

Canadian Environmental Assessment Act

Environmental Assessment Track Report

Continental Stone Limited

Crushed Granite Rock Quarry

CEAR Reference Number: 06-03-19881

Belleoram, NL

Submitted to:

The Minister of The Environment

Pursuant to Subsection 21(2) of the *Canadian Environmental Assessment Act*

Prepared by:

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Table of Contents

1.0 Introduction..... 3
 1.1 Purpose of Document..... 3
 1.2 Project Summary..... 3

2.0 Environmental Assessment Process 4
 2.1 Regulatory Background 4

3.0 Scope..... 6

4.0 Requirement for a Comprehensive Study 7

5.0 Public Participation During the Comprehensive Study Process 7
 5.1 Public Consultation..... 7
 5.2 Public Concerns 8

6.0 Scope of the Environmental Assessment..... 9

7.0 Potential Of The Project To Cause Adverse Environmental Effects 9

8.0 Potential Cumulative Effects 11

9.0 Potential Accidents and Malfunctions 12

10.0 Ability Of The Comprehensive Study To Address Issues Related To The Project 12

APPENDIX A..... 13

List of Tables

Table 1: Potential for the Project to Cause Adverse Environmental Effects..... 9

1.0 Introduction

1.1 Purpose of Document

Transport Canada (TC), Fisheries and Oceans Canada (DFO), and the Atlantic Canada Opportunities Agency (ACOA) are conducting an environmental assessment, pursuant to the *Canadian Environmental Assessment Act* (the Act), for the proposed crushed granite stone quarry and marine terminal near Belleoram, Newfoundland and Labrador. TC, DFO, and ACOA have determined that their respective departments have a responsibility to conduct an environmental assessment of the proposed project pursuant to paragraphs 5(1)(b) & (d) of the Act. The purpose of this document is to assist the Minister of the Environment in making a determination whether to continue the environmental assessment of this project as a Comprehensive Study or to refer to a mediator or review panel.

Consistent with the requirement of paragraph 21(2)(a) of CEAA, this report describes:

- the scope of the project;
- the factors to be considered and the scope of these factors;
- public concerns in relation to the project;
- the potential of the project to cause adverse environmental effects, and;
- the ability of the Comprehensive Study to address issues related to the project.

The information contained within this report, and the recommendations to the Minister of the Environment provided under paragraph 21(1)(b) from the RAs, are intended to assist the Minister of The Environment in making a determination under subsection 21.1(1) whether to continue the EA by means of a Comprehensive Study, or to refer to a mediator or review panel in accordance with section 29 of CEAA.

1.2 Project Summary

Continental Stone Limited (Proponent) proposes to develop a 900-hectare crushed granite stone quarry immediately north of the community of Belleoram, NL. The granite will be quarried and crushed on site using standard industry methodologies and loaded onto ships via a conveyor belt and then shipped to market. The physical features will include the quarry, a marine terminal and a new access road. Additional constructed features will include a rock crusher, a conveyor system, administrative and cook house buildings. A conveyor system will transport crushed rock from the crushers and screeners to waiting transport ships. The project will be carried out in three phases;

Phase 1 (Development) will include excavation and removal of overburden material to enable construction of a road to the site for employees, visitors, and equipment suppliers. This phase will also include the excavation of an area suitable for set-up of the crusher and associated equipment, infilling of the lagoon area south of the Belleoram Barasway, and construction of a suitable marine terminal for the project. All equipment will be set-up at this phase. An 8 km

Canadian Environmental Assessment Act – Track Decision Report

transmission line will be installed to provide electricity to the site, however, installation of the new transmission line is the responsibility of Newfoundland and Labrador Hydro and will only be assessed as a cumulative effect.

Phase 2 (Operation) will consist of drilling and blasting of the rock source. Explosives will not be manufactured on site but will be ordered and delivered on a regular basis from reputable suppliers. Fractured rock will then be crushed in various sizes, for transport by bulk carrier to market. It is estimated that 2,000,000 tonnes of aggregate will be shipped in the first year of operation, with future planned export volumes increasing to approximately 6,000,000 tonnes of aggregate annually. A single marine vessel will make round trips to the site approximately 1-2 times every month.

Phase 3 (Decommissioning) of this project will involve demobilizing all unsuitable structures at the site and the creation of an area friendly for the community and the environment. A Rehabilitation and Closure Plan pursuant to the requirements of the Newfoundland & Labrador Department of Natural Resources as outlined in the *Minerals Act* is being prepared.

The proposed quarry is expected to operate for 50 years. It is envisioned that at peak times during construction, there will be 60 to 70 personnel on site and approximately 80 to 100 during the operation phase.

2.0 Environmental Assessment Process

2.1 Regulatory Background

The Canadian Environmental Assessment Agency (the Agency) received formal notification of the project through the Newfoundland and Labrador environmental assessment registration process. On April 12, 2006, pursuant to the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements*, the Agency notified Federal Authorities of the project to determine their potential roles in the environmental assessment. The notice was sent to ACOA, DFO, TC, Environment Canada (EC), Natural Resources Canada (NRCan) and Health Canada (HC). By April 28, 2006, DFO and TC had identified as Responsible Authorities and EC, NRCan and HC as Federal Authorities with specialist expertise. In mid-August, ACOA also identified as a Responsible Authority. In accordance with Section 12.4 of the Act, the Agency is the Federal Environmental Assessment Coordinator (FEAC) for the project.

Under section 5 of the Act, a federal environmental assessment may be required when, in respect of a project, a federal authority proposes to:

- be the proponent;
- make or authorize payment or any other form of financial assistance to a proponent;

Canadian Environmental Assessment Act – Track Decision Report

- sell, lease or otherwise dispose of land; or
- issue a permit, or licence or other form of approval pursuant to a statutory or regulatory provisions identified in the *Law List Regulations*.

These functions are known as triggers. TC and DFO have determined that the proposed marine terminal construction will likely require specific regulatory authorizations or approvals from each department. ACOA may provide funding to the proponent to enable the project. Therefore, the decision by these three federal departments triggers the need for an environmental assessment under subsection 5(1) of the Act. More specifically:

- TC may issue an approval pursuant to subsection 5(1) of the *Navigable Waters Protection Act* for the construction of a 200 m long by 30 m wide marine terminal used for loading and shipping aggregate from the proposed quarry.
- DFO may issue an authorization pursuant to subsection 35(2) of the *Fisheries Act* for the harmful alteration, disruption, or destruction of fish habitat resulting from the construction of the 200 m long by 15 m wide marine terminal used for loading and shipping aggregate from the proposed quarry.
- ACOA may potentially provide financial assistance to the proponent for the purpose of enabling the project for the purpose of enabling construction, operation, modification, decommissioning, and/or abandonment of the proposed 900-hectare quarry and marine terminal.

Therefore, TC, DFO, and ACOA are Responsible Authorities (RAs) due to their decision-making responsibilities relative to the above components and must ensure that an environmental assessment pursuant to the Act is conducted. Additionally EC, HC, and NRCan will participate in the environmental assessment process as Federal Authorities (FAs). Each department will provide specialist knowledge, information, and related support to the environmental assessment process.

DFO will conduct separate screening level assessment(s) for *Fisheries Act* Section 35(2) authorizations for the construction, operation, modification, decommissioning, or abandonment for the following project components: all water control structures; stream crossings created during construction of the access road; infilling and/or dewatering of aquatic habitats associated with operation of the quarry and road construction; and drawdown or dewatering of water bodies for the purpose of supplying water to the washing station.

The RAs, in consultation with the FAs and the Agency, have determined that the project is subject to a Comprehensive Study pursuant to CEAA. This Environmental Assessment Track Report was prepared jointly by TC, DFO, and ACOA to fulfill the requirements of subsection 21(2) of the Act.

The project is also subject to a provincial EA in accordance with the Newfoundland and Labrador *Environmental Protection Act*. The project was registered with Newfoundland

Canadian Environmental Assessment Act – Track Decision Report

and Labrador Environment and Conservation on April 5, 2006. On June 8, 2006, the Minister of Environment and Conservation announced that an Environmental Preview Report (EPR) was required because of the potential interaction with the aquaculture industry in the area. The EPR guidelines, which focused strictly on aquaculture concerns, were issued to the Proponent on July 12, 2006; the province is currently awaiting receipt of the EPR.

The federal EA will be coordinated, to the extent possible, with the provincial EA. However, the federal and provincial governments will each make decisions on matters within their own legislative authorities.

3.0 Scope

The scope of the project includes physical works related to the construction, operation, modification, and decommissioning/abandonment of the proposed component of the project and related undertakings. Currently, TC, DFO, and ACOA have different scopes related to their regulatory responsibilities however, a single comprehensive study report will be prepared and each RA will have decision-making authority respective to their departmental scopes.

The RAs prepared a document entitled, “Scoping Document – Continental Stone Limited Crushed Granite Rock Quarry” dated September 19, 2006. This scoping document (Appendix A) includes information on the proposed scope of project, factors to be considered, and the scope of those factors. The scoping document was made available for review and comment by the public as per subsection 21(1) of the Act for a 34-day period from September 23, 2006 to October 27, 2006.

The environmental assessment of the Crushed Granite Rock Quarry is composed of the following components;

- construction of an access road and stream crossing;
- construction of a 200 m long by 15 m wide marine terminal;
- removal of overburden material to enable quarry operations;
- infilling of Belleoram barasway for laydown area;
- building construction and equipment set-up;
- settling pond construction;
- water intake installation;
- freshwater disturbances (i.e. infilling, dewatering, etc.);
- blasting and crushing operations;
- berthing, loading, and de-berthing of bulk carriers.

The “Project” hereafter refers to all the physical works and activities associated with the construction, operation, and decommissioning (including closure and reclamation) of the proposed development as outlined above.

Canadian Environmental Assessment Act – Track Decision Report

The scope of the assessment defines the factors that must be considered in the environmental assessment and the scope of those factors. The RAs are required to consider the factors specified in Section 16 of the Act, taking into consideration the definitions of the environment, environmental effect, and project. The scope of those factors pursuant to Section 16 is determined by the RAs. The Scoping Document outlines the scope of project and the scope of the assessment proposed by the RAs for the Project.

4.0 Requirement for a Comprehensive Study

The Project is subject to the following provisions of the Comprehensive Study List Regulations of the Act:

18. *The proposed construction, decommissioning, or abandonment, or an expansion that would result in an increase in production capacity of more than 35 per cent, of*
 - (i) *a stone quarry or gravel or sand pit with a production capacity of 1 000 000 tonnes/ annually (t/a) or more.*

And

28. *The proposed construction, decommissioning, or abandonment of*
 - (c) *a marine terminal designed to handle vessels than 25 000 dead weight tonne (DWT) unless the terminal is located on lands that are routinely and have been historically used as a marine terminal or that are designated for such use in a land-use plan that has been the subject of public consultation.*

Accordingly, a comprehensive study process was initiated for the Project by the RAs.

5.0 Public Participation During the Comprehensive Study Process

5.1 Public Consultation

CEAA requires that public consultation be conducted a minimum of three times during a comprehensive study:

- during the preparation of the scoping document [subsection 21(1)];
- during the preparation of the comprehensive study report (section 21.2); and
- during a review of the completed Comprehensive Study Report (CSR) prior to the Minister of the Environment's issuance of an environmental assessment decision statement (section 22).

Canadian Environmental Assessment Act – Track Decision Report

The public consultation requirements, as outlined under subsection 21(1) of the Act, sought public comments on the environmental assessment scoping document for the proposed granite rock quarry and marine terminal near Belleoram, NL. The scoping document was prepared by the RAs and included information on the purpose of the document, the environmental assessment process, opportunities for the public to make comments and other public participation opportunities.

In relation to the scoping document, the following public consultation and communications initiatives were undertaken:

- Information on the Project and the environmental assessment is publicly available on the Canadian Environmental Assessment Registry (CEAR) website. The CEAR reference number for this project is 06-03-19881. The CEAR includes the Notice of Commencement, the notice regarding the opportunity for public comment on the scoping document, and the notice advising on the availability of participant funding.
- Notices advising of the public comment period on the scoping document were placed in the following newspapers: The Telegram, The Coaster, and Le Gaboteur. The notices provided information on the length of the public comment period, how to obtain a copy of the scoping document, the availability of participant funding, and how to provide feedback.
- Copies of the scoping document were also made available for viewing at the Belleoram Town Office.

In addition the public notices, copies of the scoping document were forwarded to key stakeholders prior to advertising public notices. These stakeholders included the Town of Belleoram, Harbour Authority of Belleoram, Cooke Aquaculture, Nordland Aquaculture, Coast of Bays Corporation, Conne River Band Council, Fish, Food and Allied Workers Union, and the Newfoundland and Labrador Department of Environment and Conservation.

The public and key stakeholders were invited to comment on the following specific points during the consultation period which ran from September 23, 2006 to October 27, 2006: 1) the proposed scope of the project for purposes of environmental assessment; 2) the factors proposed to be considered in its assessment; 3) the proposed scope of those factors; and 4) the ability of the comprehensive study to address issues relating to the Project.

5.2 Public Concerns

No letters of concern or opposition were received from the public or non-government organizations during the 34-day public consultation period. Four individuals requested copies of the scoping document but no comments were received.

Canadian Environmental Assessment Act – Track Decision Report

In addition, no applications were received for the Agency's Participant Funding Program.

6.0 Scope of the Environmental Assessment

“Scope of the environmental assessment” is defined as the scope of the project for the purposes of environmental assessment, the factors which are to be examined as part of the environmental assessment, and the scope of the factors.

Not having received public comments on the scoping document, the RAs have decided to leave the scope of the environmental assessment and the factors to be considered unchanged. The Valued Ecosystem Components (VECs) will be determined by the RAs and FAs and will focus the environmental assessment. Concerns raised by the public will be taken into account during the comprehensive study, as will any public concerns raised in future consultations planned to take place while the environmental assessment is underway.

7.0 Potential Of The Project To Cause Adverse Environmental Effects

In order to evaluate the potential of the Project to cause significant adverse environmental effects, the RAs have used professional judgment, input from FAs, and technical information from other quarry operations. It is anticipated that the environmental effects listed in Table 1 could occur should mitigative measures not be put in place.

Table 1: Potential for the Project to Cause Adverse Environmental Effects

Valued Ecosystem Components	
Atmospheric Environment	<ul style="list-style-type: none">• changes to air quality that could have an effect on the health of individuals;• changes to air quality that could have an effect on the environment;• effects to air quality from potential accidents or malfunctions.
Soil/Sediment Quality and Transport	<ul style="list-style-type: none">• erosion related to altered damage;• metal leaching and acid rock drainage from disturbed rock;• potential oil spills (e.g, heavy equipment refueling and maintenance) could potentially contaminate soils.
Vegetation and Wetlands	<ul style="list-style-type: none">• direct loss or reduction of local plant communities and wetlands;• indirect reduction or alteration of local plant communities and wetlands;• cumulative effects on vegetation, plant communities and wetlands.
Wildlife and Wildlife Habitat	<ul style="list-style-type: none">• loss of terrestrial habitat;

Canadian Environmental Assessment Act – Track Decision Report

	<ul style="list-style-type: none"> • disturbance of feeding, nesting, denning, and/or breeding habitats; • introduction of physical barriers to wildlife; • disruption, blockage, or other disturbance to wildlife movements; • direct or indirect wildlife mortality; • reduction of wildlife productivity in the area.
Migratory Birds	<ul style="list-style-type: none"> • loss of habitat; • disturbance of feeding, nesting, and/or breeding habitats; • direct or indirect migratory bird mortality; • negative interactions between migratory birds and bulk carriers.
Species at Risk	<ul style="list-style-type: none"> • Species at Risk in the immediate area that may be impacted by the project includes: Blue Whale (Atlantic Population); North Atlantic Right Whale; Harlequin Duck (Eastern population); Red Crossbill perca subspecies; Monarch; and the Boreal Felt Lichen (Boreal population). • loss of habitat; • disturbance of feeding, nesting, and/or breeding habitats; • direct or indirect mortality of Species at Risk.
Surface and Groundwater Quality/Quantity	<ul style="list-style-type: none"> • effects of blasting and associated residues (e.g. nitrogen, nitrite, nitrate, and ammonia); • changes in timing, volume, and deviation of peak and minimum flows; • effects on water quality due to drainage from mine site, specifically with respect to suspended solids, metals, nutrients, etc.; • waste rock and tailings toxicity; • potential run-off from the interim storage of blasting materials could contaminate surface and groundwater; • changes to water quality (i.e. drinking water, recreational water uses) that could have an effect on the health of

Canadian Environmental Assessment Act – Track Decision Report

	individuals.
Fish & Fish Habitat	<ul style="list-style-type: none"> • change in the productive capacity of aquatic systems; • harmful alteration, disruption or destruction of fish habitat including spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes.
Aquaculture/Commercial Fisheries	<ul style="list-style-type: none"> • change in the productive capacity of aquatic systems; • direct mortality of wild and caged fish; • effects from blasting on caged fish; • interferences between bulk carriers, commercial fisheries, and aquaculture sites.
Navigation/Marine Safety	<ul style="list-style-type: none"> • construction and operation of marine terminal may limit or restrict navigability.
Land and Resource Use	<ul style="list-style-type: none"> • impacts on current land use and resources including forestry, hunting, trapping, fishing, tourism/recreation, and aesthetics.
Acoustic Environment	<ul style="list-style-type: none"> • effects of project-related noise on wildlife and humans.
Human Health & Safety	<ul style="list-style-type: none"> • changes to country foods (i.e. contamination of plants, fish, and animals) that could have an effect on the health of individuals; • human health impacts of potential accidents or malfunctions leading to the release of contaminants; • increased traffic through the community of Belleoram that could result in physical hazards off-site.

8.0 Potential Cumulative Effects

The Project also has the potential to generate cumulative environmental effects. A cumulative effects assessment for the Project will be undertaken in accordance with the framework for addressing these effects pursuant to current CEAA guidelines. The objective of cumulative effects assessment is required to evaluate the likely cumulative effects that may result in combination with other projects or activities that have been or will be present in the foreseeable future.

The likelihood of excessive cumulative effects associated with the Project is low because there are no other industrial activities located near Belleoram, NL. The primary industry along the south coast of Newfoundland is commercial fishing and aquaculture. A cumulative effect that may be a concern is associated with shipping interactions between bulk carriers, smaller fishing vessels, and aquaculture sites. The aquaculture industry is expanding within the region and will have to be considered during the cumulative effects study. In addition, the installation of an 8 km power transmission line to provide electricity to the site will have cumulative effects on wildlife including an additional loss of habitat.

9.0 Potential Accidents and Malfunctions

This environmental assessment will also consider the potential for accidents and malfunctions that could occur during any phase of the project. This includes an evaluation of the likelihood and circumstances under which these events could occur, and the environmental affects that may result from such events. Currently, Transport Canada is conducting a study related to shipping along the south coast. The Proponent has been asked to supply shipping information to Transport Canada in order that it may be incorporated into the South Coast Risk Assessment Study. The purpose of this study is to evaluate the potential risk for accidents and malfunctions related to vessel traffic along the south coast. Accidents and malfunctions could potentially impact marine birds colonies located along the proposed shipping route. The Fortune Bay area has a large population of wintering seabirds including the Thick-billed Murres and the Common Eider that could potentially be impacted by shipping accidents and malfunctions.

10.0 Ability Of The Comprehensive Study To Address Issues Related To The Project

Taking into consideration that no public comments were received during the initial public consultation period, there does not appear to be any strong opposition to the scope of the comprehensive study as proposed. Therefore, the RAs are of the opinion that a Comprehensive Study can address the scientific and technical issues related to the Project based on the parameters defined within the VECs. Technical experts from the federal departments involved in the environmental assessment will be fully engaged in reviewing and examining the issues related to the Project.

The RAs, in consultation with the Agency and expert FAs have concluded that a Comprehensive Study can effectively address issues related to this Project and are recommending that the environmental assessment process continue as a Comprehensive Study.

APPENDIX A

Scoping Document – Continental Stone Limited Crushed Granite Rock Quarry