarbons, dust, domestic waste and general refuse.

Air pollution will be controlled by having all equipment on site fitted with the appropriate emission-control equipment. Dust will be kept at a minimum by the watering of roads as required and not crushing aggregates during extended dry periods. Based on the neighboring quarry operators that have similar operational activities, noise levels are not

anticipated to exceed previous maximum levels reached. Workers will have the proper hearing protection and the work site, as noted above, is a controlled work environment.

Domestic waste generated during construction will be collected and disposed of in accordance with the *Environmental Protection Act (2002)*. If needed, portable toilets can be installed within the proposed quarry boundaries. Waste from these will be collected and the facilities will be maintained by an approved sewage service provider.

Fuel will not be stored on site but will be brought in as required by a petroleum product service company. The handling of petroleum products on site will comply with the Storage and Handling of Gasoline and Associated Products Regulations. Complete and regularly checked emergency spill kits will be available on site at all times for containment and cleanup of any hydrocarbon leaks. Any leaks or spills in excess of 70 liters will be reported immediately to the Environmental Emergency Telephone Line and will be cleaned up immediately.

The same mobile equipment will be used for phased site development. The main concern for site clearing would be the creation of dust. The windrowing of organics will occur during damp conditions in small phases. It will typically occur at the end or beginning of each construction season to avoid the drier summer conditions and to have resources accessible for immediate extraction.

4.5 Potential Resource Conflicts During Construction and Operation

Potential resource conflicts during operations could include the use of the area for recreational purposes. Operational activities could also introduce the possibility of erosion and transport of fine-grained particles such as silt and dust produced from the crusher which could have adverse effects on the Billys Pond area. Other aspects to be addressed with this undertaking are related to the visual aspect of the quarry for individuals travelling on the nearby TCH as well as the project's impact on wildlife.

The area is not known to be used for recreational purposes. There are currently no dirt roads or ATV trails inside the permit boundaries and the general area has been historically quarried for several decades. Sediment erosion and control is one of the more significant items to be addressed with any sand/gravel quarrying activity. Although the project is located beyond the required 30 m buffer from any water bodies that appear on the 1:50,000 NTS map sheet, the following design considerations and mitigation measures will be followed to address the aforementioned concerns:

- Within the proposed 6.5 ha area, a 5 m wide buffer of unexcavated material will be kept intact along all boundaries except for part of the northeast boundary where the entrance point of the quarry is located. This will serve as a buffer against sediment runoff. Berms constructed from the windrowed organics will be placed within this buffer (see **Figure 4**).
- The pit floor will be kept lower than the perimeter berms, where present, so as to contain surface water within the quarry site. The quarry floor will not extend to the water table.
- Should water runoff become a problem, erosion and sediment control measures in line with industry best management practices will be utilized. This can include silt fencing, hay bales and erosion control ditches to contain drainage. Site runoff will ultimately be directed towards vegetated areas along shallow ditches with check dams. The check dams and vegetated areas will act as filters for fine particles. As the quarry face progresses and topography drops off towards the southeast, quarry site drainage will be directed away from the Billys Pond area to northwest. Also, the sand/gravel being quarried is permeable in nature allowing for typical site water to filter to the subsurface.
- Written approval has been provided by the Local Service District of Cape Ray approving the project as it is partially located in the future potential Billys Pond watershed area for the Town of Cape Ray
- The location of the project being more than 90 meters away from the TCH highway meets the conditions of the Protected Road Zoning Plan to allow for development. An existing public access road will be utilized for accessing the site; thus, no new road development is required, and all existing access will be left in place at the end of operations. The existing vegetation screen between the project and the TCH will be maintained such that the site does not become visible to the travelling public.
- Any encounter with wildlife shall follow regulations stated in the Wildlife Regulations under the *Wild Life Act (CC. 96-809)*.

4.6 Occupation

The occupations required for the project are listed below and classified as per the National Occupational Classification (2011):

Construction

- 1 Quarry Supervisor (8221)
- 1 Heavy Equipment Operator – Loader/Excavator (7521)

Operation

- 1 Quarry Supervisor (8221)
- 1 Heavy Equipment Operator – Loader, Excavator (7521)
- 1 Heavy Equipment Operator – Screening/Crusher (7521)
- 2 Heavy Equipment Operators (number based on demand) – Tandem, Tandem-Tandem and/or Semi Dump Trailers (7521)

Intermittent operation of the quarry at its busiest will necessitate 3 full time employees which will be utilized to extract/process material (Operational Phase) and for its transport. The required occupations for the site will be filled by current staff. Should there be a significant increase in the requirement for development/extraction due to the development of a larger scale economic construction project, an increase in the number of employees can be expected. Considering the small size of the quarry area this increase in employment would not be expected for an extended period of time. All required personnel are hired and paid directly by C & C Enterprises Inc.

4.7 Reclamation and Closure

Upon completion of the project, the quarry will be rehabilitated within the Department of Natural Resources' quarry permit guidelines. Quarry faces will be resurfaced to implement 30-degree sloping. Subsequently, the previously windrowed and preserved organic material that was stripped during the construction phase will be re-spread to promote natural revegetation. Also, once the quarry reaches a development phase that does not require additional expansion, progressive reclamation can begin in order to allow for revegetation as quickly as possible.

5.0 APPROVAL OF THE UNDERTAKING

Table 2 contains a list of referral agencies, responses received, and possible permits required for the project, most of which are already in progress.

Table 2: Referral Agencies, Responses and Possible Permits Required

Department/Regulatory Agency	Status	Possible Required Approvals/Permits
Works, Services & Transportation (Channel-Port aux Basques)	Approved	
Tourism, Culture, Industry and Innovation -Tourism	Approved	
Tourism, Culture, Industry and Innovation -Historic Resources	Approved	
Government Service Center (Service NL) (Channel-Port aux Basques)	Conditional Approval	Application Submitted for Protected Road Zone Permit
Fisheries and Land Resources -Crown Lands	Approved	
Fisheries and Land Resources -Agriculture	Approved	
Fisheries and Land Resources -Fisheries and Aquaculture	Approved	
Fisheries and Land Resources -Natural Areas	Approved	
Fisheries and Land Resources -Wildlife	Approved	
Fisheries and Land Resources -Forestry	Approved	Operating Permit Commercial Cutting Permit
Tourism, Culture, Industry and Innovation -Parks	Approved	
Municipal Affairs and Environment -Water Resources Management Division	Conditional Approval	
Municipal Affairs and Environment -Environmental Assessment Division	Project Registration Required	Environmental Assessment Registration
Municipal Affairs and Environment -Provincial Planning	Conditional Approval	
Natural Resources-Lands Division -Quarry Materials	Approved	Quarry Permit
Natural Resources-Energy	Approved	

6.0 SCHEDULE

The proposed schedule for this project is as follows:

Submission of Registration Document	February 2020
Review of Submission Document by Government	March/April 2020
Commencement of Construction and Operations	May 2020

7.0 FUNDING

Funding for the construction and operation of this project will be provided entirely by the proponent.

8.0 LIMITATIONS

This environmental registration document was prepared by NCD Consulting Ltd. in consultation with C & C Enterprises Inc. for their use under the terms defined in a written contract between the two parties. The information included in this document was provided by the client and relates to the scope of this project exclusively. NCD Consulting Ltd. has worked with the client and utilized NCD's combined knowledge in quarry development and potential environment related concerns to, as accurately as possible and with the information available, layout the development of the site.



Name: Mr. Corey Allen
Position: Manager/Owner
C & C Enterprises Inc.

Feb 5 2020
Date