

Environmental Assessment Approval

Approval Date: *Original dated May 06, 2010*

Whycocomagh Quarry Extension Project Alva Construction Limited, Proponent

Inverness County, Nova Scotia

The Whycocomagh Quarry Extension Project (the "Undertaking"), proposed by Alva Construction Limited (the "Approval Holder"), Inverness County, Nova Scotia is approved pursuant to Section 40 of the *Environment Act* and Section 13(1)(b) of the *Environmental Assessment Regulations*. This Approval is subject to the following conditions and obtaining all other necessary approvals, permits or authorizations required by municipal, provincial and federal acts, regulations and by-laws before commencing work on the Undertaking. It is the responsibility of the Proponent to ensure that all such approvals, permits or authorizations are obtained before commencing work on the Undertaking.

This Environmental Assessment Approval is based upon the review of the conceptual design, environmental baseline information, impact predictions, and mitigation presented in the Registration Document.

Terms and Conditions for Environmental Assessment Approval

1.0 General Approval

- 1.1 The Environmental Assessment Approval for the project is limited to the project as described in the registration document. Any proposal by the Proponent for expansion, modification or relocation of any aspect of the project from that proposed in the Registration Document must be submitted to the Environmental Assessment Branch for review and may require an environmental assessment.
- 1.2 The Proponent must, within two years of the date of issuance of this approval, commence work on the Undertaking unless granted a written extension by the Minister.
- 1.3 The Proponent must not transfer, sell, lease, assign or otherwise dispose of this approval without the written consent of the Minister. The sale of a controlling interest of a business or a transfer of an approval from a parent company to a subsidiary or an affiliate is deemed to be a transfer requiring consent.
- 1.4 The Proponent must implement all mitigation and commitments in the Registration Document, unless approved otherwise by Nova Scotia Environment (NSE).

2.0 Quarry Operations

- 2.1 Prior to or as part of the application for Part V Approval under the *Environment Act*, the Approval Holder must provide for review and consideration the following:
- a) a site development plan; and
 - b) details of stockpiling (aggregate, sediment removed from settling ponds, and overburden piles), including, as a minimum, stockpile locations, stockpile volumes, length of duration of any stockpiling activity on-site, and erosion and sedimentation control protection measures.
- 2.2 The Approval Holder must operate the Undertaking in accordance with the Pit and Quarry Guidelines.
- 2.3 All plans and programs related to quarry operations must be resubmitted over the lifetime of the project, at a schedule to be established by NSE, and revised as determined by NSE.

3.0 Surface Water Resources

- 3.1 The Approval Holder must not undertake any quarry related activities within 50 metres of a watercourse unless otherwise approved by NSE. No development or removal of vegetation within this 50 metre buffer is permitted unless otherwise approved by NSE.
- 3.2 All discharges from the site must meet NSE requirements.
- 3.3 The Approval Holder, as part of the application for Part V Approval under the *Environment Act*, must submit to NSE for review and approval:
- a) a surface water monitoring program including sampling locations and parameters. Based on the results of the monitoring programs as proposed, the Approval Holder must make necessary modifications to mitigation plans and/or operations as required by NSE;
 - b) plans for erosion and sediment control;
 - c) a stormwater management plan including details regarding the plans for monitoring, maintenance and upgrading of environmental controls. Design criteria must recognize increased likelihood of more intense precipitation events in coming decades; and
 - d) a pre and post development water quality and quantity monitoring program. Sampling methods and/or protocols must be provided as required by NSE.
- 3.4 All surface water protection and management programs must be updated to reflect the progressive development of the quarry. This is to take place over the lifetime of

the Undertaking, at a schedule acceptable to NSE, and revised as approved by NSE.

4.0 Wetlands

4.1 The Approval Holder must not undertake any quarry related activities within 50 metres of a wetland unless otherwise approved by NSE. No development or removal

of vegetation within this 50 metre buffer is permitted unless otherwise approved by NSE.

4.2 If avoidance of wetlands is not possible during the development of the Undertaking, any loss of wetland habitat through direct infilling or indirectly through alteration of wetland hydrology will require a wetland evaluation and application for alteration under the Activities Designation Regulations.

4.3 The Approval Holder, as part of the application for Part V Approval under the *Environment Act*, must submit to NSE for review and approval:

a) plans, including locations, for flow retention structures and energy dissipation controls; and

b) a plan for monitoring potential impacts of the Undertaking on wetlands.

5.0 Ground Water Resources

5.1 The Approval Holder, as part of the application for Part V Approval under the *Environment Act*, must submit to NSE for review and approval:

a) a groundwater monitoring program including location of monitoring wells and monitoring parameters. This program must be designed to evaluate potential impacts to both groundwater levels and groundwater quality. Based on the results of the monitoring programs, the Approval Holder must make necessary modifications to mitigation plans and/or quarry operations, if required, to prevent unacceptable environmental effects, to the satisfaction of NSE. This program shall be updated upon Part V application renewal or other frequency as determined by NSE; and

b) a monitoring program to determine the potential for and extent of sulphide bearing material and plan to manage any exposed acid generating material and associated drainage (to be developed in consultation with NSE and completed as per the Sulphide Bearing Material Disposal Regulations).

5.2 The Approval Holder must not excavate below the watertable, unless otherwise approved by NSE

5.3 The Approval Holder must replace, at their expense, any water supply which has been lost or damaged as a result of quarrying operations to the satisfaction of NSE.

6.0 Flora and Fauna

- 6.1 Clearing of areas must be conducted outside of the breeding season for most bird species (May 1 to August 31), unless otherwise approved by NSE.
- 6.2 The Approval Holder must maintain a 20 meter vegetated buffer to protect the small nutrient-rich seepage forest as outlined in section 5.3.1 of the Registration Document.

7.0 Noise Dust and Vibration

- 7.1 The Approval Holder, as part of the application for Part V approval under the *Environment Act*, must provide for review and approval, an updated blasting plan. The plan must include an updated pre blast survey for structures and water supplies within 800 metres of the blast area, a detailed blast monitoring plan, and a full blast damage response policy as required by NSE. The plan must demonstrate that air concussion and ground vibration limits are capable of being met.
- 7.2 The Approval Holder must provide a sound monitoring program at the request of NSE. If required, based on the results of the monitoring programs, the Approval Holder must make necessary modifications to mitigation plans and/or quarry operations to prevent continued unacceptable environmental effects to the satisfaction of NSE.
- 7.3 The Approval Holder must provide an air monitoring program (particulate emissions), at the request of NSE. If required, based on the results of the monitoring programs, the Approval Holder must make necessary modifications to mitigation plans and/or quarry operations to prevent continued unacceptable environmental effects to the satisfaction of NSE.

8.0 Archaeological and Heritage Resources

- 8.1 Prior to expansion, an archaeological impact assessment must be completed to identify any heritage resources and to ensure that significant project-related impacts on these resources do not occur. The archaeological impact assessment must be completed to the satisfaction of the Heritage Division, Nova Scotia Department of Tourism, Culture and Heritage.
- 8.2 The Approval Holder must cease work and contact the Director, Heritage Division, Nova Scotia Department of Tourism, Culture and Heritage immediately upon discovery of an archaeological site or artefact unearthed during any phase of the proposed Undertaking. If the find is of certain or suspected Mi'kmaq origin, the Approval Holder must also contact the Executive Director of the Kwilmu'kw Mawklusuaqn Negotiation Office.

9.0 Public Engagement

- 9.1 The Approval Holder must develop and submit to NSE, a complaint resolution program to address public concerns associated with the Undertaking. The Approval Holder must appoint a contact person designated to deal with complaints

from the public, and must provide the contact person information to NSE 30 days prior to the commencement of any work. Records of these complaints and associated actions must be made available to NSE upon request.

- 9.2 At the request of NSE, the Approval Holder must form a Community Liaison Committee (CLC). The NSE Guidelines for the Formation of a Community Liaison Committee should be used for guidance.

10.0 First Nation and Aboriginal Engagement

- 10.1 The Approval Holder, as part of the application for Part V Approval under the *Environment Act*, must develop and implement a Mi'kmaq Communication Plan for the Undertaking, which will include a process for communicating project details and seeking input from the Mi'kmaq community.

11.0 Contingency Planning

- 11.1 The Approval Holder, as part of the application for Part V Approval under the *Environment Act*, must submit to NSE, for review and approval, a contingency plan that meets NSE's Contingency Planning Guidelines and that addresses (including but not limited to):
- a) accidental occurrences, and includes the location of spill equipment kept on-site and emergency phone numbers;
 - b) training to be delivered to staff, including contractors;
 - c) procedures for responding to incidents occurring during times when the facility is not staffed (e.g. evenings, weekends, holidays);
 - d) impacts to watercourses and water resources and domestic water supplies;
 - e) releases of dangerous goods or waste dangerous goods;
 - f) petroleum and hazardous material spills and surface water control structure failure; and
 - g) such other information as required by NSE.
- 11.2 No hazardous materials or petroleum products are to be stored on the site unless otherwise approved by NSE.
- 11.3 Refueling must not be conducted within 100 metres of any surface water resource, unless otherwise approved by NSE.
- 11.4 Contingency plans must be updated to reflect the progressive development of the quarry. This is to take place over the lifetime of the Undertaking, at a schedule acceptable to NSE, and revised as approved by NSE.

12.0 Site Reclamation

- 12.1 The Approval Holder, as part of the application for Part V Approval under the *Environment Act*, shall provide, for review and approval, a preliminary reclamation plan that includes progressive reclamation and details of future land use.
- 12.2 Reclamation plans must be updated to reflect the progressive development of the quarry. This is to take place over the lifetime of the Undertaking, at a schedule acceptable to NSE, and revised as approved by NSE.
- 12.3 Quarry operations must be completed and reclaimed to the satisfaction of NSE and other appropriate regulatory departments.

Original Signed By

Sterling Belliveau
Minister of Environment

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