

APPENDIX I



APPROVAL

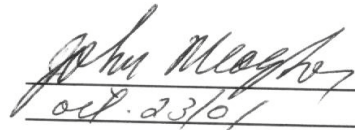
Province of Nova Scotia
Environment Act, S.N.S. 1994-95, c.1

APPROVAL HOLDER: MacLeod Resources
APPROVAL NO: 2001-023896
EFFECTIVE DATE: October 19, 2001
EXPIRY DATE: September 30, 2002

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:

Installation of a temporary bridge crossing platform as weather conditions permit this season and construction of a culvert during the 2002 construction season on an unnamed tributary to Kennedy Big Brook at or near River Denys Centre, Inverness County in the Province of Nova Scotia.

Administrator
Date Signed


Oct. 23/01


NOVASCOTIA
Department of Environment and Labour

19 Pulp Mill Road
Point Tupper, NS
B9A 1Z3

Tel: (902) 625-0791
Fax: (902) 625-3722

Our File Number: 95100-30

October 19, 2001

Mr. Chris Trider
c/o MacLeod Resources
99 Archibald Road
RR#1, Truro
Nova Scotia
B2W 5A9

Dear Mr. Trider:

**RE: Approval to Construct - Culvert - Unnamed tributary to Kennedy Big Brook,
Approval No. 2001-023896**

Enclosed please find Approval #2001-023896 to install a temporary bridge crossing platform as weather conditions permit this season and construct a culvert during the 2002 construction season on an unnamed tributary to Kennedy Big Brook at River Denys Centre, Inverness County, Nova Scotia.

This approval or a copy is to be kept on-site at all times. All personnel involved in the project must be made fully aware of the terms and conditions of this approval. The terms and conditions are shown as attached and it is your responsibility to ensure that they are followed. Failure to comply with the terms and conditions is an offence.

It is your duty to advise the Department of any new and relevant information respecting any adverse effect that results or may result from the approved activity, which comes to your attention after the issuance of the approval. This is required under Section 60 of the *Environment Act*.

If the activity is altered, extended or modified beyond the description given in this approval, please reapply as a new approval may be required.

Please provide the undersigned with three days notice prior to the commencement of the work.

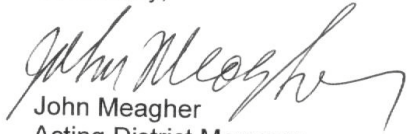
Within 14 days of completion of the work authorized under this approval, you are required to submit the enclosed form entitled "Nova Scotia Department of Environment and Labour Completion of the Approved Work."

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Please call at once, if you have any questions about the conditions of this approval, especially those pertaining to the actual construction.

Should you have any questions, please contact Mr. Donald Hart, Eastern Region, Port Hawkesbury District Office at (902) 902-625-0791.

Yours truly,



John Meagher
Acting District Manager

DH:dm

cc Mr. Donald Hart
Ms. Carol Sampson



Fisheries and Oceans
Canada

Pêches et
Canada

P.O. Box 1085
Sydney, Nova Scotia
B1P 6J7

October 19, 2001

Mr. Dean Hart
Nova Scotia Department of Environment
P.O. Box 603
Port Hawkesbury, Nova Scotia
B0E 2V0

Dear Mr. Hart:

Re: Water Rights Application 2001-023896, MacLeod Resources, Culvert Replacement, Tributary to Kennedy Big Brook (River Denys), Inverness County

During the October 18, 2001 site visit, Brook trout were observed in this watercourse, so this Department would consider that the watercourse provides fish habitat. The normal time period for work in the water is from June 1 to September 30 of most years. This period avoids the sensitive life stages of spawning, egg incubation and egg hatching for salmonid fishes such as Brook trout. It also avoids the fall and spring periods of high precipitation and high stream flows.

The existing structure is in poor condition with only remnants embedded in the bottom and banks of the watercourse. The crossing site however is fairly stable and is not eroding. Given the time of year and presence of Brook trout in the watercourse, this Department does not support the work in-stream that would be required to replace the structure. If the proponent wishes to access the site immediately, it is recommended that a temporary bridge crossing platform be used until a permanent structure can be installed during the 2002 construction season. Comments are attached for a temporary bridge crossing.

As well as the watercourse crossing, there are concerns with using this road in its present condition. The road was constructed along the watercourse with very little space as a buffer zone between them. The existing road surface appears to be mostly soil material grown over in vegetation. Travel on this road will quickly remove this vegetation, leaving the soil exposed and susceptible to erosion. Significant upgrading of this road will be required to prevent siltation from reaching the watercourse and subsequently harming the fish habitat. The proponent should be strongly encouraged to consider the potential negative impacts of using this road and how those impacts would be mitigated.

The Department of Fisheries and Oceans (DFO) has reviewed the plans for the above noted proposal and concluded that a temporary bridge crossing platform would not be expected to result in harmful alteration, disruption or destruction of fish habitat provided that the mitigation measures, as specified below, are implemented:

1. All work should be done in accordance with the Nova Scotia Watercourse Alteration Specifications (1997),
2. The crossing structure may remain in place as weather conditions permit. That is, during periods of high flows, it should be removed before there is any danger of it washing out,

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Post-it* Fax Note	7671E	Date	02T 19/2001	# of pages	4
To	DEAN HART	From	JOAN REID		
Co./Dept.		Co.			
Phone #		Phone #	564-7708		
Fax #	625-3722	Fax #			

2001-023896

Our file Notre référence

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3. The crossing structure should be removed as soon as work in the area is complete,
4. The bridge is to completely span the watercourse with the sills or abutments to be placed well back from the waters edge,
5. No disturbance of the bed or bank of the watercourse is to occur,
6. The structure is to be lifted in to place, rather than dragged and is to be removed in the same way,
7. To prevent rutting from machinery, approach roads on both sides of the crossing must be stabilized against erosion with clean rock, gravel or brush mats extending back at least 100 feet on either side of the crossing. Any soft area on either approach should be stabilized in a similar manner,
8. Any fill or rock used should be clean, non-toxic material obtained from a non-watercourse source,
9. Any areas of soil exposed as a result of this work should be immediately stabilized against erosion with hay mulch, brush mats or other suitable material,
10. Every effort should be made to ensure that there is no discharge of silt, harmful materials or substances into any watercourse.

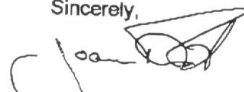
If the work is completed as proposed, including the additional mitigation measures requested above, an authorization under Section 35(2) of the Fisheries Act will not be required.

A change in the proposed project or failure to implement the additional mitigation measures requested may result in harmful alteration, disruption or destruction of fish habitat contrary to Section 35(1) of the Fisheries Act.

Please note that this letter of advice should not be taken to imply approval of the project under any other federal or provincial legislation.

If you have any questions concerning the mitigation measures, or should there be any changes to the proposed work, please contact me at (902) 564-7708.

Sincerely,



Joah Reid
Area Habitat Coordinator
Eastern Nova Scotia

c.c. Habitat Referrals
Baddeck F/O

APPENDIX II

CANADIAN ENVIRONMENTAL ASSESSMENT ACT SCREENING REPORT

PART A: PROJECT INFORMATION

Responsible Authority: Atlantic Canada Opportunities Agency
Responsible Officer: Donald Hamilton
Project Number: 8404328

Project Title: Kennedy's Big Brook Marble Quarry
Proponent: MacLeod Resources Limited
Contact Person: Chris Trider
Telephone: (902) 895-0766
Location: Kennedy's Big Brook, NS

PART B: ESTABLISHMENT of RESPONSIBILITY

at least one Activity does not appear in the *Exclusion List Regulations*.

and, (one or more of the following applies)

the Activity relates to a physical work,

the Activity appears in the *Inclusion List Regulations*;

and, (one or more of the following applies)

the Federal Authority is the Project Proponent,

the Federal Authority provides Financial Assistance to the project,

the Federal Authority disposes of Federal Land for the purpose of enabling the project,

the Federal Authority will grant permission for the purpose of enabling the project;

or

the Federal Authority will grant permission for the purpose of enabling the project under a provision which appears in the *Law List Regulations*.

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PART C: SCOPE OF PROJECT (S.15)

Project Description

The proposed project includes the quarrying and processing of specialised red marble from proponent owned property near River Denys, Cape Breton. The variegated "red" deposits of marble found in the Kennedy's Big Brook area were formed when rare geological conditions co-existed in the area. As a result, very few significant global sources of such red marble are found.

The proponent has obtained the mineral leases for the Kennedy's Big Brook marble deposit located near River Denys in Inverness County, Cape Breton and plans to develop a small quarrying and production facility. A quarry concept plan is shown in Figure 1. Site preparation will include:

- construction of an access road to the quarry;
- removal of surface aggregate to expose the deposit;
- developing a water supply and settling pond system; and
- the installation of cutting equipment and storage facilities.

Construction:

The proponent plans to gain access to the quarry floor by upgrading a 1.7 km long existing forest access road. The upgrade will require the installation of cross culverts where necessary, the grading and levelling of the road bed, and the spreading of a gravel topcoat on the roadway.

Site development will involve scraping the surface aggregate from the quarry site to remove any surface boulders and loose material in order to expose the marble deposits. The unconsolidated overburden on the project site averages less than 1 m thickness, and in many places, the marble is at the surface. Approximately 1910 m³ of topsoil will be removed, stockpiled and stabilized with hay mulch on site for the future reclamation of the project. The quarry area will be less than 4 ha in size.

The proposed project requires the drilling of two wells on site and establishing a fire pond and two closed-system settling ponds. The settling ponds will be installed to collect water from the quarry face and allow for recycling of the water supply. One pond proposed for the project site will measure approximately 11 m by 5 m and 1.8 m deep. The other pond will be larger, measuring 11 m by 12 m and approximately 2 m deep. The fire pond will be developed in a wet area located in a natural depression. A series of check dams will be constructed at the outflows from each of the two ponds. A continuous operation submersible pump will be used to pump water from one settling pond to the second allowing further settling of the water. The water requirements for the diamond wire or belt saw and stationary saw are approximately 136 litres per minute at the quarry face. The water will be collected in the settling ponds and recycled. By-products associated with the settling of the water ponds is high quality limestone, that will remain on site for potential, future processing.

The proponent will also place two removable 9 m long self contained trailers on the quarry site that will

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provide shelter for the workers and storage for hand tools, quarry bars and drilling equipment.

Electricity for the shelter and storage sheds will be provided by the same source of power for the quarry equipment. No construction of permanent building structures will be required as a result of this project. Equipment installed on the project site will include a diamond wire saw positioned on the quarry floor for cutting slabs from blocks. These quarry saws measure approximately 16 m² and 39 m² respectively in size.

Operation:

Once operational, the production of the proposed Kennedy's Big Brook marble quarry will be approximately 300 m³/yr. The production process will involve the drilling and sawing of marble blocks and slabs using diamond wire or belt saws, and quarry bars and drills. An excavator, backhoe, and mini excavator will be used for site preparations, material stockpiling, and for moving large marble blocks. Trucking activity associated with the project will involve approximately sixty tri-axle loads over the quarry season, which translates into two or three truck loads per week. Power sources for the quarry will be supplied either by Nova Scotia Power who will install single phase electrical power poles along the old public access road to the project site or by a proponent owned diesel generator located on the project site. The proposed quarry will operate seasonally from March to November on a six day per week schedule. The operational lifespan of the proposed project is expected to be 12 to 15 years. Operation of the quarry will not involve any blasting or the use of explosives.

Decommissioning:

Decommissioning/abandonment of the proposed marble quarry would involve the dismantling and removal of all marble cutting and processing equipment, the removal of storage and shelter trailers, the draining and backfilling of the settling ponds and fire pond, and the reclamation of the project land. The overburden of topsoil removed during site preparations will be used to return the quarry site to previous conditions. The proponent plans to develop the quarry in such a way that will leave natural benches and terraces in the quarry to enable the development of a park and garden area for public use in the future.

PART D: SCOPE OF ASSESSMENT (S.16)

Environmental Setting:

The project is located at Kennedy's Big Brook (45° 50' 00" N - 61° 10' 00" W) in the North Mountain sub-Unit of the North Bras d'Or Uplands eco-region of Nova Scotia. North Mountain is situated west of Bras d'Or Lake, between Denys Basin and West Bay. See Figure 2 for project location.

The project site is located approximately 30 km northeast of Port Hawkesbury, Nova Scotia, between the rural areas of Lime Hill and River Denys. The project property is located near the top of North Mountain, a northeast trending topographic ridge that reaches an elevation of approximately 190 m. Access to the quarry is via a provincial highway from Port Hawkesbury to River Denys and then easterly approximately 3 km along an existing forest access road to the property area.

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December 20, 2001**

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The proposed quarry site is within an area which was clearcut by the previous owners approximately eight years ago. The site is currently covered by young sugar maple and striped maple regeneration, interspersed with white pine. Much of the area is bare rock, with surface outcrops of marble. The site is a "natural" quarry location in terms of the structure of the marble deposit around an existing depression to allow for collection and settling of water, with minimal disturbances of adjacent lands.

The current land use adjacent to the site is commercial forestry, as adjacent properties are currently being cut. The site is a former agricultural property, an original land grant to the MacLeod family from Scotland. The former homestead is approximately 0.4 km from the quarry site and will not be disturbed. The proposed quarry site is in one corner of an approximately 26 hectare clearcut. The site is 300 m from the nearest existing watercourse and the project will not affect fish or fish habitat, or any unique or special resources. No further visual impacts to the North Mountain will result from this proposed quarry project. The area in question has historically and is currently used by logging trucks, and has a regional history of truck activity associated with the former Georgia Pacific gypsum quarry.

The streams in the surrounding region are straight and fast-flowing, and shelter brook trout, golden shiner, white sucker, white perch, sticklebacks, and banded killifish. Deer winter on the relatively protected mountain slopes, which are forested with sugar maple, yellow birch, American beech, and shade-intolerant hardwoods. The North Mountain area is known to host an all-red (erythistic) phase of the Eastern Redbacked Salamander, which is relatively uncommon, and utilizes mature deciduous forest habitats. It is also suspected that several species of rare plants exist in the North Mountain area. As a result of clearcutting by previous owners, the project site is not likely to contain suitable habitat for these species.

Canadian Climate Normals data for Port Hastings (near Port Hawkesbury) indicate that the area receives approximately 1448 mm of precipitation annually. Measurable amounts of precipitation are recorded for 159 days per year with an extreme daily precipitation event of 132 mm. Extreme daily precipitation of 178 mm has been recorded in River Denys.

The project site does not contain any important, sensitive, threatened or endangered environmental components that are likely to be affected by the project.

Valued Ecosystem Components (VECs)

The selection of VECs comprises column one of Table 1. VECs were selected based on ecological importance to the existing environment (above), the relative sensitivity of environmental components to project influences and their relative social, cultural or economic importance.

Environmental Effects of the project on the environment are described by Table 1. Similarly, required mitigation is detailed, and the significance of residual (post mitigation) efforts is estimated.

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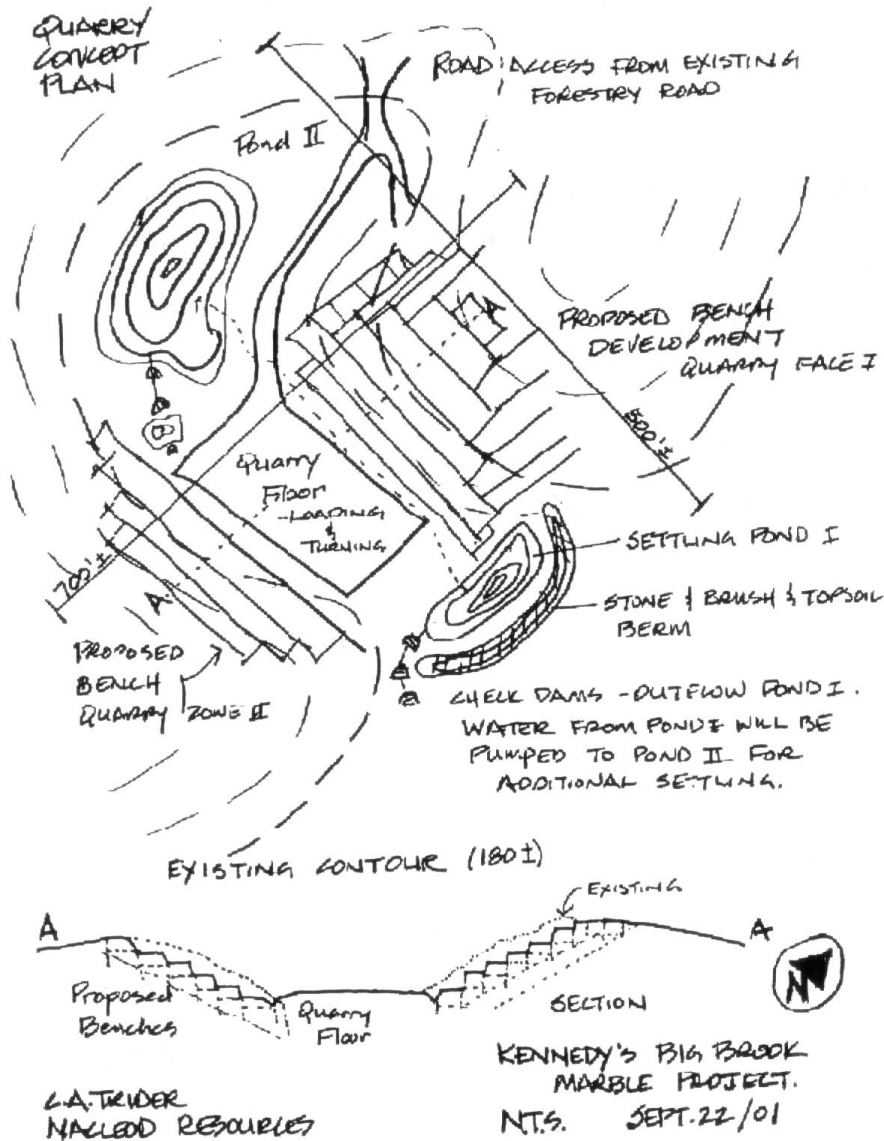


Figure 1: Concept plans for MacLeod Resources Ltd's. proposed marble quarry in Kennedy's Big Brook, Nova Scotia.