

Environmental Assessment Approval

Approval Date: *Original dated January 7, 2013*

Sand and Gravel Pit Expansion, Cooks Brook Gallant Aggregates Ltd., Proponent

Halifax County, Nova Scotia

The Sand and Gravel Pit Expansion, Cooks Brook (the "Undertaking"), proposed by Gallant Aggregates Ltd. (the "Approval Holder"), Halifax 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 Approval Holder 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 (EA).
- 1.2 The Approval Holder 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 Approval Holder 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 Approval Holder must implement all mitigation and commitments in the Registration Document, unless approved otherwise by Nova Scotia Environment (NSE).

2.0 Pit Operations

- 2.1 As part of the application for Part V Amendment 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 pit operations must be resubmitted over the lifetime of the project, at a schedule to be established by NSE, and revised as determined by NSE.
- 2.4 An Annual Report showing the status of EA conditions must be submitted to NSE on or before January 7, 2014, and annually thereafter.
- 2.5 As part of the application for Part V Amendment under the *Environment Act*, the Approval Holder must submit to NSE for review and approval, written assurance that all solid waste is properly sorted for recycling, reuse, composting, or landfilling. The segregated materials must be stored in a manner so that they will not degrade, burn, or become buried on site until they are sent to the appropriate, provincially-approved waste disposal, recycling or composting facilities.

3.0 Surface Water Resources

- 3.1 The Approval Holder must not undertake any pit-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 Amendment under the *Environment Act*, must submit to NSE for review and approval:
 - a) details of 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. This monitoring program should include, but not be limited to, plans for

monitoring water in settling ponds and discharge released into the environment and the receiving stream of Cooks Brook;

- b) plans for erosion and sediment control;
- c) a storm water and site water control management plan including details regarding the plans for monitoring, maintenance and upgrading of the flow retention/siltation treatment areas, overflow ponds and spillways. Design criteria must recognize increased likelihood of more intense precipitation events in coming decades; and
- d) details of 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 pit. 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 pit-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 During the development and operation of the Undertaking, any loss of wetland habitat through indirect alteration of wetland hydrology will require a wetland evaluation and approval for alteration under the Activities Designation Regulations.

5.0 Ground Water Resources

- 5.1 The Approval Holder must establish and maintain three groundwater monitoring wells for depth to groundwater evaluation and to provide for means of retrieving groundwater samples as necessary.
- 5.2 The Approval Holder, as part of the application for Part V Amendment 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 (including chemical sampling). Based on the results of the monitoring programs, the Approval Holder must make necessary modifications to mitigation plans and/or pit 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;

- b) a monitoring program to determine the potential for, and extent of, sulphide-bearing material in the gravel component of the deposit, and plan to manage any exposed acid-generating material and associated drainage to the satisfaction of NSE;
 - c) details regarding ground or surface water withdrawal; and
 - d) details of the elevation of the groundwater table within the project site to the satisfaction of NSE.
- 5.3 The Approval Holder must not excavate below the groundwater table, unless otherwise approved by NSE.
- 5.4 The Approval Holder must replace, at their expense, any water supply which has been lost or damaged, or address any other groundwater impacts as a result of pit operations, to the satisfaction of NSE.

6.0 Flora and Fauna

- 6.1 Clearing and grubbing must be conducted outside of the breeding/nesting/fledging season for most bird species (April 1st to August 31st), unless otherwise approved by NSE.
- 6.2 Prior to expansion, the Approval Holder must provide Nova Scotia Department of Natural Resources (NSDNR) Wildlife Division the results of an additional spring/early summer plant survey and take appropriate mitigative action, to the satisfaction of NSDNR Wildlife Division.
- 6.3 The Approval Holder must submit to NSDNR Wildlife Division, for review and approval, a plan for mitigation for the rare sedge (*Carex houghtoniana*) present on the project site, and advise NSE of the plan prior to commencing work.
- 6.4 Prior to clearing, a survey must be conducted to ensure that no early nesting species protected by the *Migratory Birds Convention Act*, *NS Endangered Species Act* or COSEWIC listed species are nesting on the site. If early nesting species are encountered, consult with the NSDNR Regional Biologist for mitigation and advise NSE.
- 6.5 The Approval Holder will work in collaboration with the NSDNR Regional Biologist and Environment Canada (EC), to put in place mitigation measures to be taken if individuals of the following species are encountered breeding, foraging or nesting in, or in close proximity to the project area: Common Nighthawk; Common Loon; and/or Barn Swallow.
- 6.6 Bank Swallow nests, in the project area, must be protected until the chicks have fledged and left the area, to the satisfaction of NSDNR Regional Biologist and EC.

- 6.7 The Approval Holder must advise NSDNR Wildlife Division and NSE immediately of any wood turtles observed or reported within the approved Project Area (and mark and flag a 10 metre radius around known nest sites). If determined to be necessary, mitigation measures must be developed in consultation with and to the satisfaction of NSDNR.
- 6.8 The Approval Holder will work in collaboration with NSDNR Regional Biologist to put in place mitigation measures to be taken if reptile species are encountered making use of the existing (old) pit or pit extension, including transiting, nesting or basking.
- 6.9 The Approval Holder must implement a plan to manage invasive plants during the Undertaking's operation and in site reclamation, to the satisfaction of NSDNR Wildlife Division, and advise NSE of this plan.

7.0 Air Quality: Dust and Noise

- 7.1 The Approval Holder must include an air monitoring program and plan (particulate emissions) as part of their application for amendment to the existing Part V Approval. This plan must include but not be limited to: details of mitigation methods; sampling locations; parameters; monitoring methods; protocols; and frequency. Based on the results of the monitoring programs as proposed, the Proponent must make necessary modifications to mitigation plans and/or operations to the satisfaction of NSE.
- 7.2 The Approval Holder must undertake a noise monitoring program at the request of NSE. Based on the results of monitoring program as proposed, the Approval Holder must make necessary modifications to mitigation plans and/or operations as required by NSE.
- 7.3 All equipment is to be operated with standard noise suppression exhaust systems and kept in good repair.
- 7.4 The operation must comply with anticipated noise and dust limits in the Pit & Quarry Guidelines at, or beyond, the property boundary.

8.0 Archaeological and Heritage Resources

- 8.1 Archaeological research and on-site work related to the project site must be completed to the satisfaction of the Nova Scotia Department of Communities, Culture and Heritage (NSCCH) as legislated in the *Special Places Protection Act*.
- 8.2 The Approval Holder must cease work and contact the Coordinator, Special Places, Nova Scotia Department of Communities, 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 Maw-klusuaqn 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 Aboriginal and First Nations Engagement

- 10.1 The Approval Holder 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, including but not limited to Indian Brook First Nation.
- 10.2 The Approval Holder must solicit CLC membership from the Mi'kmaq community if a CLC is requested to be formed by NSE.

11.0 Transportation

- 11.1 The Approval Holder must address transportation-related concerns in the following manner:
- a) dust on site roads must be stabilized using water. All other methods require approvals by NSE;
 - b) trucking contracts must stipulate adherence to speed limits, use of tarpaulins, vehicle maintenance requirements and periodic inspections; and
 - c) trucks must be free of loose debris prior to leaving the site.
- 11.2 As part of the application for Part V Amendment under the *Environment Act*, the Approval Holder must clarify the number truck trips anticipated per day during operations of the pit.

12.0 Contingency Planning

- 12.1 The Approval Holder, as part of the application for Part V Amendment 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) plans related to the potential for surface and elevated groundwater to enter the pit;
 - f) releases of dangerous goods or waste dangerous goods;
 - g) petroleum and hazardous material spills and surface water control structure failure; and
 - h) other such information as required by NSE.
- 12.2 No hazardous materials or petroleum products are to be stored on the site unless otherwise approved by NSE.
- 12.3 Refueling must not be conducted within 100 metres of any surface water resource, unless otherwise approved by NSE.
- 12.4 Contingency plans must be updated to reflect the progressive development of the pit. This is to take place over the lifetime of the Undertaking, at a schedule acceptable to NSE, and revised as approved by NSE.

13.0 Site Reclamation

- 13.1 The Approval Holder, as part of the application for Part V Amendment under the *Environment Act*, must provide, for review and approval, a preliminary excavation and reclamation plan that includes progressive reclamation and details of future land use.
- 13.2 Reclamation plans must be updated to reflect the progressive development of the pit. This is to take place over the lifetime of the Undertaking, at a schedule acceptable to NSE, and revised as approved by NSE.
- 13.3 Pit operations must be completed and reclaimed to the satisfaction of NSE and other appropriate regulatory departments.
- 13.4 Pit extension approval is subject to progressive reclamation at the existing site being completed to the satisfaction of NSE.

Original Signed By

Sterling Belliveau
Minister of Environment