


APPENDIX A
REGISTRY OF JOINT STOCKS AND
INDUSTRIAL APPROVAL

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[Activites Info](#)
[Related Reg's Info](#)

PROFILE - CHEDABUCTO AGGREGATES LTD. - as of: 2013-12-11 11:59 AM

Business/Organization Name:	CHEDABUCTO AGGREGATES LTD.
Registry ID:	3235125
Type:	N.S. Limited Company
Nature of Business:	
Status:	Active
Jurisdiction:	Nova Scotia
Registered Office:	6640 Highway 16 Halfway Cove NS Canada B0H 1N0
Mailing Address:	RR 2 GUYSBOROUGH NS CANADA B0H 1N0

PEOPLE

Name	Position	Civic Address	Mailing Address
OSBORNE BLAIR GEORGE	Director	6640 HWY 16 HALFWAY COVE NS B0H 1N0	
OSBORNE BLAIR GEORGE	PRESIDENT/SECRETARY	6640 HWY 16 HALFWAY COVE NS B0H 1N0	
OSBORNE BLAIR GEORGE	Recognized Agent	6640 HWY 16 HALFWAY COVE NS B0H 1N0	RR 2 GUYSBOROUGH NS B0H 1N0

ACTIVITIES

Activity	Date
Annual Renewal	2013-02-25

Annual Statement Filed	2013-02-22
Annual Renewal	2012-03-20
Annual Statement Filed	2012-03-20
Appoint an Agent	2012-03-20
Annual Renewal	2011-04-05
Annual Statement Filed	2011-04-05
Annual Renewal	2010-03-31
Annual Statement Filed	2010-03-31
Special Resolution	2009-03-20
Appoint an Agent	2009-03-20
Change of Directors	2009-03-20
Address Change	2009-03-20
Incorporated and Registered	2009-03-05

Show All [Collapse](#)

RELATED REGISTRATIONS

There are no related registrations on file for this company.

orig

Our File Number: 92100-30-ANT-2009-066270

May 12, 2009

Mr. Ed MacDonald
472 Heatherton Village Rd
PO Box 48
Heatherton, NS
B0H 1R0

Dear Mr. MacDonald:

**RE: Approval to Construct and Operate - Quarry, Halfway Cove, Guysborough Co.
Approval No. 2009-066270, 6840 Highway 16, PID # 35034784**

Enclosed please find Approval # 2009-066270 issued to Chedabucto Aggregates Ltd to construct and operate the Quarry at Halfway Cove, Guysborough County, Nova Scotia. Please ensure that you forward the original Approval to Chedabucto Aggregates Ltd

Strict adherence to the attached terms and conditions is imperative in order to validate this approval.

Despite the issuance of this Approval, the Approval Holder is still responsible for obtaining any other authorization which may be required to carry out the activity, including those which may be necessary under provincial, federal or municipal law.

Should you have any questions, please contact Donald MacDonald, Northern Region, Antigonish Office at (902) 863-7389.

Yours Truly



Paul J. Keats, B.Tech(Env), Eng.Tech., CET
District Manager

cc Jay Brenton
Donald MacDonald
Gary Cleary

Eimas #: 2009-066270


APPROVAL

Province of Nova Scotia
Environment Act, S.N.S. 1994-95, c.1

APPROVAL HOLDER: Chedabucto Aggregates Ltd
SITE PID: 35034784
APPROVAL NO: 2009-066270
EXPIRY DATE: May 31, 2019

Pursuant to Part V of the *Environment Act, S.N.S. 1994-95, c.1* as amended from time to time, approval is granted to the Approval Holder subject to the Terms and Conditions attached to and forming part of this Approval, for the following activity:

Construction and operation of a Quarry, and associated works, at or near Halfway Cove, Guysborough County in the Province of Nova Scotia.

Administrator 
Effective Date May 22/2009

TERMS AND CONDITIONS OF APPROVAL

Nova Scotia Environment

Approval Holder: Chedabucto Aggregates Ltd
Project: Quarry
Site: Halfway Cove, Guysborough County
PID # 35034784

Approval No: 2009-066270

File No: 92100-30-ANT-2009-066270

Map Series: 11F6

Grid Reference: E630098 N5022867

Reference Documents:

- Application dated March 15, 2009 and attachments.

1. Definitions

- "Abandonment" means cessation of production of aggregate for a period of twelve (12) months.
- "Act" means the *Environment Act* S.N.S. 1994-1995, c.1 and includes all regulations made pursuant to the Act.
- "Active Area" means the area required to operate a quarry and includes the working face and associated works.
- "Associated works" means any building, structure, processing facility, pollution abatement system or stockpiles of aggregate.
- "Department" means the Northern Region, Antigonish Office, of Nova Scotia Environment located at the following address:

Nova Scotia Environment
Environmental Monitoring and Compliance Division
Northern Region, Antigonish Office

155 Main Street
Suite 205
Antigonish, NS B2G 2B6

Phone: (902) 863-7389
Fax: (902) 863-7411

- f) "Disturbed Area" means any area on a quarry site that has been stripped of vegetation and is susceptible to erosion.
- g) "Facility" means the Quarry and associated works.
- h) "Minister" means the Minister of Nova Scotia Environment.
- i) "Rehabilitation" means restorative work performed or to be performed in accordance with the rehabilitation plan.
- j) "Structure" includes but is not limited to a private home, a cottage, an apartment building, a school, a church, a commercial building or a treatment facility associated with the treatment of municipal sewage, industrial or landfill effluent, an industrial building, infrastructure or construction, a hospital, and a nursing home, etc.

2. **Scope of Approval**

- a) This Approval (the "Approval") relates to the Approval Holder and their application and supporting documentation, as listed in the reference documents above, to construct and operate the Facility, situated at or near Halfway Cove, Guysborough County (the "Site").
- b) The Facility shall be constructed and operated as outlined in the application for industrial approval dated March 15, 2009 and supporting documentation.
- c) The Site shall not exceed the area as outlined in the application and supporting documentation.
- d) Should the work authorized by this Approval not be commenced within a year, this Approval shall automatically be null and void, unless extended in writing by an Administrator.

3. General Terms and Conditions

- a) The Approval Holder shall construct, operate and reclaim its Facility in accordance with provisions of the:
 - i) *Environment Act* S.N.S. 1994-1995, c.1, as amended from time to time;
 - ii) Regulations, as amended from time to time, pursuant to the above Act;
- b) The Approval Holder is responsible for ensuring that they operate the Facility on lands which they own or have a lease or written agreement with the landowner or occupier. The Approval Holder shall be responsible for ensuring that the Department has, at all times, a copy of the most recent lease or written agreement with the landowner or occupier. Breach of this condition may result in cancellation or suspension of the Approval.
- c) If there is a discrepancy between the reference documents and the terms and conditions of this Approval, the terms and conditions of this Approval shall apply.
- d) The Minister or Administrator may modify, amend or add conditions to this Approval at anytime pursuant to Section 58 of the Act.
- e) This Approval is not transferable without the consent of the Minister or Administrator.
- f)
 - (i) If the Minister or Administrator determines that there has been non-compliance with any or all of the terms and conditions contained in this Approval, the Minister or Administrator may cancel or suspend the Approval pursuant to subsections 58(2)(b) and 58(4) of the Act, until such time as the Minister or Administrator is satisfied that all terms and conditions have been met.
 - (ii) Despite a cancellation or suspension of this Approval, the Approval Holder remains subject to the penalty provisions of the Act and regulations.
- g) The Approval Holder shall notify the Department prior to any proposed extensions or modifications of the Facility, including the active area, process changes or waste disposal practices which are not granted under this Approval. An amendment to this Approval will be required before implementing any change. Extensions or modifications to the Facility may be subject to the Environmental Assessment Regulations.
- h) Pursuant to Section 60 of the *Act*, the Approval Holder shall submit to the Administrator any new and relevant information respecting any adverse effect

that actually results, or may potentially result, from any activity to which the Approval relates and that comes to the attention of the Approval Holder after the issuance of the Approval.

- i) The Approval Holder shall immediately notify the Department of any incidents of non-compliance with this Approval.
- j) The Approval Holder shall bear all expenses incurred in carrying out the environmental monitoring required under the terms and conditions of this Approval.
- k) Unless specified otherwise in this Approval, all samples required to be collected by this Approval shall be collected, preserved and analysed, by qualified personnel, in accordance with recognized industry standards and procedures.
- l) Unless written approval is received otherwise from the Administrator, all samples required by this Approval shall be analysed by a laboratory that meets the requirements of the Department's "Policy on Acceptable Certification of Laboratories" as amended from time to time.
- m) The Approval Holder shall submit any monitoring results or reports required by this Approval to the Department. Unless specified otherwise in this Approval, All monitoring results shall be submitted within 30 days following the month of monitoring.
- n) The Approval Holder shall ensure that this Approval, or a copy, is kept on Site at all times and that personnel directly involved in the Facility operation are made fully aware of the terms and conditions which pertain to this Approval.
- o) The Approval Holder will be required to register their project under Part IV of the *Environment Act* should the Facility and associated works including access roads exceed an area of four (4) hectares.

4. Construction of Facility

- a) Erosion and sedimentation controls are to be in place prior to construction at this facility. Additional controls shall be implemented if Site runoff exceeds the discharge limits contained herein.
- b) Erosion and sedimentation controls are to be maintained and remain in place until the disturbed areas are stabilized.

- c) The Approval Holder shall ensure that the following discharge limits are met for any water which is discharged from the Site to a watercourse or wetland:

Clear Flows (Normal Background Conditions):

- i) Maximum increase of 25 mg/l from background levels for any short term exposure (24 hours or less)
- ii) Maximum average increase of 5 mg/l from background levels for longer term exposure (inputs lasting between 24 and 30 days)

High Flow (Spring Freshets and Storm Events)

- i) Maximum increase of 25 mg/l from background levels at any time when background levels are between 25 mg/l and 250 mg/l
 - ii) Shall not increase more than 10% over background levels when background is > 250 mg/l
- d) Signage including emergency telephone numbers and contacts are to be posted at the entrance to the Facility.
- e) The use of used oil as a dust suppressant is strictly prohibited. The generation of dust from the Site shall be suppressed as required.

5. Particulate Emissions (Dust)

- a) Particulate emissions shall not exceed the following limits at or beyond the Site property boundaries:

Annual Geometric Mean 70 $\mu\text{g}/\text{m}^3$

Daily Average (24 hr.) 120 $\mu\text{g}/\text{m}^3$

- b) The use of used oil as a dust suppressant is strictly prohibited. The generation of dust from the Site shall be suppressed as required.
- c) Monitoring of particulate emissions shall be conducted at the request of the Department. The location of the monitoring station(s) for particulate will be established by a qualified person retained by the Approval Holder and submitted to the Department for approval, this may include point(s) beyond the property boundary of the Site.

- d) When requested, suspended particulate matter shall be measured by the EPA standard; EPA/625/R-96/010a; Sampling of Ambient Air for Total Suspended Particulate Matter (SPM) and PM₁₀. Using High Volume (HV) Sampler.

6. Sound Levels

- a) Sound levels measured at the Site property boundaries shall not exceed the following equivalent sound levels (Leq):

Leq 65 dBA 0700-1900 hours (Days)
60 dBA 1900-2300 hours (Evenings)
55 dBA 2300-0700 hours (Nights)

- b) Monitoring of sound levels shall be conducted at the request of the Department. The location of the monitoring station(s) for sound will be established by a qualified person retained by the Approval Holder and submitted to the Department for approval, this may include point(s) beyond the property boundary of the Site.

7. Surface Water

- a) The site shall be developed and maintained to prevent siltation of the surface water which is discharged from the property boundaries into the nearest watercourse or beyond the property boundary. Additional controls shall be implemented if site runoff exceeds the discharge limits contained herein.
- b) No authority is granted by this Approval to enable the Approval Holder to discharge surface water beyond the property boundary and onto adjoining lands without the authorization of the affected landowner(s). It is the responsibility of the Approval Holder to ensure that the authorization of said landowner(s) is current and valid. Failure to maintain said authorization will result in this Approval being null and void. The Approval Holder shall provide, to the Department, proof of the continued authorization of the adjoining landowner(s) when the current agreement has expired.
- c) Erosion and sedimentation control devices shall be installed prior to any excavation of material.

- d) The Approval Holder shall ensure the following liquid effluent levels are met and that the effluent is monitoring at the frequency and locations indicated.
- i) **Total Suspended Solids**
- Clear Flows (Normal Background Conditions):**
- 1) Maximum increase of 25 mg/l from background levels for any short term exposure (24 hour or less)
 - 2) Maximum average increase of 5 mg/l from background levels for longer term exposure (inputs lasting between 24 hours and 30 days)
- High Flow (Spring Freshets and Storm Events):**
- 1) Maximum increase of 25 mg/l from background levels at any time when background levels are between 25 mg/l and 250 mg/l
 - 2) Shall not increase more than 10% over background levels when background is > 250 mg/l
- ii) **pH**
- 1) Maximum 5 to 9 in grab sample
 - 2) Maximum 6 to 9 as a Monthly Arithmetic Mean
- iii) **Monitoring Locations**
- 1) The Approval Holder shall sample at the following locations:
Sedimentation Pond Discharge
- iv) **Sampling Frequency**
- 1) The Approval Holder shall sample at the following frequency: At NSE request
- e) If it becomes necessary to drain the Site, the wastewater shall be treated to meet the suspended solids limits outlined in this Approval.
- f) All wash water systems shall be arranged in closed circuit.
- g) Additional monitoring stations for liquid effluent may be specified as required by the Department.
- h) A monthly summary of results of monitoring shall be submitted to the Department.

8. Groundwater

- a) The Approval Holder shall replace at their expense any water supply which has been lost or damaged as a result of extracting aggregate.
- b) The Approval Holder shall secure from the Administrator an approval amendment prior to excavating below the watertable.

9. Separation Distances

- a) The Approval Holder shall not locate the Active Area of the quarry within:
 - i) 30 m of the boundary of a public or common highway.
 - ii) 30 m of the bank of any watercourse or ordinary high water mark.
 - iii) 30 m of the boundary of the quarry property.
- b) The Approval Holder shall not blast within:
 - i) 30 m of the boundary of a public or common highway.
 - ii) 30 m of the bank of any watercourse or ordinary high water mark.
 - iii) 800 m of the foundation or base of a structure located off site, unless the owner has granted permission in writing.
 - iv) 15 m of the property boundary when a structure on the abutting property is not involved.

10. Blasting

- a) The Approval Holder shall have a technical blast design prepared by a qualified person which ensures the ground vibration and air concussion limits in this Approval can be achieved.
- b) The Approval Holder shall conduct a pre-blast survey including a water quality analysis of all structures within 800 metres of the Facility. The survey shall be conducted in accordance with the Department's 'Procedure For Conducting a Pre-Blast Survey' and the results of this survey sent to the Department prior to any blasting on the Site. Water quality parameters will be determined by NSE staff.

- c) The Approval Holder shall call the nearest weather office, to assess the climatic conditions prior to conducting any blasting. No blasting will be permitted if a thermal inversion is anticipated at the time of the proposed blast.
- d) No blasting shall occur on Sunday, on a statutory holiday prescribed by the Province, or on any day between 1800 and 0800 hours.
- e) The Approval Holder shall ensure that all blasts are monitored for concussion and ground vibration to ensure that the limits in Table 2 are not exceeded:

Table 2			
Blasting Limits			
Parameters	Maximum	Monitoring Frequency	Monitoring Station
Concussion (Air Blast)	128 dBL	Every Blast	Within 7 m of the nearest structure not located on the Site
Ground Vibration	0.5 in/sec (12.5 mm/s)	Every Blast	Below grade or less than 1 m above grade in any part of the nearest structure not located on the Site

- f) The monitoring station for blasting shall be as indicated in Table 2. Additional monitoring stations for blasting may be specified as required by the Department.
- g) A monthly summary of results of monitoring shall be submitted to the Department.

11. Rehabilitation

- a) The Approval Holder has posted an interim security in a form acceptable to the Department in the amount of \$6250.00 a hectare of disturbed area for a total of \$ 25 000, on April 30, 2009.
- b) The interim security shall not exceed one (1) year unless otherwise agreed in writing by the Administrator.
- c) The Approval Holder has submitted a rehabilitation plan to the Department for review. The rehabilitation plan shall be revised and updated every three year

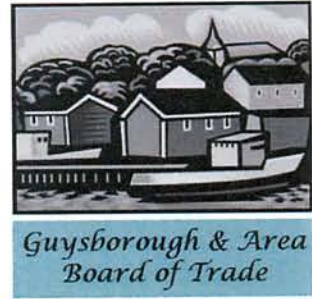
thereafter and submitted for review. The rehabilitation plan shall include the estimated total cost for labour, equipment, supplies and services of a third party contractor to undertake the following activities:

- i) surface contouring
 - ii) establishing proper drainage
 - iii) revegetation work
 - iv) any work necessary to reclaim the quarry
- d) Before the expiry of the interim security, the Approval Holder shall post a final security which shall be calculated using the rehabilitation plan and factors in item c) above. The final security shall be revised every three years in accordance with the revised rehabilitation plan.
- e) The Approval Holder shall rehabilitate the Site within twelve (12) months of abandonment and in accordance with the rehabilitation plan submitted by the Approval Holder in 11 (c) or other terms as specified by the Department,
- f) Nova Scotia Environment shall release the security to the Approval Holder after final rehabilitation of the Site has been completed to the satisfaction of the Minister or Administrator. The Approval Holder shall notify the Department when rehabilitation has been completed.
- g) The Approval Holder shall ensure that any security posted for rehabilitation be kept valid for the term of the Approval.

12. Site Specific Conditions

- a) The boundaries of the Site will be cut out and kept reasonably clear of new growth and the corner boundaries shall be clearly marked with permanent markers no less than four feet high.

APPENDIX B
CONSULTATION AND
ENGAGEMENT CORRESPONDENCE



*P.O. Box 20
Guysborough, NS
BOH 1N0*

January 15, 2014

Nova Scotia Environment
Antigonish, NS

Dear Sir or Madam,

RE: Chedabucto Aggregates Quarry Expansion

On behalf of the Guysborough and Area Board of Trade, I am writing to express our support for the proposed expansion of the quarry of Chedabucto Aggregates.

Economic development is a critical issue facing us in Guysborough County. We believe that the expansion of quarry operations will create a positive economic benefit to our area in both the short and long terms.

Thank you for your consideration.

Yours truly,

Ann Marie Bagnall
Chair, Guysborough & Area Board of Trade
902-525-2108

The Last Port Motel Limited

Box 158
RR # 1
Canso NS B0H 1H0

July 14, 2014

Chedabucto Aggregates Limited
RR # 2
Guysborough NS B0H 1N0

Dear Mr. George:

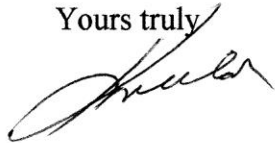
We fully support your application to expand your aggregate quarry to produce aggregate at your property in Half Way Cove.

Your operation is small but will be properly managed, and will not present an eyesore that can be seen from the highway. Access to the quarry and exit to the main highway will not create any problems for tandem and other length trailers.

Your business benefits the local area by having a weigh scale for exact measurement of aggregate and will reduce the product cost by the shorter trucking time from other licensed quarries. The shorter trucking time will reduce road construction costs and residential construction costs. The shorter driving time of two hours on a return trip to Aulds Cove will also save fuel for truckers and reduce their exhaust emissions to help our environment.

We believe the rock you will be producing is somewhere near 3.5 billion years old. It is time to use this resource for the many improvements, saving in cash, and in emissions it will produce.

Yours truly



Ken Millar

February 11, 2014

Nova Scotia Environment
Antigonish, NS

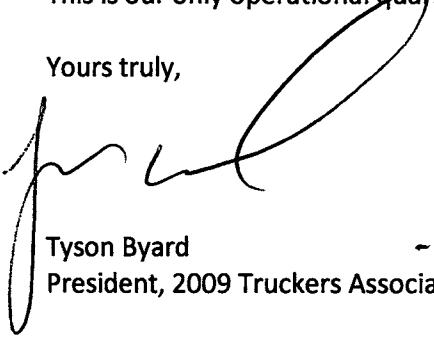
To whom this may concern,

Concerning Chedabucto Aggregates Quarry Expansion

On behalf of the Guysborough County Truckers (2009 association), I am writing to express our support for the proposed expansion of the Chedabucto Aggregates Quarry.

This is our only operational quarry for materials in our area.

Yours truly,

A handwritten signature in black ink, appearing to read 'Tyson Byard', with a large, sweeping flourish extending upwards and to the right.

Tyson Byard
President, 2009 Truckers Association



MUNICIPALITY OF THE DISTRICT OF GUYSBOROUGH

NOTICE OF PUBLIC HEARING – AMENDMENT TO THE ZONING MAP FOR THE GUYSBOROUGH MUNICIPAL PLANNING AREA

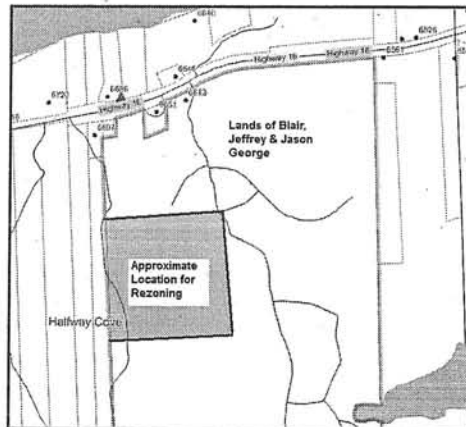
IN THE MATTER OF an amendment to the Zoning Map for a parcel of land assessed to Blair, Jeffrey & Jason George and located at or near Halfway Cove, Guysborough County, N.S.

HEREBY TAKE NOTICE that the Guysborough Municipal Council will hold a Public Hearing on **Wednesday, January 8, 2014 at 4:15 p.m.**, in the Council Chambers located at 33 Pleasant Street, Guysborough.

The Public Hearing is an opportunity for residents of the Municipality to make formal written or oral submissions to Municipal Council regarding the proposed rezoning of a portion of Property PID #35034784 from Mixed Use Rural Residential MRR-1 to Industrial Heavy I-2 to allow for two existing aggregate quarries to be combined to form one quarry operation. Written submissions will be received by the Municipal Office **Until 3:00 PM, Wednesday, January 8, 2013**. Written submissions shall be addressed to Ms. Deborah Torrey, at 33 Pleasant Street, Guysborough, NS or by email: dtorrey@modg.ca.

It is Council's intention to pass a motion following the Hearing to either approve or reject this rezoning or refer the matter to Committee of the Whole for further review.

Area to be rezoned from Mixed Use Rural Residential MRR-1 to Industrial Heavy I-2 is shown on the sketch below.



Copies of the application for this amendment and all related information can be obtained at the Municipal Building, 33 Pleasant Street, Guysborough, Nova Scotia between the hours of 8:30 a.m. and 4:30 p.m., Monday to Friday (excluding holidays). Council shall consider all written and oral submissions by interested persons who would like to express concerns or comments regarding the proposed amendment to the Zoning Map.

DATED at Guysborough, Nova Scotia on the **12th day of December, 2013**.

Ashley Cunningham, Municipal Clerk
Municipality of the District of Guysborough
P. O. Box 79, Guysborough
Nova Scotia, Canada BOH 1N0
acunningham@modg.ca



Planning Department

February 5, 2014

Mr. Blair George
Chedabucto Aggregates
RR#3
Guysborough, NS
B0H 1N0

Dear Mr. George:

Re: Request for Rezoning, PID 35034784

I write with respect to the above referenced matter. As you are aware, on January 8, 2014 the Council of the Municipality of the District of Guysborough passed a motion approving the rezoning of the above referenced property from Mixed Use Rural Residential MRR-1 to Industrial Heavy I-2.

In accordance with the Municipal Government Act an advertisement was placed in the Guysborough Journal on January 15, 2014 outlining the right to appeal. Please be advised that the fourteen (14) day appeal period has lapsed with respect to the rezoning of this property and no appeals were received therefore this property is now considered to be rezoned.

If you have any questions or require additional information regarding this matter please contact the undersigned at (902) 533-3705, Extension 222 or email dtorrey@modg.ca.

Yours Truly,



Deborah L. Torrey
Development Officer

Chedabucto Aggregates Ltd.

6640 Highway 16, Half Way Cove
RR # 2 Guysborough NS B0H 1N0
Cell 902.867.7749
www.chedabuctoaggregates.com

March 24, 2014

Mr. Dean Jamieson
Queensport Volunteer Fire Department
RR # 2
Guysborough NS B0H 1H0

Reference: Chedabucto Aggregates Quarry Expansion – Notice of Proposed Project

Dear Chief Jamieson:

This letter is to inform you of our proposed quarry expansion project located in Halfway Cove.

The proposed project would see the expansion of the existing quarry at Halfway Cove, which is owned and operated by Chedabucto Aggregates Ltd. The company proposes to consolidate the existing quarry operations and to expand to a total proposed quarry operation of 21.9 hectares to allow for continued aggregate production at the site. It is expected that production at the site will be maintained at approximately the same level as current operations. Depending on local market activity/demand, the proposed activities will take place over an extended period of time until the aggregate is exhausted.

A Class 1 Provincial Environmental Assessment is currently underway for the Project, under the Environmental Assessment Regulations pursuant to the Nova Scotia *Environment Act*.

We advise that the company has no plans to store fuel near the quarry and that a supply of water is normally available on site. Access to the quarry will be on the existing private, unpaved road.

Please do not hesitate to contact me personally should you require further information. Inquiries and comments can be made to Blair George at "bgeorge@modg.ca" or 902-867-7749. To learn more about Chedabucto Aggregates, you can visit our website at www.chedabuctoaggregates.com

Yours truly



Blair George
President

Chedabucto Volunteer Fire Department
RR#2 Guysborough, NS
BOH 1N0

April 9th, 2014

Reference: Chedabucto Aggregates Quarry Expansion

To Whom It May Concern,

Please be advised that the Chedabucto Volunteer Fire Department supports the proposed expansion of the Chedabucto Aggregates Quarry as outlined in the letter received on March 24, 2014.



Dean Jamieson
Fire Chief

Notice of Public Meeting for QUARRY EXPANSION

The public is invited to an information session to hear proposed expansion plans and to provide input and opinions.

The company intends to consolidate and expand its' current gravel quarry operations to an area of 21.9 hectares. Production levels will be maintained at current production levels and will take place over an extended period of time until the aggregate reserve is exhausted.

The session will be held at St. James Anglican Church Hall, in Half Way Cove on Wednesday July 23, 2014 from 2 PM to 4PM

Strait Regional School Board

EMPLOYMENT OPPORTUNITY

Non-Teaching Support Staff

Competition #14-518-R-2: Term Teacher Assistant
5.5 hours per day – 10 months
Location: Pleasant Bay School
Effective Date: September 2, 2014 to
June 30, 2015

Competition #14-525-R: Term Building Operator
8 hours per day
Anticipated to end November 30, 2014
Location: Tamarac Education Centre
Effective Date: Immediately

PLEASE NOTE: For information concerning required qualifications, deadlines and application procedures, please access the Human Resources Employment Opportunities webpage on the Strait Regional School Board website at <http://www.srsb.ca>. Postings are also available at local schools / work sites or at the School Board Office (902-625-2191). If you are having difficulty with the application process, please contact Patsy Dorey at (902) 625-7088.

SUBSCRIBERS CAN ALSO ACCESS THE DIGITAL EDITION OF THE GUY

February 14, 2014

Council of Paq'tnkek First Nation
7 Dillon Street
Afton Station, NS
B0A 1A0

Attention: Council of Paq'tnkek First Nation

Reference: Chedabucto Aggregates Quarry Expansion– Notice of Proposed Project

Dear Sir or Madam,

This letter is to inform you of the proposed quarry expansion project, located in Halfway Cove, Guysborough County, approximately 13 km southeast of the town of Guysborough (see attached map).

The proposed project would see the expansion of the existing quarry at Halfway Cove, which is owned and operated by Chedabucto Aggregates Limited. The owner proposes to consolidate the existing quarry operations and expand to a total proposed quarry area of 21.9 hectares, to allow for continued aggregate production at the site. It is expected that production at the site will be maintained at approximately the same level as current operations. Depending on local market activity/demand, the proposed activities will take place over an extended period of time until the aggregate reserves are exhausted.

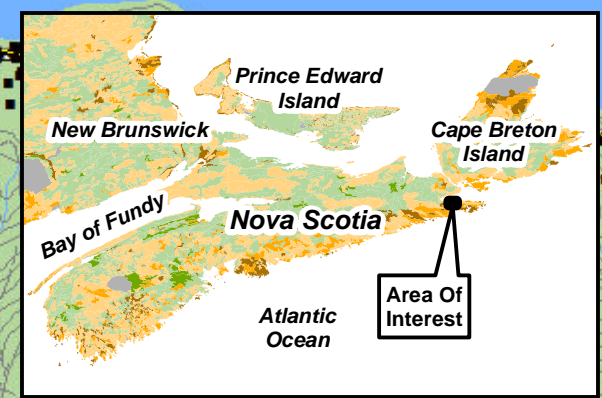
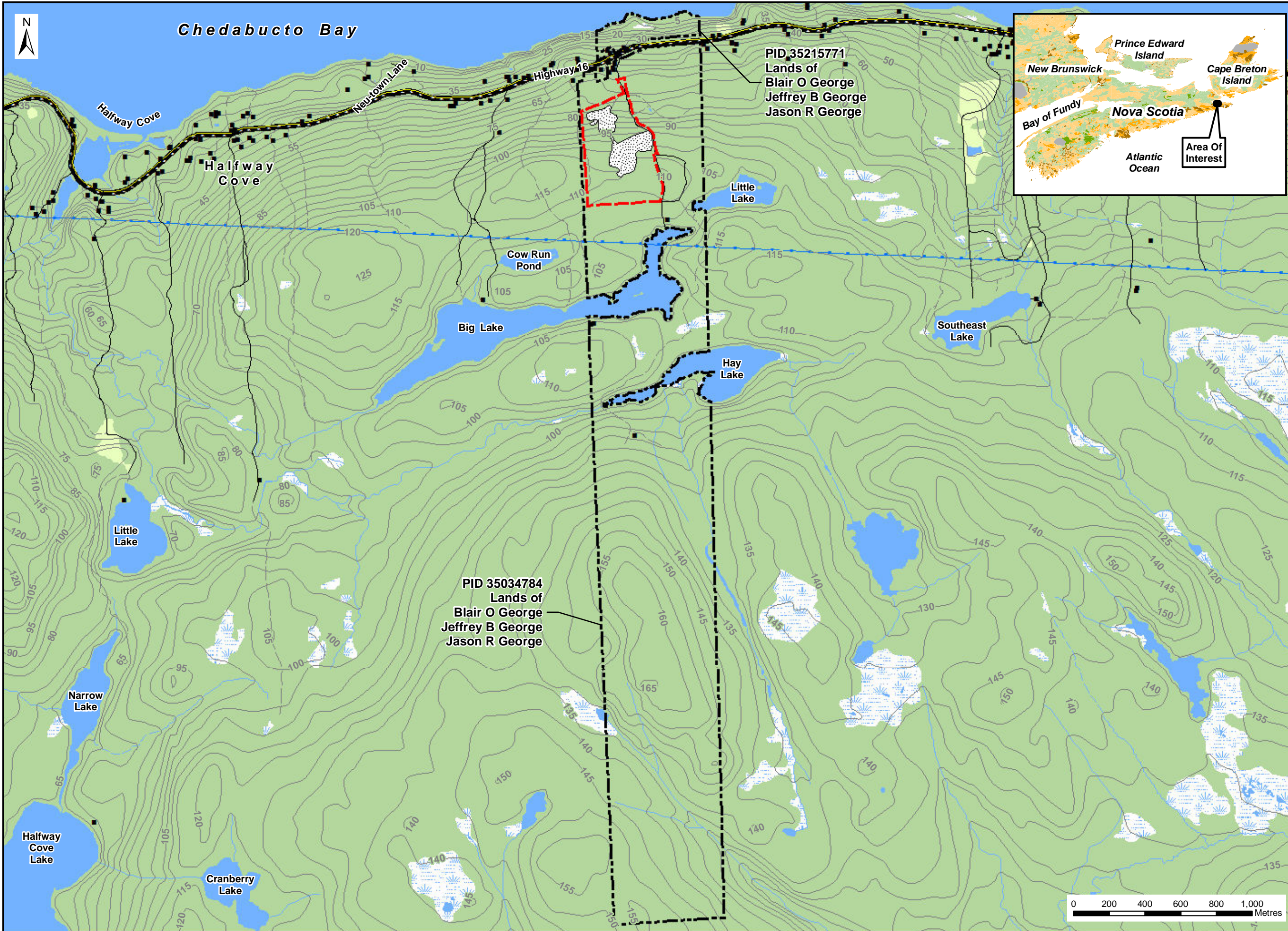
A Class 1 provincial Environmental Assessment is currently underway for the Project, under the Environmental Assessment Regulations pursuant to the Nova Scotia *Environment Act*.

Please do not hesitate to contact me personally should you require further information, or if you wish to participate in the Environmental Assessment process or provide comment. Inquiries and comments can be made to Blair George at bgeorge@modg.ca or (902) 867-7749. To learn more about Chedabucto Aggregates, you can visit our website at www.chedabuctoaggregates.com.

Sincerely,



Blair George
Owner/Operator
Chedabucto Aggregates Ltd. 6640 Highway 16 Halfway Cove
RR#2 Guysborough, NS B0H 1N0



- Notes:**
- Reference: Digital Topographic Mapping and Property Records and Management Unit MU0704 by Nova Scotia Geomatics Centre.
 - Projection: NAD83(CSRS), UTM Zone 20 North.

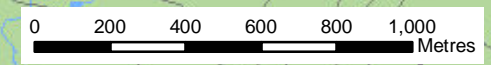
- Legend:**
- Limit of Expansion
 - Gravel Area
 - Subject Site Boundary
 - Building
 - Major Roads and Highways
 - Public Roads
 - Access Roads / Trails
 - Contours (m)
 - Existing Transmission Lines
 - Mapped Stream
 - Mapped Indefinite Stream
 - Mapped Wet Area
 - Water Bodies
 - Cleared Area

**Chedabucto
Aggregates
Quarry Expansion**

Project Site



Date: Dec. 2013	Project #: 13-4880
Scale: 1:20,000	Drawing #: 2
Drawn By: H. Serhan	
Checked By: M. Henley	



Chedabucto Aggregates Ltd.

6640 Highway 16, Half Way Cove
RR # 2 Guysborough NS B0H 1N0
Cell 902.867.7749
www.chedabuctoaggregates.com

March 24, 2014

Council of Paq'tnkek First Nation
7 Dillon Street
Afton Station NS B0A 1A0

Reference: Chedabucto Aggregates Quarry Expansion – Notice of Proposed Project

Ladies or Gentlemen:

This letter is to inform you of our proposed quarry expansion project located in Halfway Cove, Guysborough County, approximately 13 km southeast of the town of Guysborough. A map was provided to you in our last correspondence dated February 14, 2014.

The proposed project would see the expansion of the existing quarry at Halfway Cove, which is owned and operated by Chedabucto Aggregates Ltd. The company proposes to consolidate the existing quarry operations and to expand to a total proposed quarry operation of 21.9 hectares to allow for continued aggregate production at the site. It is expected that production at the site will be maintained at approximately the same level as current operations. Depending on local market activity/demand, the proposed activities will take place over an extended period of time until the aggregate is exhausted.

A Class 1 Provincial Environmental Assessment is currently underway for the Project, under the Environmental Assessment Regulations pursuant to the Nova Scotia *Environment Act*.

Please do not hesitate to contact me personally should you require further information, or if you wish to participate in the Environmental Assessment process, or provide comment. Inquiries and comments can be made to Blair George at "bgeorge@modg.ca" or 902-867-7749. To learn more about Chedabucto Aggregates, you can visit our website at www.chedabuctoaggregates.com

Yours truly



Blair George
President

Chedabucto Aggregates Ltd.

6640 Highway 16, Half Way Cove
RR # 2 Guysborough NS B0H 1N0
Cell 902.867.7749
www.chedabuctoaggregates.com

April 22, 2014

Council of Paq'tnkek First Nation
7 Dillon Street
Afton Station NS B0A 1A0

Reference: Chedabucto Aggregates Quarry Expansion – Notice of Proposed Project

Ladies or Gentlemen:

This letter is to inform you of our proposed quarry expansion project located in Halfway Cove, Guysborough County, approximately 13 km southeast of the town of Guysborough. A map was provided to you in our last correspondence dated February 14, 2014.

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A Class 1 Provincial Environmental Assessment is currently underway for the Project, under the Environmental Assessment Regulations pursuant to the Nova Scotia *Environment Act*.

Please do not hesitate to contact me personally should you require further information, or if you wish to participate in the Environmental Assessment process, or provide comment. Inquiries and comments can be made to Blair George at "bgeorge@modg.ca" or 902-867-7749. To learn more about Chedabucto Aggregates, you can visit our website at www.chedabuctoaggregates.com

Yours truly



Blair George
President

Chedabucto Aggregates Ltd.

6640 Highway 16, Half Way Cove
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Cell 902.867.7749
www.chedabuctoaggregates.com

May 10, 2014

Office of Aboriginal Affairs
5251 Duke St., 5th Floor
PO Box 1617
Halifax, NS B3J 2Y3

Attention: Justin Huston

Reference: Chedabucto Aggregates Quarry Expansion– Notice of Proposed Project

Dear Mr. Huston,

This letter is to inform you of the proposed quarry expansion project, located in Halfway Cove, Guysborough County, approximately 13 km southeast of the town of Guysborough (see attached map). The proposed project would see the expansion of the existing quarry at Halfway Cove, which is owned and operated by Chedabucto Aggregates Limited. The company proposes to consolidate the existing quarry operations and expand to a total proposed quarry area of 21.9 hectares, to allow for continued aggregate production at the site. It is expected that production at the site will be maintained at approximately the same level as current operations. Depending on local market activity/demand, the proposed activities will take place over an extended period of time until the aggregate reserves are exhausted.

A Class 1 provincial Environmental Assessment is currently underway for the Project, under the Environmental Assessment Regulations pursuant to the Nova Scotia Environment Act and is expected to be registered in fall 2014.

I have personally provided letters to the Council of Paq'tnekek First Nation, the Native Council of NS, the Confederacy of Mainland Mi'kmaq, the Union of Nova Scotia Indians and the KMKNO in February 2014, with follow up letters sent in March and April 2014.

Please do not hesitate to contact me personally should you require further information, or if you wish to participate in the Environmental Assessment process or provide comment. Inquiries and comments can be made to Blair George at bgeorge@modg.ca or (902) 867-7749. To learn more about Chedabucto Aggregates, you can visit our website at www.chedabuctoaggregates.com.

Sincerely,



Blair George
Owner/Operator

Chedabucto Aggregates Ltd.

6640 Highway 16, Half Way Cove
RR # 2 Guysborough NS B0H 1N0
Cell 902.867.7749
www.chedabuctoaggregates.com

May 29, 2014

Council of Paq'tnkek First Nation
7 Dillon Street
Afton Station NS B0A 1A0

Reference: Chedabucto Aggregates Quarry Expansion – Spring Project Update

Ladies or Gentlemen:

This letter is our progress report to follow up on correspondence sent to you in February, March, and April of 2014 related to our proposed quarry expansion project located in Halfway Cove, Guysborough County, approximately 13 km southeast of the town of Guysborough.

A Class 1 Provincial Environmental Assessment (EA) is currently underway for the Project, under the Environmental Assessment Regulations pursuant to the Nova Scotia *Environment Act*. The 2014 field programs are underway in support of the EA, with the following components completed to date: Two Mainland moose surveys have been conducted on and around the Project site by Strum Consulting. These included a winter snow tracking survey conducted in March, and a spring pellet count survey conducted in May. An Archaeological Resource Impact Assessment (ARIA) and field reconnaissance was completed in May by Boreas Heritage Consulting. This screening was completed with the objective of determining the potential for encountering Precontact and/or early historic Native archaeological resources at the Project site.

Additional field programs scheduled for this summer include a plant survey and inventory (to include rare plants), a breeding bird survey, and wetland/watercourse surveys. These components are expected to be completed by July 2014. Upon request, we would be happy to share the results of these field programs with you. Please do not hesitate to contact us should you wish to receive further information, or would like to view the preliminary results of any of the above-mentioned field programs.

We would be please to meet with you either at the quarry site or your offices to discuss any aspect of the proposed expansion in more detail. You can contact me at "bgeorge@modg.ca" or 902-867-7749.

Yours truly



Blair George
President

cc:

Jim Walsh, Confederacy of Mainland Mi'kmaq
Twila Gaudet, Kwilmu'kw Maw-klusuaqn Negotiation Office
David Mitchell, NS Office of Aboriginal Affairs

Chedabucto Aggregates Ltd.

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www.chedabuctoaggregates.com

July 14, 2014

Council of Paq'tnkek First Nation
7 Dillon Street
Afton Station NS B0A 1A0

Reference: Chedabucto Aggregates Quarry Expansion

Ladies or Gentlemen:

You are invited to attend our "Open House Public Meeting" to be held on Wednesday July 23, 2013 at St. James Anglican Church Hall in Half Way Cove between 2:00PM. and 4:00PM. The physical address of the hall is 6532 Highway 16.

If you are able to attend this information session we would be please to provide you with a tour of the intended quarry site.

Yours truly



Blair George
President

cc:
Jim Walsh, Confederacy of Mainland Mi'kmaq
Twila Gaudet, Kwilmu'kw Maw-klusuaqn Negotiation Office
David Mitchell, NS Office of Aboriginal Affairs

Chedabucto Aggregates Ltd.

6640 Highway 16, Half Way Cove
RR # 2 Guysborough NS B0H 1N0
Cell 902.867.7749
www.chedabuctoaggregates.com

August 8, 2014

Council of Paq'tnkek First Nation

7 Dillon Street
Afton Station NS B0A 1A0

Dear Sir or Madam,

Re: 2014 Field Studies: Chedabucto Aggregates Quarry Expansion

The 2014 field program in support of the Environmental Assessment for the Chedabucto Aggregates Quarry Expansion is complete. The biological components of the field program consisted of Mainland Moose surveys (winter and spring), a rare plant survey and inventory, a breeding bird survey, and wetland and watercourse assessments.

In addition to the biological surveys, an Archaeological Resource Impact Assessment (ARIA) and field reconnaissance was also completed with the objective of determining the potential for encountering Precontact and/or early historic Native archaeological resources at the Project site.

The Environmental Assessment (EA) registration document will provide details on the results of the field program, including detailed descriptions of each wetland, complete lists of plant and animal species observed, and a discussion on species of conservation interest (*i.e.*, rare species or Species at Risk), which have the potential to occur within the Project Area due to known proximity and habitat available on the site.

The EA document is expected to be registered with NS Environment before September, 2014 and will be available for viewing at the following locations on the date of registration:

- Nova Scotia Environment, 155 Main Street, Suite 205, Antigonish, NS
- Cyril Ward Memorial Library, 27 Pleasant St., Guysborough, NS
- Municipality of the District of Guysborough, Municipal Office, 33 Pleasant Street, Guysborough, NS
- Ecology Action Centre, 2705 Fern Lane, Halifax, NS
- Nova Scotia Environment, 155 Main Street, Suite 205, Antigonish, NS
- Nova Scotia Environment Library, 1903 Barrington Street, Suite 2085, Halifax, NS
- EA website (when available) at <http://www.gov.ns.ca/nse/ea>

Upon request, we would be happy to discuss the results of these field programs with you directly.

If you have any questions, you may can contact me directly at bgeorge@modg.ca or 902-867-7749.

Yours truly,

A handwritten signature in cursive script that reads "Blair George". The signature is written in black ink and is positioned to the right of the "Yours truly," text.

Blair George
President

Chedabucto Aggregates Ltd.

6640 Highway 16, Half Way Cove
RR # 2 Guysborough NS B0H 1N0
Cell 902.867.7749
www.chedabuctoaggregates.com

August 28, 2014

Twila Gaudet

Kwilmu'kw Maw-klusuaqn Negotiation Office
851 Willow Street
Truro, NS
B2N 6N8

Dear Ms. Gaudet,

Re: Final ARIA Report: Chedabucto Aggregates Quarry Expansion

NS Communities, Culture and Heritage (CHH) has completed their review of the Archaeological Resource Impact Assessment (ARIA) for the Chedabucto Aggregates Quarry Expansion. The screening and reconnaissance was completed in spring 2014, by BOREAS Heritage Consulting. The ARIA included background, environmental and historical research, as well as a visual assessment of the expansion area in order to determine the potential for impacting archaeological resources within the proposed project area.

No evidence of archaeological resources or areas of elevated archaeological potential were encountered and no indication of significant historic cultural modification was identified in the study area. Based on these findings, as well as the nature of the terrain and the distance to a significant water source, the project area is considered to exhibit low potential for encountering archaeological resources.

Based on the above, the assessor recommends that the study area be cleared of any requirement for future archaeological investigation. CHH has agreed with the recommendation and has found the report to be acceptable as submitted.

A copy of the final report can now be requested from CHH through the Coordinator of Special Places, Sean Weseloh McKeane.

Based on the results of the ARIA and the additional field studies conducted in support of the Environmental Assessment (EA), Chedabucto Aggregates has decided not to proceed with conducting an MEKS for the project area.

The EA registration document will provide details on the results of all field programs. The EA document is expected to be registered with NS Environment in September, 2014 and will be available for viewing at the following locations on the date of registration:

- Nova Scotia Environment, 155 Main Street, Suite 205, Antigonish, NS
- Cyril Ward Memorial Library, 27 Pleasant St., Guysborough, NS
- Municipality of the District of Guysborough, Municipal Office, 33 Pleasant Street, Guysborough, NS

- Ecology Action Centre, 2705 Fern Lane, Halifax, NS
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- Nova Scotia Environment EA website at <http://www.gov.ns.ca/nse/ea>

Upon request, we would be happy to discuss the results of these field programs with you directly. If you have any questions, you may can contact me directly at bgeorge@modg.ca or 902-867-7749.

Yours truly

A handwritten signature in cursive script that reads "Blair George". The signature is written in black ink and is positioned to the left of the typed name.

Blair George
President

APPENDIX C
MUNICIPALITY OF THE DISTRICT OF GUYSBOROUGH
LAND USE BY-LAW

Municipality of the District of Guysborough Land Use Bylaw

**2013
Official
Land Use Bylaw**

As amended April 10, 2013

PART 6 GENERAL PROVISIONS FOR ALL ZONES

6.1 Accessory Buildings and Structures

- a) Accessory uses, buildings and structures shall be permitted in any zone within the District of Guysborough Municipal Planning Area and may be used only as an accessory use to the main building or use, but it shall not:
- 1) be used for human habitation;
 - 2) be located within the required front or side yard of a lot;
 - 3) be built closer to the front lot line than the minimum distance required by this Bylaw for the main building on the lot. Where an accessory building is built on a corner lot, it shall be located in the rear yard or in the side yard which is not adjacent to the flanking street;
 - 4) exceed 139.354m² (1,500 ft²) in total floor area;
 - 5) be built within 1.8288 meters (6 feet) of the main building;
 - 6) be considered an accessory building if attached to the main building in any way;
 - 7) be considered an accessory building if it is necessary and incidental to a farming or fishing operation;
 - 8) be considered an accessory structure if located completely underground; and
 - 9) be built closer than 1.2192 meters (4 feet) to any lot line except:
 - 10) common semidetached garages may be centred on the mutual side lot line;
 - 11) accessory buildings with no windows or perforations on the side of the building which faces the said lot line, may be located a minimum of 0.6096 meters (2 feet) from the said side or rear lot line in any residential zone; and,
 - 12) Boathouses and docks may be built to the lot line when the line corresponds to the water's edge or is in the water.
- b) Notwithstanding anything else in this Bylaw, drop awnings, clothesline poles, flag poles, garden trellises, fences and retaining walls shall be exempted from any requirements under subsection 6.1(a).
- c) No accessory building or structure shall be constructed prior to the establishment of the main use of the land where no main building is to be built.
- d) Notwithstanding 6.1(c), an accessory building or structure may be constructed on an existing lot prior to the establishment of the main use of the land where no main building is to be built. Approval of such an accessory building or structure shall be subject to the satisfaction of the Development Officer that a main building or use would meet all requirements of the applicable bylaws and that the intended accessory building or structure shall not be used for human habitation.
- e) Notwithstanding anything else in this Bylaw, a single micro scale wind turbine with a rotor diameter not exceeding 2.5 meters (8'2") and having a generating capacity not

exceeding 100 watts shall be permitted as an accessory use to the main building or use.

6.2 Accessory Use Permitted

Where this Bylaw provides that any land may be used or a building or structure may be erected or used for a purpose, the purpose includes any use accessory thereto. Accessory buildings shall be permitted in all zones.

6.3 Main Building per Lot

No person shall erect more than one (1) main building on a lot except for the following:

- a) more than one dwelling on a lot in the R-2,R-3 Zone(s), subject to the requirements of the zone;
- b) buildings located in Commercial (C-1 and C-2) Zone(s);
- c) buildings located in Industrial I-1,I-2, I-3 and I-4 Zone(s); and
- d) non-residential buildings located in the MRR-1, CC-1 Zone(s).

6.4 Building to be Moved

No person shall move any building, residential or otherwise, within the area covered by this Bylaw without obtaining a development permit from the Development Officer.

6.5 Calculation of Lot Frontage

The following means shall be used for the purposes of determining lot frontage:

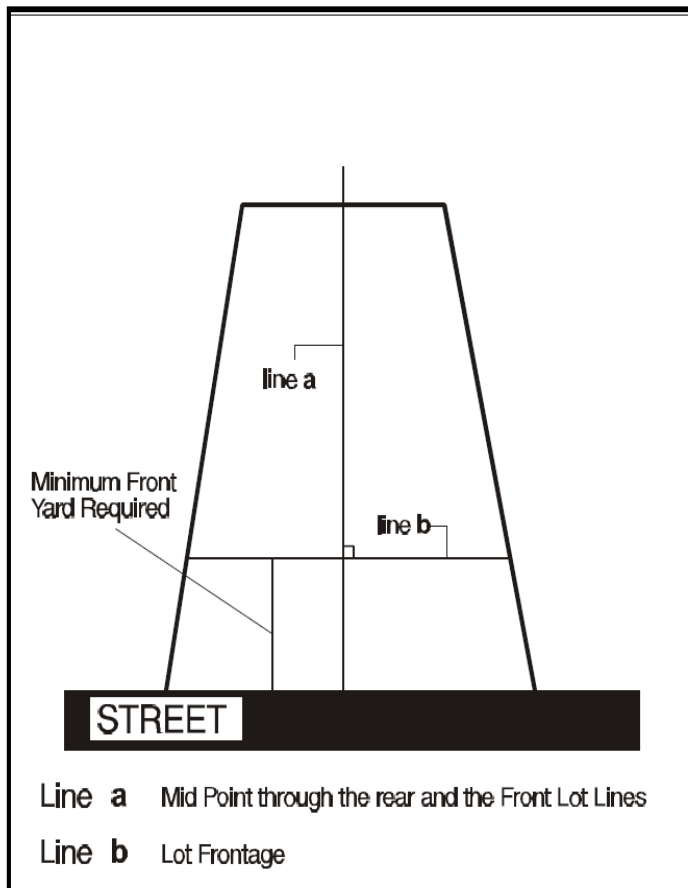


Figure 1

- a) in the case of regularly shaped lots, lot frontage shall be measured as a straight line between the points where the two (2) side lot lines meet the front lot line;
- b) in the case of irregularly shaped lots, lot frontage shall be deemed to be the horizontal distance between the side lot lines measured perpendicularly to a line joining the middle of the front lot line with the middle of the rear lot line, at a point equal to the minimum applicable front yard (see Figure 1).

6.6 Permitted Uses

- a) For the purpose of this By-law, if a use is not listed as a permitted or conditional use in any zone, it shall be deemed to be a prohibited use in that zone, unless otherwise stated.
- b) Where a permitted use within any zone is defined in this By-law, the uses permitted in the zone include any similar uses that satisfy such definition except where a definition specifically excludes any similar use.

- c) Notwithstanding, Part 6.6 (a) of the Bylaw, buildings, facilities and infrastructure shall be permitted in any zone where such development is on land owned by the Municipality of the District of Guysborough and such uses are public.

6.7 Encroachments Permitted

Except for accessory buildings, every part of any yard required by this Bylaw shall be open and unobstructed by any structure from the ground to the sky, provided that those structures listed in the following table shall be permitted into yards indicated as follows:

Structure	Maximum Projection from Main Wall Permitted
sills, cornices, eaves, gutters, chimneys, pilasters and canopies	0.6096 meters (2 feet)
window bays, cantilevers, oil tanks and propane tanks	0.9144 meters (3 feet), maximum width 3.04800 meters (10 feet)
exterior staircases, wheelchair ramps and fire escapes	1.8288 meters (6 feet)
balconies	1.8288 meters (6 feet)
verandas, porches and decks	2.4384 meters (8 feet)

6.8 Existing Buildings

- a) Where a building has been erected on or before the effective date of this Bylaw on a lot having less than the minimum frontage or area, or having less than the minimum setback or side yard or rear yard required by this Bylaw, the building may be enlarged, reconstructed, repaired or renovated provided that:
- 1) the enlargement, reconstruction, repair or renovation does not further reduce the front, side or rear yard that does not conform to this Bylaw; and
 - 2) all other applicable provisions of this Bylaw are satisfied.
- b) Notwithstanding anything else in this Bylaw, the use of a building existing on a lot on the effective date of this Bylaw may be changed to a use permitted on the lot where the lot frontage, front yard, or area required or any two or all of these is less than the requirements of this Bylaw provided that all other requirements of this Bylaw are satisfied.

6.9 Existing Undersized Lots

- a) Notwithstanding anything else in this Bylaw, a vacant lot held in separate ownership from adjoining parcels in existence prior to the effective date of this Bylaw, having less than the minimum frontage or area or both required by this Bylaw, may be used for a purpose permitted in the Zone in which the lot is located and a building may be erected on the lot provided that all other applicable provisions in this Bylaw are satisfied or any other applicable regulations.

- b) An existing undersized lot which is increased in area or frontage or both, but remains undersized, is still considered an existing undersized lot for the purposes of this section.

6.10 Frontage on a Street

- a) No development permit shall be issued unless the lot or parcel of land intended to be used or upon which a building or structure is to be erected abuts a public road, private road or a road indexed in Schedule “B” of the Provincial Subdivision Regulations.
- b) Notwithstanding subsection 6.10 (a) a development permit may be issued for a lot which has been created without road frontage pursuant to Section 5(1) of the Provincial Subdivision Regulations or a lot on an island pursuant to Section 6(2) of the Provincial Subdivision Regulations.

6.11 Height Regulation Exemption

The height regulations of this By-law shall not apply to church spires, water tanks, elevator enclosures, silos, flagpoles, chairlifts, television or radio antennae, skylights, barns, chimneys, clock towers, power transmissions, lookout towers, satellite discs, solar collector devices and all communication infrastructure regulated by Industry Canada.

6.12 Illumination

No person shall erect any illuminated sign or illumination otherwise, in an area outside any building unless such illumination is directed away from adjoining properties and any adjacent streets.

6.13 Kennels

Where kennels are permitted by this Bylaw, the following special provisions shall apply:

- a) Breeding Kennels:
 - i) shall be located in the rear yard and shall have a minimum separation distance of 45.7 m (150 feet) between the animal structure and the rear and side yard lot lines.
 - ii) a minimum lot size of 2.5 acres (1 ha); and
- b) Boarding Kennels:
 - i. shall be located in the side or rear yard and shall have a minimum setback distance of 15.24 meters (50 feet) between the animal structure and the side and rear yard lot lines;
 - ii. kennels located in the side yard shall have a minimum setback distance of 7.62 meters (25 feet) from the front lot line;
 - iii. an enclosed structure is constructed for the sheltering of the animal(s);

- iv. kennels are only permitted on those properties upon which a permanent residence has been constructed;
- v. the owner of the kennel operation must reside on the property upon which the kennel operation is located;
- vi. said structure shall be located 30.48 meters (100 feet) from any watercourse or well not on the same property.

6.14 Licenses, Permits and Compliance with Other Bylaws

- a) Nothing in this Bylaw shall exempt any person from complying with the requirements of the building bylaw or any other bylaw in force within the Municipality of the District of Guysborough or from obtaining any license, permission, permit, authority or approval required by any other bylaw of the Municipality or any regulation of the Province of Nova Scotia or the Government of Canada.
- b) Where the provisions of this Bylaw conflict with those of any other Bylaw of the Municipality or regulation of the Province or the Government of Canada, the higher or more stringent provision, as determined by the Development Officer, shall prevail.

6.15 Multiple Uses

Where any land or building is used for more than one purpose, all provisions of this Bylaw relating to each use shall be satisfied. Where there is conflict, such as in the case of lot size or lot frontage, the higher or more stringent standard shall prevail.

6.16 Nonconforming Uses

- a) Any use of land or a building or structure constructed, or being constructed, on or before the effective date of this Bylaw that does not conform to the requirements of this Bylaw shall be subject to the provisions of the Municipal Government Act respecting nonconforming uses and structures.
- b) Notwithstanding 6.16 (a), a nonconforming industrial use shall be permitted to change to a less obnoxious or less intensive industrial use in terms of traffic generated, hours of operation, outdoor storage, noise and fumes.

6.17 One Main Building on a Lot

- a) No person shall erect more than one main building on a lot except:
 - 1) in all Industrial Zones;
 - 2) in the Residential Multiple Unit R-2 Zone; and
 - 3) in the Manufactured Home ParkR-3 Zone
- b) Notwithstanding subsection 6.17 (a), more than one building may be placed on a lot provided there is sufficient area and frontage to enable the creation of as many lots as there are main buildings and each building is placed in such a way that the subsequent subdivision could take place. A site plan drawn by a Nova Scotia Land

Surveyor will be required at the time of application for a Building/Development Permit.

6.18 Parking & Loading Requirements

- a) For every building or structure to be erected, enlarged or changed in use off-street parking located within the same lot and zone as the use and having unobstructed access to a public street shall be provided and maintained in conformity with the following schedule. However, in commercial core areas providing on street parking, total parking spaces may include 1 parking space for each 6 meter (19'8") of lot frontage.

Type of Building	Minimum Parking Requirement
A dwelling containing less than 3 dwelling units	1 parking space per dwelling unit
All other dwellings	1.5 parking spaces for each dwelling unit
Boarding and rooming homes	1 parking space for the dwelling unit plus 1 parking space for every 2 rooms available for rent
Churches, halls, auditoria, restaurants, theatres, arenas, stadia, private clubs and other places of assembly	Where there are fixed seats, 1 parking space for every 5 seats, or 3 m (9'10") of bench space; where there are no fixed seats, 1 parking space for every 10 m ² . (107.639ft ²) of floor area
Hospitals and nursing homes	1 parking space for every 2 beds or 40 m ² . (430.556ft ²) of floor area, whichever is greater
Senior citizen housing	1 parking space for every 2 dwelling units
Hotels, motels and tourist cabins	1 parking space for every 2 beds or 40 m ² . (430.556 ft ²) of floor area, whichever is greater
Offices	1 parking space for every 30 m ² . (322.917 ft ²) of floor area used for offices
Funeral homes	1 parking space for every 5 m ² . (53.819 ft ²) of assembly floor area
Bowling alleys and curling rinks	4 parking spaces for each bowling lane or curling sheet plus 1 parking space for every 10 m ² . (107.639 ft ²) of other public floor space
All other commercial uses	1 parking space for every 30 m ² . (322.917 ft ²) of floor area
Elementary schools	1.5 parking spaces for each teaching classroom
Junior and senior high schools	4 parking spaces for each teaching classroom
All industrial uses	1 parking space for every 50 m ² . (538.195 ft ²) of floor area

- b) A parking space shall measure 2.5 m by 6 m (8'2" x 19'8") exclusive of driveways and manoeuvring aisles.
- c) One loading space shall be provided for every 3,000 m². (32,400 ft²) of commercial, industrial and institutional floor space to a maximum of 6 loading spaces.

- d) A loading space is not required for any building less than 140 m² (1506.947 ft²) in area.
- e) A loading space shall be:
 - 1) a minimum of 3.5 m by 12.5 m (11'5" x 41'0") with a minimum height clearance of 4.5 m (14'9");
 - 2) located in the rear or side yard only and screened from adjoining residential or park uses;
 - 3) constructed with a stable surface which is treated to prevent the raising of dust or loose particles; and
 - 4) have access to the street by means of a minimum 3 m (9'10") wide driveway for one way and 6 m (19'8") wide driveway for two way traffic.

6.19 Parking Lot Standards

Where a parking lot for more than four spaces is to be constructed:

- a) the parking lot shall be constructed with a stable surface that is treated to prevent the raising of dust or loose particles;
- b) any lighting used to illuminate the parking lot shall be arranged in such a manner to divert light away from streets, adjoining lots and buildings;
- c) a structure not more than 4.5 m (14'9") in height and not larger than 4.6 m² (495139 ft²) in area may be erected for use of attendants;
- d) where a permanent hard surface is used, each parking space shall be marked;
- e) approaches or driveways to the lot shall be defined by a curb of concrete or rolled asphalt and the limits of the lot shall be defined by a curb or concrete or rolled asphalt and the limits of the lot shall be defined by a fence, curb or other suitable obstruction designed to provide a neat appearance; and
- f) The approaches or driveways to the lot shall not exceed two in number from any one street, and shall be between 6 m (19'8") and 7.5 m (24'7") in width.

6.20 Parking for People with Disabilities

- a) In addition to the parking requirements found in Part 6.19, where off street parking is to be provided on the same lot as the building, one space dedicated to people with disabilities shall be provided for every 100 spaces required, or part thereof.
- b) Such parking spaces shall be 3.7 m (12'1") wide and be not more than 50 m (164') away from the entrance designed for use by people with disabilities.

6.21 Parking Standards for a Change of Use

Notwithstanding Part 19 of this Part where a change of use is to occur to an existing recreational, commercial or industrial use and the new use is unable to comply with additional parking requirements, the additional parking requirements will be waived.

6.22 Parks and Playgrounds

Parks and playgrounds shall be permitted in any zone provided:

- a) any maintenance or storage building accessory to the park or playground does not exceed 60.96 m² (656.3 ft²) in floor area; and
- b) Any signage conforms to the signage requirements of this Bylaw.

6.23 Public and Private Utilities

Public and Private Utilities shall be permitted in any zone provided that such use conforms to the applicable lot standards of that particular zone.

6.24 Public Uses Permitted

Government buildings and facilities shall be permitted in any zone provided that such use conforms to the applicable lot standards of that particular zone.

6.25 Reduced Lot Requirements

Notwithstanding the minimum lot area and frontage requirements found elsewhere in the Bylaw a development permit may be issued for lots which have been created pursuant to the Provincial or Municipal Subdivision Regulations.

6.26 Restoration to a Safe Condition

Nothing in this Bylaw shall prevent the strengthening or restoring to a safe condition of any building or structure, provided in the case of a nonconforming use the provisions of the Municipal Government Act of Nova Scotia shall prevail.

6.27 Side Yards on Corner Lots

Notwithstanding anything else in this Bylaw, on a corner lot in any zone, no part of any building or accessory building shall be erected closer to the lot line of the flanking street than 7.62 m (25').

6.28 Temporary Uses and Structures Permitted

- a) Nothing in this Bylaw shall prevent uses and structures incidental to construction such as a construction camp or other such temporary work camp, a tool shed, scaffold, or similar building incidental to construction providing that the uses or structures are removed from the site within 14 days after completion of the construction project and provided a development permit has been issued.
- b) Nothing in this Bylaw shall prevent uses and structures erected for special occasions and holidays provided only that no such use remains in place more than 14 consecutive days. A development permit shall not be required.

6.29 Truck, Bus and Coach Bodies

No trucks, bus, coach or structure of any kind, other than a mobile home or dwelling unit erected and used in accordance with this and all other bylaws of the Municipality, shall be used for human habitation within the Guysborough Municipal Planning Area, whether or not same is mounted on wheels.

6.30 Variance

- a) Notwithstanding the general requirements set out for each zone in this Bylaw, the Development Officer may grant a variance subject to the requirements of the Municipal Government Act.
- b) Where a variance is granted or refused, the appeal and the notice provisions of the Municipal Government Act shall be complied with and the applicant shall pay to the Municipal Clerk the cost of notifying affected land owners.
- c) The Development officer may refer requests for variances that exceed 10% to Council for their advice and recommendation from time to time.

6.31 Small Scale or Domestic Wind Turbines

Small scale or domestic wind turbines are permitted throughout the Bylaw area. No development permit shall be issued for a small scale wind turbine except in conformity with the following:

- a) Wind turbines shall not exceed 60 m (196'10") in height being the measurement from the base of the tower to the highest point of the blade's arc.
- b) Development is restricted to one turbine per lot and shall have a generating capacity of less than 100 kilowatts (kW)
- c) The minimum rotor clearance shall be 8 m (26'3") from established grade.
- d) Minimum setback from all property lines shall be one and a half times (1.5x) the maximum height of the turbine.
- e) Minimum setback from a dwelling unit on an adjoining or adjacent lot shall be two times (2x) the maximum height of the turbine.
- f) Minimum setback from a public or private road shall be two times (2x) the maximum height of the turbine.
- g) Minimum setback from institutional uses such as, hospitals, daycares, libraries, etc., on an adjoining or adjacent lot shall be the greater of three times (3 x) the maximum height of the turbine.
- h) Signage shall be limited to the gear box of the turbine and only indicate the operator and/or manufacturer of the turbine.

6.32 Uses by Development Agreement

Notwithstanding all other provisions under this By-law, Council may, by resolution, approve development agreements for specified developments which would otherwise

not be permitted under this By-law through the enabling legislation of the Municipal Government Act and as provided for by the applicable policies with the Municipal Planning Strategy for the District of Guysborough, such uses are as follows:

- a) Within the Residential Growth Designation multiple unit dwellings and residential developments of **20 units or greater**.
- b) Throughout the plan area, excluding the residential growth centre designation, large scale wind turbine(s) in excess of **60 metres** (196'10") in height, being the measurement from the base of the tower to the highest point of the blade's arc.

17.3 Special Requirements

Abutting Yard Requirements:

Where a yard or lot located within an Industrial Light (I-1) Zone abuts a Residential Zone, the following restrictions shall apply:

- a) No open storage or display shall be permitted in an abutting yard within 6m (19'8")
- b) of a side or rear lot line; and
- c) No parking space shall be permitted in an abutting yard within 6m (19'8") of a side or rear lot line.

PART 18 INDUSTRIAL HEAVY I-2 ZONE

18.1 Permitted Uses

No development permits shall be issued in an Industrial Heavy I-2 zone except for one or more of the following uses:

- a) all uses permitted within the I-1 Zone subject to the I-1 Zone requirements
- b) auto salvage yards
- c) rock quarry operations or open-pit mines from which rocks or minerals are extracted
- d) refineries and raw material processing and manufacturing
- e) large scale wind turbines and wind farms

18.2 General Lot Requirements

In any Industrial (I-2) Zone, no development permit shall be issued except in conformity with the following requirements:

Requirement	Standard
Minimum Lot Area	10,000 m ² (107 639 ft ²)
Minimum Lot Frontage	65 m (213'3")
Minimum Front Yard	10 meters (32'9")
Minimum Side Yard	10 meters (32'9")
Minimum Rear Yard	20 meters (65'7")
Maximum Building Height	15 meters (49'2")

18.3 Special Requirements

Abutting Yard Requirements: Where a yard or lot located within an Industrial (I-2) Zone abuts a Residential or Commercial Zone, the following restrictions shall apply:

- a) no open storage or display shall be permitted in an abutting yard within 6m (19'8") of a side or rear lot line;
- b) no parking space shall be permitted in an abutting yard within 6meters of a side or rear lot line; and
- c) All special provisions identified under Part 19 Industrial Resource I-3 Zone shall apply to the I-2 Zone.

PART 19 INDUSTRIAL RESOURCE I-3 ZONE

19.1 Permitted Uses

No development permits shall be issued in an Industrial Resource I-3 Zone except for one or more of the following uses:

- a) all uses permitted within the I-2 Zone subject to the I-2 Zone requirements
- b) oil refineries and manufacturing
- c) natural gas processing, including liquefaction, gasification and transport plants and facilities
- d) petrochemical industrial production facilities
- e) marine/container terminals, including wharfs and storage facilities
- f) power generation facilities, including large scale wind turbines and wind farms
- g) temporary uses related to industrial development

19.2 General Lot Requirements

In any Industrial Resource (I-3) Zone, no development permit shall be issued except in conformity with the following requirements:

Requirement	Standard
Minimum Lot Area	20,000 m ² (215 278ft ²)
Minimum Lot Frontage	70 m (229'7")
Minimum Front Yard	20 m (65'7")
Minimum Side Yard	20 m (65'7")
Minimum Rear Yard	20 m (65'7")
Maximum Building Height	30 meters (98'5")

* (greater setbacks may apply under Special Provisions)

19.3 Special Provisions

- a) The following special provisions shall apply to mining structures, oil refineries and manufacturing, gas processing, including petrochemical facilities, LNG plants, marine/container terminals, including wharfs and storage facilities, power generation facilities, wind turbines or wind farms and temporary uses:

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APPENDIX E
WETLAND TABLE AND METHODOLOGY

WETLAND DELINEATION IDENTIFICATION METHODOLOGY

Wetlands and Watercourses in Nova Scotia

Wetlands in Nova Scotia are regulated by NSE under Section 105 of the *Environment Act*. Under the Act, wetlands are:

Land referred to as a marsh, swamp, fen, or bog that either periodically or permanently has water table at, near, or above the land surface or that is saturated with water, and sustains aquatic processes as indicated by the presence of poorly drained soils, hydrophytic vegetation, and biological activities adapted to wet conditions.

Watercourses are defined in the *Environment Act* as:

Any creek, brook, stream, river, lake, pond, spring, lagoon, or any other natural body of water, and includes all the water in it, and also the bed and the shore (whether there is actually any water in it or not). It also includes all groundwater.

Watercourses are defined in Halifax Regional Municipality (HRM) land use by-laws as:

A lake, river, stream, ocean, or other natural body of water.

Delineation Methodology

In order for a wetland determination to be made, the following three criteria were assessed the field:

- Presence of hydrophytic (water loving) vegetation;
- Presence of hydrologic conditions that result in periods of flooding, ponding, or saturation during the growing season; and
- Presence of hydric soils (anaerobic conditions in upper part).

Soil pits were completed frequently to confirm the presence/absence of wetland hydrology and hydric soils, as per the methodology below. A general vegetation survey was also completed within the wetlands to confirm hydrophytic vegetation.

Identification of Hydrophytic Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). Hydrophytic vegetation should be the dominant plant type in wetland habitat (Environmental Laboratory 1987).

WETLAND DELINEATION IDENTIFICATION METHODOLOGY

Dominant plant species observed in each wetland were classified according to indicator status (probability of occurrence in wetlands), in accordance with the U.S. Fish and Wildlife Service (USFWS) National List of Vascular Plant Species that Occur in Wetlands: NE Region (Region 1) (Reed 1988). Please refer to Table 1 (below) for these classifications. These indicators are used as this region most closely resembles the flora of Nova Scotia and climate regime. Further relevant information was reviewed in Flora of Nova Scotia (Zinck, 1998).

Table 1: Classification of Wetland-Associated Plant Species¹

Plant Species Classification	Abbreviation ²	Probability of Occurring in Wetland
Obligate	OBL	>99%
Facultative Wetland	FACW	66-99%
Facultative	FAC	33-66%
Facultative Upland	FACU	1-33%
Upland	UPL	<1%
No indicator status	NI	Insufficient information to determine status
Plants That Are Not Listed (assumed upland species)	NL	Does not occur in wetlands in any region.

¹ Source: Reed 1988

² A '+' or '-' symbol can be added to the classification to indicate greater or lesser probability, respectively, of occurrence in a wetland.

If the majority (greater than 50%) of the dominant vegetation at a data point is classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC), then the location of the data point is considered to be dominated by hydrophytic vegetation.

Identification of Hydric Soils

A hydric soil is a soil that has formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA-NRCS 2010). Indicators of the presence of a hydric soil include soil colour (gleyed soils and soils with bright mottles and/or low matrix chroma), aquic or preaquic moisture regime, reducing soil conditions, sulfidic material (odour), soils listed on the hydric soils list, iron and manganese concretions, organic soils (histosols), histic epipedon, high organic content in surface layer in sandy soils, and organic streaking in sandy soils.

Soil pits were excavated to a maximum depth of 40 cm or refusal. The soil in each was then examined for hydric soil indicators. The matrix colour and mottle colour (if present) of the soil were determined using the Munsell Soil Colour Charts.

Determination of Wetland Hydrology

Wetland habitat, by definition, either periodically or permanently, has a water table at, near, or above the land surface or that is saturated with water. To be classified as a wetland, a site should have at least one primary indicator or two secondary indicators of wetland hydrology, as shown in Table 2.

WETLAND DELINEATION IDENTIFICATION METHODOLOGY

Table 2: Indicators of Wetland Hydrology

Examples of Primary Indicators	Examples of Secondary Indicators
Water marks	Oxidized Root Channels in the Upper 30 cm
Drift Lines	Local Soil Survey Data
Sediment Deposition	Dry season Water Table
Drainage Patterns	Stunted or Stressed Plants
Water-stained leaves	
Visual Observation of Saturated Soils	
Visual Observation of Inundation	

Wetland habitat is assessed for signs of hydrology, via visual observations across the area and through assessment of soil pits.

References

Environmental Laboratory (1987), Corps of Engineers Wetlands Delineation Manual, US Army Corp of Engineers, 1987.

Reed. 1988. National List of Plant Species that Occur in Wetlands: NE Region (Region 1) U.S. Fish and Wildlife Service, Washington, DC.

USDA-NRCS. (United States Department of Agriculture- Natural Resources Conservation Service). 2010. *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils*. Version 7.0. 53 pp.

Zinck, M. 1998. *Rolands Flora of Nova Scotia*. Nimbus Publishing, Nova Scotia.

Environmental Laboratory. (1987). "Corps of Engineers wetlands delineation manual," [Technical Report Y-87-1](#), U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. NTIS No. AD A176 912 (Note: Appendix C information is outdated and must be obtained from regional Wetlands offices)

WETLAND ID	WETLAND TYPE	LANDSCAPE POSITION	LANDFORM	WATER FLOW	HYDRIC SOIL INDICATOR	SURFACE/HYDROLOGIC CONDITIONS	WETLAND BOUNDARY	AREA (m ²)	DOMINANT VEGETATION			WATER FLOW DIRECTION
									Herbs	Shrubs	Trees	
Wetland 1	Bog	Terrene	Basin	Outflow	Organic (A1 histosol)	1) Saturated at surface 2) Groundwater at 15 cm	Gentle to moderate	204*	bluejoint reed grass (<i>Calamagrostis canadensis</i>); black crowberry (<i>Empetrum nigrum</i>); rhodora (<i>Rhododendron canadense</i>); three-seeded sedge (<i>Carex trisperma</i>); bog laurel (<i>Kalmia polifolia</i>); northern pitcher plant (<i>Sarracenia purpurea</i>)	black spruce (<i>Picea mariana</i>); eastern larch (<i>Larix laricina</i>); red maple (<i>Acer rubrum</i>)	black spruce; eastern larch	Drains ephemeral via culverted road ditch to the northwest.
Wetland 2	Treed swamp	Terrene	Basin	Outflow (inferred)	Organic over depleted mineral soils on rock (A2 - Histic epipedon)	1) Saturated at surface 2) Drainage patterns	Gentle to east and west and steep to the south	404*	cinnamon fern (<i>Osmundastrum cinnamomeum</i>); three-seeded sedge; bunchberry (<i>Cornus canadensis</i>); common Labrador tea (<i>Ledum groenlandicum</i>)	northern wild raisin (<i>Viburnum nudum</i>); black spruce; Canada holly (<i>Ilex verticillata</i>)	black spruce; red maple	Inferred outflow to the north.
Wetland 3a	Treed swamp	Terrene	Sloped Basin	Outflow	Organic over depleted mineral soils on rock (A2 - Histic epipedon)	1) Saturated at surface 2) Flowing surface water	Gentle to moderate	3501	cinnamon fern; three-seeded sedge; bluejoint reed grass	northern wild raisin; Canada holly	black spruce; balsam fir (<i>Abies balsamea</i>); red maple	Drains ephemeral to northwest via rutting in old road.
Wetland 3b	Treed swamp	Terrene	Sloped Basin	Outflow	Organic over depleted mineral soils on rock (A2 - Histic epipedon)	Saturated at surface	Gentle	414	cinnamon fern; three-seeded sedge	northern wild raisin; Canada holly	black spruce; balsam fir; red maple	Seepage to the northwest into Wetland 3a.
Wetland 4	Treed swamp	Terrene	Sloped Basin	Outflow	Organic over depleted mineral soils on rock (A2 - Histic epipedon)	Saturated at surface	Gentle	596	cinnamon fern; three-seeded sedge; bunchberry	Canada holly	black spruce; balsam fir; red maple	Drains ephemeral to the west.
Wetland 5	Bog	Terrene	Basin	Outflow	Organic on rock (A1-histosol)	1) Saturated at surface 2) Groundwater at 10 cm	Gentle	3989	black crowberry; rhodora; three-seeded sedge; late lowbush blueberry; bog laurel; northern pitcher plant; cinnamon fern	black spruce; eastern larch; northern wild raisin	eastern larch	Drains ephemeral to the north.
Wetland 6	Former treed swamp	Terrene	Basin	Outflow	Organic on rock (A1-histosol)	Saturated at surface	Gentle	68	three-seeded sedge; three-leaved Solomon's seal (<i>Maianthemum trifolium</i>); bluejoint reed grass; soft rush (<i>Juncus effusus</i>)	yellow birch (<i>Betula alleghaniensis</i>)	Cutover	Drains ephemeral to the southeast and southwest.
Wetland 7	Bog	Terrene	Flat	Outflow (ephemeral)	Organic on rock (A1-histosol)	Saturated at surface	Gentle	2425*	northern pitcher plant; lowbush blueberry (<i>Vaccinium angustifolium</i>); common juniper (<i>Juniperus communis</i>); three-seeded sedge; ostrich fern (<i>Matteuccia struthiopteris</i>)	black spruce; eastern larch (<i>Larix laricina</i>); northern wild raisin; common winterberry	eastern larch; black spruce	Drains ephemeral to the southeast.

* The wetland areas calculated represent the portion of the wetland within the Project area.

APPENDIX F
PLANT LIST

Table F1: Short List of Rare Plant and Lichen Species Identified Within 100 km of the Project site, Chedabucto Aggregates Quarry Expansion

Project # 13-4880

Common Name	Scientific Name	SARA Status	NS ESA Status	COSEWIC Status	NSDNR Status
a Feather Moss	<i>Hylocomiastrum pyrenaicum</i>	No Status	No Status	No Status	Yellow
a Moss	<i>Limprichtia revolvens</i>	No Status	No Status	No Status	Yellow
Alder-leaved Buckthorn	<i>Rhamnus alnifolia</i>	No Status	No Status	No Status	Yellow
Alpine Bilberry	<i>Vaccinium uliginosum</i>	No Status	No Status	No Status	Yellow
Alpine Bistort	<i>Polygonum viviparum</i>	No Status	No Status	No Status	Red
American False Pennyroyal	<i>Hedeoma pulegioides</i>	No Status	No Status	No Status	Yellow
Arctic Kidney Lichen	<i>Nephroma arcticum</i>	No Status	No Status	No Status	Red
Atlantic Sedge	<i>Carex atlantica ssp. capillacea</i>	No Status	No Status	No Status	Undetermined
Bastard's Toadflax	<i>Comandra umbellata</i>	No Status	No Status	No Status	Red
Bebb's Sedge	<i>Carex bebbii</i>	No Status	No Status	No Status	Red
Black Ash	<i>Fraxinus nigra</i>	No Status	Threatened	No Status	Yellow
Blistered Tarpaper Lichen	<i>Collema furfuraceum</i>	No Status	No Status	No Status	Yellow
Bloody Beard Lichen	<i>Usnea mutabilis</i>	No Status	No Status	No Status	Yellow
Blue Cohosh	<i>Caulophyllum thalictroides</i>	No Status	No Status	No Status	Red
Blue Felt Lichen	<i>Degelia plumbea</i>	No Status	Vulnerable	Special Concern	Green
Blunt-leaved Pondweed	<i>Potamogeton obtusifolius</i>	No Status	No Status	No Status	Yellow
Bog Birch	<i>Betula pumila</i>	No Status	No Status	No Status	Yellow
Bog Willow	<i>Salix pedicellaris</i>	No Status	No Status	No Status	Yellow
Boreal Aster	<i>Symphyotrichum boreale</i>	No Status	No Status	No Status	Yellow
Boreal Felt Lichen - Atlantic pop.	<i>Erioderma pedicellatum (Atlantic pop.)</i>	No Status	Endangered	Endangered	Red
Bristle-leaved Sedge	<i>Carex eburnea</i>	No Status	No Status	No Status	Yellow
Broad-Grumed Brome	<i>Bromus latiglumis</i>	No Status	No Status	No Status	Red
Brook Lobelia	<i>Lobelia kalmii</i>	No Status	No Status	No Status	Red
Buttonbush Dodder	<i>Cuscuta cephalanthi</i>	No Status	No Status	No Status	Red
Canada Anemone	<i>Anemone canadensis</i>	No Status	No Status	No Status	Red
Canada Germander	<i>Teucrium canadense</i>	No Status	No Status	No Status	Yellow
Canada Lily	<i>Lilium canadense</i>	No Status	No Status	No Status	Yellow
Canada Wood Nettle	<i>Laportea canadensis</i>	No Status	No Status	No Status	Yellow
Climbing False Buckwheat	<i>Polygonum scandens</i>	No Status	No Status	No Status	Yellow
Clustered Sanicle	<i>Sanicula odorata</i>	No Status	No Status	No Status	Red
Coast Creeping Moss	<i>Conardia compacta</i>	No Status	No Status	No Status	Yellow
Cuckoo Flower	<i>Cardamine pratensis</i>	No Status	No Status	No Status	Red
Cuckoo Flower	<i>Cardamine pratensis var. angustifolia</i>	No Status	No Status	No Status	Red
Cut-Leaved Coneflower	<i>Rudbeckia laciniata var. gaspereaensis</i>	No Status	No Status	No Status	Undetermined
Disguised St John's-wort	<i>Hypericum dissimulatum</i>	No Status	No Status	No Status	Yellow
Downy Willowherb	<i>Epilobium strictum</i>	No Status	No Status	No Status	Yellow
Dudley's Rush	<i>Juncus dudleyi</i>	No Status	No Status	No Status	Yellow
Dwarf Bilberry	<i>Vaccinium caespitosum</i>	No Status	No Status	No Status	Yellow
Dwarf Clearweed	<i>Pilea pumila</i>	No Status	No Status	No Status	Red
Eastern White Cedar	<i>Thuja occidentalis</i>	No Status	Vulnerable	No Status	Red
Estuarine Sedge	<i>Carex vacillans</i>	No Status	No Status	No Status	Undetermined
Estuary Beggarticks	<i>Bidens hyperborea</i>	No Status	No Status	No Status	Red

Table F1: Short List of Rare Plant and Lichen Species Identified Within 100 km of the Project site, Chedabucto Aggregates Quarry Expansion

Project # 13-4880

Common Name	Scientific Name	SARA Status	NS ESA Status	COSEWIC Status	NSDNR Status
False Mermaidweed	<i>Floerkea proserpinacoides</i>	No Status	No Status	Not At Risk	Yellow
False Willow Moss	<i>Platydictya jungermannioides</i>	No Status	No Status	No Status	Yellow
Farwell's Water Milfoi	<i>Myriophyllum farwellii</i>	No Status	No Status	No Status	Yellow
Fernald's Serviceberry	<i>Amelanchier fernaldii</i>	No Status	No Status	No Status	Undetermined
Few-flowered Spikerush	<i>Eleocharis quinqueflora</i>	No Status	No Status	No Status	Red
Flat-stemmed Pondweed	<i>Potamogeton zosteriformis</i>	No Status	No Status	No Status	Yellow
Fleshy Stitchwort	<i>Stellaria crassifolia</i>	No Status	No Status	No Status	Red
Foxtail Sedge	<i>Carex alopecoidea</i>	No Status	No Status	No Status	Red
Fragrant Wood Fern	<i>Dryopteris fragrans var. remotiuscula</i>	No Status	No Status	No Status	Yellow
Fries' Pondweed	<i>Potamogeton friesii</i>	No Status	No Status	No Status	Red
Fringed Blue Aster	<i>Symphyotrichum ciliolatum</i>	No Status	No Status	No Status	Yellow
Gasp ^o Arrowgrass	<i>Triglochin gaspensis</i>	No Status	No Status	No Status	Undetermined
Giant Spear Moss	<i>Calliergon giganteum</i>	No Status	No Status	No Status	Yellow
Glaucous Blue Grass	<i>Poa glauca</i>	No Status	No Status	No Status	Yellow
Golden Alexanders	<i>Zizia aurea</i>	No Status	No Status	No Status	Red
Green Spleenwort	<i>Asplenium trichomanes-ramosum</i>	No Status	No Status	No Status	Yellow
Greene's Rush	<i>Juncus greenei</i>	No Status	No Status	No Status	Red
Greenish Sedge	<i>Carex viridula var. elatior</i>	No Status	No Status	No Status	Red
Hairy Goldenrod	<i>Solidago hispida</i>	No Status	No Status	No Status	Red
Hayden's Sedge	<i>Carex haydenii</i>	No Status	No Status	No Status	Red
Highland Rush	<i>Juncus trifidus</i>	No Status	No Status	No Status	Yellow
Hooked Scorpion Moss	<i>Scorpidium scorpioides</i>	No Status	No Status	No Status	Yellow
Hop Flatsedge	<i>Cyperus lupulinus ssp. macilentus</i>	No Status	No Status	No Status	Red
Hyssop-leaved Fleabane	<i>Erigeron hyssopifolius</i>	No Status	No Status	No Status	Yellow
Inflated Narrow-leaved Sedge	<i>Carex grisea</i>	No Status	No Status	No Status	Red
Inverted Bladderwort	<i>Utricularia resupinata</i>	No Status	No Status	No Status	Red
Kalm's Hawkweed	<i>Hieracium kalmii</i>	No Status	No Status	No Status	Undetermined
Labrador Bedstraw	<i>Galium labradoricum</i>	No Status	No Status	No Status	Yellow
Lance-leaved Figwort	<i>Scrophularia lanceolata</i>	No Status	No Status	No Status	Undetermined
Large St John's-wort	<i>Hypericum majus</i>	No Status	No Status	No Status	Red
Laurentian Bladder Fern	<i>Cystopteris laurentiana</i>	No Status	No Status	No Status	Red
Lesser Brown Sedge	<i>Carex adusta</i>	No Status	No Status	No Status	Yellow
Lesser Pyrola	<i>Pyrola minor</i>	No Status	No Status	No Status	Yellow
Lesser Rattlesnake-plantain	<i>Goodyera repens</i>	No Status	No Status	No Status	Yellow
Lesser Spearwort	<i>Ranunculus flammula var. flammula</i>	No Status	No Status	No Status	Yellow
Limestone Meadow Sedge	<i>Carex granularis</i>	No Status	No Status	No Status	Undetermined
Limestone Scurvy-grass	<i>Cochlearia tridactylites</i>	No Status	No Status	No Status	Red
Livid Sedge	<i>Carex livida var. radicaulis</i>	No Status	No Status	No Status	Red
Long-leaved Pondweed	<i>Potamogeton nodosus</i>	No Status	No Status	No Status	Red
Long-leaved Starwort	<i>Stellaria longifolia</i>	No Status	No Status	No Status	Yellow
Maidenhair Spleenwort	<i>Asplenium trichomanes</i>	No Status	No Status	No Status	Yellow
Maritime Saltbush	<i>Atriplex acadiensis</i>	No Status	No Status	No Status	Undetermined

Table F1: Short List of Rare Plant and Lichen Species Identified Within 100 km of the Project site, Chedabucto Aggregates Quarry Expansion

Project # 13-4880

Common Name	Scientific Name	SARA Status	NS ESA Status	COSEWIC Status	NSDNR Status
Marsh Bellflower	<i>Campanula aparinoides</i>	No Status	No Status	No Status	Yellow
Marsh Grass-of-Parnassus	<i>Parnassia palustris</i> var. <i>parviflora</i>	No Status	No Status	No Status	Red
Marsh Horsetail	<i>Equisetum palustre</i>	No Status	No Status	No Status	Red
Meadow Horsetail	<i>Equisetum pratense</i>	No Status	No Status	No Status	Yellow
Michaux's Dwarf Birch	<i>Betula michauxii</i>	No Status	No Status	No Status	Yellow
Moor Rush	<i>Juncus stygius</i> ssp. <i>americanus</i>	No Status	No Status	No Status	Yellow
Naked Kidney Lichen	<i>Nephroma bellum</i>	No Status	No Status	No Status	Yellow
New Jersey Rush	<i>Juncus caesariensis</i>	No Status	Vulnerable	Special Concern	Yellow
Northern Arnica	<i>Arnica lonchophylla</i>	No Status	No Status	No Status	Red
Northern Birch	<i>Betula borealis</i>	No Status	No Status	No Status	Yellow
Northern Blueberry	<i>Vaccinium boreale</i>	No Status	No Status	No Status	Red
Northern Bog Sedge	<i>Carex gynocrates</i>	No Status	No Status	No Status	Red
Northern Bog Violet	<i>Viola nephrophylla</i>	No Status	No Status	No Status	Yellow
Northern Burreed	<i>Sparganium hyperboreum</i>	No Status	No Status	No Status	Yellow
Northern Comandra	<i>Geocaulon lividum</i>	No Status	No Status	No Status	Yellow
Northern Dewberry	<i>Rubus flagellaris</i>	No Status	No Status	No Status	Undetermined
Northern Holly Fern	<i>Polystichum lonchitis</i>	No Status	No Status	No Status	Yellow
Olney's Bulrush	<i>Schoenoplectus americanus</i>	No Status	No Status	No Status	Yellow
Orange-fruited Tinker's Weed	<i>Triosteum aurantiacum</i>	No Status	No Status	No Status	Yellow
Pale Jewelweed	<i>Impatiens pallida</i>	No Status	No Status	No Status	Yellow
Pennsylvania Sedge	<i>Carex pennsylvanica</i>	No Status	No Status	No Status	Undetermined
Peppered Moon Lichen	<i>Sticta fuliginosa</i>	No Status	No Status	No Status	Yellow
Philadelphia Fleabane	<i>Erigeron philadelphicus</i>	No Status	No Status	No Status	Yellow
Pink Crowberry	<i>Empetrum eamesii</i> ssp. <i>atropurpureum</i>	No Status	No Status	No Status	Yellow
Poor-man's Shingles Lichen	<i>Parmeliella parvula</i>	No Status	No Status	No Status	Red
Porcupine Sedge	<i>Carex hystericina</i>	No Status	No Status	No Status	Red
Pubescent Sedge	<i>Carex hirtifolia</i>	No Status	No Status	No Status	Yellow
Purple-veined Willowherb	<i>Epilobium coloratum</i>	No Status	No Status	No Status	Yellow
Quebec Hawthorn	<i>Crataegus submollis</i>	No Status	No Status	No Status	Undetermined
Red Pigweed	<i>Chenopodium rubrum</i>	No Status	No Status	No Status	Red
Richardson's Pondweed	<i>Potamogeton richardsonii</i>	No Status	No Status	No Status	Red
Richardson's Rush	<i>Juncus alpinoarticulatus</i> ssp. <i>nodulosus</i>	No Status	No Status	No Status	Red
Rimmed Shingles Lichen	<i>Fuscopannaria leucosticta</i>	No Status	No Status	No Status	Red
Rock Whitlow-Grass	<i>Draba arabisans</i>	No Status	No Status	No Status	Yellow
Sage Willow	<i>Salix candida</i>	No Status	Endangered	No Status	Red
Saltmarsh Starwort	<i>Stellaria humifusa</i>	No Status	No Status	No Status	Yellow
Satiny Willow	<i>Salix pellita</i>	No Status	No Status	No Status	Undetermined
Scabrous Black Sedge	<i>Carex atratiformis</i>	No Status	No Status	No Status	Yellow
Seabeach Ragwort	<i>Senecio pseudoarnica</i>	No Status	No Status	No Status	Yellow
Seaside Brookweed	<i>Samolus valerandi</i> ssp. <i>parviflorus</i>	No Status	No Status	No Status	Yellow
Sharp-Fruit Rush	<i>Juncus acuminatus</i>	No Status	No Status	No Status	Yellow
Sharp-fruited Knotweed	<i>Polygonum raii</i>	No Status	No Status	No Status	Undetermined

Table F1: Short List of Rare Plant and Lichen Species Identified Within 100 km of the Project site, Chedabucto Aggregates Quarry Expansion

Project # 13-4880

Common Name	Scientific Name	SARA Status	NS ESA Status	COSEWIC Status	NSDNR Status
Shining Ladies'-Tresses	<i>Spiranthes lucida</i>	No Status	No Status	No Status	Red
Short-awned Foxtail	<i>Alopecurus aequalis</i>	No Status	No Status	No Status	Yellow
Showy Lady's-Slipper	<i>Cypripedium reginae</i>	No Status	No Status	No Status	Red
Slender Beakrush	<i>Rhynchospora capillacea</i>	No Status	No Status	No Status	Red
Slender Blue Flag	<i>Iris prismatica</i>	No Status	No Status	No Status	Red
Slender Cottongrass	<i>Eriophorum gracile</i>	No Status	No Status	No Status	Yellow
Slim-stemmed Reed Grass	<i>Calamagrostis stricta ssp. stricta</i>	No Status	No Status	No Status	Yellow
Small Yellow Lady's-Slippe	<i>Cypripedium parviflorum var. makasin</i>	No Status	No Status	No Status	Yellow
Smooth Cliff Fern	<i>Woodsia glabella</i>	No Status	No Status	No Status	Yellow
Smooth Sweet Cicely	<i>Osmorhiza longistylis</i>	No Status	No Status	No Status	Red
Soapberry	<i>Shepherdia canadensis</i>	No Status	No Status	No Status	Yellow
Southern Mudwort	<i>Limosella australis</i>	No Status	No Status	No Status	Yellow
Southern Twayblade	<i>Listera australis</i>	No Status	No Status	No Status	Red
Sparse-Flowered Sedge	<i>Carex tenuiflora</i>	No Status	No Status	No Status	Red
Spreading Wild Rye	<i>Elymus hystrix var. bigeloviana</i>	No Status	No Status	No Status	Red
Spurred Gentian	<i>Halenia deflexa</i>	No Status	No Status	No Status	Yellow
Stalked Bulrush	<i>Scirpus pedicellatus</i>	No Status	No Status	No Status	Undetermined
Steller's Rockbrake	<i>Cryptogramma stelleri</i>	No Status	No Status	No Status	Red
Sticky False-Asphodel	<i>Triantha glutinosa</i>	No Status	No Status	No Status	Red
Sturdy Bulrush	<i>Schoenoplectus robustus</i>	No Status	No Status	No Status	Undetermined
Swamp Loosestrife	<i>Decodon verticillatus</i>	No Status	No Status	No Status	Yellow
Swamp Milkweed	<i>Asclepias incarnata ssp. pulchra</i>	No Status	No Status	No Status	Undetermined
Swedish Bunchberry	<i>Cornus suecica</i>	No Status	No Status	No Status	Yellow
Sweet Wood Reed Grass	<i>Cinna arundinacea</i>	No Status	No Status	No Status	Red
Tender Sedge	<i>Carex tenera</i>	No Status	No Status	No Status	Yellow
Thread-leaved Pondweed	<i>Stuckenia filiformis ssp. alpina</i>	No Status	No Status	No Status	Undetermined
Thyme-Leaved Speedwel	<i>Veronica serpyllifolia ssp. humifusa</i>	No Status	No Status	No Status	Yellow
Tinged Sedge	<i>Carex tinctoria</i>	No Status	No Status	No Status	Red
Tree Pelt Lichen	<i>Peltigera collina</i>	No Status	No Status	No Status	Yellow
Triangular-valve Dock	<i>Rumex salicifolius var. mexicanus</i>	No Status	No Status	No Status	Yellow
Tufted Fen Moss	<i>Paludella squarrosa</i>	No Status	No Status	No Status	Yellow
Van Brunt's Jacob's-ladder	<i>Polemonium vanbruntiae</i>	No Status	No Status	Threatened	
Virginia Anemone	<i>Anemone virginiana var. alba</i>	No Status	No Status	No Status	Yellow
Virginia Anemone	<i>Anemone virginiana</i>	No Status	No Status	No Status	Yellow
Water Beggarticks	<i>Megalodonta beckii</i>	No Status	No Status	No Status	Yellow
Water Blinks	<i>Montia fontana</i>	No Status	No Status	No Status	Red
Water Pygmyweed	<i>Crassula aquatica</i>	No Status	No Status	No Status	Yellow
White Adder's-Mouth	<i>Malaxis brachypoda</i>	No Status	No Status	No Status	Red
White Mountain Saxifrage	<i>Saxifraga paniculata ssp. neogaea</i>	No Status	No Status	No Status	Yellow
White Sea-blite	<i>Suaeda maritima ssp. richii</i>	No Status	No Status	No Status	Undetermined
White Snakeroot	<i>Ageratina altissima</i>	No Status	No Status	No Status	Red
White-stemmed Pondweed	<i>Potamogeton praelongus</i>	No Status	No Status	No Status	Yellow

Common Name	Scientific Name	SARA Status	NS ESA Status	COSEWIC Status	NSDNR Status
Wiegand's Wild Rye	<i>Elymus wiegandii</i>	No Status	No Status	No Status	Red
Wild Chives	<i>Allium schoenoprasum</i> var. <i>sibiricum</i>	No Status	No Status	No Status	Red
Wood Anemone	<i>Anemone quinquefolia</i>	No Status	No Status	No Status	Yellow
Woods-Rush	<i>Juncus subcaudatus</i> var. <i>planisepalus</i>	No Status	No Status	No Status	Yellow
Woolly Beach-heath	<i>Hudsonia tomentosa</i>	No Status	No Status	No Status	Red
Yellow Lady's-slipper	<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	No Status	No Status	No Status	Yellow
Yellow Lady's-slipper	<i>Cypripedium parviflorum</i>	No Status	No Status	No Status	Yellow
Yellow Marsh Marigold	<i>Caltha palustris</i>	No Status	No Status	No Status	Yellow
Yellow Spikerush	<i>Eleocharis olivacea</i>	No Status	No Status	No Status	Yellow

Table F2: Plant Species Observed During 2014 Field Surveys, Chedabucto Aggregates Quarry Expansion

Project #13-4880

Common Name	Scientific Name	SARA Status	NS ESA Status	COSEWIC Status	NSDNR Status
Alleghaney Blackberry	<i>Rubus allegheniensis</i>	Not Listed	Not Listed	Not Listed	Green
American Mountain Ash	<i>Sorbus americana</i>	Not Listed	Not Listed	Not Listed	Green
Atlantic Sedge	<i>Carex atlantica</i>	Not Listed	Not Listed	Not Listed	Green
Awl-fruited Sedge	<i>Carex stipata</i>	Not Listed	Not Listed	Not Listed	Green
Balsam Fir	<i>Abies Balsamea</i>	Not Listed	Not Listed	Not Listed	Green
Black Huckleberry	<i>Gaylussacia baccata</i>	Not Listed	Not Listed	Not Listed	Green
Black Spruce	<i>Picea mariana</i>	Not Listed	Not Listed	Not Listed	Green
Bracken Fern	<i>Pteridium aquilinum</i>	Not Listed	Not Listed	Not Listed	Green
Bristly Sarsaparilla	<i>Aralia hispida</i>	Not Listed	Not Listed	Not Listed	Green
Broom Sedge	<i>Carex scoparia</i>	Not Listed	Not Listed	Not Listed	Green
Bunchberry	<i>Cornus canadensis</i>	Not Listed	Not Listed	Not Listed	Green
Canada Serviceberry	<i>Amelanchier canadensis</i>	Not Listed	Not Listed	Not Listed	Green
Coastal Sedge	<i>Carex exilis</i>	Not Listed	Not Listed	Not Listed	Green
Common Buttercup	<i>Ranunculus acris</i>	Not Listed	Not Listed	Not Listed	Exotic
Common Centaury	<i>Centaureum erythraea</i>	Not Listed	Not Listed	Not Listed	Exotic
Common Juniper	<i>Juniperus communis</i>	Not Listed	Not Listed	Not Listed	Green
Common Speedwell	<i>Veronica officinalis</i>	Not Listed	Not Listed	Not Listed	Exotic
Common St. John's-wort	<i>Hypericum perforatum</i>	Not Listed	Not Listed	Not Listed	Exotic
Common Winterberry	<i>Ilex verticillata</i>	Not Listed	Not Listed	Not Listed	Green
Common Witch Grass	<i>Panicum capillare</i>	Not Listed	Not Listed	Not Listed	Exotic
Common Woodrush	<i>Luzula multiflora</i>	Not Listed	Not Listed	Not Listed	Green
Eastern Hay-scented Fern	<i>Dennstaedtia punctilobula</i>	Not Listed	Not Listed	Not Listed	Green
Evergreen Wood Fern	<i>Dryopteris intermedia</i>	Not Listed	Not Listed	Not Listed	Green
Few-flowered Sedge	<i>Carex pauciflora</i>	Not Listed	Not Listed	Not Listed	Green
Fireweed	<i>Chamerion angustifolium</i>	Not Listed	Not Listed	Not Listed	Green
Giant Goldenrod	<i>Solidago gigantea</i>	Not Listed	Not Listed	Not Listed	Green
Green Alder	<i>Alnus viridis</i>	Not Listed	Not Listed	Not Listed	Green
Hairy Flat-top White Aster	<i>Doellingeria umbellata</i>	Not Listed	Not Listed	Not Listed	Green
Lance-leaved Violet	<i>Viola lanceolata</i>	Not Listed	Not Listed	Not Listed	Green
Late Lowbush Blueberry	<i>Vaccinium angustifolium</i>	Not Listed	Not Listed	Not Listed	Green
Leatherleaf	<i>Chamaedaphne calyculata</i>	Not Listed	Not Listed	Not Listed	Green
Marsh Blue Violet	<i>Viola cucullata</i>	Not Listed	Not Listed	Not Listed	Green
New York Fern	<i>Thelypteris noveboracensis</i>	Not Listed	Not Listed	Not Listed	Green
Northern Bush Honeysuckle	<i>Diervilla lonicera</i>	Not Listed	Not Listed	Not Listed	Green
Northern Starflower	<i>Trientalis borealis</i>	Not Listed	Not Listed	Not Listed	Green
Old Field Cinquefoil	<i>Potentilla simplex</i>	Not Listed	Not Listed	Not Listed	Green
Oxeye Daisy	<i>Leucanthemum vulgare</i>	Not Listed	Not Listed	Not Listed	Exotic
Pale Bog Laurel	<i>Kalmia polifolia</i>	Not Listed	Not Listed	Not Listed	Green
Paper Birch	<i>Betula papyrifera</i>	Not Listed	Not Listed	Not Listed	Green
Pin Cherry	<i>Prunus pennsylvanica</i>	Not Listed	Not Listed	Not Listed	Green

Table F2: Plant Species Observed During 2014 Field Surveys, Chedabucto Aggregates Quarry Expansion

Project #13-4880

Common Name	Scientific Name	SARA Status	NS ESA Status	COSEWIC Status	NSDNR Status
Pink Lady's-slipper	<i>Cypripedium acaule</i>	Not Listed	Not Listed	Not Listed	Green
Pussy Willow	<i>Salix discolor</i>	Not Listed	Not Listed	Not Listed	Green
Red Maple	<i>Acer rubrum</i>	Not Listed	Not Listed	Not Listed	Green
Red Raspberry	<i>Rubus idaeus</i>	Not Listed	Not Listed	Not Listed	Green
Rhodora	<i>Rhododendron canadense</i>	Not Listed	Not Listed	Not Listed	Green
Round-leaved Sundew	<i>Drosera rotundifolia</i>	Not Listed	Not Listed	Not Listed	Green
Sallow Sedge	<i>Carex lurida</i>	Not Listed	Not Listed	Not Listed	Green
Sensitive Fern	<i>Onoclea sensibilis</i>	Not Listed	Not Listed	Not Listed	Green
Sheep Laurel	<i>Kalmia angustifolia</i>	Not Listed	Not Listed	Not Listed	Green
Silvery Sedge	<i>Carex canescens</i>	Not Listed	Not Listed	Not Listed	Green
Star Sedge	<i>Carex echinata</i>	Not Listed	Not Listed	Not Listed	Green
Tamarack	<i>Larix laricina</i>	Not Listed	Not Listed	Not Listed	Green
Tansy Ragwort	<i>Senecio jacobaea</i>	Not Listed	Not Listed	Not Listed	Exotic
Three-leaved False Solomon's Seal	<i>Maianthemum trifolium</i>	Not Listed	Not Listed	Not Listed	Green
Three-leaved Rattlesnakeroot	<i>Prenanthes trifoliolata</i>	Not Listed	Not Listed	Not Listed	Green
Three-toothed Cinquefoil	<i>Sibbaldiopsis tridentata</i>	Not Listed	Not Listed	Not Listed	Green
Toad Rush	<i>Juncus bufonius</i>	Not Listed	Not Listed	Not Listed	Green
Trailing Arbutus	<i>Epigaea repens</i>	Not Listed	Not Listed	Not Listed	Green
Tufted Vetch	<i>Vicia cracca</i>	Not Listed	Not Listed	Not Listed	Exotic
Vaccinium oxycoccos	<i>Small Cranberry</i>	Not Listed	Not Listed	Not Listed	Green
Velvet-leaved Blueberry	<i>Vaccinium myrtilloides</i>	Not Listed	Not Listed	Not Listed	Green
White Spruce	<i>Picea glauca</i>	Not Listed	Not Listed	Not Listed	Green
White-edged Sedge	<i>Carex debilis</i>	Not Listed	Not Listed	Not Listed	Green
Whorled Wood Aster	<i>Oclemena acuminata</i>	Not Listed	Not Listed	Not Listed	Green
Wild Lily-of-the-valley	<i>Maianthemum canadense</i>	Not Listed	Not Listed	Not Listed	Green
Wild Sarsaparilla	<i>Aralia nudicaulis</i>	Not Listed	Not Listed	Not Listed	Green
Wild Strawberry	<i>Fragaria virginiana</i>	Not Listed	Not Listed	Not Listed	Green
Yellow Hawkweed	<i>Hieracium vulgatum</i>	Not Listed	Not Listed	Not Listed	Exotic

APPENDIX G
COMMUNITY, CULTURE, AND HERITAGE LETTER



Communities,
Culture & Heritage

1741 Brunswick Street
3rd Floor
P.O. Box 456
Halifax, NS
B3J 2R5

Tel: (902) 424-6475
Fax: (902) 424-0560

August 11, 2014

Megan Henley
Strum Environmental
3A Vincents Way
Antigonish, NS
B2G-2X3

Dear Ms. Henley:

**RE: Environmental Screening 14-03-31
Chedabucto Aggregates Quarry Expansion**

Further to your request of March 31, 2014 staff at Communities, Culture and Heritage has reviewed their files for reference to the presence of heritage resources in the study area. Please be aware that our information is not comprehensive, and may include varying degrees of accuracy with respect to the precise location and condition of heritage resources.

It should be noted that the amount and degree of disturbance from previous developments could have a significant role in establishing the presence, absence or condition of heritage resources in this area.

Archaeological, Historical Sites and Remains

There are no recorded archaeological sites on file for the study area. There are watercourses/water bodies within the study area as well as a coastal zone. Historic maps indicate settlement. It is recommended that an assessment for archaeological resources takes place

Botany

The following plants are known from the vicinity of Halfway Cove and should be considered prior to any expansion of the quarry.

Geocaulon lividum (provincially Yellow-listed)
Isoetes acadensis (provincially Yellow-listed)
Vaccinium ovalifolium (provincially Orange- listed)

The presence/absence of the above species should be determined when identification is certain and the results should be stated in the final report. Please note that Museum holds few records from this coast and it would be advisable to include a plant species inventory list as part of the field assessment.

M. Henley
August 11, 2014
page 2

Zoology

No records of Aquatics of concerns, unless there is consideration for construction of a load-out facility, in which case a number of Marine Mammals and Turtles would come to the fore.

There are nesting records of the following bird species with conservation concern in the area.

Blue-winged teal
Canada Goose
Common Tern
Arctic Tern
Spotted Sandpiper
Willet
Common Loon
Gray Jay
Barn Swallow
Tree Swallow
Gray Catbird
Boreal Chickadee
Bay Breasted Warbler
Tennessee Warbler
Canada Warbler
Wilson's Warbler
Ruby-crowned Kinglet
Golden-crowned Kinglet
Black-backed Woodpecker

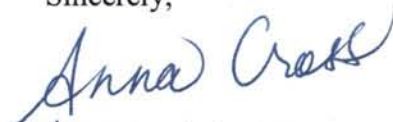
Please note that this area is very poorly-represented both in Museum holdings and collections efforts.

Palaeontology

This project will disrupt rocks of either or both the Meguma Supergroup and/or granitic plutons. Neither is expected to contain fossils.

If you have any questions, please contact me at 424-6475

Sincerely,


Sean Weseloh-McKeane
Coordinator, Special Places

Enclosure



**Communities,
Culture & Heritage**

1741 Brunswick Street
Halifax, Nova Scotia
B3J 2R5

Tel: (902) 424-6475
Fax: (902) 424-0710

August 25, 2014

Steve Garcin
Boreas Heritage Consulting
1465 Brenton St. Box 24
Halifax, NS B3J 3T4

Dear Mr. Garcin:

**RE: Heritage Research Permit Revised Report
A2014NS022 – Chedabucto Aggregates Quarry Expansion**

We have received and reviewed your report on work conducted under the terms of Heritage Research Permit A2014NS022 for an archaeological resource impact assessment for the Chedabucto Aggregates Quarry Expansion.

The report details the archaeological screening and reconnaissance of the proposed Chedabucto Aggregates Quarry Expansion area near Halfway Cove, Guysborough County, by Boreas Heritage Consulting Inc. in April 2014. The screening and reconnaissance included background, environmental and historical research and a visual assessment of the proposed expansion area in order to determine the potential for impacting archaeological resources within the proposed project area. Shovel testing did not take place.

Based on the background study, which included a review of the environmental setting, Native land use, and property history, the project area was ascribed low potential for encountering archaeological resources. The archaeological reconnaissance of the project area determined that the majority of the study area was a mix of hummocky, undulating and wet terrain that would be unsuitable for occupation and/or work areas associated with resource exploitation by pre-contact peoples. No evidence of archaeological resources or areas of elevated archaeological potential were encountered and no indication of significant historic cultural modification was identified within the study area. Based on the nature of the terrain, the distance to a significant water source, and the lack of evidence indicating significant cultural modification, the project area is considered to exhibit low potential for encountering archaeological resources.

Based on the above, the reporter recommends that the study area as outlined in the report be cleared of any requirement for future archaeological investigation. In the event that archaeological resources or human remains are encountered during development activities within the study area, immediate contact should be made with the Coordinator of Special Places.

CCH Staff agrees with the recommendation and finds the report acceptable as submitted. Please do not hesitate to contact me should you have any questions or concerns.

Sincerely,

Sean Weseloh McKeane
Coordinator, Special Places

APPENDIX H
MOOSE METHODOLOGY AND SURVEY LINES

MAINLAND MOOSE SURVEY METHODOLOGY

Snow-tracking and pellet group surveys are effective methods of documenting the mammalian fauna present in an area. These surveys consist of assessing transects through the survey areas on and near (*i.e.*, within 2 km) the Project Area and recording all indications of wildlife presence. Survey areas were developed with consideration for the following:

- Coverage of the Project Area: Survey areas were designed to cover as much of the Project Area as possible, as well as additional habitat within 2 km of the Project Area.
- Habitat: Multiple habitats were targeted including middle age to mature softwood forests, mixed wood forest, wetlands and regenerating forest.
- Access: The Project Area and surrounding lands incorporate large tracts of land which are partially accessible via logging roads. On-foot transects were designed to start and finish at existing logging roads/access roads, where possible.

Snow Tracking Methodology

One survey was completed on March 29th, 2014 using the snow-tracking methodology. The survey was conducted by a team of biologists with a demonstrable knowledge of mammalian animal sign. The survey was completed 1 to 7 days after a ≥ 10 cm snowfall. For this survey, 4.3 km of transects within 1 km of the Project Area (Drawing 8.6) were surveyed for sign of Mainland moose and other terrestrial fauna. This constituted a search area of approximately 2.15 ha through habitat types that included middle age to mature softwood forests dominated by black spruce and balsam fir, as well as open shrub barrens and softwood treed swamps.

Transects were followed according to tracks laid out on GPS units and qualified biologists searched for tracks within approximately 5 m on either side of the transect line. All wildlife sign (primarily tracks but also including foraging sign, scat, and rubs) encountered during the surveys were identified to species, where possible. In addition, the locations of all noteworthy observations were recorded using GPS receivers capable of sub 5 m accuracy, with representative photos taken.

Pellet Group Survey Methodology

One survey was completed on May 8th, 2014 using the pellet group survey methodology. The survey was conducted by a team of biologists with a demonstrable knowledge of mammalian animal sign. Ten kilometers of transects within 2 km of the Project Area were surveyed for sign of Mainland moose, encompassing a search area of approximately 4.96 ha (Drawing 8.6). Habitat assessed during this survey included middle aged to mature softwood forest, regenerating softwood forest, middle aged mixed wood forest, open shrub barrens, softwood swamps and basin bogs.

Transects were followed according to tracks laid out on GPS units and qualified biologists searched for pellet groups within approximately 5 m on either side of the transect line. All wildlife sign, primarily tracks but also including foraging sign, scat, and rubs, encountered during the surveys were identified to species, where possible. In addition, the locations of all

noteworthy observations were recorded using GPS receivers capable of sub 5 m accuracy, with representative photos taken.

APPENDIX I
BIRD METHODOLOGY

BIRD SURVEY PROTOCOL

BREEDING BIRD SURVEY

A pre-construction avian field survey was completed to complement desktop information and to characterize the pre-construction (baseline) bird community at and near the Project Area during breeding season. The survey was carried out by an expert birder and was designed with the purpose of collecting data on species presence, abundance, habitat usage and breeding status.

The survey was completed on July 4, 2014. The following information was recorded at each survey location:

- Weather conditions (temperature, wind speed, cloud cover, and presence of precipitation);
- Date and time of day;
- Habitat description; and
- GPS coordinates of the survey location.

The survey employed the point count methodology, as follows:

- survey was four hours in duration, commencing as close to sunrise as possible;
- species presence and abundance were recorded based on visual and acoustic observations;
- approximate distance to each bird was recorded using a scale of 0-50 m, 50-100 m and further than 100 m;
- behavioural patterns were noted to determine breeding status; and
- survey locations were separated by a minimum distance of 300 m, whenever possible, to account for all present habitat types throughout the Project site.

QUARRY NEST SEARCH SURVEY

A nest search was conducted on July 3rd, 2014. The perimeter of each aggregate pile was walked, in search of nesting birds, or birds fleeing a potential nesting location. Aggregate piles were also climbed when safe and possible to search for nests. The bottoms and tops of cliff faces were walked in search of nesting or fleeing birds. Exposed rock surfaces were searched for nests of birds that nest in these habitats, such as Common nighthawk. Additionally, the quarry area was monitored at several locations for the presence of birds in flight that are known to prefer this habitat, such as swallows and Common nighthawks.

Table I1: Breeding Bird Survey, Detailed Results, Chedabucto Aggregates Quarry Expansion

Project #13-4880

Date	Location	Coordinates (UTM NAD83)	Habitat	Conditions			Time	Common Name	# Number Observed		
				Wind	Sky	Precipitation			0-50m	50-100m	100m+
04-Jul-14	1	20 T 630139 5023002	Road adjacent dense middle aged softwood forest.	10-15 km/hr	Overcast	None	5:05	Common Yellowthroat	1	2	
...	Hermit Thrush	1		
...	American Robin		1	2
...	White-throated Sparrow			3
...	Black-and-white Warbler	1		
...	Magnolia Warbler		2	3
...	Dark-eyed Junco		2	
...	American Crow			2
...	Swainson's Thrush			1
...	Yellow-rumped Warbler	1	1	
...	Ruby-crowned Kinglet			1
...	Nashville Warbler			1
...	2	20 T 630280 5022778	Open area adjacent quarry and regenerating softwood forest.	10-15 km/hr	Overcast	None	5:18	Hermit Thrush			2
...	White-throated Sparrow			2
...	Magnolia Warbler		1	2
...	Nashville Warbler		1	
...	Blue-headed Vireo			1
...	Purple Finch			1
...	Lincoln's Sparrow		1	1
...	Dark-eyed Junco		1	
...	Alder Flycatcher		1	
...	Black-and-white Warbler		1	
...	Song Sparrow		1	
...	American Robin	1		
...	American Redstart		1	
...	3	20 T 630110 5022672	Middle of quarry area.	10-15 km/hr	Overcast	None	5:31	Black-and-white Warbler			1
...	Nashville Warbler			2
...	White-throated Sparrow			3
...	Dark-eyed Junco		2	
...	Swainson's Thrush			1
...	Hermit Thrush			2
...	Common Raven			1
...	Ruby-crowned Kinglet			1
...	Lincoln's Sparrow			1
...	Alder Flycatcher			1
...	Magnolia Warbler			1
...	Winter Wren			1
...	4	20 T 630216 5022526	Shrub bog adjacent regenerating softwood forest.	10-15 km/hr	Overcast	None	5:51	Nashville Warbler			2

Table I1: Breeding Bird Survey, Detailed Results, Chedabucto Aggregates Quarry Expansion

Date	Location	Coordinates (UTM NAD83)	Habitat	Conditions			Time	Common Name	# Number Observed		
				Wind	Sky	Precipitation			0-50m	50-100m	100m+
...	Magnolia Warbler		1	
...	Palm Warbler	1		
...	Alder Flycatcher			1
...	Dark-eyed Junco			1
...	Black-and-white-warbler		1	
...	Hermit Thrush			1
...	White-throated sparrow			2
...	Lincoln's Sparrow		1	
...	American Robin	1		
...	5	20 T 630353 5022391	Road adjacent dense middle aged softwood forest.	10-15 km/hr	Overcast	None	6:19	White-throated Sparrow	1	1	1
...	Magnolia Warbler	2	1	
...	Black-and-white Warbler		2	1
...	Common Yellowthroat			1
...	Dark-eyed Junco		1	
...	Swamp Sparrow			1
...	6	20 T 630364 5022253	Lake-side adjacent middle aged softwood forest.	10-15 km/hr	Overcast	None	6:30	White-throated Sparrow		1	
...	Magnolia Warbler		1	1
...	Dark-eyed Junco		1	
...	Lincoln's Sparrow		1	
...	Black-and-white Warbler		1	
...	Yellow-rumped Warbler			1
...	Rose-breasted Grosbeak			1
...	Swamp Sparrow	1		
...	Nashville Warbler		1	
...	7	20 T 630195 5022379	Middle aged mixed wood forest adjacent bog.	10-15 km/hr	Overcast	None	6:50	Black-and-white Warbler		1	
...	Palm Warbler	1	1	
...	Common-Yellowthroat	2		
...	Hermit Thrush			2
...	White-throated Sparrow	1		
...	Nashville Warbler		1	
...	8	20 T 629963 5022367	Middle aged mixed wood forest.	10-15 km/hr	Overcast	None	7:20	Chestnut-sided Warbler	2		
...	Magnolia Warbler	1	1	
...	Hermit Thrush			1
...	Black-and-white Warbler		1	
...	Blue-headed Vireo			1
...	9	20 T 629912 5022678	Mature softwood forest.	10-15 km/hr	Overcast	None	7:54	Hermit Thrush		1	
...	American Redstart		1	

Table I1: Breeding Bird Survey, Detailed Results, Chedabucto Aggregates Quarry Expansion

Project #13-4880

Date	Location	Coordinates (UTM NAD83)	Habitat	Conditions			Time	Common Name	# Number Observed		
				Wind	Sky	Precipitation			0-50m	50-100m	100m+
...	Nashville Warbler	1		1
...	Magnolia Warbler		1	1
...	Black-throated Green Warbler		1	
...	Ruby-crowned Kinglet			1
...	Swainson's Thrush		1	
...	Blackburnian Warbler		1	
...	10	N.E. corner of site	Mature softwood forest adjacent meadow.	10-15 km/hr	Overcast	None	8:13	Black-capped Chickadee		2	
...	Black-throated Green Warbler		1	
...	Black-and-white Warbler	1		
...	Golden-crowned Kinglet	2		
...	White-throated Sparrow	1	1	1
...	Magnolia Warbler	1	1	
...	Blackburnian Warbler		1	
...	Swainson's Thrush			1
...	Ruby-crowned Kinglet		1	
...	11	20 T 630018 5022852	Middle of quarry area.	10-15 km/hr	Overcast	None	8:29	White-throated Sparrow			2
...	Hermit Thrush			3
...	Black-and-white Warbler		1	
...	Alder Flycatcher			1
...	Nashville Warbler			1
...	Magnolia Warbler			1
...	Song Sparrow			1
...	Black-throated Green Warbler		1	
...	Dark-eyed Junco			1
...	12	20 T 630084 5022940	Road adjacent dense middle aged softwood forest.	10-15 km/hr	Overcast	None	8:41	Northern Flicker		1	
...	Magnolia Warbler			1
...	White-throated Sparrow			1
...	American Robin		1	
...	Black-throated Green Warbler			1
...	Hermit Thrush			1
...	Black-and-white Warbler			1

Table I2: Breeding Bird Survey, Results Summary, Chedabucto Aggregates Quarry Expansion

Project #13-4880

Common Name	Scientific Name	SARA Status	NS ESA Status	COSEWIC Status	NSDNR Status	Breeding Status (within or near the Project Area)
Alder Flycatcher	<i>Empidonax alnorum</i>	Not Listed	Not Listed	Not Listed	Green	Possible
American Crow	<i>Corvus brachyrhynchos</i>	Not Listed	Not Listed	Not Listed	Green	Possible
American Redstart	<i>Setophaga ruticilla</i>	Not Listed	Not Listed	Not Listed	Green	Possible
American Robin	<i>Turdus migratorius</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Black-and-white Warbler	<i>Mniotilta varia</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Blackburnian Warbler	<i>Dendroica fusca</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Black-capped Chickadee	<i>Poecile atricapillus</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Black-throated Green Warbler	<i>Dendroica virens</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Blue-headed Vireo	<i>Vireo solitarius</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	Not Listed	Not Listed	Not Listed	Green	Probable
Common Raven	<i>Corvus corax</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Common Yellowthroat	<i>Geothlypis trichas</i>	Not Listed	Not Listed	Not Listed	Green	Confirmed
Dark-eyed Junco	<i>Junco hyemalis</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Golden-crowned Kinglet	<i>Regulus satrapa</i>	Not Listed	Not Listed	Not Listed	Yellow	Possible
Hermit Thrush	<i>Catharus guttatus</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Lincoln's Sparrow	<i>Melospiza lincolnii</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Magnolia Warbler	<i>Dendroica magnolia</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Nashville Warbler	<i>Vermivora ruficapilla</i>	Not Listed	Not Listed	Not Listed	Green	Probable
Northern Flicker	<i>Colaptes auratus</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Palm Warbler	<i>Dendroica palmarum</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Purple Finch	<i>Carpodacus purpureus</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	Not Listed	Not Listed	Not Listed	Yellow	Possible
Ruby-crowned Kinglet	<i>Regulus calendula</i>	Not Listed	Not Listed	Not Listed	Yellow	Possible
Song Sparrow	<i>Melospiza melodia</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Swainson's Thrush	<i>Catharus ustulatus</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Swamp Sparrow	<i>Melospiza georgiana</i>	Not Listed	Not Listed	Not Listed	Green	Possible
White-throated Sparrow	<i>Zonotrichia albicollis</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Winter Wren	<i>Troglodytes troglodytes</i>	Not Listed	Not Listed	Not Listed	Green	Possible
Yellow-rumped Warbler	<i>Dendroica coronata</i>	Not Listed	Not Listed	Not Listed	Green	Possible

APPENDIX J
PROJECT TEAM CREDENTIALS

Name	Role	Credentials
Strum Consulting		
Carys Burgess	Senior Environmental Specialist Project Manager	<ul style="list-style-type: none"> • Masters Marine Management (MMM), Dalhousie University (2000) • B.Sc. (Hon. Mar. Bio.), Guelph University (1996)
Corinne Baker	Environmental Specialist EA Coordinator	<ul style="list-style-type: none"> • M.Sc. (Marine Science and Management), University of New England (2008) • B.Sc. (Biology and Interdisciplinary Studies in Aquatic Resources), Saint Francis Xavier University (2006)
Megan Henley	Environmental Specialist EA Coordinator	<ul style="list-style-type: none"> • B.Sc. (Chemistry), Saint Francis Xavier University (2008)
Scott Dickey	Environmental Specialist Field Coordinator (Botany)	<ul style="list-style-type: none"> • Masters of Resource and Environmental Management (MREM), Dalhousie University (2012) • B.Sc. (Hon. Bio.), Mount Saint Vincent University (2009)
Garry Gregory	Environmental Specialist Field Coordinator (Wetlands, Large Mammal Studies)	<ul style="list-style-type: none"> • M.Sc. (Wildlife Bio.), University of Prince Edward Island (2012) • Wetland Plant Identification and Wetland Delineation (2011)
Chris Pepper	Environmental Specialist (Avifauna, Wetlands, Botany)	<ul style="list-style-type: none"> • Director, NS Birds Society • Provincial Coordinator, NS Bird Migration Count • Wetland Plant Adaptation and Identification and Wetland Delineation (2012)
Hani Serhan	CAD Technician GIS Analyst	<ul style="list-style-type: none"> • Architectural Engineering Technology, Nova Scotia Community College (2009) • AutoCAD Technical Courses, Nova Scotia Community College (2004)
Boreas Heritage Consulting		
Sara J. Beanlands	Senior Archaeologist Project Manager	<ul style="list-style-type: none"> • M.A. (History), St. Mary's University (2010) • B.A (History, Social Anthropology), Dalhousie University (1998)
Stephen G. Garcin	Senior Archaeologist Principle Investigator	<ul style="list-style-type: none"> • M.A. (Anthropology), University of Alberta (2006) • B.A. (Anthropology), University of Waterloo (2002)