

**ENVIRONMENTAL ASSESSMENT
REGISTRATION DOCUMENT**

**CAPITAL READY MIX LTD.
PROPOSED QUARRY DEVELOPMENT
BLACK MOUNTAIN POND/LITTLE SOLDIERS POND**

Prepared for:
Capital Ready Mix Ltd.
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TABLE OF CONTENTS

	Page No.
1.0 NAME OF UNDERTAKING	1
2.0 PROPONENT	1
3.0 CHIEF EXECUTIVE OFFICER	1
4.0 PRINCIPAL CONTACT PERSON	1
5.0 THE UNDERTAKING	1
5.1 Nature of Undertaking	1
5.2 Purpose/Rationale/Need for the Undertaking	1
6.0 DESCRIPTION OF THE UNDERTAKING	2
6.1 Geographic Location	2
6.2 Physical Features	2
6.3 Existing Environment	5
6.4 Construction	6
6.4.1 Site Access	6
6.4.2 Salvageable Timber (Clearing) and Grubbing)	6
6.4.3 Quarry Development	7
6.4.4 Potential Sources of Pollution During the Construction Phase	7
6.5 Operation	8
6.6 Occupations	9
6.7 Project Related Documents	9
7.0 APPROVAL OF THE UNDERTAKING	10
8.0 SCHEDULE	10
9.0 FUNDING	10
10.0 SUBMISSION	10

LIST OF FIGURES

Figure 1	Proposed Quarry Site	3
Figure 2	Site Location Plan	4
Figure 3	Proposed Settling Ponds Site Plan	11

1.0 NAME OF UNDERTAKING: QUARRY DEVELOPMENT

2.0 PROPONENT: Capital Ready Mix Ltd.

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5.0 THE UNDERTAKING

5.1 *Nature of Undertaking*

The proposed project comprises the development of approximately 90 hectares of land in an area located east/northeast of *Little Soldiers Pond* and south of *Black Mountain Pond*, off the *Trans-Canada Highway*. The proposed site access will be via the extension of *Incinerator Road*, located off the *Foxtrap Access Road*. The proponent proposed to develop the area as a quarry operation, mining, and processing sand and gravel materials for use in *Capital Ready Mix Ltd.*'s concrete batching plant operations, located at the *Trans-Canada Highway/Columbus Drive* (TCH Quarries) interchange.

5.2 *Purpose/Rationale/Need for the Undertaking*

Capital Ready Mix Ltd. has operated a concrete batching plant at its current lease location (Pennecon Inc. - Lease No.7110731) for five years. Raw material for the batch plant is currently supplied through its existing quarry operation located on

Incinerator Road, off the *Foxtrap Access Road* (Lease No.7116719). At *Capital's* current concrete production schedule, the remaining life at the existing quarry site is estimated at two years. In an effort to attain future raw product, *Capital Ready Mix Ltd.* has investigated land located in the vicinity of *Little Soldiers Pond/Black Mountain Pond* via a test pit programme, to determine the suitability of the native materials (sand and gravel) for its future operations. Based on this investigation, the site was found to contain a native material that, when processed, is suitable for use in *Capital's* concrete manufacturing operations. The proposed area of development is estimated to provide approximately 25 years of raw material for *Capital's* future operation.

6.0 DESCRIPTION OF THE UNDERTAKING

6.1 Geographic Location

The proposed quarry is located in an area northwest of *Little Soldiers Pond* and south of *Black Mountain Pond*, approximately 1 km northwest of the *Trans-Canada Highway*. The site access will be by the proposed extension of *Incinerator Road*, located off the *Foxtrap Access Road*. The proponent proposes to develop the area as a quarry operation, mining sand and gravel materials for use in *Capital Ready Mix Ltd.'s* concrete batching plant operations, located at the *Trans-Canada Highway/Columbus Drive* interchange. Refer to *Figure 1: Proposed Quarry Site* and *Figure 2: Site Location Plan* for site details.

6.2 Physical Features

The primary physical feature will be the quarry site itself. A new access road to the site will be constructed from *Incinerator Road* to the proposed quarry site, estimated at approximately 800 m in length. Additionally, access roads will be constructed within the quarry property during development and quarrying operations. The quarry boundary is sited to ensure a minimum 50 m buffer zone/strip between all water bodies and streams adjacent to the proposed site.

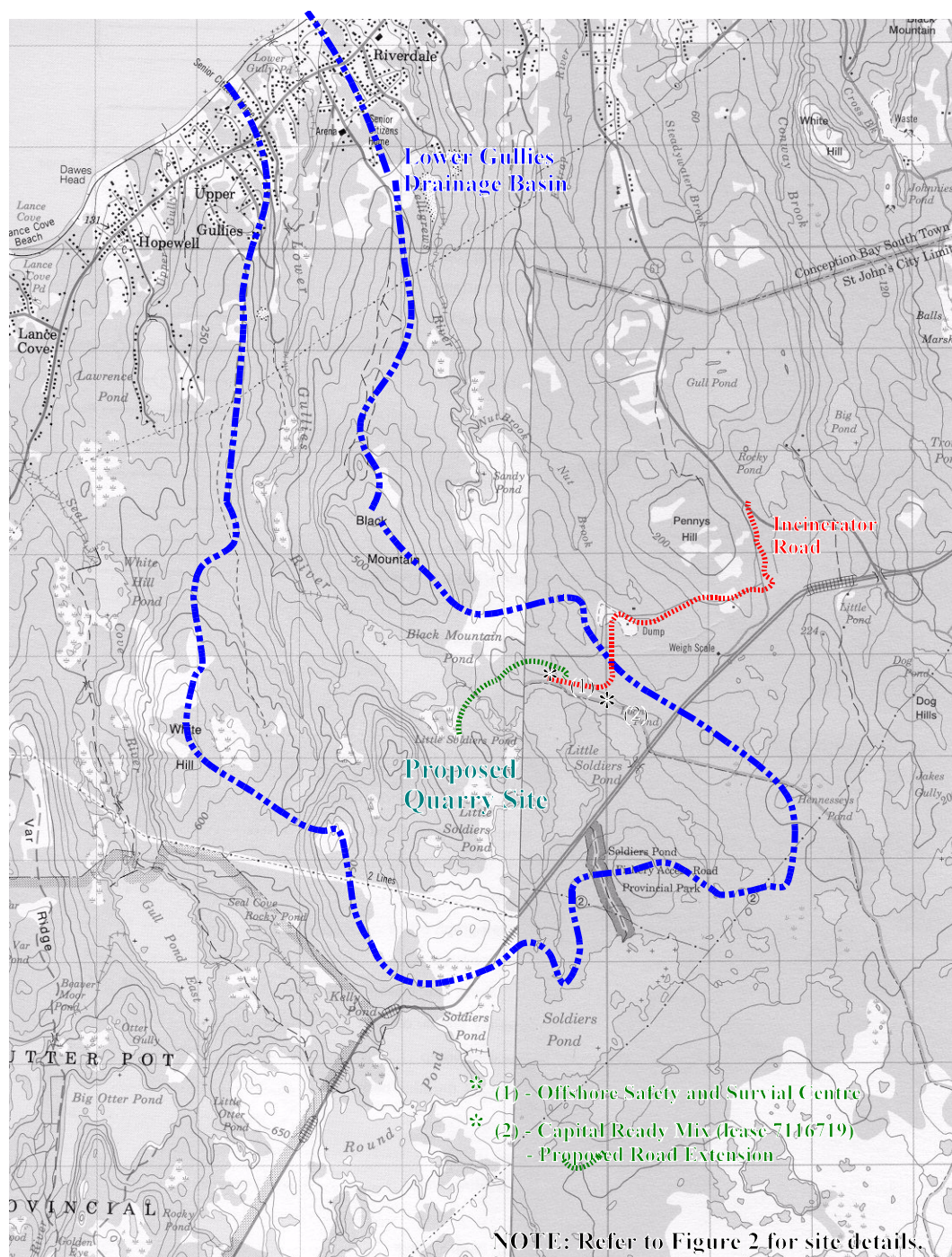


Figure 1: Proposed Quarry Site

Figure 2

Properties surrounding the proposed quarry site include the following:

- North - property to the north is undeveloped. A stream connecting *Little Soldiers Pond* and *Black Mountain Pond*, located to the northwest, flows in a northwest direction.
- East - *Little Soldiers Pond* is located to the east of the proposed quarry site. A 50 m buffer zone will remain between the quarry site and *Little Soldiers Pond*. The *Offshore Safety and Survival Center* is located to the northeast, on the north end of *Little Soldiers Pond*.
- South - *Little Soldiers Pond* is located to the south of the proposed quarry site. A 50 m buffer zone will remain between the quarry site and *Little Soldiers Pond*. The *Trans-Canada Highway* runs along the southeast shores of *Little Soldiers Pond*.
- West - property to the west is undeveloped.

6.3 Existing Environment

Climatic conditions in the region are characterized by cool summers with frequent fog and strong winds. Winters are relatively mild with intermittent snow cover, particularly near the coastline. The annual precipitation exceeds 1250 mm.

The site is located within the *Maritime Barrens Eco-region*, which extends from the east coast of Newfoundland to the west coast through the south central portion of the island. A previous habitat and dominant species survey completed in the eastern region, in close proximity to the proposed quarry site, indicated the following habitat/species in the area: Bog/Fen (Mosses [*Sphagnum spp.*], Dwarf Birch [*Betula Pumila*], Ground Juniper [*Juniperus communis*], Creeping Savin [*Juniperus horizontalis*], Swamp Birch [*Betula Pumila*], Deer Grass [*Scirpus cespitosus*]; Heath - Eastern Larch [*Larix laricina*], Low Bush Blueberry [*Vaccinium angustifolium*], Widdy [*Potentilla frusticosa*], Black Spruce [*Picea mariana*], Bog Laurel [*Kalmia polifolia*], Sweet Gale [*Myrica gale*], Mosses [*Sphagnum spp.*], Lichens [*Cladonia spp.*], Mixed Forest - Black Spruce [*Picea mariana*], Eastern Larch [*Larix laricina*], Mosses [*Sphagnum spp.*], Mountain Alder [*Alnus crispa*], Fake Solomon's Seal [*Smilacina trifolia*], Labrador Tea [*Ledum groenlandica*]. No rare or endangered plants were identified in the previous survey. Impacts to the terrestrial environment would not be considered significant in completing the proposed undertaking.

The proposed site is located between *Little Solders Pond* to the south/southeast, and *Black Mountain Pond* to the northwest. Site topography slopes generally towards the northwest, with existing ground elevations ranging from 130 m to 170 m above sea level at the southern end of the site, and ranging from 130 m to 120 m above sea level

at the northern end of the site. The northern portion of the site (low lying wet area - Refer to *Figure 2: Site Location Plan*) drains into *Black Mountain Pond*. *Little Soldiers Pond* flows into *Black Mountain Pond* via a brook/stream/steady at its north end. The brook/stream/steadies are located outside the proposed quarry location.

The site is located within the *Lower Gullies Drainage Basin*, which drains *Little Soldier Pond*, *Black Mountain Pond* and the surrounding area, via *Lower Gullies River* into *Conception Bay*.

Surficial geology in the area is characterized by a glacial till (*Rogen moraines - Liverman and Taylor - 1990*) of varying thickness, with locally exposed bedrock. Bedrock in the area is reported to consist of medium-grained, massive, pink to grey granite, minor aplite of the *Holyrood Intrusive Suite*, with lesser pink to grey felsic tuff and agglomerate; pink to red rhyolite and welded tuff (includes minor mafic volcanic and clastic sedimentary rocks) of the *Harbour Main Group* (King., A.F., 1988).

6.4 Construction

The construction phase of site development will consist of the following main components:

- site access
- clearing and grubbing
- quarry development including sediment control.

6.4.1 Site Access

Access to the site will be from the existing *Incinerator Road*, with a proposed tie-in location to the east of the *Offshore Safety and Survival Center*. At this time the proposed route is planned from *Incinerator Road*, heading west to the proposed quarry site. The final layout of the access road will be surveyed in the field, followed by clearing (removal of salvageable timber) and grubbing of the access road right-of-way. The class of road, estimated at approximately 800 m in length, will be a two-lane, gravel-surfaced road with appropriate drainage, capable of supporting the proposed operations heavy equipment.

6.4.2 Salvageable Timber (Clearing) and Grubbing

Merchantable timber removed in the process of access road construction and quarry development will be salvaged. Following clearing operation, grubbing for the access

road and quarry development will be completed. All grubbed materials will be stockpiled for future use (i.e. quarry rehabilitation).

6.4.3 *Quarry Development*

The proposed quarry site covers an area of approximately 90 hectares. Initial site construction activities will involve the installation of settling ponds (refer to *Figure 3: Proposed Settling Ponds Site Plan*), on-site access roads and initial quarry working face development. *Capital* proposes to develop the quarry in maximum 3.5 hectare sections, followed by rehabilitation as quarrying continues.

6.4.4 *Potential Sources of Pollution During the Construction Phase*

The construction phase of the development will consist of earth-moving activities. The potential source of pollution during these activities include site drainage, waste and litter, noise, air emissions, and potential release of petroleum hydrocarbons.

Site run-off water will be contained/directed to vegetated areas which will filter suspended solids. In addition, and where required, silt screens will be installed at appropriate locations to prevent siltation of water bodies.

The handling of petroleum products on site will comply with the *Storage and Handling of Gasoline and Associated Products Regulations*. Note that petroleum products will not be stored on the site during the construction stage, or the operating stage, of the quarry.

Sewage will be handled by approved portable facilities during construction. Holding tanks will be pumped on an as-required basis.

Domestic waste generated during construction will be collected and disposed of at *Robin Hood Bay Landfill*, per the *Waste Material Disposal Act*.

Equipment on site will have appropriate emission-control equipment. Dust control measures, such as application of water, will be provided on an as-required basis. Noise levels associated with the work is not expected to increase over typical operations in the area.

6.5 Operation

Typical quarrying methods will be engaged to collect the overburden sand and gravel deposit at the site. The operation will include the excavation and loading of the native sand and gravel materials at the working face of the quarry, and transportation of these materials to processing equipment. Materials will be processed into granular materials of required specifications, and stockpiled on site. Waste and oversized rock will also be stockpiled for future use. Process water from the wash operation will be directed to a series of settling ponds located adjacent the process plant. The process water will be re-circulated from the settling ponds and re-used in the wash process. Silts in the settling ponds, generated from the washing process, will be removed from the ponds on a weekly basis during the operating season. Note that, depending on production levels, the removal of silts from the settling ponds may be required on a more frequent basis. At the end of the operating season, all silts will be removed from all settling ponds to preclude loss of silt during non-operating months (winter-spring). Process silts will be deposited in excavated/mined areas and used in site rehabilitation. Appropriate ditching will be located on site to ensure silts and general site run-off is controlled so as not to impact the silt disposal area. In addition, perimeter ditching and settling basins, as required, will be located to prevent migration of surface water drainage from non-operating and off-site areas into operating areas.

As required, the processed materials will be loaded and transported to *Capital Ready Mix Ltd.*'s concrete operations located at its *Trans-Canada Highway* lease property.

Equipment on site will include the following:

- tracked excavator (loading at the working face)
- tracked excavator (as required at the processing plant)
- tandem dump trucks (material transportation)
- front end loader (handling materials at the processing plant)
- mobile crushing-screening-washing processing plant (CSWP)
- settling ponds (permanent location - note that settling pond water will be recycled in the CSWP).

Quarrying native till material will take place over an extended period. *Capital Ready Mix Ltd.* have estimated the life of the proposed quarry to be 25 years.

Decommissioning/rehabilitation of the quarry site will be completed on an on-going basis. The process will generally follow the following procedure:

- terrain disturbances will be limited to that which is necessary to complete the required work
- grubbed materials and waste rock will be stockpiled on site for future use in site rehabilitation
- processed silt will be used to fill previously-depleted or quarried areas and grubbed materials will be spread over these areas when adequately filled, encouraging natural re-vegetation
- surface disturbances will be stabilized on an on-going basis to limit erosion.

6.6 Occupations

Site construction and operations for the proposed quarry will include the following occupations, classified per *National Occupational Classification 2001*:

Construction Phase

- 1 - Site Foreman/Supervisor (7217)
- 2 - Heavy Equipment Operators (7421)
- 2 - Truck Drivers (7411)

Quarry Operations

- 1 - Quarry Manager (0811)
- 1 - Quarry Foreman/Supervisor (8221)
- 2 - Heavy Equipment Operator - Loader/Excavator (7421)
- 2 - Crushing Equipment Operator - Screening/Crusher (7421)
- 2 - Truck Drivers (7411)
- 2 - Quarry Laborer(7611).

6.7 Project Related Documents

There are no project related reports.

7.0 APPROVAL OF THE UNDERTAKING

Approvals, permits, and licences that may be required for the undertaking, as follows:

Environmental Protection Act - Assessment Regulations: Permit to proceed

Quarry Materials Act and Quarry Minerals Regulations: Quarry Permit

Forestry Act and Regulations: Commercial Cutting Permit

Water Resources Act: Water Use Licence

8.0 SCHEDULE

Registration Document Submission	April 18, 2006
Government Review and Decision	June 1, 2006
Access Road Development	May 2007
Quarry Development	July 2007
Quarry Operations	August 2007

9.0 FUNDING

Capital Ready Mix Ltd. will be providing funding for the undertaking.

10.0 SUBMISSION

Date

Name:

Mr. Rick Legge

Position:

Director Quality Assurance

Figure 3