

# **CORNER BROOK PULP AND PAPER LTD. BAKERS BROOK AREA QUARRY PERMIT**

## ***Environmental Assessment Registration Document***

Submitted by:  
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## **1.0 NAME OF UNDERTAKING**

Baker's Brook Quarry Expansion

- Quarry Permit Identification
  - File 711:12614 covering 14.1 ha

## **2.0 PROPONENT**

### **2.1 Name of Corporate Body**

Corner Brook Pulp and Paper Ltd. (CBPPL)

### **2.2 Address**

P.O. Box 2001  
1 Mill Rd,  
Corner Brook, NL  
A2H 6J4

### **2.3 Woodlands Manager**

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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 14.1 ha quarry permit area (File 711:12614) that will be developed as a continuation of an existing and adjacent quarry, referred to as the Baker's Brook Quarry, located within the Fee Simple Mining Grant Act 5, George V, Chap. 4-5-6, 1915 and held by the proponent CBPPL.

#### **3.2 Purpose/Rationale/Requirement for the Undertaking**

The main purpose and rationale for the proposed 14.1 ha quarry area is to maximize rock resource extraction in a safe and sustainable manner. The resources will be utilized for the purpose of supplying civil construction material to the public and private sectors in the Corner Brook area and the surrounding communities.

### **4.0 DESCRIPTION OF THE UNDERTAKING**

#### **4.1 Geographic Location**

The proposed project is located roughly 6.5 km due northeast of the City of Corner Brook on NTS Map Sheet 12A/13 (**Figures 1 to 3**). The quarry is within the municipal boundary of the City of Corner Brook; its eastern boundary is adjacent CBPPL's Fee Simple Mining Grant. The 14.1 ha application area is entirely located within the City of Corner Brooks Mineral Workings Zone as per the 2011-2021 Development Regulations where quarrying is a permitted land use. A Development Permit application for the quarry site has been submitted to the City for review.

Any sensitive receptors located near the proposed project area are shown on **Figure 4** and the closest receptor is a dwelling just over 300 meters from the project boundary.

#### **4.2 Physical Features**

##### **4.2.1 Project Site Description**

The proposed quarry permit area is located on a topographical high, the peak of which is west of the proposed quarry permit boundary. The quarry permit is generally bound to the north, by Highway 440 with an undisturbed buffer in place, formerly known as the North Shore Highway, and south and west by areas zoned Rural and Environmental Protection under the City of Corner Brook's Development Regulations (**Figure 2 and 3**). The primary physical feature of this project will be the quarry itself.

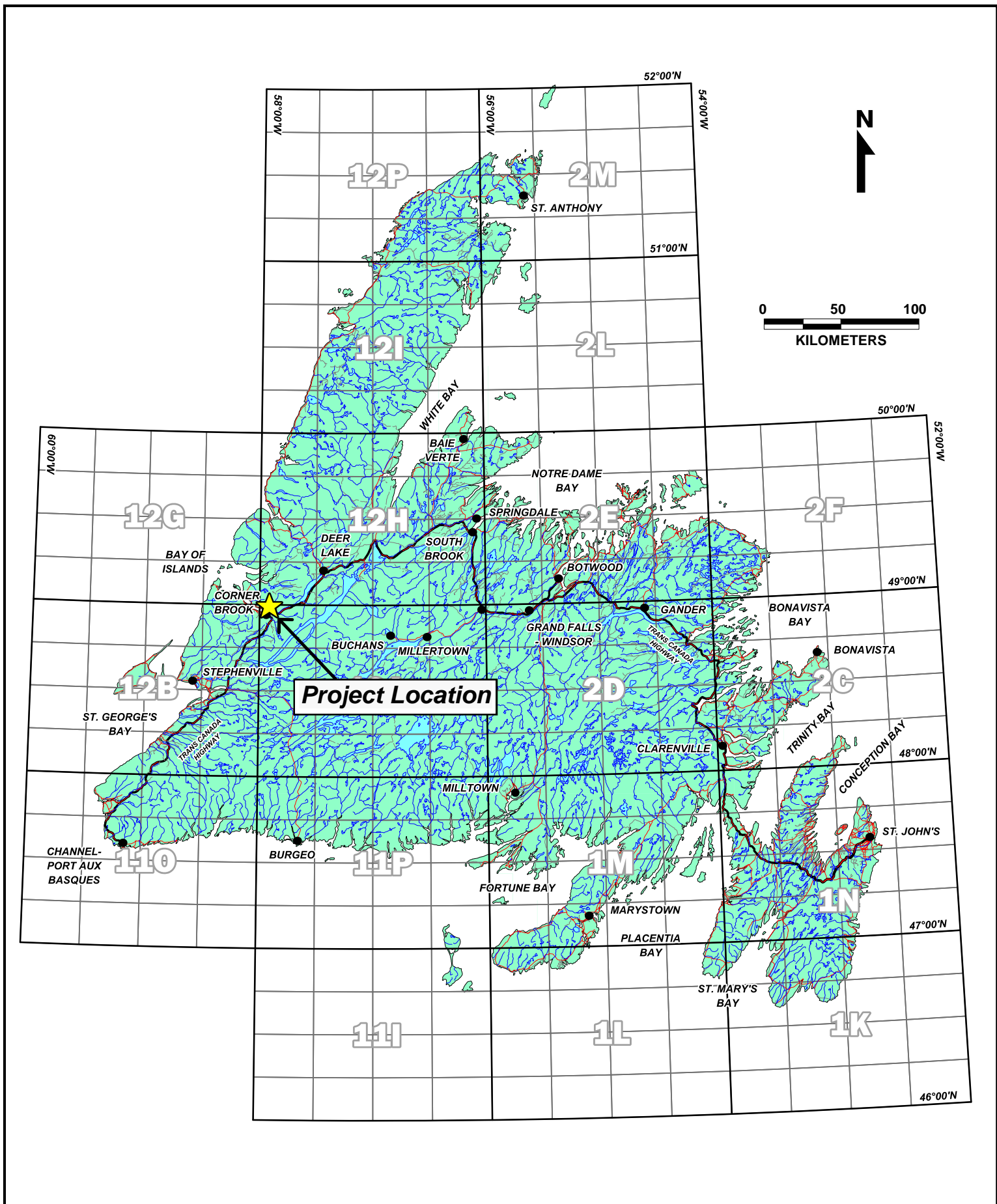
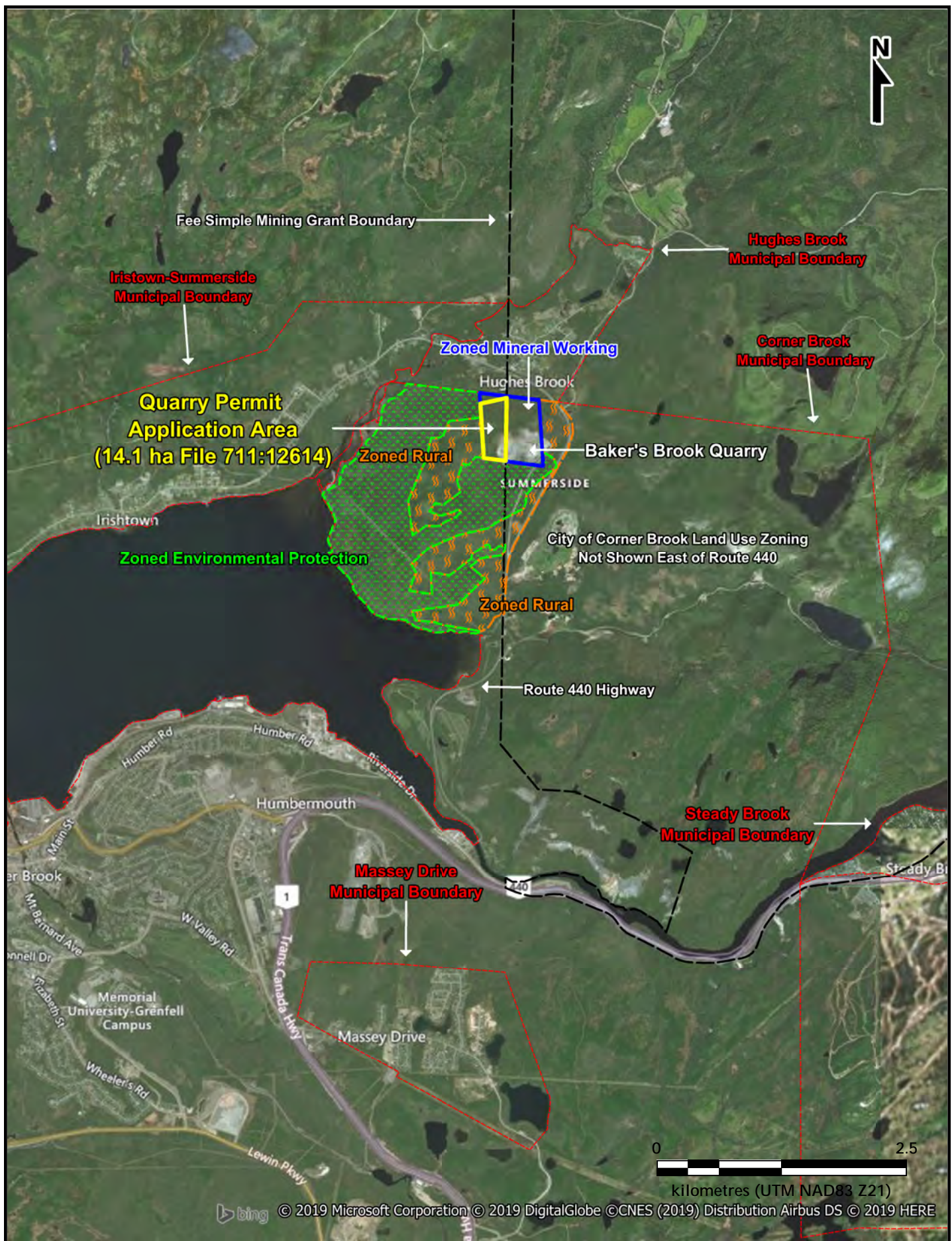
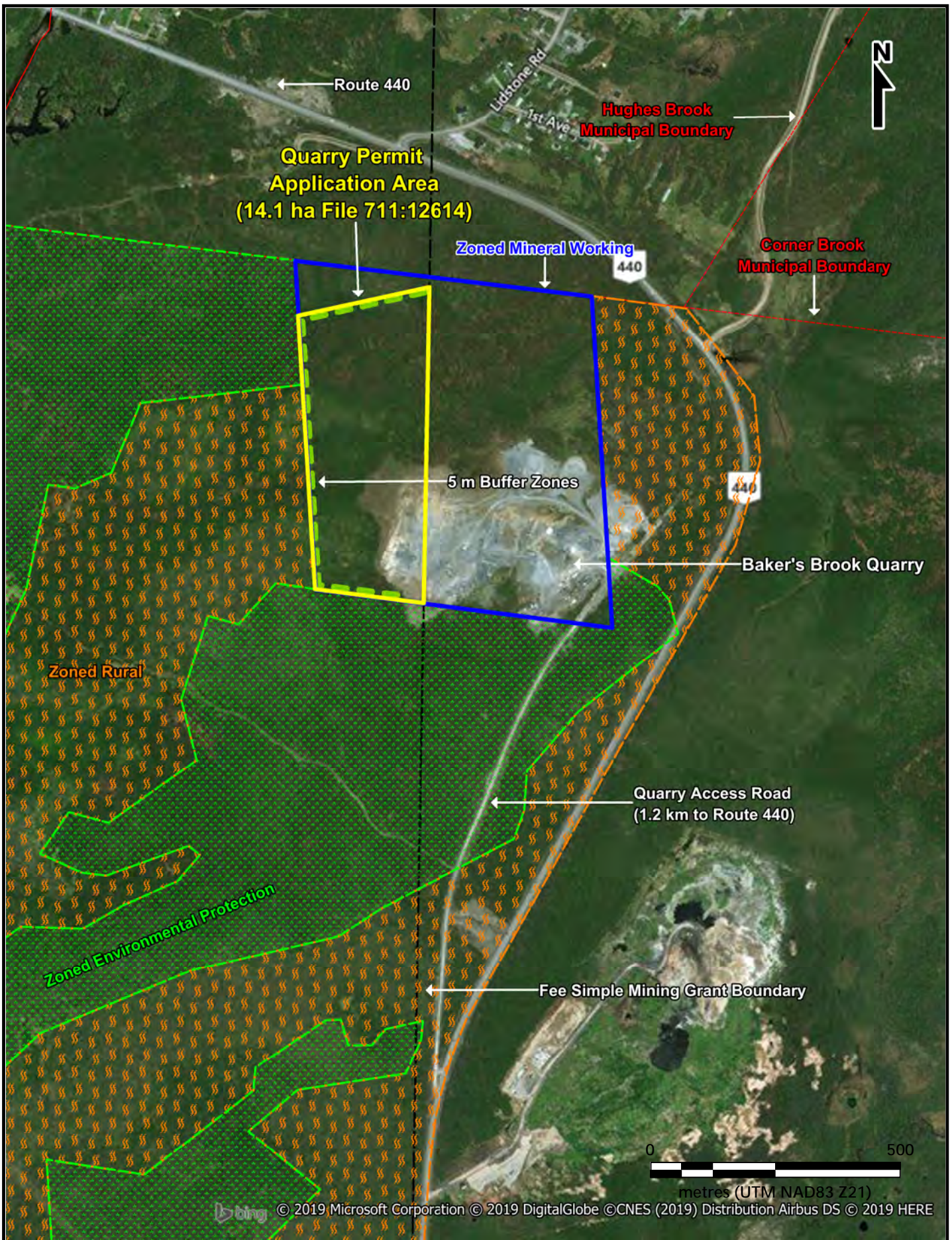


FIGURE 1: PROJECT LOCATION MAP (N.T.S. 12A/13)



**FIGURE 2: DETAILED PROJECT LOCATION MAP**



**FIGURE 3: QUARRY PERMIT LOCATION MAP**





**FIGURE 4: RECEPTORS LOCATION MAP**

## **4.2.2 Existing Biophysical Environment**

The proposed quarry site is located within the *Corner Brook subregion* of the *Western Newfoundland Forest Ecoregion*. This region is characterized by forested rolling hills and generally underlying marine derived bedrock, the climate is characterized by warm summers and cold winters with annual rainfall of 1,200 mm and annual snowfall of 2 – 4 m. Forests consist mostly of balsam fir with floor covering consisting of wood ferns. Elevation in the immediate area ranges from sea level to 250 m, with the proposed quarry site located at 200 m in elevation on the east side of an approximately 250 m high ridge.

Drainage of the area is in 2 different directions, the southern part of the permit area drains to the southeast into the existing quarry area. The nearest brook is, Wild Cove Brook located 1.6 km away from the quarry site, which itself drains into Wild Cove. The northern area drains to the north towards Hughes Brook located 600 m away, and also drains into Wild Cove. In this area a natural vegetated buffer will remain in place to filter any site drainage which will be minimal as no washing of produced aggregate will occur within the quarry permit application area.

## **4.3 Construction and Operation**

The construction aspect of the proposed project will consist of clearing the site from trees and grubbing before proceeding to development of the quarry. Any organic material will be stockpiled for future reclamation work.

### **4.3.1 Site Access**

Site access is already present and will not necessitate any further construction. Access to the site is via a 1.2 km gravel road extending from Route 440 directly to the quarry. This road is only utilized to access the site and is not accessible to the general public as a locked gate restricts entry, preventing potential safety issues and illegal dumping. The quarry access road is gated at the point where it meets Route 440 and is entirely within the Fee Simple Mining Grant Act 5, George V, Chap. 4-5-6, 1915; held by the proponent CBPPL.

### **4.3.2 Site Clearing**

Any merchantable timber will be cleared either by handheld chainsaws or mechanical harvesting equipment and will be garnered under a commercial cutting permit issued by the Department of Fisheries and Land Resources. The wood will be sent to the Corner Brook Pulp and Paper mill in Corner Brook for use as pulp or hog fuel. Surficial soils, subsoils and grubbing will be stripped and windrowed to the permit boundary. This windrowed material will be used to construct perimeter berms as required and for future reclamation.

### **4.3.3 Quarry Development and Operation**

The location of the 14.1 ha proposed quarry area, directly adjacent to the proponent's existing quarry, was chosen to maximize the resources available in the area in order to develop the overall site efficiently. Development of the quarry will expand from the proponent's existing quarry faces at the southeastern corner of the quarry permit, towards the west and north. Annual production from the site is anticipated to be approximately 10,000 m<sup>3</sup> per year but this can vary depending on contract requirements. 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 quarrying of rock resources by drilling, blasting and ripping. This will be performed by using heavy equipment such as excavators, front end loaders and dump trucks. Processing activities will include crushing and screening. Typical quarrying activities will take place between May and December of each year but will ultimately be dictated by the timing of seasonal spring melt and the onset of winter conditions. Should specific projects require resources from the quarry during the winter months then the site could become active during winter conditions.

Typical rock quarrying methods will be utilized at the site as have been since the area was initially developed. Blasting will be completed through a certified third-party subcontractor capable of producing the required rock size per blast. Quarry benches will be blasted on <10m lifts. The generally small-scale volume requirements will minimize noise and potential safety concerns during blasting. All blasting will adhere to the Government of Newfoundland and Labradors Occupational Health and Safety Regulations under the Occupational Health and Safety Act and more specifically Part XIX pertaining to General Blasting.

### **4.4 Potential Sources of Pollution During Construction and Operation**

The construction and operational phases of the development will utilize equipment such as chainsaws, timber harvesting equipment, front end loaders and excavators. This equipment represents a potential source of noise disturbance, exhaust emissions, the potential release of petroleum hydrocarbons, dust, domestic waste, and general refuse. Also, construction and operational activities introduce the possibility of erosion and transport of fine-grained particles such as clay and silt to nearby water bodies.

Air pollution will be controlled by having all equipment on site fitted with the appropriate emission-control equipment, and dust will be kept at a minimum by avoiding development during extended dry conditions. Site clearing will primarily be completed in the spring of the year, at the beginning of the construction season, and will generally see about 0.5 ha cleared per year reducing the overall potential pollution impacts. As the site is adjacent

to the proponent's existing quarry, there will not be any additional equipment required since the equipment needed is the same as current development activities that have been ongoing for decades.

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. There is no need for additional portable lavatories in the proposed quarry boundaries as these are already present within the neighboring quarry when required. Waste will be removed 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 erosion and transport of fine-grained particles during construction and operational activities will be controlled by using appropriate mitigating measures such as erosion control ditches, check dams, hay bales, and silt fencing as required. Site runoff will ultimately be directed towards vegetated areas, acting as a filter for fine particles (See **Section 4.5** below).

#### **4.5 Potential Resource Conflicts During Construction and Operation**

Potential resource conflicts during operations could include the use of the area for recreational purposes. The area is not known to be used for such purposes, there are currently no dirt roads or ATV trails inside the permit boundaries.

Other aspects to be addressed with this undertaking are related to the visual aspect of the quarry on the surrounding residents and for individuals travelling on nearby highways, sediment erosion and control within the quarry, and any impact on wildlife. The project is located well beyond the required 30 m buffer from any water bodies that appear on the 1:50,000 NTS map sheet and sediment erosion is not considered a potential problem, however some design considerations are warranted as preventative measures. The

proposed project area is located within Newfoundland Marten critical/core habitat. The following design considerations and mitigation measures will be followed to address the aforementioned concerns:

- The quarry permit area would be below the height of the land to the west and to the south. Tree screens will be left in place to restrict the line of site from both directions. This will avoid any visual impacts to the residents of the City of Corner Brook located to the southwest of the project. Individuals travelling along Route 440 from the north would be slightly impacted as the highway extends from the northwest to the southeast. Route 440, at its closest point to the quarry boundary would be 250 m away, keeping the quarry site mostly hidden by undeveloped forested land in between. The site would be partially visible from the community of Hughes Brook. An existing tree buffer between the community and the quarry site would limit this impact and keep the site generally no more visible than the current development in the existing quarry area.
- Within the proposed 14.1 ha area, a 5 m wide buffer will be left within the northern, western and southern permit boundaries where no resources will be excavated (**see Figure 3**). Berms constructed from the windrowed organics will be placed within the 5 m buffer area and will serve as additional protection against sediment runoff.
- The pit floor will be kept lower than the perimeter berms where present as it progresses so as to contain precipitation water within the quarry site and contain any suspended solids in the quarry area.
- Should water runoff become a problem, erosion and sediment control measures in line with industry best management practices will be utilized. This will include silt fencing, check dams, hay bales and erosion control ditches to prevent suspended solid drainage from leaving the site. Also, a settling pond may be constructed, if required, to temporarily hold water within the quarry and allow for suspended sediment to deposit prior to water being released into vegetated areas. Because existing sloping is towards the main Baker's Brook Quarry from the quarry permit area, these erosion control measures may be applied within that quarry as required.
- Any encounter with wildlife shall follow regulations stated in the Wildlife Regulations under the *Wild Life Act (CC. 96-809)*. During site clearing, if a marten den is encountered, it will be protected from disturbance during the denning of female and young marten between early April to end of June, as stated by the *NL Endangered Species Act* and the federal *Species at Risk Act*.

## 4.6 Occupation

The occupations required for the proponent's site are listed below and classified as per the National Occupational Classification (2011):

### **Construction**

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

### **Operation**

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

Operation of the quarry will require approximately 6 full time employees. These employees will be utilized to both clear the quarry site area during the construction phase and extract/process material during the operational phase. This dual role is possible based on the phased development of the site over numerous years which enables the quarry site to operate efficiently.

The noted required occupations for the site will be filled with current staff, no new employment will be created from the expansion of the existing quarry. Should there be a significant increase in the requirement for development/extraction due to a large-scale construction project in the region, an increase in the number of employees can be expected.

## 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 will not require additional expansion, then progressive reclamation will begin to allow for revegetation of the site as quickly as possible.

## 5.0 APPROVAL OF THE UNDERTAKING

**Table 1** contains a list of referral agencies, responses received, and possible permits required for the project, some of which are already in progress.

**Table 1: Referral Agencies, Responses and Possible Permits Required**

<b>Department/Regulatory Agency</b>	<b>Status</b>	<b>Possible Required Approvals/Permits</b>
Works, Services & Transportation (Deer Lake)	Conditional Approval	
Tourism, Culture, Industry and Innovation -Tourism	Approved	
Government Service Center (Corner Brook)	Conditional Approval	
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	Conditional Approval	
Fisheries and Land Resources -Forestry	Approved	Operating Permit & Commercial Cutting Permit
Fisheries and Land Resources -Land Management	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	Approved	Development Permit (City of Corner Brook)
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	August 2019
Review of Submission Document by Government	Sept./Oct. 2019
Commencement of Construction and Operations	Spring 2020

## 7.0 FUNDING

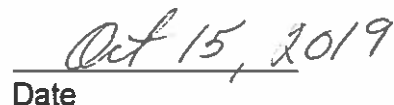
Funding for the construction and operation of project will be provided entirely by the proponent.

## 8.0 LIMITATIONS

This environmental registration document was prepared by NCD Consulting Ltd. in consultation with Corner Brook Pulp and Paper Ltd. 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 extensive 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 in a safe and environmentally sustainable manner.



Name: Mr. John MacLellan  
Position: Woodlands Manager,  
Corner Brook Pulp and Paper Ltd.



Date