

What We Heard

A Summary of the Feedback Received from the Public Consultation Process on the Quarry Legislation Review.

April 2021

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Introduction

Quarry materials are non-renewable resources that include sand, gravel, rock, clay, and soil that can be used in their natural state in the construction and agricultural industries. The majority of quarry materials produced in Newfoundland and Labrador are mineral aggregates such as sand, gravel, crushed stone and blasted rock used for construction. In most cases, quarry materials are extracted and processed from either unconsolidated surficial formations or consolidated bedrock formations. While the majority of the aggregate produced in the province is used locally, the number of projects and proposals to export construction aggregate is increasing.

The Provincial Government is currently reviewing the legislation that regulates quarry materials – the Quarry Materials Act and the Quarry Materials Regulations. This legislation has been in place for over 20 years, and as with all statutes, these must be reviewed and updated from time to time to ensure they are effective for the modern industry and society.

The main goal of carrying out consultations was to reach a representative cross-section of the provincial population that would provide input to steer the development of legislation revisions. The engagement process was designed to gain input on broad policy and operational issues with a focus on:

- supporting the development of quarry resources in a manner that is responsible, sustainable and competitive;
- increasing accountability, predictability and transparency of the program;
- identifying efficiencies for industry; and
- enhancing private-sector investments and job growth.

The Public Engagement Process

On March 5, 2019, the Department of Industry, Energy and Technology held a pre-consultation session with the Heavy Civil Association, Pits and Quarries sub-committee to discuss various aspects of the legislation for input. The feedback from this session was used to help create the content and design of the public engagement sessions and documentation.

On November 7, 2019, the Minister of Natural Resources announced the launch of consultations on the quarry legislation at the Mineral Resources Review conference and trade show in St. John's. The launch was followed by an engagement session open to conference attendees on November 8, 2019. The session consisted of a presentation with five polling questions and four small-group discussion questions.

Departmental representatives attended the Municipalities of Newfoundland and Labrador annual conference in St. John's on November 14 - 15, 2019. Both the session presentation and the World Café session were well attended by representatives from town councils across the province.

On December 16, 2019, the Department launched a website at www.engageNL.ca hosting background information on the legislation review, a discussion guide, an online questionnaire and dates for the series of in-person sessions.

- Ten in-person engagement sessions were held in communities across the province between January 13 and February 20, 2020. Officials asked questions on various aspects of the quarry legislation where changes were anticipated and the consultation team members helped lead the discussion through presentation materials, providing background on existing legislation and business practices, and by asking participants appropriate probing questions to encourage and facilitate discussion. Each session included a combination of 13 polling questions and four small-group discussion questions. A total of 128 participants representing construction companies, municipal and federal government, indigenous organizations, the general public and various other stakeholders attended these sessions. A total of 724 individual comments were recorded from these sessions.
- The online questionnaire contained a combination of multiple choice and written questions and was available for completion until February 29, 2020. Thirty-two online questionnaires were completed and submitted.
- Written submissions were accepted via mail and email from December 16, 2019 to February 29, 2020. A total of eight written submissions were received.



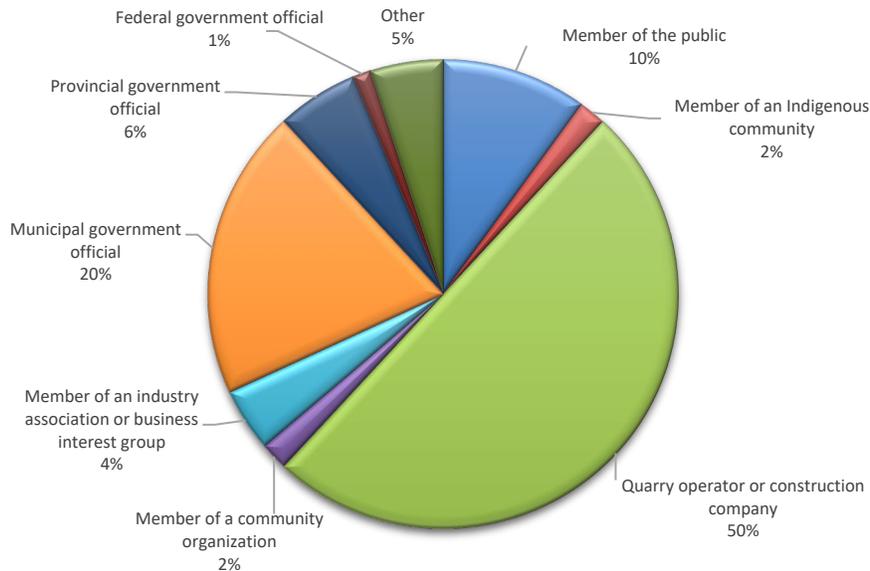
Public engagement sessions were held in communities across the province between January 13 and February 20, 2020.

- Marystown
- Clarenville
- Grand Falls – Windsor
- Stephenville
- Deer Lake
- St. Anthony
- Happy Valley – Goose Bay
- Labrador City
- St. John's
- Corner Brook

Who Participated in the Quarry Legislation Review Process?

Invitations to participate in the public engagement process were forwarded to a broad range of stakeholders including the client group, municipalities, and the general public. Polling questions asked at the beginning of each engagement session and via the online questionnaire show that a diverse group participated in the engagement process.

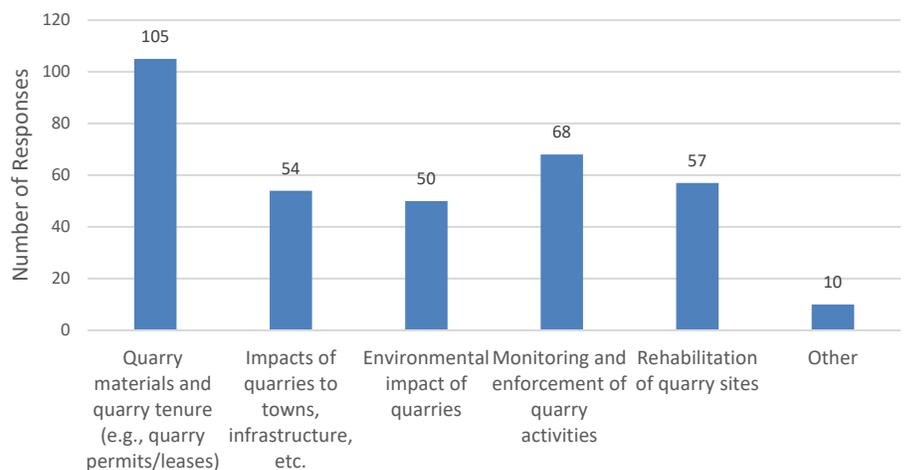
Who participated in the quarry legislation review process?
(multiple choice) (session polling online questionnaire) (n = 160)



While half the participants identified as quarry operators or construction companies, the remaining 50 per cent consisted of a varied group including municipal government representatives (20 per cent), the general public (10 per cent), community organizations (two per cent), industry associations, business interest groups (four per cent), members of indigenous organizations (two per cent), and provincial (six per cent) and federal (one per cent) government officials

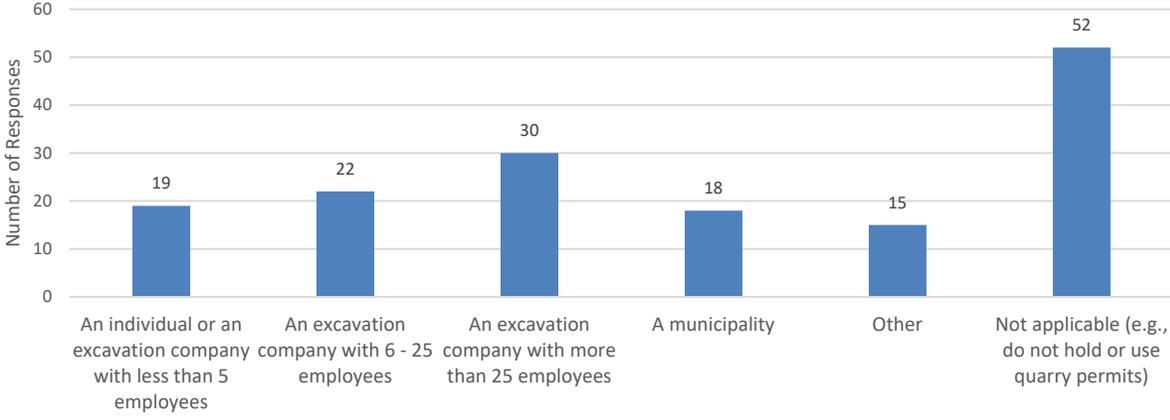
Participants were polled to obtain input on the areas considered to be of highest priority to them. The topic of quarry materials and quarry tenure was identified as the highest priority area (n = 105). There was also a strong interest in various other areas of the legislation including the monitoring and enforcement of quarry operations and the rehabilitation of quarry sites.

I am most interested in the areas of the legislation related to:
(select all that apply) (session polling online questionnaire)
(n = 160)



The in-person and online questionnaire participants who identified as being an operator or manager of a quarry site (n = 89) were asked to select the scale of operator they most accurately associate with. The breakdown shows that the majority were private entities (e.g., construction companies) of various sizes. Most respondents (n = 30) identified as representing a larger excavation company (more than 25 employees), but medium and small companies were also well represented. Nineteen individuals identified as a small operator/company (less than 5 employees) and 22 individuals identified as a medium company (6 – 25 employees). Eighteen participants identified as a municipality that holds quarries for town-related infrastructure and maintenance projects, and 15 identified as other.

If commenting as someone who manages a quarry, please identify which of the following is most applicable:
 (Multiple Choice) (session polling & online questionnaire) (n = 156)



Feedback from Public Consultations

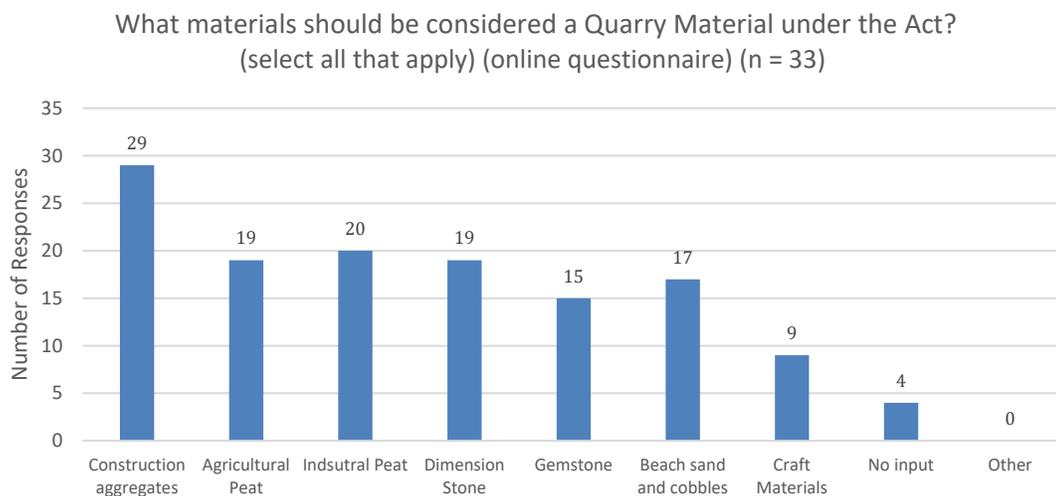
The information collected through the public engagement process is summarized in the Appendix. All feedback was considered in preparing this document. The Department will continue to reach out to stakeholders for additional advice or clarification as necessary while it completes its analysis and recommendations with the goal of drafting new legislation and regulations.

This document summarizes the feedback received from each phase of the public engagement process, including the comments recorded at the in-person sessions, polling question results, online questionnaire results and comments, as well as the input received via written submissions. Polling data is presented with reference to the type of question (e.g., multiple choice, select all that apply, prioritized ranking, etc.), the source of the information (e.g., session polling question and/or online questionnaire) and the total number of respondents (shown as “n = xx”).

Concerns, ideas, and recommendations have been extracted from the feedback and categorized according to relevant legislative subject matter.

Quarry Material Definition

Results from the online questionnaire show that the majority of participants agree with the types of materials that are currently regulated by the Quarry Materials Act. Of those that completed the online questionnaire, 88 per cent indicated that the definition should continue to include materials used as construction aggregates. Feedback was mixed (45 – 60 per cent) on whether peat used for agricultural and industrial purposes, dimension stone, gemstone or beach materials should be regulated by the Act. Approximately a quarter of the participants (27 per cent) were in agreement with including materials used for craft purposes in the definition of a quarry material. Twelve per cent of participants had no opinion on the matter. Based on discussions from the in-person sessions, there was a strong agreement that the definition, regardless of the details, should be consistent for the entire province.



Classification of Quarry Tenure

Discussions on the types of instruments issued under the legislation largely focused on issues with the annual quarry permit re-application process, quarry permit application requirements, quarry lease application and maintenance requirements, requirements for quarry boundaries, and the timelines for approvals and issuance.

Of the participants polled who are actively involved in the aggregate industry (n = 97), the Department heard that the majority have been involved via short term permits, specifically the quarry permit (100 per cent) and/or the subordinate quarry permit (40 per cent). Only 35 per cent reported ever holding a quarry lease and one individual reported holding a beach permit in the past. Approximately one quarter of operators or those involved in the industry (29 per cent) reported holding quarry materials exploration licences.

Although the majority of those involved in the aggregate business do so via short term authorizations, polling clearly showed there is a long term need (greater than five years) for a particular quarry. However, short-term (one year or less) authorizations are also frequently required to provide project specific materials (e.g., local road maintenance projects). Recommendations suggest that the classification of tenure should represent the reality of the need.

The Department received input on a wide range of topics relating to the instruments issued under the legislation including:

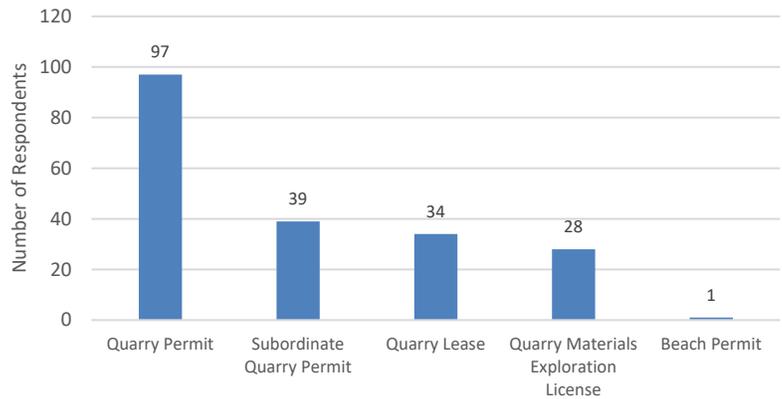
- quarry permits and leases,
- subordinate quarry permits,
- quarry materials exploration licences,
- beach permits, and
- application and maintenance of quarry tenure.

Quarry Permits & Quarry Leases

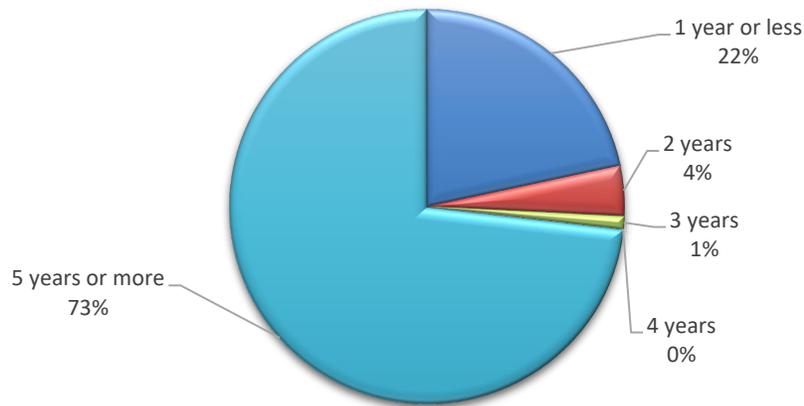
The Department heard that the annual quarry permit re-application process is frustrating because it introduces a risk of losing the site and the process appears to be a formality as re-applications seem to always be approved and re-issued without any changes. Operators, including municipalities, shared examples of instances where they lost the rights to a quarry to another company due to failing to re-apply by the deadline date.

When asked why these individuals/companies did not obtain quarry leases for sites needed for the long term supply of material, the Department repeatedly heard that the requirements to obtain a quarry lease are too onerous and expensive. Participants questioned the practicality of the lease requirements, specifically the development phasing, stating that it is not a valuable exercise given that phasing is dependent on the types of materials required for a particular project. The Department also heard concerns with the quarry lease application process, with participants stating that it takes too long to get plans reviewed and approved, especially given that new plans are required every five years. Overall, feedback suggests there is too much of a gap between quarry permit and quarry lease application and administrative requirements.

Which of the following quarry tenure do you currently hold or have you held in the past? (select all that apply)
(multiple choice - multiple responses) (session polling & online questionnaire) (n = 97)



What length of time do you most often require a quarry?
(Multiple Choice - Multiple Response)
(session polling) (n = 97)



Subordinate Quarry Permits

The overall messaging on Subordinate Quarry Permits (“SQPs”) is that there is merit to the process of allowing a third party to operate within an existing approved quarry. Participants discussed the benefits of subordinates in providing a company access to materials via an existing quarry instead of requiring that company to start up another site. This type of agreement appears to be highly valued in the industry. Many participants, however, believe government should not be involved in this process. Instead, it was widely recommended that permit holders be granted the responsibility of site management as is currently the process with quarry leases. In contrast, some participants felt the subordinate process is effective in regulating third party operations in government held quarries.

Quarry Materials Exploration Licences

The Quarry Materials Exploration Licence (“QMEL”) program was reported to be confusing, inefficient and an avenue used to control vast tracts of land for extended periods of time. The Department heard that there is a need to provide an avenue to explore for quarry materials that meet specifications required for concrete or export projects; however, numerous issues were highlighted that make this program inefficient for users. Recommendations for improvement included maintaining the exploration approval process, but eliminate the licence program that allows companies to tie up land for extended periods of time. Other recommendations included extending the duration of a licence and allowing the renewal of a licence based on the value or extent of the work completed to assess the aggregate potential of the area.

Beach Permits

The Department heard that in general, there should be an avenue for people to obtain small quantities of rock from beaches (e.g., beach rocks, soapstone, clay, etc.) for craft purposes, but also that in some locations, the coastlines are too sensitive to allow for the removal of any material. Participants generally agreed that the public should be able to obtain small amounts of beach rocks for personal use (e.g., craft/hobby purposes) without the requirement to obtain an approval from government, but the removal of large volumes should be regulated.

Application and Maintenance of Quarry Tenure

The Department heard mixed feedback on the application process for quarries. Some believe the process is effective in the current format, whereas others indicated the process is too onerous on the applicant and that it takes too long to receive a quarry authorization. Others stated that the current requirements do not adequately address the concerns associated with quarry development and operations.

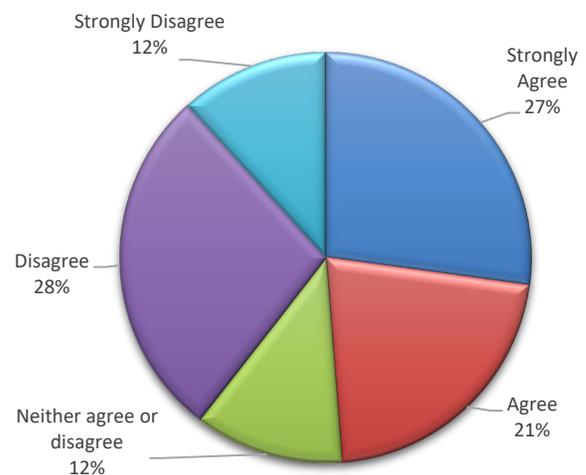
There was no clear consensus on whether the requirements to obtain a quarry should vary depending on the size, duration or specifics of a proposed operation. Some feedback suggests all quarries should have the same application standards and rules, while others recommended increased requirements (e.g., development plans) for longer term operations. There was an overall agreement that the current quarry lease requirements are too onerous and not appropriate for quarries (i.e., more suited to a mine site rather than a quarry site).

Participants also called for a more consistent and transparent application process with improved interdepartmental coordination and public consultation.

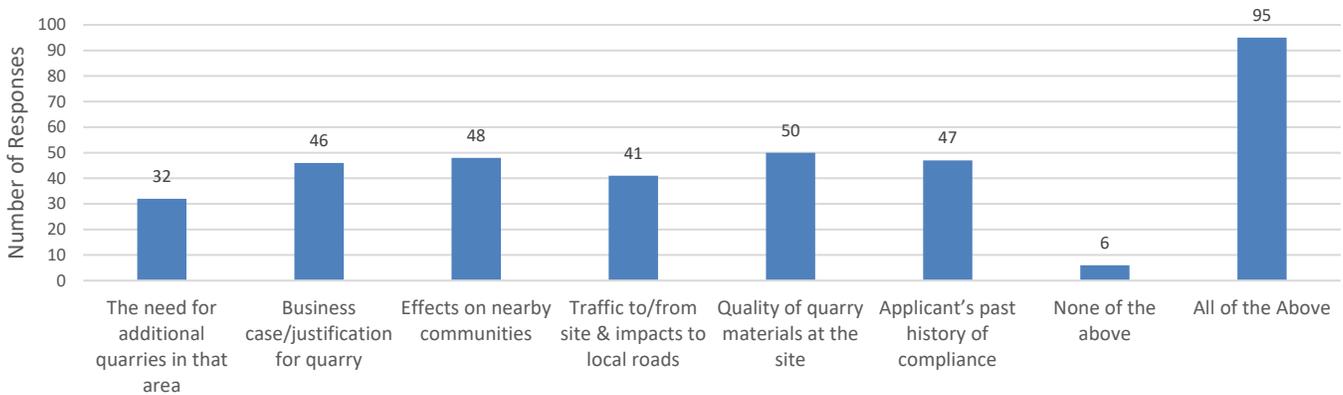
The Department heard that government should consider additional factors when reviewing an application for a quarry, and that applicants should clearly demonstrate how any identified concerns will be addressed prior to commencing operations. The commonly recommended factors to be considered include:

- the proponents need for additional quarries in the area,
- a business case and/or justification for the quarry being applied for,
- the effects the operation will have on the nearby communities,
- any impacts traffic to/from the operation will have on local roads and infrastructure,
- the quality of the quarry material to be extracted from the site, and
- the applicant's past history of compliance.

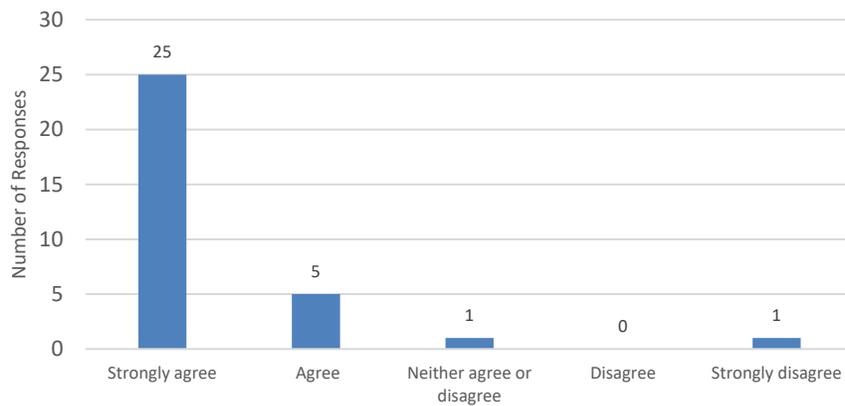
All quarries, regardless of the scope or scale of the quarry, should require the same application requirements.
(multiple choice) (session polling & online questionnaire) (n = 162)



When government is reviewing an application for a quarry permit/lease, which of the following factors should be considered? (select all that apply)
 (Multiple Choice - Multiple Responses) (session polling & online questionnaire) (n = 182)

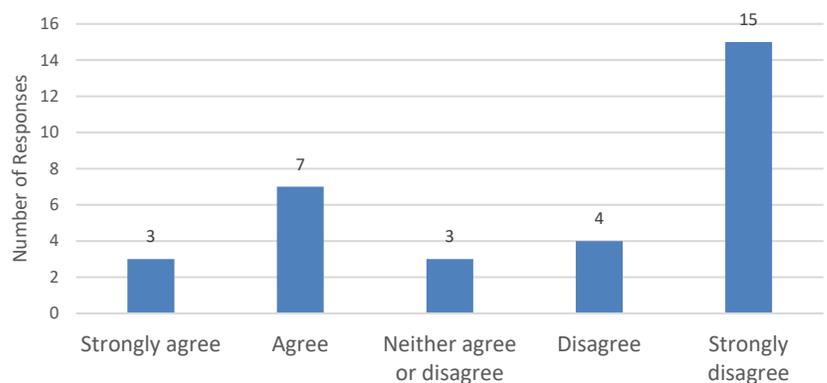


An applicant should be required to justify why a specific quarry is needed (e.g., provide a business case).
 (multiple choice) (online questionnaire) (n = 32)



Some participants stressed the importance of being able to transfer a quarry site they have developed for financial benefit. Others shared concerns relating to the potential changes in the scope and scale of an operation that may result from the transfer of a site to a third party, and suggested the public be consulted on all quarries proposed for transfer.

A permittee should have the ability under the Act to transfer a quarry to another company or individual.
 (multiple choice) (online questionnaire) (n = 32)



Quarry Boundaries

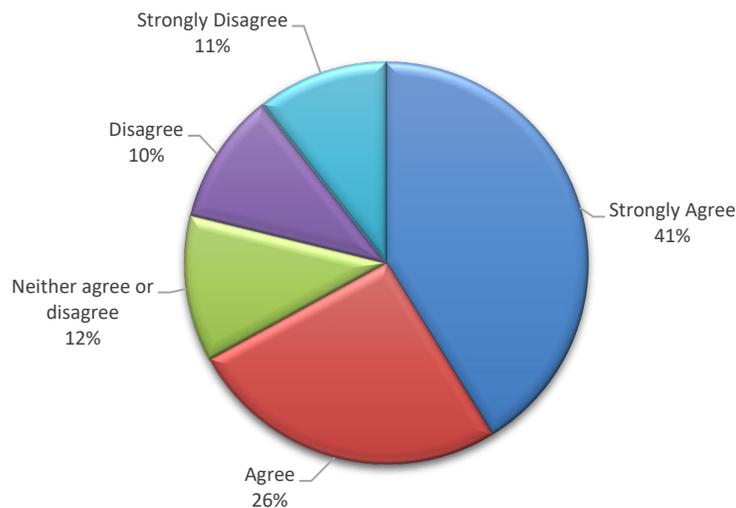
Participants discussed ways to improve the application process to further clarify the location and extent of a permitted area. Many participants agreed that the requirement to supply a Google Earth™ file to show the boundary of a site being applied for has been an improvement, but additional initiatives are required to clearly identify the boundary at the quarry site and on government maps. Recommendations included the requirement for a legal survey of the boundary or any other formal marking that clearly depicts the extent of the approved operations in the field (e.g., fencing, cut line).

Financial Assurance

The requirement of companies to post financial assurance (e.g., bonding) to cover the cost of rehabilitation and closure of a quarry site was discussed at many of the in-person sessions. Bonding was strongly recommended in certain areas of the province (i.e., larger municipalities and densely populated regions) and by larger companies; however, participants were concerned that many smaller companies would not qualify for bonding and thus would be negatively impacted by such a requirement.

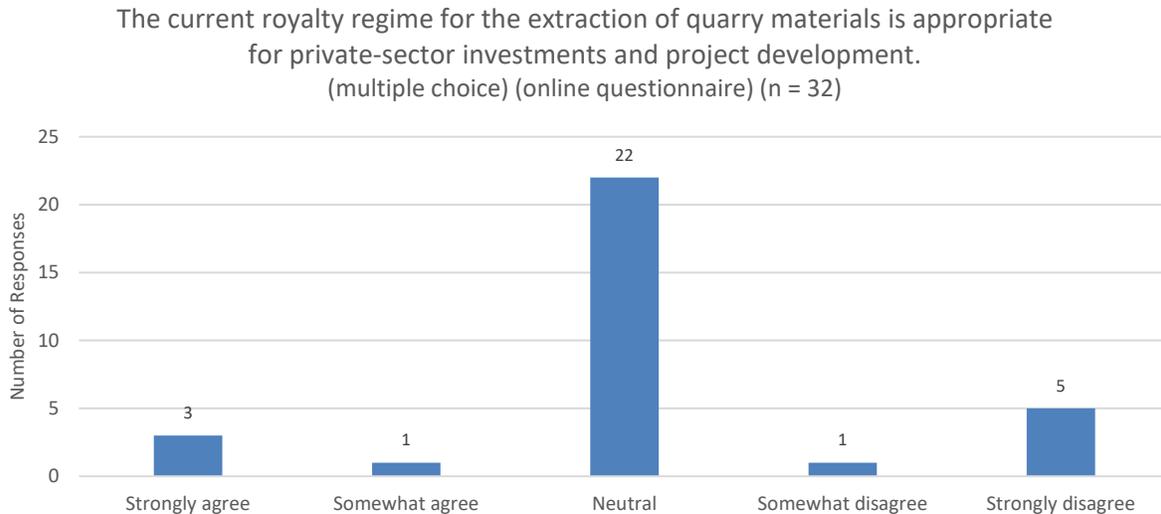
Analysis of the polling and online questionnaire data showed that overall, participants were largely in agreement with implementing a financial assurance requirement for quarries.

All quarry sites should require a form of bonding or financial assurance to ensure funds are available to rehabilitate/restore a site should a permit/lease holder fail to do so.
(Multiple Choice) (session polling & online questionnaire) (n = 170)

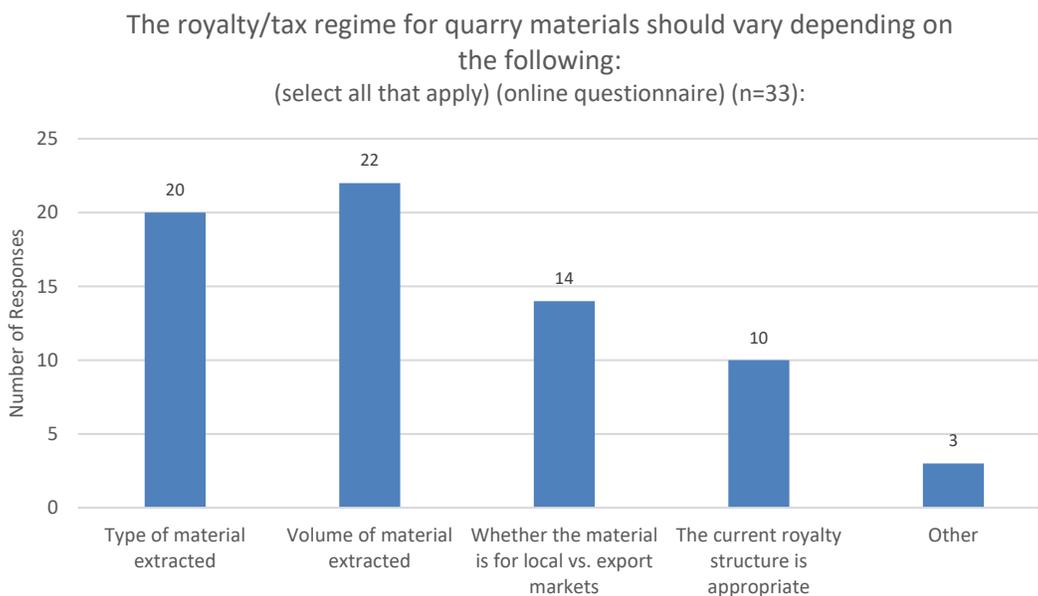


Royalties and Reporting of Production Volumes

There was mixed feedback on the royalty regime. Of those who attended the sessions or completed the online questionnaire, many were neutral on the topic. However, some participants did provide input and a number of individuals representing both companies and municipalities recommended changes to support private-sector investments and project development. Some participants felt the royalty rate for quarry materials should be based on a variety of factors including the volume of material extracted and the type and value of material extracted.



Participants discussed the way in which royalty payments are determined and recommended government implement an auditing process to ensure accurate reporting of production volumes and payment of royalties.

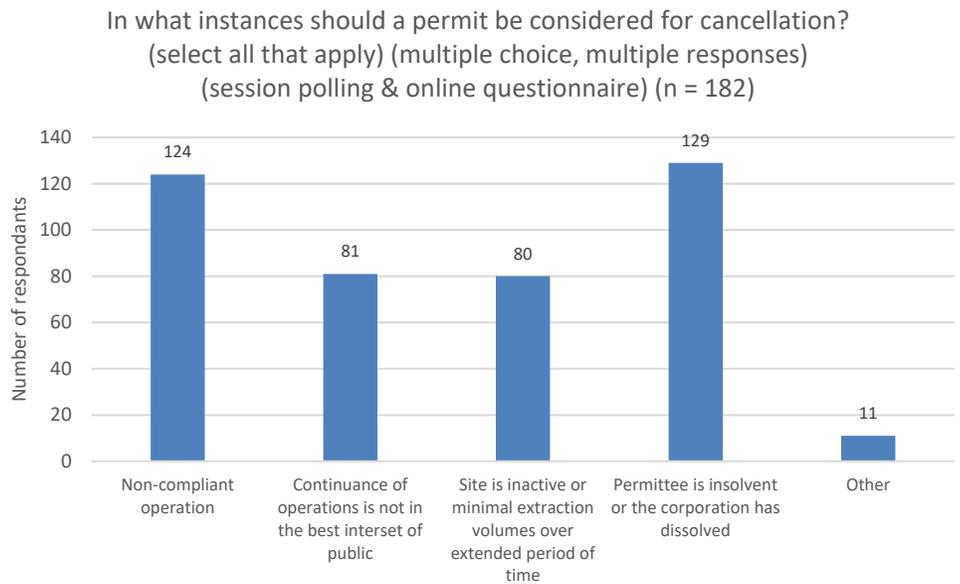


Resource Management

The Department heard that government can do more to ensure the province's quarry resources are properly managed. Some initiatives that were discussed included cancellation of quarry rights for those who are not operating in compliance, or in instances where a site has not been used over an extended period of time.

Participants strongly agreed (71 per cent) that government should revoke

quarry rights when the permittee is insolvent or the corporation has dissolved, and also when the quarry is not being operated in compliance with the Act (68 per cent).



Recommended Resource Management Initiatives

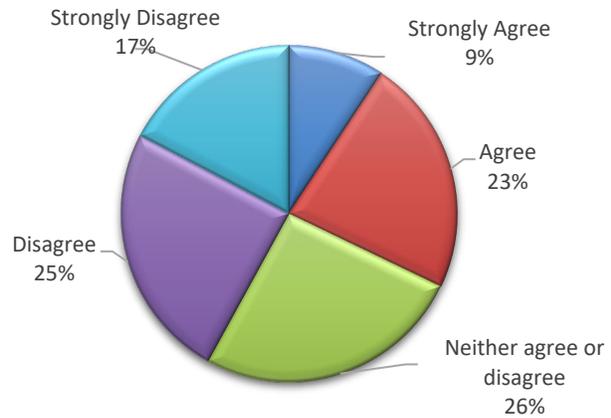
The Department heard a variety of recommendations on how to improve on the management of quarry resources in the province. Participants shared concerns over the use of high quality aggregates (e.g., sand suitable for concrete production) for low value uses (e.g., backfill) and called for additional regulatory to ensure materials are used appropriately. Other recommendations included encouraging the re-use of abandoned or expired quarries instead of developing new quarries, and promoting the use of materials that would typically be diverted to a landfill (e.g., dredged materials, waste concrete, etc.) as fill material for the rehabilitation of quarry sites. Participants also called for government to provide additional geoscience information to assist industry and municipalities with the delineation of quarry/aggregate potential. The need for a long term, strategic plan for aggregate development was also recommended by a variety of stakeholders.

Monitoring & Enforcement

The monitoring of quarry operations and the enforcement of the regulations was a key discussion topic at each engagement session. Participants discussed the current regulatory program, the effectiveness of the current monitoring and enforcement techniques, and recommendations on how to improve the program.

Participants were polled on their level of confidence or satisfaction with the current regulatory program which revealed a broad range of opinions. Members of the public and those representing municipalities shared their concerns and recommended more inspectors and improved enforcement mechanisms. Many operators voiced confidence in the program and highlighted the good working relationships developed with the department's inspectors and referenced many instances where inspectors had worked with them to address issues.

I am satisfied with the way quarries are currently regulated.
 (multiple choice) (session polling & online questionnaire)
 (n = 162):

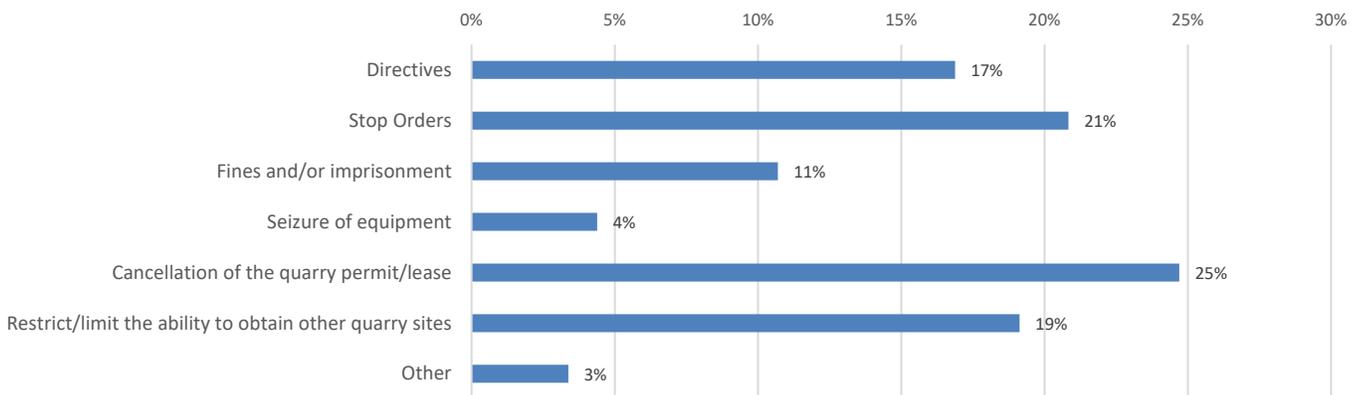


Enforcement Mechanisms

The Department heard that the current enforcement mechanisms used by government – specifically the quarry compliance assessment report form, directives, and stop orders – are effective. The Department heard that initiatives that negatively impact a company's ability to carry out the business will be most impactful in gaining compliance. While fines and legal charges should be the last course of action, many felt they need to be more substantial to be effective.

Regardless of what initiatives are used, participants stressed the importance of consistent application of the law. Participants believe there should be consistency between inspections completed by inspectors in different regions, and that all operators should be expected to abide by the same requirements to maintain a site in compliance.

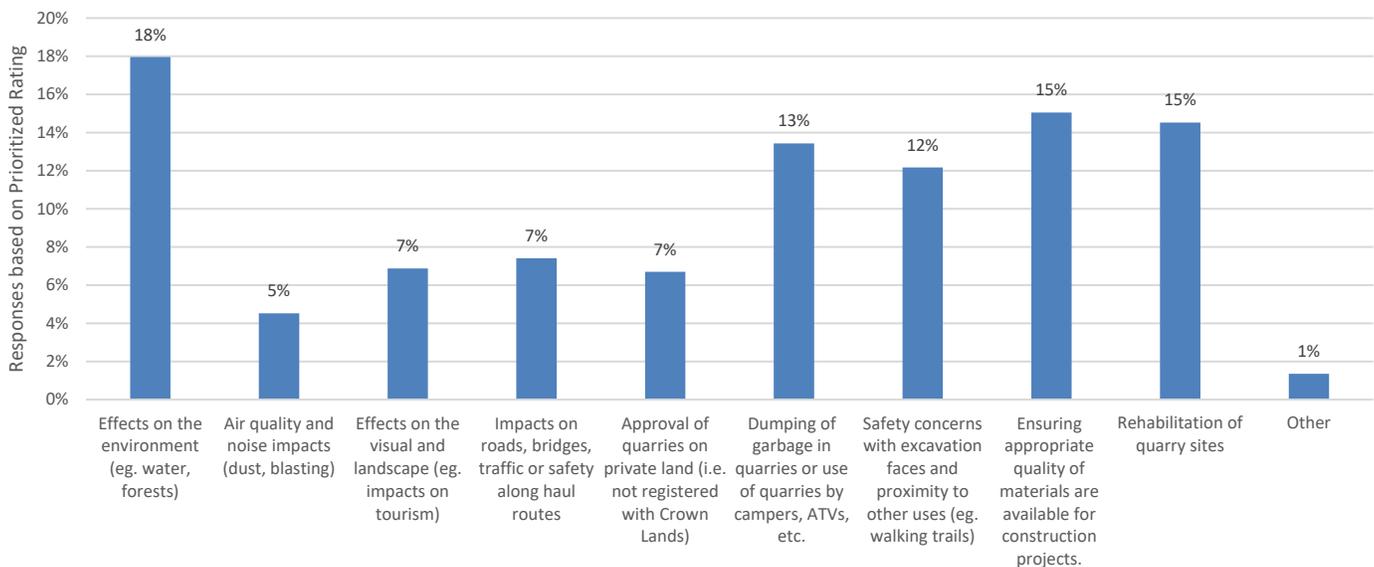
Of the following, which are the most effective for enforcing compliance?
 (select up to 3; priority ranking)
 (session polling & online questionnaire) (n=197)



Common Quarry-related Issues

Each in-person session included a discussion of the high priority issues encountered in quarries due to non-compliance or as a result of issues that are not currently regulated by the department. Based on polling responses from those in attendance at the in-person sessions and those who completed the online questionnaire, participants were most concerned about impacts quarries have on the environment (18 per cent), followed by the availability of appropriate materials for construction projects (15 per cent), and the rehabilitation of quarry sites (15 per cent). The dumping of garbage, the use of quarry sites by campers and ATVs, and safety concerns were also identified as concerns. Participants shared concerns relating the impact these issues have on the community, environment and businesses and provided recommendations on how to address or avoid these issues.

Which of the following quarry-related issues are of greatest concern to you?
(Select the Top 3) (Priority Ranking) (session polling & online questionnaire)(n = 182)



Rehabilitation

Participants discussed the need for improved rehabilitation standards, stating that the current requirements are insufficient and require enhanced enforcement. Discussions at each session focused on issues with the current rehabilitation requirements and opportunities for improvement. Recommendations included obtaining more detailed rehabilitation plans from quarry proponents prior to the commencement of operations, imposing financial security requirements, and providing more comprehensive rehabilitation standards. Feedback also recommended that any rehabilitation requirements include flexibility for quarries that are not exhausted or are located in remote areas.

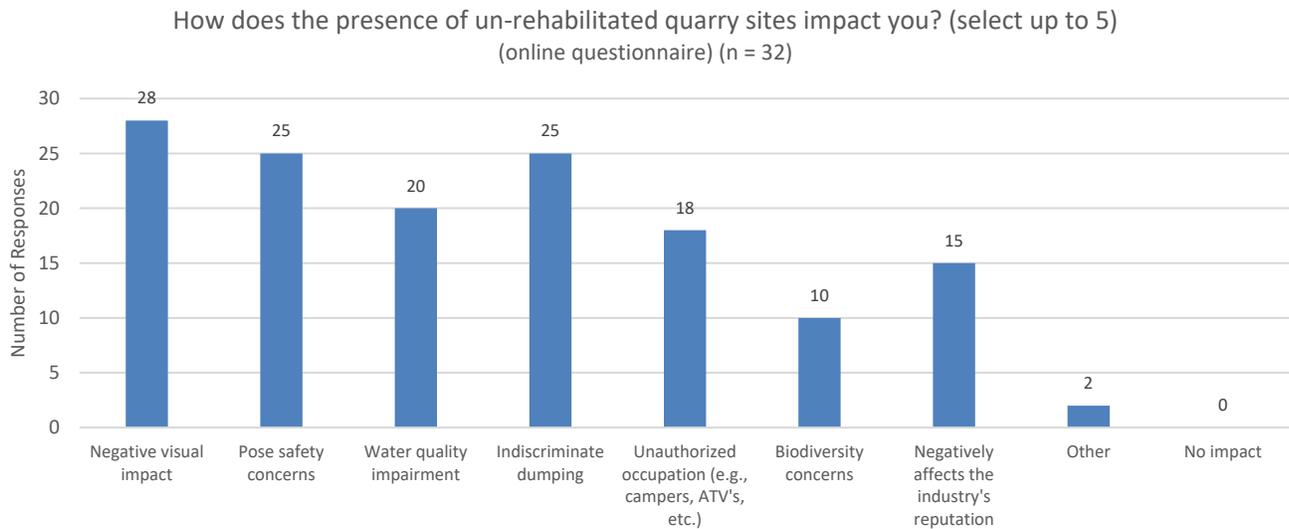
Progressive Rehabilitation

Discussions highlighted that “progressive rehabilitation” is not a broadly understood term and that guidelines and education documents are required to address this knowledge gap. Participants feel progressive rehabilitation does not happen enough, but that it is key in minimizing both the public’s negative opinion and the risk associated with quarry development. Operators also shared concerns relating to instances where progressive rehabilitation is not possible due to the way in which the quarry

site is being developed, the small size of the quarry and/or the location of different materials within that quarry site. Participants recommended that in these instances, operators provide a site plan showing their intentions for different areas of the site.

Abandoned Quarry Sites

There was significant discussion regarding the abundance of abandoned quarry sites in the province and participants shared concerns related to the environmental and safety issues associated with these sites and called on government to address these concerns. Many town council representatives advised that the lack of rehabilitation of quarry sites is a major factor in why they are hesitant to authorize additional quarry sites located within their planning authority. A program similar to the province’s Orphaned and Abandoned Mine site program was recommended for abandoned quarry sites.

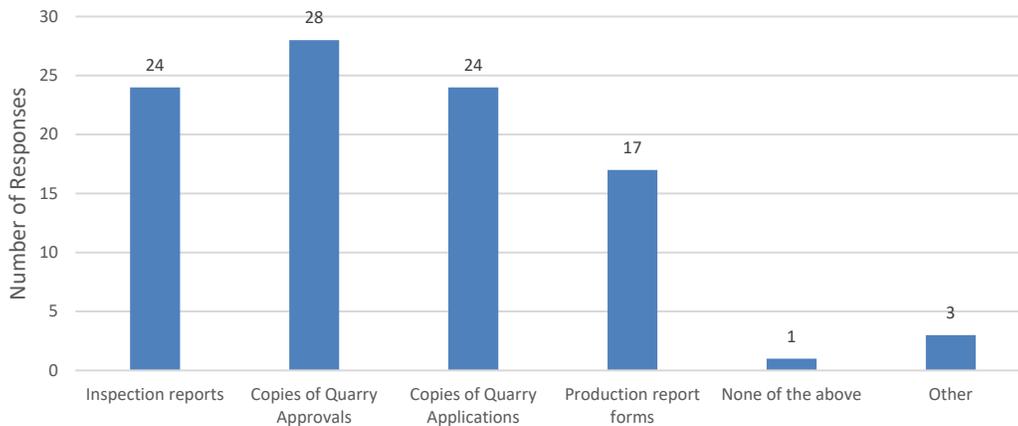


Information Sharing

Many participants, especially municipal council representatives and the general public, believe more quarry-related information (e.g., inspection reports, quarry permit authorizations, copies of quarry permit applications, etc.) should be readily available for public viewing.

Recommendations for improved information sharing include making copies of quarry authorizations (e.g., permits and leases), inspection reports, production volumes, and other related studies available on the departmental website. Many participants also felt that copies of quarry permit applications should be provided online for public viewing and input. Improved digital mapping was also recommended by a large portion of the participants.

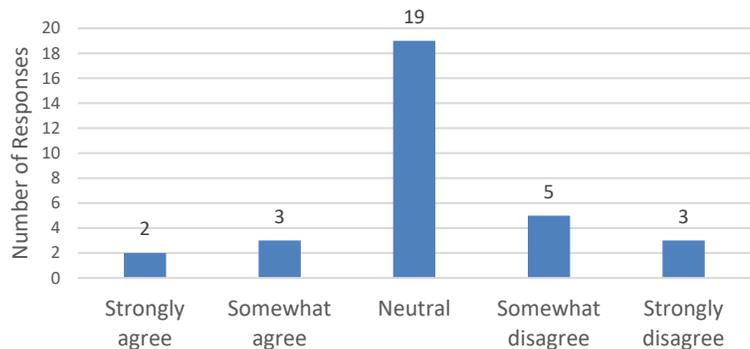
What types of quarry-related information should be available publicly?
(select all that apply) (online questionnaire)(n = 32)



Appeal Mechanism

Many participants advised they were unaware of the current mechanism to appeal decisions made in relation to quarries. As such, many respondents were neutral in response to this question. However, those that did respond were largely supportive of implementing a committee or board to review the issues. Participants were also in favour of a mechanism that allows for more input from the public.

I am satisfied with the current appeal mechanism provided by the legislation (i.e., court appeal).
(multiple choice) (online questionnaire) (n = 32)

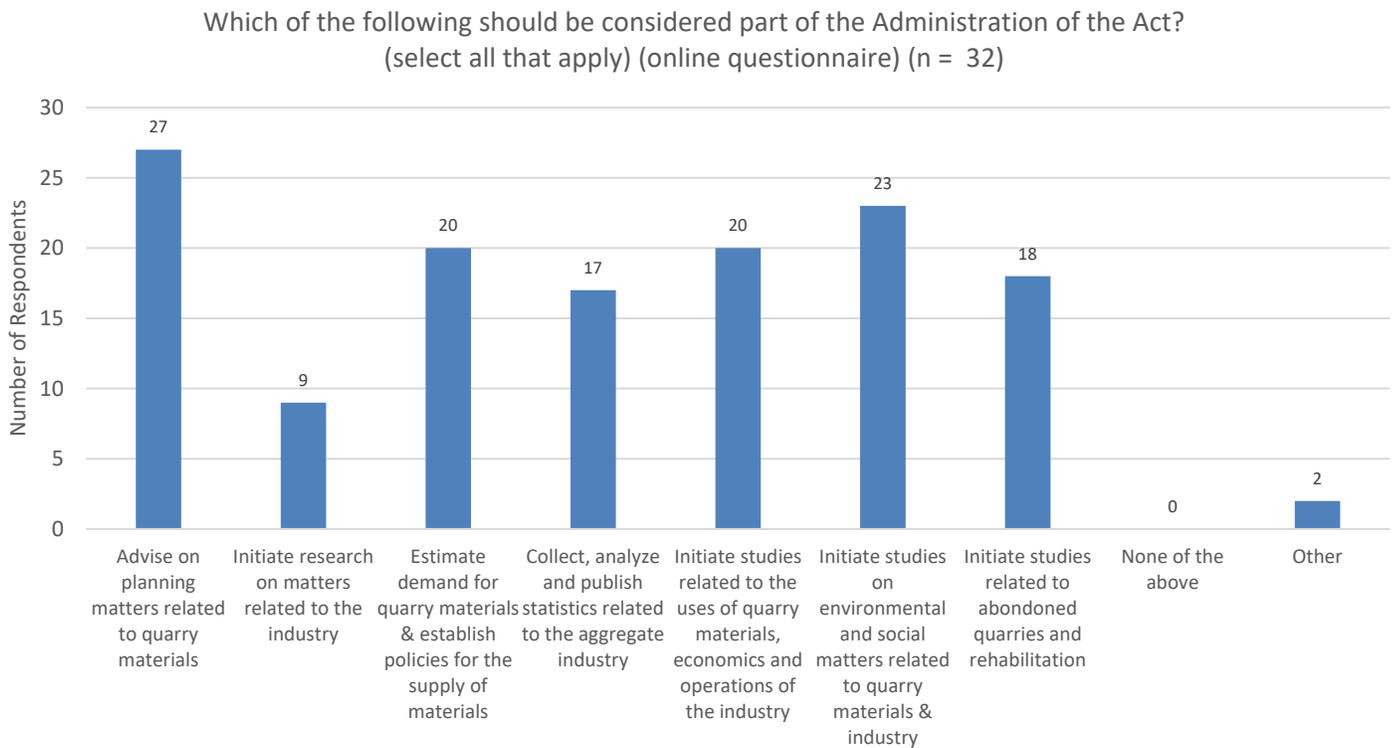


Additional Input

Participants shared other recommendations that relate to the legislation as a whole. Participants called for more consistency and clarity in the legislation across the province and for all operators. The department heard further clarification is required in regards to overlaps of quarry material tenure (e.g., QMELs, quarry leases, etc.) with mineral rights tenure (e.g., mineral claim/licence) in order to ensure conflicts between the two are mitigated and improve investor confidence.

When polled on what are the most important factors to be considered as part of the administration of the Act, the majority of participants selected the ability to advise on planning matters related to quarry materials. The department heard that gaining a better understanding of the volumes of materials that are needed and an assessment on how many quarries are actually needed in an area is important. A close second was the ability to initiate studies on environmental and social matters related to quarry

materials and the industry. An example cited was identifying environmentally sensitive areas such as protected wetlands where quarrying should not be permitted.



The importance of educating the public and municipalities on matters related to quarry materials, quarry operations and the industry in general was a frequent discussion topic throughout the public consultations. The Department heard there is a need to provide education materials to municipalities for staff training to ensure those who are reviewing and approving quarry applications within the municipality are knowledgeable and to provide examples of the types of conditions or agreements that can be included as a condition of approval. Discussions also highlighted that the importance of quarries is not clearly understood by the general public., To address this, it was suggested that government should develop various education materials to educate the public on the economic benefits of various types of materials required for different projects, where they might be found, and the benefits of having a source of quarry materials close to a municipality.

Next Steps

The results of public consultation are an essential element to ensure any changes meet the needs of industry, other regulators, residents of the province, and other governments and stakeholders. The department will consider the results of this comprehensive engagement with the public and industry as it develops modernized legislation that incorporates improved administrative processes, maintains internal structure for stakeholders, and maximize benefits and opportunities to be competitive in global markets.

If you have any questions or comments on this “What We Heard” document, please email QuarryReview@gov.nl.ca or call (709) 729-6410 by **May 16, 2021**.

APPENDIX - Detailed Feedback from Public Consultations

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Quarry Material Definition

- The Department heard contrasting opinions on whether dimension stone should be considered a quarry material or remain a “mineral” as prescribed by the **Mineral Act**.
 - Participants commented that dimension stone and gemstone should be considered a quarry material due to the similarity in extraction and post processing methods,
 - Participants remarked that dimension stone and gemstone project development would be encouraged by more appropriate regulatory requirements associated with the quarry legislation in comparison to the **Mining Act**.
 - Some participants commented that dimension stone should remain under the **Mineral Act** and **Mining Act** as it is currently. If the quarry material definition is revised to include dimension stone, those currently holding mineral rights to dimension stone projects need to be compensated or grandfathered in.
- The Department heard that peat should not be considered a quarry material; participants instead believed it would be more appropriately regulated by the Agriculture and Lands Agency within the Department of Fisheries, Forestry and Agriculture.
- A proposed revised definition of a quarry material was provided in the discussion guide and online questionnaire for consideration:

“a substance used in its natural form including gravel, sand, clay, earth, peat, soil, shale, stone, limestone, dolostone, sandstone, marble, granite, rock or other prescribed material”.

Many of the online questionnaire participants were supportive of the proposed revised definition; however, there were some concerns:

- Remove “other prescribed materials” from the definition.
- Remove “a substance used in its natural form” and replace with “a substance extracted” to account for any post-processing (e.g., crushing, screening, etc.) completed on the material.
- Specify the various end-use of the materials to be considered under the definition (i.e., construction, agriculture, dimension stone).

Classification of Quarry Tenure

Quarry Permits & Quarry Leases

- The Department heard that there are essentially two types of quarry requirements:
 - quarries that are used near the company’s home base of operations and are used as the long term supply of material to support the day-to-day business activities;
 - Quarries used to supply materials for a particular project in areas relatively distant from the base of operations.

Participants agreed this needs to be considered when determining the type of instrument to be issued.

- The one-year permit is beneficial for new operators considering getting into the business as this is a low investment opportunity to see if an area could be profitable before investing significantly in expensive plans, legal surveys, etc.
- Aggregate deposits do not all have the same characteristics in terms of being able to produce various end products and that similar size quarries in different locations of the province will provide much different volumes of material over the lifetime of the site. Participants provided examples of a one hectare site in a location with minimal surficial deposit depth will not have the same life expectancy as a one hectare quarry in a location where there are significant surficial deposits. Participants recommended this be considered when determining the appropriate instrument for the site.
- The duration of a quarry lease should be based on the resources available within that lease (i.e., eliminate the 20 year cap on the duration of a lease).
 - Doing so would assist large projects in securing contracts in foreign markets. Foreign companies want to see massive reserves capable of supplying material for very long durations (i.e., 60 to 100 year ranges).
 - Revised legislation must consider the need for companies to provide a secure, long-term and continuous supply of material in order to obtain large, export project contracts.
- Participants provided a variety of recommendations of how a revised tenure system could be designed:
 - Maintain the current system.
 - Maintain a short term (one year) instrument, and the longer term lease (greater than five years), but also include an intermediate option.
 - Allow the applicant to specify the duration of the permit (e.g., one year, two years, five years), with the option to renew.
 - Issue all instruments as the current version of the quarry permit, but for a longer term (multiple years and/or the number of years requested by the applicant).
 - Issue all instruments as a variation on the current quarry lease regardless of the size or duration of the operation.
 - Maintain the two currently available tenure types (permits and leases), but ensure they are used appropriately. Some recommended that any sites used for more than four years be forced into a lease instrument, but under revised lease requirements.
 - Implement a short to medium term quarry permit option with requirements to provide bonding, a modified development plan with reduced requirements as well as a clear outline on project timelines.
 - Include various annual production thresholds to determine what tenure instrument, if any, is required (e.g., less than 10 cubic metres per year would not require a permit or the payment of royalties).
- Regarding the implementation of revised legislation, the Department heard:

- Quarries approved under the current Act should be grandfathered into the new legislation with the current requirements,
- Quarries approved under the current Act should be required to meet the standards of new legislation when enacted.

Subordinate Quarry Permits

- The requirement to pay royalties for SQPs upfront is difficult for many contractors who are often not paid until the end of the project or when the total volume of material to be extracted is not precisely known.
- The short time frame of SQPs (i.e., expiry date being tied to the host permit expiry) is problematic for projects that extend beyond the expiry date of the host permit.
- There were concerns that the elimination of the SQP process may allow a single company to monopolize quarry materials in a particular region of the province.
- In instances where a permit holder does not authorize the issuance of an SQP, government should step in to make this transaction possible, especially in instances where the site has been dormant for an extended period of time.
- Clarification is required to outline the responsibilities of the SQP holder regarding non-compliance and rehabilitation.
- The legislation must clarify who (quarry permit holder or SQP holder) has rights to any materials left behind after a SQP has expired.
- Clarification is required to outline whether a quarry permit holder may charge a company to operate within their quarry, and the instances in which this can or cannot occur.
- The Department heard that in many instances, the decision to approve a quarry within a municipality is done so based on consideration of the details of the application. In some instances, the subordinate permit holder may be a larger company or may be completing larger projects than what would have been expected from the host permit holder, resulting in more blasting, truck traffic, etc. Participants recommended the public and the municipality have input on whether to approve another company within an existing quarry.
- The Department heard that municipalities want to know which companies are operating within their jurisdiction, and often SQPs are issued without any authorization by the town.
- SQPs allow government to know where materials are being used.
- When the option of eliminating SQPs from the legislation was discussed, some participants recommended requiring the third party make the royalty payments directly to government, even if government is not involved with the approval process.

Quarry Materials Exploration Licences

- The Quarry Materials Exploration Licence (“QMEL”) program is confusing, inefficient and is being used to control vast tracts of land for extended periods of time.

- It is too inexpensive to tie up very large areas of land for a long period of time and that this encourages people to use the program inappropriately.
- Exploration for quarry materials should follow the same approval process as required for the exploration of minerals under the **Mineral Act**.
- The current four month tenure is not long enough to obtain an exploration approval, develop a plan and to report on the work conducted. Licences should be issued for a minimum of one year at a time.
- The renewal of a QMEL should be revised with consideration to allow for the renewal of a licence based on the value or extent of the work completed. If a licence cannot be renewed for more than a year, there is no incentive for the company/individual to report on the work completed, thus resulting in the loss of valuable geoscience data.
- Maintain the exploration approval process, but eliminate the licence program that allows companies to tie up areas for long periods of time on speculation.
- Any new quarry locations found as a result of exploration work on a QMEL could be leased to the company/individual for a limited amount of time (e.g., 10 years) so they have an opportunity to benefit from finding the quarry location.

Beach Permits

- Do not regulate where a craft person is collecting a few cobbles for personal use.
- Require a permit in instances where a person is harvesting materials and commercially selling crafts; a separate fee structure should be outlined for this type of use.
- Regulate the extraction of beach material when the extraction becomes large or is on an ongoing basis.
- Regulate when the removal of materials is mechanized, but not when it's hand removal.
- Regulate all extraction, but don't charge people with a permit fee or royalties.
- Regulate all extraction and provide municipalities with the authority to approve or refuse these proposals.
- Many participants agreed that there should be a maximum quantity that would be considered for hobby or craft purposes. Any amount over what would be deemed reasonable for hobby or craft purposes would be applicable under the quarry legislation.
- Manage the removal of materials for craft purposes via a permitting process but ensure it is inexpensive and the permit easily acquired. This would also allow government to verify the sources artists are using for their work.
- Implement a system that supports local artists and craft people whose use of resources is generally minimal. It would be important to ensure that craft people have equal access to all resources at a nominal fee.

Application and Maintenance of Quarry Tenure

- Participants advised that when permits expire at different times throughout the year, it is more difficult for the permit holder to manage and that a universal expiry date (e.g., December 31 annually) is preferred. If there are too many in the province, stagger the expiry throughout different areas of the province (e.g., all west coast permits expire in January).
- The deadline for the payment of royalties should be the end of the construction season (e.g., October).
- Multiple quarry permits are required because different sources of material are required for different projects, and sources are needed in various areas of the province to be able to competitively bid projects.
- Companies should not be able to hold multiple permits.
- Some participants stated the importance of being able to transfer a quarry site they have developed for financial benefit.
- The legislation should allow for the transfer of a quarry site (permits and leases) from one company to another.
 - This may create an avenue for someone else to continue utilizing a resource while the other company has no additional interest.
 - Would avoid repeated referrals and Environmental Assessment registrations for an approved quarry.
 - It could also allow the company to recover initial monies invested in the site plans, site development, Environmental Assessment registration, etc. by the private entities coming to an agreement to have the permit transferred.
 - Allow the transfer if it is not for profit.
 - Transfers should be permitted as long as they meet all the criteria of the original permit/lease holder.
 - If a quarry is transferred, they must also be responsible for any non-compliance or final rehabilitation for that site.
 - A transfer should be accompanied by the same information required for a new application (e.g., business case, types of activities to occur at the site, etc.).
 - As long as the other company or individual follows the regulations and conditions in the permit, and the work is of similar work (similar scope of work/same amount of material being moved). Require the submission of a transfer application to authorize a transfer.
- The legislation should not provide an avenue to transfer a quarry site.
 - A new application should be required and the public should have an opportunity to provide comments when a site is being taken over by another company or individual.
 - Government must confirm that the company or individual taking over the site is knowledgeable of the requirements and obtain justification as to why the quarry is needed.

- In instances where a dormant/abandoned quarry site is applied for, or a site is taken over by a different company, a pre-issuance inspection must be completed to determine what the new applicant is responsible for regarding compliance and final rehabilitation.
- A company should not have the rights to a site after they have been declared insolvent or bankrupt.
- If a permit lapses, any processed material on site should be the property of the producer, it should not be the property of the new permit holder.

The Application Process

- Regarding any changes to the application process:
 - There is a need to consider small businesses when the requirements and standards are being developed. There was significant concern that the process will be too onerous for small companies.
 - Any changes to the process should not negatively impact the service standard.
 - The process should be less complicated for municipal governments quarrying material for town-related maintenance and infrastructure projects.
 - Decrease the amount of time it takes to get an approval.
- Comments on the annual quarry permit re-application process include:
 - The process is not practical or effective.
 - If an individual or company has history at a site, government should contact them to give them first right of refusal before granting the rights to another company/individual.
 - An online system is needed to automate the re-application process and provide reminders to clients.
- There was no clear consensus on whether the requirements to obtain a quarry should vary depending on the size, duration or specifics of a proposed quarry. Some feedback suggests all quarries should have the same application standards and rules, while others recommended increased requirements (e.g., development plans) for longer term operations.
 - All quarries should have the same application requirements because they all have the potential to negatively impact the environment and/or quality of life of people in the area.
 - There should be different requirements depending on the size, scale and duration of the proposed operation.
 - Every application, regardless of the term, should be accompanied by financial assurance/bonding.
 - Some participants recommended different requirements for quarries on Crown Land versus those on privately owned property.
 - Implement various categories of application requirements depending on the nearby land uses. For example, the requirement of a legal survey would only be triggered in areas where other land uses are within a certain distance of the quarry.
 - Include a series of benchmarks in the application requirements based on the size of the quarry.

- Require that all quarries in more populated areas (e.g., northeast Avalon) provide long-term development plans and more detailed maps and plans including a topographical survey of the site.
- Allow for topographic data to be supplied via a modern RTK drone survey which is capable of providing more detailed and representative data than a registered professional land surveyor as is currently required.
- Quarries should require the submission of the same type of plans required for mine sites.
- The Department heard the following comments on quarry application referrals:
 - Improve the consultation process when a quarry permit is being approved and/or renewed, particularly within the local community.
 - Implement a public consultation process similar to the Environmental Assessment process for all quarry applications.
 - Applications should be referred to government departments anonymously (i.e., no company/individual name on the application).
 - Refer all applications to the relevant municipality each time it is up for renewal/re-issuance (e.g., annually).
 - 14 day referral timeline is not sufficient for most municipalities to provide a response on applications.
 - The issuance of a permit/lease should not be delayed because a referred department or agency department fails to respond on time.
 - The Department heard there is a need for a more a more consistent and transparent quarry application process with improved interdepartmental coordination.
- The Department heard the following regarding the details required for a quarry application:
 - Quarry applications must include detailed information on the proposed quarry.
 - Applicants must identify the potential impacts the proposed quarry and related activities may have on the environment and nearby land uses.
 - Applicant must demonstrate that appropriate buffers are in place to protect adjacent private property, land uses, environmental features, infrastructure, etc. Some recommended that buffer distances be increased.
- Approval of quarry lease development, rehabilitation and closure plans by both the Mineral Development and Mineral Lands Divisions takes too long. The review should be completed by the Mineral Lands Division only as they currently manage the province's quarry resources.
- The Department heard concerns from numerous private citizens and municipalities on the apparent loop-hole in the legislation that allows for the unpermitted removal of quarry materials from private land in unincorporated areas.
- For both new applications and re-applications, provide detailed information for public comment.
- There must be consistency in decision making from year to year and company to company.
- The blanket permit application process must be reviewed to be more efficient and effective.

- Participants recommended government consider the long term plans for large government-funded infrastructure projects and conduct pre-referrals on quarry sites that could be used to supply material for those projects. This would expedite the quarry application process once contracts are awarded and eliminate, or significantly reduce, the lag time waiting for permit approvals. Pre-referrals would also allow government to control who is awarded the site and would prevent others from holding quarries in an area despite having not been awarded the contract.

Factors to consider when reviewing an application

- A permit should only be considered if the applicant has the knowledge and expertise to operate one.
- Allow municipalities, including those without planning authority (e.g., local service districts, municipalities who do not have development control or a municipal plan) to have the authority to refuse any proposed new quarry applications.
- Consider the applicant's past history of compliance. If there is a history of non-compliance, do not issue the quarry rights to that individual/company, or implement additional requirements (e.g., financial security/bonding) for that individual.
- Require a letter of conduct from applicants.
- Haul routes are a major concern of municipalities and local residents. Participants recommended considering the potential negative impacts associated truck traffic might have on road infrastructure including the condition and safety of roads and bridges. Volume and patrolling of quarry-related traffic was also recommended for consideration.
- The impact a quarry will have on the environment (e.g., waterbodies, groundwater, forests, agricultural uses, etc.) and adjacent land uses (e.g., recreational, residential and agricultural areas) is a significant concern and the applicant should clearly demonstrate how the risk will be mitigated.
- Blasting, noise, dust, etc. can have a significant impact on quality of life of nearby residents and minimum buffer distances should be implemented between blasting and nearby residences.
- Prevailing wind direction for potential dust and noise impacts.
- Quarry development should not be permitted in view of any residential development or watercourses used for recreational purposes such as fishing and boating.
- There should also be consideration of monitoring the types of material imported into quarries.
- There should be consideration of the quality of materials at a site when deciding whether to issue a permit for a site. If the quality of material is known or expected to be poor, participants recommended not approving the quarry.
- Government should consider the best application/proposal for the area; it should not be a first come, first serve basis.
- One per cent of the island hosts high quality, usable soil for agriculture/agrifoods; and approving quarries in these areas should be carefully considered.
- If there are nearby existing disturbed areas, operators should be directed to these areas instead of disturbing new ground (if the material is the same).
- The impact of quarry operations on climate change:

- Require that all equipment be well maintained and run at high efficiency.
- Alternate methods of material transportation should be encouraged (e.g., conveyor system).
- Participants recommended that anyone holding a quarry permit should be required to provide justification via a business case as to why the site is required.
- Participants agreed that companies holding quarry sites should, at a minimum, own heavy equipment.
- New quarries being proposed in the vicinity of existing quarries need to be more rigorously justified than ones for areas where there are none. If there is an existing quarry with adequate material, then it should be exhausted before a new operation is approved.
- New quarry sites proposed within municipal boundaries need to be justified, regardless if there are existing quarries in the area or not.

Quarry Boundaries:

- Given the frequency of excavation extending beyond permitted boundaries, session participants recommended that quarry sites be surveyed (legal survey or another form of survey).
- Boundaries need to be clearly defined in the application process and visibly marked in the field, especially in areas where quarries are in close proximity to other quarries, land uses or private property including easements.
- In densely populated areas, quarry boundaries should be visibly marked or fenced. All quarry sites should be marked at the entrance with signage identifying the permit/lease holder and the expiry date of the permit/lease.
- Require the submission of a site plan outlining the quarry boundary (e.g., GPS coordinates) with a cut line in the field to mark the boundary at the site.
- The Department heard that there are concerns that quarries are being approved on private property that is not currently registered with the Crown Lands Division.
- There is a need to develop policies to determine how to resolve issues arising from adjacent quarries with common boundaries, instances where quarry access roads require travel through other quarries.
- Participants advised that quarry boundaries need to be posted online for reference by clients, municipalities and the general public.

Financial Assurance:

- Only require bonding from those who have a history of non-compliance.
- Require bonding only when a site reaches a certain benchmark (e.g., area disturbed).
- Many felt that posting a bond would provide the motivation for a company to follow-through with the required work and therefore is the only way to ensure sites are adequately rehabilitated.
- Operators should provide the municipality, not provincial government, with a letter of credit for the total rehabilitation costs based on a rehabilitation plan satisfactory to the municipality.

- A requirement to provide bonding will negatively impact the small business owner. Participants recommended reviewing other options that would support small businesses while still holding them accountable for final rehabilitation and closure of a site.
- There were concerns with how the requirement for bonding would impact those with quarries on privately owned property.
- The amount of bonding/financial assurance required for a quarry should not be determined by the three-quote process. The quotes can be manipulated and people quoting the work most likely truly do not understand what is required. Companies providing quotes are not held to their quotes, otherwise they would not take the risk of providing unrealistic pricing.

Royalties and Reporting of Production Volumes

- Keep the royalty structure as is.
- Reduce the royalty rate for smaller businesses/contractors.
- Increase the royalty rate for companies whose quarry operations are not in compliance.
- Increase the royalty rates overall to fund additional inspectors or rehabilitation projects.
- Increase the royalty rate for export projects. Do not require the payment of royalties on materials supplied for government-funded projects.
- Maintain the current royalty regime for government or not-for-profit enterprises, but charge for-profit companies royalties at market-value based on the type of material and quantity produced.
- The royalty rate should be determined by the market value of the material being removed/produced.
- The royalty rate for peat should be different than the royalties paid on materials used for construction.
- Revise the royalty regime to be more supportive of large projects (e.g., export projects). Some participants recommended a sliding scale royalty regime where the royalty amount would be less as the volume of material extracted increases.
- Municipalities should continue to be exempt from royalty payments for materials used by the municipality to benefit the citizens of the town and not for resale.
- Municipalities should receive a portion, or 100 per cent, of the royalties collected on materials extracted from a site within that municipality.
- Do not require the payment of royalties on materials removed from a site for the purpose of development (e.g., under a development permit issued by a municipality).
- Implement an auditing process to ensure accurate reporting of production volumes and payment of royalties. Some participants recommended government use drones as a way to audit volumes reported on production reports.
- Require annual surveys (e.g., drone surveys, topographic surveys, before and after images) to determine more precisely the volume of rock extracted from a site annually.

- Change the production reporting guidelines to allow a quarry operator to have a qualified person complete an assessment of the rock type and have specific gravity testing completed by a certified lab. Upon this being accepted by DNR, royalty reporting could be completed more accurately.

Resource Management

- There should be no restriction on where material from a quarry is used (e.g., if the material comes from a town, it should be permitted to be used in any other town).
- Other land uses (e.g., cabin areas, residential or commercial business areas) approved in close proximity to existing quarry areas should not have the ability to impede quarry activity. For example, if a cabin area is expanded into a quarry area, this should not impede the operator's ability to quarry or conduct related activities such as blasting or having an asphalt plant on site.

Recommended Resource Management Initiatives

- Government should do more to encourage new applicants to use abandoned quarries instead of developing new quarries.
- Establish a public notification process to inform companies when a permit/quarry area is coming available. Award existing quarry sites or known aggregate deposits based on a lottery (or similar) process, where interested parties would be required to meet a minimum threshold of pre-requisites.
- Improve the coordination between the Department of Industry, Energy and Technology and the Department of Transportation and Infrastructure to ensure that quarry sites established for the purpose of supplying material for provincial projects actually contain quarry materials that meet the material specifications.
- Department of Industry, Energy and Technology and the Department of Transportation and Infrastructure need to work more closely together to encourage recycling of asphalt, concrete and other recycled materials (e.g., glass) as is currently being done in other jurisdictions. More innovation is required to determine what natural materials can be substituted for recycled or repurposed materials.
- Government should do more to promote using materials that would typically be diverted to a landfill (e.g., dredged materials, waste concrete, etc.) as fill material for the rehabilitation of quarry sites.
 - In instances where environmental/geochemical testing clears the material for beneficial use, local re-use would significantly reduce the expense, wear and tear on roads and airborne emissions associated with trucking the materials to an approved waste disposal site. Doing so would also make more aggregate materials within a site available for projects as it would not need to be used for rehabilitation.
- Provide more decision making power to municipalities when a quarry is proposed within a municipal boundary.
 - Strategic development and management, including decisions as to whether a quarry should be approved, refused or cancelled within a municipality, should be the municipality's

jurisdiction regardless of whether there is a formal town plan in place under the **Urban and Rural Planning Act**.

- Establish a long term, strategic plan for aggregate development for the province.
 - Long term planning is essential in proper resource management and long term planning should be done in consultation with municipalities.
 - Most participants were in favour of government identifying areas of high aggregate potential and protecting these to ensure proper development.
 - Identify areas with potential for aggregate development to help attract developers (e.g., for export projects) which would potentially contribute significantly to the economy in rural areas of the province.
 - Participants voiced concerns regarding the lack of available quarry resources in certain areas of the province (e.g., greater northeast Avalon area) and recommended implementing a plan to identify resources for future development.
 - For large projects (e.g., 5 years or more), government should conduct pre-referrals to ensure sites are available as soon as the work is ready to start.
 - Develop a strategic plan for quarry resources in the province.
 - Assess the demand for quarry materials in different areas of the province.
- The Department heard that in many instances, high value aggregates (e.g., sand suitable for concrete production) are being used for low value uses (e.g., backfill). Participants advised that improved regulation is required to ensure proper use and management of the resources.
- Given that quarries are a temporary use of land that results in a change in topography once final rehabilitation and revegetation has occurred, revised legislation should outline criteria to allow for multiple uses of land over a period of time.
 - There are many instances where significant quarry resources are under forestry resources. Need to implement projects where the quarry resources are extracted, and then the topsoil re-spread and the trees replanted. This would allow for the quarry resources to be extracted and the royalties paid on that material, followed by availability for other land uses.
 - Make Kruger lands available to those applying for quarry sites.
- The Department heard that additional geoscience information is required to delineate quarry/aggregate resource potential.
 - Improved mapping of quarry materials is needed to determine where the materials are located and where they are needed.
 - Establish a public database of aggregate/quarry material specification test results or quality of materials and allow interested parties to bid on those identified sources.
- The Department heard mixed feedback on government holding centralized quarry sites province-wide to make available to operators when there are government-funded projects in the area:

Supportive of government-held quarries:

- Participants were generally in favour of this to minimize trucking distance and thus the impact to infrastructure, greenhouse gas emissions, etc.

- Many participants felt that more government held quarries province-wide would lead to improved management of the quarry resources overall, and that it would likely reduce the number of new quarries approved, especially within municipalities.
- Participants requested that government tender documents include details on nearby government-held quarries that host suitable materials for that project and make the site available to the successful bidder.
- Conduct a review to identify areas where additional quarries are needed and the types of materials required.

Not supportive of government-held quarries:

- In areas where there are existing quarries held by private entities, the introduction of government held sites would be overstepping and would negatively impact business opportunities.
- Only open government quarries if there are no existing quarries in the area.
- Government should focus solely on the regulation of quarries and should not be involved in the operational side of the business.
- Some participants felt this movement would be a disincentive for industry to pursue developing quarries.
- A government-held quarry that is developed (e.g., cleared, face developed, etc.) by a private entity in order to supply material for a government project should be transferred to that company upon completion of that project in exchange for the investment associated with developing the site.

Dormant Quarries

- Clear criteria is required to determine what classifies a site as inactive/dormant.
- Many participants respect the investment required to obtain, develop (e.g., stripping, constructing access roads, blasting, etc.) and maintain a quarry year-after-year. If a quarry is in compliance and all required fees have been paid, participants felt the company should not be at risk of losing a quarry due to inactivity.
- The Department heard that work in particular areas is largely tied to government funded projects (e.g., provincial highway projects), and companies strategically hold these sites year after year to ensure they can competitively bid projects when they arise.
- The Department also heard that in some regions, sites are held by companies or individuals who are no longer active in the aggregate business (i.e., no longer bid projects or have heavy equipment required to work the site). In these instances, participants believed the sites were being held to tie up a resource and that government should implement ways make the resource available to others.
- For instances where a site has been inactive for an extended period of time (e.g., 3 - 5 years), participants recommended government seek justification as to why the site is still required (e.g., business case). Some participants felt this would discourage companies/individuals from monopolizing the quarry resources in a particular region.

- Some participants suggested that a site development plan may help address these issues by outlining the type of work planned for the site.
- If a short-term quarry site has been inactive for a period of 2 – 3 years, do not re-issue the quarry permit. Alternatively, the department could acquire the permit, issue the permit to another company or allow the site to revert to the Crown. A new quarry permit application and referral in this situation could resolve historical issues with the site.

Conservation & Recycling

- The Department heard that government should review new applications for ways to minimize the number of quarries being operated at one time. Feedback suggested including a review of new applications to determine if there are existing disturbances that should be re-opened or existing quarry sites that could supply the material required for a particular project instead of disturbing a new area and to ensure other sources of material are not being sterilized by an applicant who required only temporary access to material.
- To encourage the recycling of secondary materials such as asphalt, concrete and remediated soils, we heard the following recommendations:
 - Develop a series of education and promotion documents outlining the opportunities and benefits of recycling these as a way to start the conversation.
 - Designate a series of waste asphalt and concrete storage locations across the province where the material could be stored and processed into a reasonable size for reuse. This type of recycling program would be beneficial particularly if the material was free or close to free.
 - Develop a mechanism for advertising the availability of these resources and materials to anyone interested. If operators have an easy and effective way to sell by-product commodities to a local market, conservation and recycling may improve.
 - Introduce a system that rewards operators for recycling these materials.
 - Make the cost of new material equivalent to the cost of reusing old.
 - Develop recycling strategies based on the type of non-renewable material (e.g., asphalt, concrete, remediated soils).
 - Require all new applications to include details on the proposed recycling or conservation initiatives to occur at the site. The applicant should be required to provide details to ensure materials being recycled are done so following industry best practices.
- Co-operate with the Department of Transportation and Infrastructure to identify ways to use secondary materials in government funded provincial projects:
 - Change the specifications to allow a business case for recycling of secondary materials. Other regions of the country (where materials are at a premium or where shortage are occurring) are recycling these materials already.
 - The main stumbling blocks to recycling secondary materials are cost and material specifications.
 - Determine ways of reusing the materials on roadways.
- Concerns with the recycling of secondary materials included:

- More research is required to determine the potential environmental impacts of using recycled secondary materials such as recycled asphalt on road shoulders.
- Asphalt recycling is difficult on the workers.
- There are concerns with some of the current waste concrete recycling practices (e.g., using large volumes of waste concrete onto beaches for erosion control).

Monitoring & Enforcement

- The program is effective and efficient in its current form.
- Three inspectors is not sufficient to effectively monitor and regulate the number of quarries in the province. Participants at each session recommended adding additional inspectors to the program.
- Additional and frequent monitoring of operations is required to ensure quarries are operated in compliance with the legislation.
- Participants discussed the value of good communication between inspectors and all stakeholders including operators, municipalities, utility companies and other levels and departments/agencies of government. Participants stated that many of the issues encountered in the past could have been avoided or quickly addressed if there had been better communication between all stakeholders.
- Ensure inspectors and management are competent and knowledgeable with respect to quarry operations and land use issues.
- Ensure all legislation and guidelines are applied to operators consistently.
- Careful inspection of operations for compliance with respect to the approved quarry boundaries is essential.
- A permit should only be considered if the applicant has the knowledge and expertise to operate one.
- Provide 24 - 48 hour notice before an inspector visits a quarry; require the operator to be on site at the time of the inspection; and meet with municipalities after an inspection has been completed within a municipality.
- Prioritize inspections based on an operator's history of compliance. If a company has a history of non-compliance, inspect these sites more frequently.
- Companies should not be responsible for outstanding rehabilitation work or non-compliance issues when taking over a historic operation or existing disturbance. Participants recommended conducting inspections prior to issuing permits for these sites to document the status of the site prior to the new company/individual commencing operations.
- The Department heard that inspection reports should also be used in the following situations:
 - Operators bidding public work contracts should be required to supply a copy of the most recent compliance report.
 - Inspect to ensure the proper resource management of the site.

Enforcement Mechanisms

- Compliance initiatives that have financial implications or negatively impact a company's ability to carry out the business were reported to be the most impactful.
 - Seize equipment from those in violation.
 - Increase the fines for non-compliance and/or give inspectors the ability to give fines on-site.
 - Monetary fines are simply a part of doing business and will not carry much weight for larger companies.
 - Cancel permit/lease when not in compliance or when the permit/lease holder fails to conduct necessary remediation work.
 - Consistency in the application of penalties will be helpful in discouraging non-compliant operations.
 - If directed work is not completed within a reasonable time frame, the majority of participants agreed that the permit should be cancelled and that government should pursue fines and charges.
 - There was widespread support for restricting the ability of an operator to obtain new quarry sites if there is a history of non-compliance or failure to address non-compliance issues.
 - Require a record of infractions to accompany any new application.
- The Department should be more preventative rather than complaints driven.
- Ensure the application requirements are appropriate the scope and scale of the proposed operations (e.g., appropriate details of the proposed work should be presented in the application to demonstrate an understanding of the legislative requirements).
- Other recommended mechanisms of enforcement included self-reporting/self-assessment and drones:
 - Require the completion of a 'quarry decommissioning/close-out' report providing details and photos of the site upon terminating operations at a site, either for a season or permanently.
 - Require the operator to complete the inspection report and submit to government for follow-up.
 - Self-reporting may help prioritize sites for inspection.
 - Require a third-party (i.e., consultant) to complete the inspection report and submit to government for follow-up.
 - The use of drones was recommended to obtain up-to-date imagery of the site to help with compliance monitoring and to audit production/volume reporting; some agreed this would be a more safety conscious way to complete inspections
- Regarding enforcement of quarries located within a municipal boundary:
 - Allow municipalities to manage (e.g., conduct inspections, enforce compliance, collect royalties, etc.) all quarries issued within their municipal boundary.
 - Town staff do not have the knowledge or expertise to manage the quarries within their municipality and should not be given this responsibility or authority.

Common quarry-related issues

The Department heard the following commonly encountered non-compliance issues:

Effects on the environment:

- Impacts on the environment including waterbodies, wetlands, protected public water supply areas, parks, natural/wild areas and other sensitive areas.
- Sedimentation of nearby waterbodies due to runoff from quarries. Participants advised improved monitoring of sediment control structures is required.
- Removal of vegetation and quarrying on hill/ridge tops is a concern as there is significant impact to wetlands, and the overland and storm water flow must be considered.
- Impacts to nearby waterbodies (e.g., streams, wetlands) due to excessive run-off from areas cleared of vegetation and pollution from equipment on site. Concerns included changes to the water table levels and water depth, degradation of water quality in the surrounding areas and downstream, and negatively impacting the filtering ability of wetlands.
 - Require storm water management plans and water quality baseline measurements prior to start-up and periodic monitoring during operations.
 - Mapping and evaluation of impact to adjacent wetlands.

Ensuring appropriate quality of materials are available for construction projects:

- Operators should maximize the use of all materials in a quarry.
- High quality and valuable resources should not be used for low value purposes (e.g., using sand suitable for concrete production for backfill).
- Implement standard practices and approvals to allow companies to store waste asphalt and concrete for re-use.
- New applications for quarry permits should not be considered in areas where additional quarries do not appear to be necessary (e.g., in areas where there are multiple quarries already).

Air quality and noise impacts:

- Blasting is a significant concern.
- Public notification process required prior to blasting
- Concerns with fly rock and the potential damage to nearby infrastructure and safety concerns.

Effects on the visual landscape:

- Visibility of quarry sites and their operations is a concern, especially in residential areas.
- Quarrying hilltops and topographic highs negatively impact viewscape and tourism value of an area.
- Sites that are currently visible from residential areas or active should not be expanded.
- The impact on viewscape should be more of a consideration when reviewing new applications and monitoring ongoing operations.

Impacts on roads, bridges and safety along haul routes:

- Quarry operators should be required to contribute to road maintenance costs.
- Concerns with truck traffic and lack of monitoring of traffic resulting from quarry operations.
- Pedestrians, including school age children, are at risk from fast-moving trucks.
- Public roads should not be used for quarries if the material is for export markets.
- When materials are being used outside the town or province, municipalities should receive some funding to address impacts to infrastructure.

Approval of quarries on private land:

- Numerous participants referenced quarries operating on privately owned land under the disguise of site development.
- The quarry permit application process should be more thorough to ensure there is no overlap with privately owned land.

Dumping of garbage in quarries and use of quarries by campers and ATVs.

- Refuse materials (garbage, old equipment, scrap metal, animal carcasses, etc.) and indiscriminate dumping in quarries is a major concern.
- Most participants agreed that restricting the access to a site greatly limits indiscriminate dumping by local residents.
- There are concerns with refuse materials such as construction debris and dredged materials being buried in quarries and participants called for more authority to complete test pits in instances where buried materials are suspected.

Safety concerns with excavation faces and proximity to other land uses:

- Adequate buffers and signage is required when quarries are located near walking trails or other land uses to ensure safety of the public.

Rehabilitation of quarry sites:

- There are concerns with the condition quarries are left in upon termination of operations for the season.
 - Sites are left with old equipment or refuse materials on site.
 - Excavation faces are left in an unsafe condition (e.g., sloping not conducting).
 - Access to the site should be ditched or barricaded to ensure no unauthorized access.
- Government must conduct inspections of work completed under a QMEL exploration approval to ensure work is conducted in a way that is environmentally responsible and that exploration sites are properly rehabilitated.

Other

- The potential impact of quarry activity on heritage resources was identified as a concern. It was recommended that all quarry applicants conduct a phase 1 archaeological assessment and submit the results as part of the quarry permit application.

- Operational concerns:
 - There is a need to have a laydown area within a quarry site. Quarry operators must be permitted to store quarry-related materials and supplies (e.g., culverts, pipe, etc.) temporarily on site.
 - Quarry operators must respect their permit boundaries and keep all excavation, stockpiles and equipment within the permit boundary.
 - Quarries are held as a cheaper and easier way to access Crown Land for storage of equipment.
 - Government should have the authority to investigate and lay charges when quarry materials are reported stolen from an authorized quarry.
- There are concerns with quarry sites that were approved in the past but might not meet current regulations or requirements - e.g., site that have been “grandfathered in”.
- Municipalities and the general public cited numerous occasions where quarries are being operated within a municipality or an unincorporated area as “site development”.
 - Quarrying is sometimes disguised as development within municipalities and, more commonly, unincorporated areas such as Local Service Districts.
 - At what level (e.g., period of time, volume of material extracted, etc.) should excavation related to development be considered a quarry?
 - Allow the Department of Industry, Energy and Technology to review site development applications submitted to municipal councils to make the determination as to whether an excavation is site development or a quarry.
 - Develop a policy to determine whether excavation is a quarry or site development.
- The Department heard that in many instances, the requirements to maintain a site in compliance with the Act is not clearly understood by operators, municipalities or the general public and that more education is required to address this knowledge gap.
 - Conduct “New Operator Orientation” training.
 - Identify commonly encountered issues and implement training materials or courses to address these issues.
 - Provide education and training materials on how to properly manage surplus rock and waste materials.
 - Provide education and training materials on different types of aggregate materials and their appropriate end uses.
 - Develop an education document to accompany the inspection report to help operators gain a better understanding of the work required to bring a site into compliance.

Rehabilitation

- Revise the legislation to allow for reclamation requirements, financial securities/deposits to be imposed on quarries.
- Direct retroactive ability to impose reclamation requirements and financial securities or deposits for quarries that were first licenced prior to any requirements for reclamation and rehabilitation. Such conditions could be applied upon renewal or transfer of a quarry permit/lease.
- Ensure the application requirements include reclamation/rehabilitation plans to demonstrate how the site will be reclaimed.
- Require bonding or financial assurance to ensure funds are available to conduct the rehabilitation work should a company or individual fail to do so.
- Implement more comprehensive rehabilitation requirements that not only include re-sloping and re-contouring of the site, but also the requirement to replant and re-seed the area.
- Introduce more impactful and punitive actions for non-compliance with rehabilitation requirements.
- Introduce an incentive program to encourage the company/operator to conduct rehabilitation work.
- Conduct more frequent and thorough compliance monitoring, including follow-up inspections upon termination of activities at a site.
- Improve communication with other stakeholders including municipalities, local residents and environmental groups.
- The rehabilitation standards need to be clearly outlined and must consider the natural landscape and/or the subsequent use of the site.
- The Department heard that clarification is required for instances when a quarry is not exhausted, but is no longer needed by the permit holder. Participants felt that companies should not be responsible for rehabilitating a site if there is potential for another operator to take it over.
- Final rehabilitation slope requirements were identified by a variety of participants as being unreasonable (excessively flat).
- If an operator is in good standing and has been conducting rehabilitation work, they could be issued more quarries with less of a financial assurance deposit (i.e. risk-based approach).
- Government should not approve new quarry applications if a company has failed to conduct necessary rehabilitation work on another quarry.
- There should be discretion in assessing a quarry site for compliance and rehabilitation. In instances where there are small quarries that are not highly visible to the public, there should be discretion to allow the sites to not be rehabilitated.
- There are concerns that the costs and work associated with re-applying for a quarry permit annually are so minimal that operators would prefer to re-apply annually than to conduct any rehabilitation work.
- Create a trust for the purpose of funding rehabilitation work at abandoned quarry sites. Participants recommended funding the trust by allocating a portion of the royalties derived from active quarry sites or by raising the fees associated with obtaining a quarry (i.e., rehabilitation surcharge).

Progressive Rehabilitation

- The Department heard that “progressive rehabilitation” is not a broadly understood term and that guidelines and education documents are required to address this knowledge gap.
- Participants feel that progressive rehabilitation does not happen enough, but it is key in minimizing both the public’s negative opinion and the risk associated with quarry development.
- By conducting progressive rehabilitation, the operator can demonstrate proper site development and planning to government and municipalities.
- Progressive rehabilitation is not possible in some quarry sites due to the way in which the quarry site is being developed, the small size of the quarry and/or the location of different materials within that quarry site. Participants recommended that in these instances, operators provide a site plan showing their intentions for different areas of the site.

Abandoned Quarry Sites

- Participants referenced to the province’s Orphaned and Abandoned Mine site program and recommended the province implement a similar program for abandoned quarry sites.
- Many town council representatives advised that the lack of rehabilitation of quarry sites is the reason why they are hesitant to authorize additional quarry sites located within their planning authority.
- Determine alternate uses for abandoned quarry sites by working with other government departments and agencies (e.g., Department of Transportation & Infrastructure).
- The Department heard the following concerns relating to abandoned quarry sites:
 - Impact on storm water and overland flow and related environmental impacts.
 - Safety concerns including potential for fall from heights due to unsafe benches and standing water/water ponding.
 - Indiscriminate dumping and occupation (e.g., campers, ATV’s) of quarries that typically occurs once a site has been abandoned.
 - Impact on biodiversity when there is no attempt to re-establish the vegetation.
 - Negative impact on viewscape and the tourism industry.
 - Abandoned quarries should be remediated if visible when entering the town.

Information Sharing

Website

- Organize the website to make it easier to find quarry-related information.
- The legislation, policies, terms and conditions of a quarry permit/lease need to be made more easily accessible to the public.
- Improved digital mapping showing the location of quarry sites within a municipality.

- Update online portal to reflect actual applications and make it easier to see the current status of QMELs.

Information related to quarry operations

- Environmental incidents and major compliance issues should be made available to the public.
- Production volumes, environmental assessments, and water quality monitoring reports should be available online.
- Compile an online database to show a company's history of compliance, sites rehabilitated, environmental concerns, charges, etc.
- Require all operators to post copies of their quarry authorizations at the site.
- Send out quarterly reports to all municipalities outlining the status of the quarries within the municipality.
- The majority of participants requested making inspection reports available to the public, similar to restaurant inspections completed by Service NL. Some participants were in support of making this information available to appropriate municipalities, but were not in support of sharing this with the general public.
- Publically provide details on proposed and/or planned blasting operations.

Quarry Applications

- Changes are required to improve the availability of reference information for quarry applications (e.g., Crown Lands data, municipal zoning regulations, etc.) to ensure applicants have all the necessary information on different land use issues to allow for an informed decision when applying for a quarry. Recommendations included showing quarry data on the Land Use Atlas, or combining relevant Land Use Atlas data with the Department of Industry, Energy and Technology data.
- Quarry permit applications and the results of government assessments and the decision-making process should be publicly available.
- The public should have an increased opportunity for comment during the quarry permit application process.
- Post copies of all authorizations online.

Complaints related to quarry operations

- Implement an improved method for the public to report quarry-related concerns.
- Feedback was mixed on implementing anonymous online quarry-infracton reporting system. Some participants recommended this type of complaints system, while others were concerned it would result in a significant number of unfounded complaints.

Appeal Mechanism

- Implement a process that allows the public to appeal any decision made in relation to a quarry.
- Implement a process that allows for a local, unbiased expert appeal board (e.g., the regional appeals board); some recommended a review committee or panel set by government. Participants were in favour of implementing a process that would minimize or eliminate the need to take issues to court.
- Government should have a mediator role when issues arise between contractors so decisions align with what is in the best interest of the province.
- Maintain the current court appeal process, but implement more substantial fines and repercussions for non-compliance, especially in relation to environmental issues.
- In instances where the issue or quarry is within a municipal boundary, direct the issue to the municipality for consideration and decision.

Additional Input

- The legislation needs to be more clearly defined in regards to overlaps with quarry material tenure (e.g., QMELs, quarry leases, etc.) and mineral rights tenure (e.g., mineral claim/licence) to ensure conflicts between the two are mitigated and improve investor confidence.
- Success of the private sector depends on the ability of government departments and agencies to cooperate.
- There were numerous comments on the legislation as a whole:
 - Do not make any changes to the legislation.
 - The legislation should be consistent for the entire province and across the industry.
 - There is a significant difference in quarry operations and issues in the northeast Avalon and the rest of the province, and the legislation should account for these regional differences.
 - The legislation cannot be cut and dry; it needs to be broad with individual flexibility on a case by case basis.
 - The legislation should be in simple and plain language.
 - Consolidate all the legislation that relates to quarries into a single piece of legislation.
 - There was concern that changes to the legislation will result in increased enforcement costs to government.
 - Draft revised legislation should be reviewed by industry before implementation.
- Of those polled (via the online questionnaire), the majority were in agreement that the most important factor to be considered part of the administration of the Act is the ability to advise on planning matters related to quarry materials. The Department heard that gaining a better understanding of the volumes of materials that are needed in a given area and an assessment on how many quarries are actually needed in an area is important.
 - A close second was the ability to initiate studies on environmental and social matters related to quarry materials and the industry. Examples cited identifying environmentally sensitive areas such as protected wetlands where quarrying should not be permitted.

- Include a requirement in the legislation to require all quarry permit holders operating within a municipality to ensure any work being done for a resident/company/property owner within the town has the required development permits in place prior to conducting work, specifically backfilling.
- There are concerns with municipalities charging property taxes based on the Municipal Assessment Agency assessment of a quarry on Crown Land.
- Government should prioritize educating the public and municipalities on matters related to quarry materials, quarry operations and the industry in general.
- The Department heard there is a need to provide education materials to municipalities for staff training:
 - to ensure those who are reviewing and approving quarry applications within the municipality are knowledgeable.
 - to provide examples of the types of conditions or agreements that can be included as a condition of approval.
 - to allow council staff to better determine whether a quarry site is being operated in compliance.
 - to teach staff how to manage town-held quarries.
- The Department heard that the importance of quarries are not clearly understood by the general public, and to address this, government should develop various education materials to:
 - educate the public on the economic benefits of having a source of quarry materials close to a municipality.
 - educate the various types of materials required for different projects and where they might be found.
- When revised legislation is finalized, provide training to all stakeholders on the changes.
- Implement a community of practice for quarry-related matters.