

**SUBJECT:      Crown Land Quarries  
Policy**



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# 1.0 Policy

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## 1.1 Policy statement

It is the policy of the Department of Natural Resources (DNR) to protect and optimize the use and availability of quarriable substance resources situated on Crown lands.

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## 1.2 Background

Quarriable substances provide raw materials to build the infrastructure necessary for New Brunswick's continued economic growth. A natural consequence of the geological history of the Province, this non-renewable mineral resource varies across the landscape both in quality and quantity. Because quarriable substances are site specific, they must be well managed to ensure their continued availability.

The protection of the natural and social environments is also of importance to the people of New Brunswick. High demand for quality quarriable substances usually coincides with areas of high population density, thus increasing the potential for nuisance and conflictual situations. Noise, dust, drinking water quality and public safety are common elements of concern. In some instances site restoration is not adequately addressed, leading to aesthetic and public safety concerns. Careful planning can ensure the continued availability of quarriable substances while minimizing the adverse effects of any quarry operation.

Created in 2004, this policy recognizes the importance of quarriable substances and defines specific measures to ensure that the social and natural environments are considered in planning the development of these resources.

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## 1.3 Policy objectives

The objectives of this policy are:

- To identify, classify and ensure the availability of quarriable substances to meet present and future needs;
  - To minimize adverse effects of aggregate extraction operations on neighbouring communities and on the natural environment; and
  - To maintain a departmental system of permitting and standards that ensures the consistent application and implementation of the policy.
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## 1.4 Definitions

The following definitions apply to terms when used in this directive:

“**Crown lands**” means all or any part of the lands vested in the Crown that are under the administration and control of the Department of Natural Resources.

“**DNR**” means the Department of Natural Resources.

“**Domestic market**” means any destination located within the Province.

“**Export market**” means any destination located outside the Province.

“**Final perimeter**” means the maximum boundary of the area of excavation or ground disturbance achieved for the purpose of removing quarriable substances.

“**MPDB**” means the Minerals & Petroleum Development Branch of the Department of Natural Resources

“**Pre-blast survey**” means an inspection of structures that may be affected by the blasting operations as explained in paragraph 5(2) of the Blasting Code Approval Regulation – *Municipalities Act*.

“**Quarriable substances**” means ordinary stone, building or construction stone, sand, gravel, peat, clay and soil.

“**Quarry**” means a place where quarriable substances have been or are being removed by means of an open excavation. The term includes sand and gravel quarries as well as rock quarries.

“**Regional office**” means the appropriate authority of the Department of Natural Resources office at the regional or district level.

“**Watercourse**” means the full width and length, including the bed, banks, tides and shoreline, or any part, of a river, creek, stream, spring, brook, lake, pond, reservoir, canal, ditch or other natural or artificial channel open to the atmosphere, the primary function of which is the conveyance or containment of water whether the flow be continuous or not.

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## 2.0 Scope and Application

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**2.1 Authority** The legal framework for this policy is established under the *Quarriable Substances Act* and General Regulation 93-92.

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**2.2 Application** This policy applies to:

- all Crown lands as defined under the *Quarriable Substances Act*;
- all quarriable substances located on Crown lands except peat;
- any person, corporate body, contractor, municipal or provincial government agency who engages in quarriable substances extraction activities on Crown lands.

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**2.3 Aggregate supply** DNR ensures that current and potential sources of quarriable substances are considered in all planning processes. Sources of quarriable substances on Crown lands are identified, mapped, characterized and classified using the most appropriate methods.

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**2.4 Allocation of rights** DNR administers three forms of tenure for quarries: lease, permit and written authorization.

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**2.5 Reclamation of quarries**

- Quarry Lease: the lessee is required to submit a reclamation plan and to propose progressive rehabilitation where feasible. A security deposit is required as a guarantee.
- Quarry Permit and Written Authorization: Users are responsible for final reclamation and closure of permitted sites.

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**2.6 Natural and social environments**

- Careful planning will ensure that aggregate extraction operations are conducted in a manner that will minimize adverse effects on the natural environment.
- The operation and abandonment of extraction sites is managed in accordance with the need to protect the public and to minimize adverse effects on the social environment and subsequent use of the Crown lands.

## 3.0 Allocation of rights

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**3.1 General requirements**

- No person shall operate a quarry or related activity unless they are the holder of a valid quarry lease, quarry permit or written authorization relative to that quarry. Reclamation activities may be exempted of this requirement.
- DNR reviews all quarry applications and may issue a lease, permit or written authorization for the extraction of quarriable substances on Crown lands.
- A quarry lease, permit or written authorization for the extraction of quarriable substances shall be valid for the term specified in such lease, permit or written authorization.

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**3.2 Written authorization**

A written authorization allows for the extraction of quarriable substances from existing quarries for tonnages less than 1000 t for a period not exceeding 30 days.

- An application for a written authorization is made at a Regional office or directly at MPDB in Fredericton.
- The Regional office may issue a written authorization on the day of application. The applicant is required to pay a non-refundable royalty payment for the total amount of quarriable substance required at the time of issue.
- The applicant has 30 days from the date a written authorization is issued to extract the required quarriable substance. At the end of 30 days the authorization expires and if the quarriable substance has not been extracted during this period, the applicant may re-apply.

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**3.3 Quarry permit**

A quarry permit allows for the extraction of quarriable substances from new or existing quarries during the time period specified in the permit.

- A quarry permit application is made at a Regional office or directly at

MPDB in Fredericton.

- A quarry permit application shall require a location map and should include geographic coordinates if it is a new site.
  - The application is reviewed by the Regional office in conjunction with MPDB.
  - Once approved by MPDB, a quarry permit is valid for the time period specified in the permit but in no case shall it exceed the thirty-first day of December of the year for which it is issued.
  - Where warranted, MPDB will delineate a perimeter based on the characteristics and future extraction potential of the deposit. The Regional office will mark the perimeter accordingly.
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**3.4 Crown timber licence road right of way quarry permit**

A Crown Timber Licence Road Right of Way (CTLRRW) quarry permit is a special quarry permit that allows forest companies to excavate, transport and use aggregate material within approved Crown timber licence road right of ways for the sole purpose of building access roads.

- A CTLRRW quarry permit application is made at a Regional office.
  - The road construction activity must comply with all standards as per the approved Operating Plan.
  - Once approved by the Regional office and by MPDB, a CTLRRW quarry permit is valid for the time period specified in the permit but in no case shall it exceed the thirty-first day of December of the year for which it is issued.
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**3.5 Quarry lease – domestic market**

A quarry lease gives exclusive rights to quarriable substances located on a specific area located on Crown lands.

- A Quarry lease application is made at a Regional office or directly at MPDB in Fredericton.
  - To obtain a quarry lease the applicant must be able to demonstrate the need for exclusive use.
  - The term of a quarry lease can vary up to a maximum term of ten years.
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**3.6 Quarry lease – export market**

- Where interest has been expressed in obtaining exclusive rights to Crown lands for the purpose of extracting quarriable substances for the export market, the Minister may issue a public request for proposals to ensure that the resource is utilized in the best interest of the people of the Province.
  - A request for proposals shall not be interpreted as a call for tender.
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**3.7 Quarry lease approval process – application, review, and obligations**

After a quarry lease application has been submitted, the following steps must be completed:

- MPDB coordinates the review process. The lease applicant is requested to submit detailed information pertaining to the development, operation and final reclamation of the proposed quarry site. This information generally includes but is not limited to the following:
  - Location Map
  - Development Plan
  - Operating Plan

- Environmental Protection Plan
- Reclamation Plan

Before being issued a quarry lease, the successful applicant is required to:

- submit a legal survey of the subject Crown land parcel;
- pay a first year land rental fee; and
- submit a reclamation security.

In order to be eligible for a quarry lease, whether through a new lease or through a renewal thereof, the prospective lessee must have no outstanding delinquent financial claims with the Province of New Brunswick.

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## 4.0 Procedure in case of violation of terms and conditions

### 4.1 General statement

Penalties for violation of the Act and regulations are provided for in section 37 of the *Quarriable Substances Act*. Authority for the Minister to cancel or suspend a quarry lease, permit or written authorization is found in section 16 of the Act.

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### 4.2 Responsibility

The Regional offices have the primary enforcement responsibility for Crown land quarries.

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### 4.3 Investigation procedures

The issuance of a stop work order and cancellation or suspension of a lease, permit or authorization for a violation of the terms and conditions shall be in accordance with the following procedure:

- A violation of a term or condition of a quarry lease, quarry permit or written authorization by the holder or persons working for the holder of the lease, permit or authorization shall result in an order from the Minister or designate for the immediate stoppage of work. MPDB shall be notified as soon as possible of a work stoppage.
- Upon completing an investigation of the violation, a warning may be issued and documented by the Regional office. Once a problem or situation has been resolved to the satisfaction of the Regional office, site work may be allowed to resume.
- If, after considering the circumstances of the violation and other factors, including any previous violation record of the individual, a warning is felt to be inappropriate, the Regional office shall consult with MPDB to determine what appropriate penalty to apply.
- The penalty may include another documented warning, the cancellation or the suspension of the lease, permit or written authorization. Consultation between the Regional office and MPDB will take place to determine the length of suspension or the cancellation of the lease, permit or authorization.
- MPDB will administer the issuance of any ensuing cancellation or suspension.
- The person whose lease, permit or authorization has been suspended or

cancelled may apply to the Minister requesting a review of the circumstances of the case. Upon review the Ministers decision shall be final.

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## 5.0 Guidelines

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### 5.1 Operating guidelines

Attachment “A” lists a series of guidelines designed to minimize the impact of extracting quarriable materials on the natural and social environments.

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### 5.2 Closure guidelines

Attachment “B” lists a series of guidelines to assist in achieving successful site reclamation.

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## 6.0 References

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- [\*Clean Air Act\*](#)
  - [\*Air Quality Regulation, Clean Air Act.\*](#)
  - [\*Clean Water Act\*](#)
  - [\*Well field Protected Area, Clean Water Act.\*](#)
  - [\*Crown Lands and Forests Act\*](#)
  - [\*Quarriable Substances Act\*](#)
  - [\*Blasting Code Approval Regulation, Municipalities Act\*](#)
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## 7.0 Policy evaluation plan

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### 7.1 General statement

Within the framework of any good policy design and implementation plan, a comprehensive evaluation procedure is essential in determining the effectiveness of the policy and in providing the basis for future decision-making. The evaluation plan must consider how the policy objectives can be accurately and effectively measured and how the evaluation data collected will be used as a basis for decision-making. The evaluation process consists of looking at the particular policy in practice, both in terms of objectives and means employed.

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### 7.2 Data

Data that will be collected and compiled on an annual basis:

- Comments received from landowners and from the general public concerning adverse effects of quarry operations located on Crown lands.
- Environmental violations resulting from quarry operations located on Crown lands.



- Violations of a term or condition of a quarry lease, quarry permit or written authorization.
  - Complaints received from the aggregate users and producers regarding the application and implementation of the permitting process.
  - Number of quarry permits and written authorizations issued.
  - Number of quarry leases and their operational status.
  - Tonnage of quarriable substances extracted from Crown lands for basic categories of products.
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**7.3  
Responsibility**

Data collection responsibility

- The Quarriable Substances Technician is responsible for the collection of data.

## **8.0 Inquiries**

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**8.1 Minerals  
and Petroleum  
Development  
Branch**

Department staff may direct inquiries specific to the interpretation of this policy to the Minerals and Petroleum Development Branch at 506-453-2206 or by Fax at 506-453-3671.

## **9.0 Attachments Section**

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**9.1 Guidelines**

- Attachment A – Quarries Operating Guidelines
  - Attachment B – Quarry Closure Guidelines
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# Attachment A – Quarry Operating Guidelines

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## Standards – scope of application

Unless otherwise stated in the terms and conditions of a particular lease, permit or written authorization, the standards outlined in this section apply to all quarries operated under lease, permit or written authorization.

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## Location – general standards

The final perimeter of a quarry shall not be located within:

- 30 m of the right-of-way boundary of a Department of Transportation designated road or 10 m from an existing road or trail being utilized by any motorized vehicle.
  - 30 m of a privately owned land boundary unless the written permission of the private landowner has been obtained;
  - 30 m of the bank or the ordinary high water mark of any watercourse.
  - 30 m of the boundary of an area which has been established as a Protected Natural Area under the *Protected Natural Areas Act* or as a cultural heritage resource by the Minister of Intergovernmental and International Relations (Culture and Sport Secretariat);
  - 100 m of the foundation of a residential, industrial, institutional or commercial structure unless with the written permission of the owner;
  - a well field protected area designated under Regulation 2000-47 as a source of water for a public water supply system;
  - 100 m of a private drinking water well in the case of a sand or gravel quarry, unless with the written permission of the well owner;
  - 300 m of a commercial, industrial, agricultural or communal water well in the case of a sand or gravel quarry, unless the proponent has the written permission of the Department of the Environment and the well owner;
  - 600 m of any water well in the case of a rock quarry, without the written permission of the well owner/user and the approval of the Department of the Environment. In no case shall this limit be less than 300 m.
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## Location – watershed protected area

The perimeter of a quarry after reclamation shall not be located within a Zone A, B or C Watershed Protected Area designated under regulation 2001-83 except under the following conditions:

- Zone B: Only quarries established before 1990 can continue to operate provided no washing, grading or secondary processing of aggregate material occurs on site,
  - Zone C: Quarries may be located outside a setback zone of 75 m on either bank of a watercourse that is inside a Zone C watershed boundary provided no washing, grading or secondary processing of aggregate material occurs on site,
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## Hours of operation

- Hours of operation may be restricted where extractive operations occur in the vicinity of homes and residences or where conditions warrant.
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**Excavating –  
water table and  
archaeological  
material**

- No excavation may take place to a depth that will adversely affect the water table at the time of aggregate removal, unless it can be demonstrated to the satisfaction of the Department of the Environment that such an impact will not result in long term consequences to the water table in the area affected.
  - In instances requiring excavation below the water table, it must be technically demonstrated that the impact on the water table will be temporary and that the proposed use of the site will meet necessary safety, reclamation, and liquid effluent discharge standards.
  - In the event that cultural or archaeological material is unearthed in a quarry the operator shall immediately notify the Department of Natural Resources, the Heritage Branch of the Department of Wellness, Culture and Sport, and the New Brunswick Museum. The operator shall also cease operations until the site is assessed and permission is given by MPDB to resume operations.
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**Blasting**

- No blasting shall take place on Sunday, statutory holidays, and overnight between 06:00 PM and 08:00 AM;
  - The proponent shall perform a pre-blast survey for all structures within 600 m of the quarry operations;
  - The proponent shall also perform a representative pre-blast survey of water quality and quantity for drinking water wells within 600 m of the quarry operations;
  - Air blast concussion shall not exceed 128 dB on a linear weighting scale within 7 m of the nearest structure located off the site;
  - Ground vibration shall not exceed 50 mm/sec (2.0 in/sec) peak particle velocity measured below grade or less than 1 m above grade in any building or structure located off site; and
  - All blasts shall be monitored in accordance with an approved schedule for air blast concussion and ground vibration.
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**Safety**

- The right holder is responsible for the condition of the premises and control of the activities. He is responsible to ensure that the site is kept in a safe condition.
  - Upon completion of operations, the operator of a sand or gravel quarry is required to slope all worked faces to a maximum 45 degree angle from the horizontal.
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**Dust emission**

If there is potential for dust from quarry operations to impact on adjacent property owners, the proponent shall submit for review a dust control plan which meets the following standard:

- 100 mg/m<sup>3</sup> at the dust collection device outlet;
- no visible dust at the property line; or
- an average total suspended particulate within a 24-hour period less than 120 µg/m<sup>3</sup> at the nearest human receptor (Air Quality Regulation (97-133) of the *Clean Air Act*, Chapter C-5.2 of the Acts of New Brunswick, 1997).

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**Noise level**

If there is potential for noise to impact an adjacent property owner, a noise

mitigation strategy must be submitted.

- The strategy shall demonstrate the means by which the proponent will alleviate or reduce sources of noise associated with the operating activity of the quarry operation in order to achieve a noise level of less than 55 dB at the point of reception.
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**Boundary lines** Boundary lines of quarry leases must be maintained visible by keeping them blazed and painted.

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## Attachment B – Quarry Closure Guidelines

### Scope of application

- Reclamation of a quarry lease is the responsibility of the lessee.
  - Reclamation of permitted and written authorization sites is the responsibility of the users.
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### Reclamation

Standards for the reclamation of leased quarry sites requires that:

- the sites shall be reclaimed according to a reclamation plan submitted by the lessee and approved by DNR;
  - the reclamation of quarry leases shall be progressive; and
  - the plan for final reclamation shall be such that there will be no requirement for ongoing site maintenance once reclamation is complete.
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### Reclamation security

- Reclamation security shall be required from all quarry lease holders in accordance with the amount established under the *Quarriable Substances Act* or regulations.
  - Once reclamation is satisfactorily completed in accordance with the approved reclamation plan any remaining security shall be returned to the quarry lease holder, without interest.
  - In the event reclamation is not suitably completed, in accordance with the reclamation plan, part or all of the reclamation security may be used to carry out and complete the required reclamation.
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