

Environmental Assessment Approval

Approval Date: *Original Dated September 14, 2007*

MacLeod's Settlement Pit Development

2227754 Nova Scotia Limited, Proponent

MacLeod's Settlement, Inverness County
Nova Scotia

MacLeod's Settlement Pit Development (the "Undertaking"), proposed by 2227754 Nova Scotia Limited (the "Proponent"), in Inverness County, Nova Scotia is approved pursuant to 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, by-laws, guidelines, policies or standards 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 Information.

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 & Labour (NSEL).

2.0 Wildlife

- 2.1 The Proponent, as part of the application for Part V approval under the *Environment Act*, must provide for review and approval, a mitigation/monitoring plan for the Least Grape Fern (*Botrychium saimplex*) found within the proposed project boundary, and the Yellow Lady's Slipper (*Botrychium matricarifolium*) found within the property boundary, in consultation with NSDNR.
- 2.2 The Proponent must implement standard mitigative measures to minimize the environmental effects of the Project on plant communities including the use of native plants and/or seed mixtures free of noxious weeds.
- 2.3 Clearing and grubbing of areas to be used as pit sites must be conducted outside of the breeding season for most bird species (April 1 to August 1).
- 2.4 The Proponent must develop a strategy to monitor for Wood Turtles in consultation with NSDNR. Based on the results of the monitoring the Proponent may be required to develop a plan to limit any potential adult mortality, in consultation with NSDNR.

3.0 Groundwater

- 3.1 The Proponent, as part of the application for Part V approval under the *Environment Act*, must provide for review and approval:
 - a) Details of a groundwater monitoring program including location of monitoring wells and 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 Proponent must make necessary modifications to mitigation plans and/or pit operations to prevent continued unacceptable environmental effects to the satisfaction of NSEL. The program must be resubmitted over the lifetime of the project, at a schedule established by NSEL, and revised as determined by NSEL.
 - b) Details regarding the proposed extraction below the water table, potential impacts and mitigation, so that the minimum distance between any dewatering activities and wells, streams and wetlands, can be determined and approved by NSEL.
- 3.2 The Proponent must replace, at their expense, any water supply which has been lost or damaged as a result of extracting aggregate.

4.0 Surface Water

- 4.1 The Proponent, as part of the application for Part V approval under the *Environment Act*, must provide for review and approval:
- a) Details regarding the program to monitor surface water, including location and parameters. Based on the results of monitoring programs, the Proponent shall make necessary modifications to mitigation plans and/or pit operations to prevent continued unacceptable environmental effects to the satisfaction of NSEL.
 - b) Details of the erosion and sediment control plan.
 - c) Details regarding the monitoring, maintenance, replacement and/or upgrading of the settling ponds. Settling pond design criteria shall include increased likelihood of more intense precipitation events in coming decades.
 - d) Details of the Stormwater Management Plan, detailing drainage patterns and outfall locations.
- 4.2 All surface water protection and management programs must be resubmitted over the lifetime of the project, at a schedule to be established by NSEL, and revised as determined by NSEL.
- 4.3 The Proponent must not undertake any pit related activities within 30 metres of a watercourse without receiving all necessary approvals and/or authorizations from NSEL and all other applicable jurisdictions.

5.0 Wetlands

- 5.1 The Proponent, as part of the application for Part V approval under the *Environment Act*, must provide for review and approval, results of the hydrologic study conducted to determine the manner in which the pit can be developed as to maintain the wetland function. If the hydrologic study results reveal that there is the potential to affect the wetland function, the Proponent must develop mitigation plans in consultation with NSEL.
- 5.2 The Proponent must not undertake pit related activities within 30 metres of any wetland, unless otherwise approved by NSEL.

6.0 Archaeological & Heritage Resources

- 6.1 The Proponent, as part of the application for Part V approval under the *Environment Act*, must demonstrate that an acceptable archaeological resource impact assessment, through the Heritage Research Permit Process, was completed, reviewed and approved by the Heritage Division of Nova Scotia Tourism, Culture & Heritage.
- 6.2 The Proponent must cease work and contact the Director, Heritage Division, Nova Scotia Department of Tourism, Culture and Heritage, the Executive Director, Confederacy of Mainland Mi'kmaq and the Executive Director, Union of Nova Scotia Indians immediately upon discovery of an archaeological site or artifact unearthed during any phase of the proposed project.

7.0 Noise & Dust

- 7.1 The Proponent, as part of the application for Part V approval under the Environment Act, must provide for review and approval:
- a) Details of the air monitoring programs (airbourne particulate emissions). Based on the results of the monitoring programs, conducted at the request of NSEL, the Proponent must make necessary modifications to mitigation plans and/or pit operations to prevent continued unacceptable environmental effects to the satisfaction of NSEL.
 - b) Details of baseline and on-going noise monitoring programs. Based on the results of the monitoring programs, conducted at the request of NSEL, the Proponent must make necessary modifications to mitigation plans and/or pit operations to prevent continued unacceptable environmental effects to the satisfaction of NSEL.
- 7.2 Dust generated by truck movement on site shall be minimized via speed control, proper truck loading, application of dust suppressants, proper construction of on-site roads, appropriate rehabilitation planning (including windscreens), and/or other means as required by NSEL.

8.0 Pit Operation

- 8.1 The Proponent, as part of the application for Part V approval under the Environment Act, must provide for review and approval:
- a) A detailed pit development plan including but not limited to the sequence of pit development, soil erosions and sedimentation plans, progressive reclamation plans, etc. A site hydrology plan should be developed based on the overall pit development plan. The Proponent must also include details of a designated

area for refuelling (i.e. impermeable pad).

- b) An acceptable contingency plan that meets NSEL's Contingency Planning Guidelines, September 2004 and addresses:
- accidental occurrences, including but not limited to contingencies for spills, including spill equipment kept on-site and location of emergency phone numbers
 - training to be delivered to staff
 - procedures for responding to incidents occurring during times when the facility is not staffed (e.g. evenings, weekends, holidays).
- c) A plan, developed in consultation with, and approved by, NSTPW, that addresses upgrades to the road system necessary due to the pit development.

8.2 The Proponent must operate the pit within all NSEL requirements.

8.3 The Proponent must plan and design the pit according to NSEL Pit and Quarry Guidelines, 1999, and any subsequent updates.

8.4 No hazardous materials or petroleum products are to be stored on the site unless otherwise approved by NSEL.

8.5 All plans related to pit operation must be resubmitted over the lifetime of the project, at a schedule to be established by NSEL, and revised as determined by NSEL.

8.6 The Proponent must apply for renewals to the Part V Approval at intervals established by NSEL, and provide additional information as deemed necessary by NSEL.

9.0 Site Reclamation

9.1 The Proponent, as part of the application for amendments to the 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.

9.2 Pit operations must be completed and reclaimed to the satisfaction of NSEL and other appropriate regulatory departments.

Original Signed By

Mark Parent
Minister of Environment and Labour