

ISSUE DATE:

**Nov. 12, 2010**



PL000643  
PL060448

Ontario  
Ontario Municipal Board  
Commission des affaires municipales de l'Ontario

James Dick Construction Limited has appealed to the Ontario Municipal Board under subsection 22(7) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended, from Council's refusal or neglect to enact a proposed amendment to the Official Plan for the Town of Caledon to redesignate lands in part of Lots 1, 2 and 3, Concession 6, W.H.S., from Rural Area to Extractive Industrial to permit the establishment of a commercial quarry

O.M.B. File No. O000191

O.M.B. Case No. PL000643

James Dick Construction Limited has appealed to the Ontario Municipal Board under subsection 34(11) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended, from Council's refusal or neglect to enact a proposed amendment to Zoning By-law 87-250 of the Town of Caledon to rezone lands in part of Lots 1, 2 and 3, Concession 6, W.H.S., from "A-2" - Rural to "MX" - Extractive Industrial to permit the establishment of a commercial quarry

O.M.B. File No. Z000138

O.M.B. Case No. PL000643

At the request of James Dick Construction Limited, the Minister of Natural Resources has referred to the Ontario Municipal Board under subsection 11(5) of the *Aggregate Resources Act*, R.S.O. 1990, c. A.8. as amended, an application for new Category 2 license (quarry below water table) for the removal of aggregate from lands in part of Lots 1, 2 and 3, Concession 6, W.H.S., Town of Caledon

O.M.B. File No. M000054

O.M.B. Case No. PL000643

James Dick Construction Limited has appealed to the Ontario Municipal Board under subsection 34(19) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended, against Zoning By-law 2006-50 of the Town of Caledon

O.M.B. File No. R060104

O.M.B. Case No. PL060448

**APPEARANCES:**

**Parties**

James Dick Construction Limited

Town of Caledon

Region of Peel

**Counsel**

C. Tzekas, J. Buhlman,  
J. Cowan, J. Richards

C. Barnett, L. Bisset

S. Garrod

Coalition of Concerned Citizens

R. Webb

Credit Valley Conservation Authority

P. DeMelo

**DECISION DELIVERED BY SUSAN B. CAMPBELL AND ORDER OF THE BOARD**

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**The Applications:**

James Dick Construction Limited (“JDCL”) owns an 89 hectare parcel of land located at the intersection of Winston Churchill Blvd. and Olde Baseline Rd. in the Town of Caledon (the “subject property”). The subject property is currently designated “Rural Area” in the Town of Caledon (the “Town”) Official Plan (the “OP”) and zoned “A-2 Rural”. JDCL has sought an Official Plan Amendment (“OPA”) from the Town to redesignate the subject property to “Extractive Industrial”. Further it has sought the Town’s approval for amendments to the zoning by-laws to rezone the subject property “MX-Extractive Industrial”. This redesignation and rezoning would permit the establishment of a commercial aggregate quarry to be known as the Rockfort Quarry. The Town denied the Applications and JDCL now appeals to this Board.

JDCL also made an application pursuant to the *Aggregate Resources Act* (the “ARA”) for a Category 2 license (quarry below the water table) for permission to remove aggregate from the subject property. This Application was referred to the Board by the Minister of Natural Resources (the “Minister”). The Board therefore has before it a license application for the subject property based on Site Plans filed as Exhibit # 2, as modified by Exhibits # 136 and 137.

Finally, when Official Plan Amendment # 161 (“OPA 161”) was considered by the Board in 2004 the designation of the subject property as an “Aggregate Resource Area” verses an “Aggregate Reserve Area” was deferred. That matter must now be resolved by the Board.

### **The Quarry Proposal – Overview:**

The subject property consists of 89ha located in a rural area, surrounded by agricultural uses, rural residential uses and environmentally sensitive features. It is located in the Credit River watershed, immediately to the north of the Niagara Escarpment. The proposed quarry operation would involve 58ha of the property. This area includes active quarrying, setbacks and buffering.

The subject property is geologically located in the Amabel Formation, which consists of dolostone rock. This formation is the principle source of bedrock derived aggregate used in the Greater Toronto Area. It is estimated that the aggregate resource from the subject property would be approximately 39 million tonnes.

The proposed quarry operation would be phased. Phase 1 would involve extraction using “wet” mining techniques which would result in the creation of a water filled reservoir. The remaining Phases 2 through 5 would involve extraction in a dewatered state, or “dry” extraction. Phase 2 involves extraction in the Plant Area, near the centre of the site; Phase 3, extraction in the south west portion of the site; Phase 4, extraction in the northern portion of the site; and Phase 5, extraction in the bottom of the plant area and in the south east corner of the site. Following extraction would be a rehabilitation period during which two lakes would be developed.

The maximum amount of aggregate which could be removed pursuant to a license would be 2.5 million tonnes, with an average annual extraction of 1.8 million tonnes. Phases 1, 2 and 5 would see slower rates of extraction. It is estimated by JDCL that the life of the quarry would be approximately 30 years. The duration of Phase 1 would be three years; Phase 2 three years; Phase 4 four years; Phase 4 ten years and Phase 5 ten years.

The rehabilitation of the quarry would involve the flooding of two extraction cells to create two lakes with the development of associated habitat features like shorelines, cliffs and wetlands. It is estimated by JDCL that it would take approximately 50 years to fill the lakes.

The period of extraction and rehabilitation is therefore estimated to be 80 years.

This overview of the quarry proposal is derived from Exhibit # 33, "Preliminary Design Report – Rockfort Quarry", October 2000. A more detailed review of the quarry proposal will be undertaken below in the context of issues arising from the Applications.

### **The Regulatory/Policy Regime – Obligation/Onus/Burden of Proof:**

The applicable provision of the *Planning Act* (the "Act"), the ARA, the Provincial Policy Statement, 1997 (the "PPS"), the OP and the Region of Peel Official Plan (the "ROP") will be considered in some detail below as the Board determines various issues before it. However the Board must note, as a preliminary matter, the obligation, onus or burden of proof which is established by certain of these documents.

The PPS is relevant to this matter; more specifically Policy 2.3, Natural Heritage. It was agreed by all parties that "natural heritage features and areas" as defined by the PPS are located on lands in the vicinity of the subject property such that the subject property is "adjacent lands" for the purposes of the PPS. Further, the development of an aggregate extraction operation constitutes, all agree, a "development" and/or a "site alteration" for the purposes of the PPS.

Policy 2.3 provides "development and site alteration may be permitted on adjacent land to (natural heritage features and areas) if it has been demonstrated that there will be no negative impacts on the natural features or on the ecological functions for which the area is identified" (emphasis added). The Board finds that this means that a proponent of development has the onus of demonstrating no negative impact. Objectors to a development need not demonstrate that there will be negative impact.

Obligation, onus or burden is also addressed in the OP, Policy 5.11.2.4.2. This policy sets out the criteria for the approval by the Town of an OPA to allow for the development of a new aggregate extraction operation. Of particular relevance to the issue of onus or burden are subsections (b), (c), (d), (e), (f), (g), (i), (j) and (k).

Subsection (b) provides that an applicant must complete a Traffic impact Study "which satisfactorily demonstrates that any additional traffic and road improvements will not have unacceptable impacts on the safe and efficient use of the road network and that impacts on adjacent land uses...will be satisfactorily mitigated" (emphasis added).

Subsection (c) provides that an applicant must assess social impacts and have “demonstrated that the proposal will not have any unacceptable impacts”. (emphasis added).

Subsection (d) provides that an applicant must have “completed all environmental investigations and studies as required by this Plan and by all approval agencies and demonstrated that the proposal will not have any unacceptable impacts” (emphasis added).

Subsection (e) provides that an applicant must complete a Visual Impact Report and have demonstrated that the proposal will not have any unacceptable impacts” (emphasis added).

Subsection (f) provides that an applicant must complete a Cultural Heritage Survey and have “demonstrated that there will not be any unacceptable impacts” (emphasis added).

Subsection (g) provides that an applicant which proposes to extract aggregate from below the water table must complete a Water Resources Study and “have demonstrated water resources will be protected, maintained, and where applicable, enhanced, and there will be no unacceptable impacts” (emphasis added).

Subsection (i) provides that an applicant must have “demonstrated that noise and vibration impacts will be mitigated to acceptable levels” (emphasis added).

Subsection (j) provides that an applicant must have “demonstrated that the impacts from dust and other air pollutants will be mitigated to acceptable levels” (emphasis added).

Finally, subsection (k) provides that an applicant must have “prepared a land use planning analysis and (have) demonstrated that the proposal will not result in any unacceptable land use conflict” (emphasis added).

The Board finds that the language of the OP makes it clear that the onus or burden of proof is born by the proponent of an aggregate extraction operation to demonstrate to the satisfaction of Town Council, or to the satisfaction of this Board that there will be no negative impact in a number of pivotal areas. Objectors to the proposed development need not demonstrate that there will be a negative impact. However, evidence adduced by objectors will go to whether the Board finds that an applicant has met the requirements of the OP. The Board also notes that the language of the OP is such that if an applicant fails to meet the requirements of any one of the above cited subsections of policy 5.11.2.4.2 the application must fail.

With respect to the ARA application, section 12(1) of the ARA sets out the matters to be considered by the Minister or this Board in determining whether a license should be issued or refused. The Board “must have regard to”:

- (a) the effect of the operation of the pit or quarry on the environment;
- (b) the effect of the operation of the pit or quarry on nearby communities;
- (c) any comments provided by a municipality in which the site is located;
- (d) the suitability of the progressive rehabilitation and final rehabilitation plans for the site;
- (e) any possible effects on ground water and surface water resources;
- (f) any possible effects of the operation of the pit or quarry on agricultural resources;
- (g) any planning and land use considerations;
- (h) the main haulage routes and proposed truck traffic to and from the site;
- (i) the quality and quantity of the aggregate on the site;
- (j) the applicant’s history of compliance with this Act and the regulations...and
- (k) such other matters as are appropriate.

No onus or burden is established by the language of the ARA. However, the Board must note that if a proponent has not satisfied the Board for the purposes of its *Planning Act* applications it would be unlikely that the Board, in having regard to the matters set out in section 12(1), would determine that a license should issue. In fact section 12(1) (k), “such other matters as are considered appropriate” may be taken to include a determination of whether the underlying land use applications have been granted.

### **Aggregate Extraction in the Province, the Region and the Town:**

During the course of this hearing, particularly on the evening when public comment was received, it was suggested to the Board that JDCL was engaged in a nefarious activity in seeking to extract aggregate from the subject property. It was suggested that such an attempt should be condemned and that JDCL should be held up to public opprobrium for even proposing extraction. The Board was particularly struck by the presentation of Rick Smith, the Executive Director, Environmental Defence (exhibit # 250). Mr. Smith described this organization as a “national charity that works to protect the environment and human health”. He said the organization has “been very active in Ontario pushing for better land use planning...” On the “local level” the organization has “worked to support the efforts of groups who are undertaking what our Board of Directors deems to be precedent – setting, nationally significant environmental litigation, in the public interest”. It therefore strikes the Board that it behooves such an organization and its spokesperson to have some knowledge of the applicable policy regime when it is attacking a proponent of development.

Mr. Smith said in his presentation that the Town has undertaken “a wide-ranging public exercise to site aggregate quarries within its boundaries”. He went on to say that “the desire of the James Dick Group of Companies to totally ignore this process and site their quarry outside the aggregate area is a slap in the face to the Caledon community”. After hearing this comment the Board asked Mr. Smith whether he knew what Regional “High Potential Mineral Resource Areas” (“HPMARA”) and Town “Caledon High Potential Mineral Aggregate Resource Areas” (“CHMARA”) are. He replied that he did not. This is significant as the subject property has been identified by the Region as a HPMARA and by the Town as a CHMARA in their official plans. It is therefore incorrect

for Mr. Smith, on behalf of a “national charity” to suggest that JDCL has ignored some “process” in seeking to establish its quarry outside an aggregate area.

Ill-informed rhetoric like that of Mr. Smith, contributes nothing to this Board’s consideration of the Applications. Mr. Smith’s contention that “if James Dick wins, the message is going to go out loud and clear across Ontario and Canada: Quarries Can Be Put Anywhere. And no environmental or human health considerations matter in this equation” is particularly ill-considered and offensive to this Board and to JDCL. Regardless of how this Board determines the fate of JDCL’s applications, no one, with even a modicum of knowledge of the extensive history of the Town’s aggregate resource policies and the JDCL applications can, in good faith, say that JDCL has totally ignored the process and attempted to site its quarry outside an aggregate area.

The PPS, the ROP, and the OP recognize the significance of aggregate resources to the economic well-being of this Province, Region and Town. The Board will review, in some detail, the applicable provisions of these policy documents

The PPS:

In Part IV, Implementation/Interpretation, the PPS provides that the “Provincial Policy Statement is to be read in its entirety, and all pertinent policies are to be applied to each situation”... The Board finds that this means that all policies must be considered and weighed when land use decisions are made; no policy is to be given priority over any other policy.

Part I, Preamble and Part II, Principles set out matters of significance to the Province. The Preamble states “a healthy economy is vital to Ontario’s ongoing prosperity. Wisely managed growth can result in communities which are economically and environmentally sound and which meet the full range of needs of their current and future residents”.

The Principles provide “Ontario’s long term economic prosperity, environmental health and social well being depend on:

1. managing change and promoting efficient, cost effective development and land use patterns which stimulate economic growth and protect the environment and public health;
2. protecting resources for their economic and/or environmental benefits; and
3. reducing the potential for public cost or risk to Ontario's residents by directing development away from areas where there is a risk to public health or safety or of property damage."

It is in the context of this Preamble and Principles that the PPS addresses Mineral Resources. Policy 2.2.1 provides "mineral resources (mineral aggregates, minerals and petroleum resources) will be protected for long term use".

Policy 2.2.3 deals particularly with Mineral Aggregates. Policy 2.2.3.1 provides "as much of the mineral aggregate resources as is realistically possible will be made available to supply mineral resource needs as close to the market as possible". Policy 2.2.3.2 provides "mineral aggregate operations will be protected from activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact". Policy 2.2.3.3 provides "in areas adjacent to or in known deposits of mineral aggregates, development which would preclude or hinder the establishment of new operations or access to the resources will only be permitted if: (a) resource use would not be feasible; or (b) the proposed land uses or development serves a greater long term public interest; and (c) issues of public health, public safety, and environmental impact are addressed".

The Board finds that the PPS, rather than regarding aggregate extraction as something to be discouraged, acknowledges the importance of such extraction. In particular, the PPS directs that mineral resources be protected for long term use and that as much of the resource as is realistically possible be made available to supply needs as close to the market as possible.

As no provincial policy takes priority over any other policy, the Mineral Aggregate policies must be considered in conjunction with all other relevant provincial policies: Policy 1, Efficient, Cost Effective Development and land use patterns, including Policy 1.1.1(b) which provides "rural areas will generally be a focus of resource activity; Policy 2.3, Natural Heritage; Policy 2.4 Water Quality and Policy 2.5, Cultural Heritage. All

provincial policies must be weighed and balanced by the Board. The policies will be considered fully below as the Board deals with specific issues in this matter.

The ROP:

The ROP addresses Mineral Aggregate Resources in section 3.3. Again, Mineral Aggregate Resources are to be considered in a context which includes Chapter 2, Natural Environment; Chapter 3, Resources (Agricultural, Mineral Aggregate, Water, Recreation and Cultural heritage) and Chapter 5.6, Transportation System in Peel.

The ROP states that it “is a public document which provides regional Council with a long term policy framework for decision making. It sets the regional context for more detailed planning by protecting the environment, managing resources, and directing growth”. In Chapter 1.1, Purpose of the Plan, there is recognition that growth and development in the Region must have regard for protecting the environment, and managing renewable and non-renewable resources.

Chapter 3, Resources “addresses those components of the natural environment which are actively utilized in Peel, such as agricultural lands, mineral aggregate resources and water resources”. The ROP speaks to “balance”, saying “there must be a balance between the use and protection of resources, and the preservation of Peel’s natural and cultural environment, while allowing for growth”... The goal of the Resource chapter is set out: “to have the renewable and non-renewable resources of Peel protected, managed and utilized in an efficient manner that conserves and protects environmental features and functions, and the character of rural Peel including its social, heritage, cultural, community and economic aspects”.

Section 3.3, Mineral Aggregate Resources is extensive. It builds on the PPS, sets out the regional interest in the protection of mineral aggregate resources and directs area municipalities like the Town “to include in their official plans comprehensive mineral aggregate resource policies” (section 3.3.2.1.1).

The ROP notes that “the Region’s responsibilities are to identify appropriate mineral aggregate resource areas for protection, consistent with other objectives and policies in the Regional Plan; to establish policies, at the Regional level, to protect those

resources for possible use; to direct the area municipalities to develop comprehensive mineral aggregate policies in their official plans; including policies to allow the resource to be made available for use; and to ensure that Regional interests are incorporated in area municipal planning design”.

A particularly noteworthy element of the ROP’s mineral aggregate resources policies is the identification of the High Potential Mineral Aggregate Resource Areas (“HPMARA”) as set out in Schedule B to the ROP. HPMARA “include the primary and secondary sand and gravel resource areas and bedrock resources in the Region” that are not otherwise constrained by designations such as Greenlands System, Escarpment Protection Areas or settlement areas. The ROP recognizes that not all lands located in HPMARA are appropriate for extraction because of “local environmental, cultural, social and other planning considerations”.

The ROP directs the Town to prepare a Caledon Community Resource Study (“CCRS”) “to address the future of mineral aggregate resources in the region”. Such a study was completed and will be considered further below.

The ROP contains specific objectives and policies with respect to mineral aggregate resources. Policy 3.3.1.1 provides for the identification of HPMARA “to protect them for possible use and to establish policies that allow as much of the resource as is realistically possible to be made available to supply resource needs, in a manner consistent with this Plan, the Niagara Escarpment Plan (the “NEP”), where applicable, and the area municipal Official Plans”. The Board notes that the ROP echoes the words of the PPS.

Policy 3.3.1.2 recognizes that the aggregate resource industry is an important component of the Region’s economic base. However the policy speaks to the need for balance in considering the use of the Region’s mineral aggregate resources: “to achieve a balance between the demand for, and economic benefits of resource extraction activity and the protection of Peel’s communities, natural environment, cultural heritage and other resources”.

Policy 3.3.2.2 requires that HPMARA are to be reflected in area municipal plans with “local refinements” so long as such refinements reflect the intent of the ROP.

Finally, Policy 3.3.2.11 directs area municipalities to include in their official plans “comprehensive mineral aggregate resource policies”, including, inter alia, “(c) policies with criteria to establish a clear and reasonable mechanism to permit official plan amendments to designate new or expanded mineral resource extraction sites to make the resource available for use” and “(d) policies requiring applicants for designation for the establishment or expansion of aggregate extraction sites to undertake appropriate studies necessary to address the requirements contained in this plan having regard to provincial standards and guidelines”.

The ROP, like the PPS, must be read in its entirety and a balancing exercise must be undertaken by the Board. As Simone Banz, qualified by the Board to provide expert land use planning on behalf of the Region so eloquently put it: “the ROP contains objectives and policies that recognize the importance of the aggregate industry to the economy of Peel Region and the importance of achieving a balance between these potential economic benefits and the protection of communities, the natural environment, and cultural and other resources that may be adversely affected by the extraction operations. The public interest lies in striking this balance appropriately in this case” (emphasis added) (Exhibit # 51, TAB 1, paragraph 10)

Having regard to Schedule B and Figure 2 of the ROP (Exhibit # 52) the Board finds that the subject property is without question in an HPMARA, and therefore the ROP policies with respect to HPMARA apply to these applications. The balancing task as mandated by the ROP must be completed by the Board. Policies which require the protection of the Region’s natural environment, water resources and cultural heritage will be considered below.

The OP:

Finally, the Town’s OP follows the direction found in the ROP “to develop comprehensive mineral aggregate policies”. The Town, in conjunction with the Region, completed the CCRS (1996 – 1999) (Exhibit # 41) which played the role allocated by the Region: it recommended new policy directions that resulted in amendment to the OP. OPA 161 was then adopted by the Town. It was appealed by parties with disparate interests, including aggregate producers like JDCL, the Province of Ontario and the Coalition of Concerned Citizens (the “CCC”), proving that you can please none

of the people none of the time. After lengthy settlement discussions, over a number of years, a revised OPA 161 was approved by the Town and by the Board in 2004. The Board also ruled that despite the fact that JDCL had filed its Applications prior to the adoption of OPA 161, the amendment would apply to the Applications.

OPA 161 is now incorporated into the OP as Policy 5.11, Mineral Resources, a 29 page policy. In his closing argument Counsel for JDCL described the OP as containing “a maze of complex policies relating to the extraction of aggregate”. The Board accepts this characterization of Policy 5.11 and finds that such complexity is required to give Town Council and the Board direction for the balancing exercise which must be undertaken when aggregate applications are considered. The detailed policy should also give all parties, including a proponent, some certainty about what is expected of a proponent and the Town. The policy cannot be a moving target, especially when one considers the lengthy appeal and settlement process which underpins OPA 161. For example the Town should not request studies not envisioned by Policy 5.11, nor impose standards not set out in the policy in the course of considering aggregate applications.

Specific provisions of Policy 5.11 will be reviewed below as the Board addresses the numerous issues raised in this matter. However in the context of reviewing the policy approach to aggregate extraction in the Province, Region and Town, the Board must note certain significant general policies.

In the preamble to Policy 5.11, the Town says that in establishing comprehensive mineral aggregate resource policies, the Town must have regard to provincial policies and take into account local considerations. The OP aggregate resource policies are to “refine the identified Regional HPMARA for protection at a local level and allow mineral aggregate resources to made available for use, where this use can be balanced and integrated with the ecosystem, social and economic goals of the Town of Caledon” (emphasis added). HPMARA “has been further refined at the local level to reflect the Town of Caledon’s local environment, social and other planning consideration ...to deal with applications for extraction within the CHPMARA”. Schedule L to the OP contains a map termed “CHPMARA Prioritization Plan”. The subject property is located in a CHPMARA (Bedrock Resource), Area 9A. The matter of whether the land should be

designated as Resource or Reserve Lands was deferred when OPA 1661 was finally approved and will be considered below by the Board.

The preamble to Policy 5.11 also contains a description of the Town and notes the need for balance in considering resource extraction applications:

“Caledon is characterized by its rolling hills and valleys, rivers, streams, natural landscapes, agricultural lands, rural residential areas, historic hamlets/villages, parks and conservation areas, hiking trails, the Niagara Escarpment and the Bruce Trail. Caledon’s Mineral Aggregate policies are based on the need to balance the protection, use and enjoyment of these human and environmental features with the sometimes competing priorities for the protection of the mineral aggregate resource for future extraction. The wise management of Caledon’s aggregate resources is critical to preserving Caledon’s unique identity and character” (emphasis added).

The Board finds that this portion of Policy 5.11. effectively articulates the task before it. The Town is blessed with resources, both environmental and social. The Board must consider each unique resource and how it is to be protected in the best interests of residents of the Town, the Region and the Province. The public interest in this case demands that the Board complete a thorough and well-reasoned balancing exercise.

Policy 5.11.1.1, an aggregate management objective, provides Town Council and the Board with some direction on how this balancing is to be accomplished: “to ensure that the extraction of aggregate resources is undertaken in a balanced manner which adheres to the Ecosystem and Planning objectives contained in section 3.1 of the Plan and which will recognize Caledon’s community character and social values over the short and long term”.

**Need:**

Having reviewed the evidence and the submission of Counsel, the Board finds that there is no requirement that JDCL prove that there is a need for the aggregate resource found on the subject property. The language of the policy documents speaking to making as much of the mineral aggregate as realistically possible, as close

to the market as possible, implies a Provincial, Regional and Town recognition of the need for the resource. However that does not make the issue of need irrelevant to these proceedings. James Parkin, qualified by the Board to provide expert land use planning evidence on behalf of JDCL opined that need is a relevant planning consideration, as it goes to balance. The Board finds that this is the case. It cannot engage properly in the mandated balancing exercise without understanding whether there is a need for the aggregate resource. If there were no demonstrable need for the resource in this Province the Board would be unlikely to countenance the changes and impact that a stone quarry would have on the Town and the Region.

Patricia Arsenault was qualified by the Board as an economist with substantial experience in aggregate issues. She testified on behalf of JDCL. Ms Arsenault's Witness Statement and Report are contained in Exhibit # 14. She was asked by JDCL to complete an assessment of the market for crushed stone in the Greater Toronto Area West (the "GTA West") and potential resources to address any shortages. She completed a report entitled "The Market for Crushed Stone in the GTA West, July 2008". Her conclusions are summarized in section 5.1 of the Witness Statement:

1. The local supply situation in the GTA West with respect to crushed stone can be characterized as critical. Due to shortages of locally available supply, the GTA West has become increasingly reliant on imports of crushed stone from other areas to fill its crushed stone needs.
2. Demand for crushed stone in the GTA West is expected to stay strong over the next 20 years, but licensed reserves in the GTA West are insufficient to meet demand over this time frame.
3. As existing reserves become depleted, consumers would be well served if new sources of supply are close to the markets in which they will be consumed...The northern area of Peel (where the Region's population growth will be focused) and the western area of York Region could be well served (in terms of transportation costs) by new operations located in Caledon.
4. Approval of the Rockfort Quarry application would:
  - (a) help alleviate shortages of crushed stone in the GTA West;

- (b) provide a source of supply that is close to some of the key markets in the GTA West...;
- (c) increase the number of suppliers; and
- (d) result in Peel making a contribution towards the supply of crushed stone in the GTA West over the next 20 years – including supply required for its own needs.

Ms Arsenault's evidence was reinforced by the evidence of Brian Hollingsworth, Policy Officer, Program and Resources Planning, Aggregate and Petroleum Resources Section, Lands and Waters Branch, Ministry of Natural Resources ("MNR"). His evidence is contained in Exhibit # 9. He noted "the PPS establishes, and numerous studies such as the State of the Resource Study, have confirmed that new aggregate resource operations will always be needed to meet the ongoing provincial demand for this non-renewable resource throughout the entire province".

The Board finds that the objectors to the Applications adduced no evidence to dispute JDCL's evidence that there is a need in the Province and the Region for the aggregate resources which could be extracted from the subject property. In fact, the Counsel for the Region sought to convince the Board that need was not a relevant consideration in this matter. Therefore the Board accepts the conclusions of Ms Arsenault and finds that there is a need in the Province and the Region for the aggregate resources which could be extracted from the subject property.

**Aggregate Quality and Quantity:**

The issue of the quality and quantity of the aggregate on the subject property must be considered by this Board as section 12(1)(i) of the ARA provides that the Board must have regard to this issue in considering whether a licence should be issued. Further, Policy 5.11.2.4.4 of the OP provides that the Town will consider an OPA to redesignate land for a new extraction operation, inter alia, "provided the impacts are acceptable and taking into account the significance of the aggregate resource..." (emphasis added).

Michael MacKay, a geotechnical engineer with experience in road design and construction, was qualified by the Board to provide evidence on the quality and quantity of the aggregate resource which could be extracted from the subject property. His evidence is contained in his Witness Statement, Exhibit # 10. Mr. MacKay supported Ms Arsenault's evidence on need, opining that "the demand for high quality 100 per cent crushed stone is expected to increase as the direct result of changes in pavement design requirements and construction material specifications that stipulate use of durable, cubical, angular 100 percent crushed stone, particularly for highways, freeways and transportation infrastructure". He went on to testify that "the physical and chemical properties of crushed stone products from the Amabel Formation (in which the subject property is located) meet the high quality requirements of these specifications; crushed stone produced from other formations, and particularly those to the northeast of the GTA, is not of the same high quality".

Mr. MacKay's evidence was not significantly challenged by any party. The Board therefore concludes that in the context of section 12(1)(i) of the ARA that a quarry on the subject property could produce high quality aggregate which is needed in the Province and Region.

With respect to the quantity of the aggregate resource which could be extracted from the subject property, the Board accepts the unchallenged evidence of JDCL's witness that the Amabel deposit on the subject property is deep and widespread. Therefore the Board finds that the quantity of the aggregate resource on the site is such that an extraction operation could provide a significant supply of the high quality of aggregate that is needed.

**Issues:**

Transportation, Traffic and Haul Route:

Policy 5.11.2.4.2(b) of the OP requires that an application for an OPA to redesignate lands identified as "Aggregate Resource Lands" (lands from which extraction is encouraged) be accompanied by a Traffic Impact Study as described in Policy 5.11.2.4.14. Such a report must "satisfactorily demonstrate that any additional traffic and road improvements will not have unacceptable impacts on the safe and

efficient use of the road network and that impacts on adjacent land uses...or any environmentally sensitive features identified by the Traffic Impact Study will be satisfactorily mitigated.

Policy 5.11.2.4.4(c) provides that a “traffic and haul route evaluation be completed that identifies and assesses the economic, social and physical impacts associated with future aggregate traffic...identifies the proposed haul route of least impact and assesses the acceptability of the impacts along the proposed haul route”. In this policy the “Town acknowledges that, in principle, there should be a haul route to each resource area”.

Policy 5.11.2.4.14 sets out the information to be provided in the Traffic Impact study:

- proposed haul routes to potential markets;
- land use activities and the character of the lands along the proposed haul route;
- an evaluation of alternative haul routes and the identification of the haul route of least impact;
- physical characteristics of potential haul routes;
- anticipated increase in traffic generated, including increase in background traffic;
- description of the proposed operation and any resulting trip generation;
- horizon year used to determine future impacts;
- assumptions concerning passenger car equivalents;
- traffic impacts;
- any improvements to the proposed haul route which would be necessary;
- status of the roads in the ROP and OP and whether the proposed haul route conforms to the documents;
- distance from entrance of proposed operation to the nearest haul route.

Policy 5.11.2.5.1, Aggregate Haul Route, provides that “new aggregate operations shall only be located, except as provided for in Policy 5.11.2.5.2, on High Capacity Arterials as identified on Schedule ‘J’ to this Plan...

Roy Pritchard was qualified by the Board to provide expert evidence in the area of transportation and traffic matters, including the provision of haul routes, on behalf of JDCL. Mr. Pritchard prepared a thorough analysis of the issues, contained in the four volumes of Exhibit # 11, the Traffic Impact and Haul Route Evaluation Study Report. Mr. Pritchard's work was peer reviewed by an equally well qualified traffic and transportation expert, Geri Korzorys-Smith, on behalf of the Town and the Region. Her Witness Statement and supporting documents are found in Exhibit # 61.

The Board finds that the work done by Mr. Pritchard meets the requirements for a Traffic Impact Study. He thoroughly reviewed haul route planning and the road network existing in the Town and the Region. He completed detailed estimates of the volume of traffic that would be generated by an operating quarry at Rockfort, over the years. He explained the upgrades which would be needed to existing roads to accommodate an aggregate truck haul route. He identified what was termed Alternative "B" in his report as the preferred haul route and why it should be preferred.

Alternative "B" runs east from the proposed quarry entrance, along Olde Baseline Road, south on Mississauga Road and on King Street to Highway 10.

As Counsel for the Region noted in his closing submissions "by the time of the preparation of (Ms Kozorys-Smith's) witness statement, most of the issues and concerns raised over the years in the various peer review reports had been subsequently addressed to (her) satisfaction with the exception of the issues identified in paragraph 24 of the Witness statement". By the time she testified at the hearing, more of her outstanding concerns were satisfied.

It is fair to say that any outstanding technical transportation and traffic issues could be resolved at a later date through the normal Regional assessment process for the upgrading of roads. The Board had before it as Exhibit # 62 the Environmental Study Report, January 1988, for Regional Road Improvements in the Belfountain Area, Town of Caledon. Olde Baseline Rd. is in the study area of this report. The report detailed the "structural deficiencies" in "old roads" like Olde Baseline Rd. Further, it noted that roads like Olde Baseline Rd. "have a rolling profile, with many steep crests and sags. Many sections of the regional roads in the Study Area do not meet MTO design standards for grades and/or minimum stopping sight distance, resulting in poor

visibility". To deal with these problems the Study includes Preliminary Design Plans and Profiles. This Report was not acted on and if the quarry proposal were to go forward the Board understands that a similar, updated study would be necessary. Such a study would be undertaken at the instance of the Region.

The Board finds that if it accepted that Alternative "B" should be the haul route for an approved quarry, appropriate study and work could be completed by the region and JDCL to bring the roads up to an appropriate standard. However, the Board finds that while all technical design issues could be satisfactorily addressed if the Region agreed to the necessity for road upgrades, the OP requires more to be determined by the Board.

As noted above, Policy 5.11.2.4.14 requires that a proponent demonstrate through its traffic Impact Study that additional traffic and road improvements on adjacent land uses "will be satisfactorily mitigated". Further, Policy 5.11.2.4.4(c) requires the assessment of the acceptability of economic, social and physical impacts along the proposed haul route. For the Board to accept the haul route as proposed, the Board must be able to find, based on the evidence that impacts are acceptable.

To understand impacts and their "acceptability" the Board must understand the character of the land and land uses along the proposed haul route. The Board finds that the character of Olde Baseline Rd. from the proposed quarry site to Mississauga Rd. is most relevant to a determination of impact acceptability or successful mitigation of impact.

The Board heard descriptions of the lands and uses along Olde Baseline Rd. from both expert and lay witnesses. Mr. Pritchard, in his Report said "the study area (Olde baseline Rd. to the north, Winston Churchill Blvd. to the west, Highway 10 to the east and King St. to the south) is generally rural in nature and is characterized by the rolling terrain".

A Social Impact Analysis of the Proposed Rockfort Quarry (Exhibit # 147) was prepared by Peter Homenuck, a social scientist, on behalf of the CCC. He conducted a study of the proposed haul route, noting the residences, community facilities and businesses located within 500m of the haul route. In "Existing Social Conditions" he

said “the area is characterized by high quality scenic and natural features associated with the Niagara Escarpment in combination with more typical agricultural and rural areas...(it) has a mixture of land uses, including home-based businesses, agricultural related uses and conservation management. The area is commonly used for several rural recreational purposes: several Conservation Areas, parks and trail systems traverse the area. Rural residential estate properties dominate the study area, many on large treed lots. Several equestrian farm operations are located within the Study Area”.

Mr. Homenuck specifically described the area along the proposed haul route: “road edges are lined with broken strands of mature maple trees, hedgerows, split rail cedar fences and low stone fences...often views are undisturbed and the open rolling fields of roadside farms are clearly visible”. He went on to say “landscape patterns along the haul route are predominantly farmscapes, with barn complexes and mixed agricultural fields...the haul route also passes through areas of woodlots and wetlands, marked by their associated vegetation”. The Board finds that Mr. Homenuck’s characterization of the lands abutting the proposed haul route is accurate.

In completing his Traffic Impact Study, Mr. Pritchard considered the nature and volume of current traffic along the proposed haul route and what would be present if it were in fact a haul route for the proposed Rockfort Quarry. He concluded that “there will be some impacts for those residents directly fronting on new sections of the proposed haul route especially along Olde Baseline Road”. His assessment of acceptability of these impacts is brief; he says “ in determining the acceptability of those impacts, it must be recognized that the sections of major road involved are already functionally designated to accommodate a full range of traffic demands from all typical rural activities, including rural residential, agricultural and resource based land uses. The implication of this designation being that it is not unreasonable to expect additional impacts from the development of such land uses”.

Mr. Pritchard also briefly addressed noise and dust impacts from traffic, finding them to be acceptable. He said that potential impacts on natural features could be mitigated and would be dealt with during a subsequent Region road regulatory process.

Counsel for the Town cross-examined Mr. Pritchard on the “relative difference between today and the future” in terms of traffic. Counsel focused on the 6am to 7am period on Olde Baseline Rd. and Mississauga Rd., summarizing Mr. Pritchard’s figures and projections: “we are going from a circumstance where you have a hundred passenger vehicles making the trip along Olde Baseline, to 218 pass-bys, and the nature of the vehicles on the road is fundamentally changing to 78 per cent heavy vehicles”. He asked Mr. Pritchard if he agreed that this constituted a “fundamental change”. Mr. Pritchard agreed that it did. (Transcript September 24, 2009, page 180).

In his Planning Report, Mr. Parkin considered the haul route and impact in terms of noise. While his Planning Report purports to include an assessment of social impact, it contains nothing assessing the social impact of road modifications or traffic along the proposed haul route. Counsel for JDCL submitted that as no separate Social Impact Study is required by the OP, a proponent need only include an assessment of social impacts “based on predictable, measurable, significant effects on people caused by...traffic levels”. The Board accepts this submission: no stand-alone social impact study of the proposed quarry or its proposed haul route is required by the OP. However the Board sees nothing in the work of either Mr. Pritchard or Mr. Parkin which considers the effect of greatly increased truck traffic on people. In fact, as noted above, Mr. Pritchard acknowledged that the changes in traffic would be “fundamental”. The Board must ask “what is the impact of such a fundamental change?”

The Board finds that the area of the proposed haul route is properly characterized as “rural” in nature. Olde Baseline Rd. is, on the evidence of all parties, a typical rural road: narrow, winding, hilly, with no shoulders and bad sightlines. The Board must consider Policies 5.11.2.4.2(b) and 5.11.2.4.4(c) and determine whether JDCL, in its Traffic Impact Study, has satisfactorily identified and assessed the economic, social and physical impacts of a “fundamental” change in traffic. It is also for JDCL to demonstrate that any impacts on adjacent land uses would be satisfactorily mitigated.

The Board finds that JDCL has not met the requirements of these policies. Through the work of Messrs. Pritchard and Parkin, JDCL inadequately addressed the economic, social and physical impacts of the proposed haul route. There is no question

that roads could be improved to the standards required for an aggregate haul route. However, the more fundamental question is whether the work should be done. The Board finds that the work of Mr. Pritchard, while thorough, does not help the Board determine that it should be done, given the economic, social and physical context of the subject property and the proposed haul route. The area is rural and JDCL has not demonstrated that a “fundamental change” to the traffic pattern in this rural area is either acceptable or able to be adequately mitigated.

Counsel for JDCL submitted that the PPS and the “close to market” principle must be considered in the context of the transportation and traffic issue. Mr. Pritchard’s work includes what Counsel characterized as the “tremendous social, environmental and economic benefits that the Rockfort site, if approved, would provide to the Province”. As a result of the Rockfort Quarry being close to market there would be “significant reductions in greenhouse gases released into the atmosphere, the wear and tear on provincial roads would be reduced and there would be impacts for the users of the road”.

Counsel is of course correct that the PPS is relevant. However for the Board to balance the benefits of which Mr. Pritchard spoke, against local impact, the Board requires the proponent to assess adequately local impact. For the reasons set out above, the Board finds that local impact was not assessed in accordance with the requirements of the OP.

Counsel for JDCL cited a number of Board decisions which he submitted set out “principles regarding haul routes”. They focus on the fact that “aggregate extraction activities are part of the rural landscape in many parts of Ontario” (Cox Construction Limited and the Township of Puslinch (1982), OMB Case Nos. M81227 and R802724).

The Board notes that the decisions cited are from the 1980’s and 1990’s. While the Board is unable to determine the details of the policy regimes relevant to these cases, the Board finds that it is unlikely that they were decided in a policy context at all similar to that embodied in OPA 161 and now the OP. The OP squarely places a burden on a proponent of an aggregate operation to consider economic, social and physical impacts and to address acceptability of impact. In the current Town policy context the Board cannot simply find that “the gravel trucks and farm machinery all have

an equal right to use public roads” (Cornwall Gravel Co. Limited and the Township of Cumberland) (1986), OMB Case Nos. M80106 and R850479). There is no such right of use. Policy 5.11, Mineral Resources, is complex and all-encompassing. If a proponent does not demonstrate all that is required by the Policy, it cannot fall back to a position that gravel trucks have a right to use public roads.

Noise:

OP Policy 5.11.2.4(i) provides, inter alia, that an application for an OPA to redesignate lands for a new extraction operation will be approved if “the Applicant has demonstrated that noise and vibration impacts will be mitigated to acceptable levels”. Also relevant to the noise issue is Policy 5.11.2.4.13 which provides “any impact studies required by this Plan, will include, where appropriate, an assessment based on predictable, measurable, significant, objective effects on people caused by factors such as noise, dust, traffic levels and vibration. Such studies will be based on Provincial standards, regulations and guidelines and will consider and identify methods of addressing the anticipated impacts in the area affected by the extractive operation” (emphasis added). The Board finds that this policy means that an applicant must comply with Provincial standards, regulations and guidelines, where they exist. The Town cannot hold an applicant to some ill-defined higher standard which considers subjective, rather than objective effects on people. This is relevant to the noise issue as Provincial standards do exist.

Vince Gambino and Nicholas Sylvestre-Williams were qualified by the Board as engineers with experience in noise assessment, noise control engineering and noise impact, to give evidence on behalf of JDCL. These witnesses prepared Exhibit # 17, Environmental Noise and Blast Design impact Study and Exhibit # 18, Haul Route Noise Analysis.

It is important to note that the witnesses modelled the potential noise impact of the proposed quarry based on applicable Ministry of the Environment (“MOE”) Guidelines. These Guidelines are found in Exhibit # 17. The noise experts indicated in their report that “the noise methodology used in this study is based on sound and vibration impact guidelines stipulated by MOE in publications NPC -205/232/233 and NPC-119.

In their work the noise experts adhere to Provincial Standards as set out by MOE. With respect to the operation of the quarry, a stationary source of noise, (aside from the installation of the grout curtain which will be discussed below) the noise experts were able to conclude “the applicable sound level limits for the area as outlined in the pertinent MOE publications is 45 dBA from 7am to 7pm and 40 dBA outside of this time frame. Mitigation in the form of acoustic shielding, setback distance/buffer requirements, equipment noise control and selection are required in order to realize acceptable noise levels at the neighbouring points of reception. The noise impact from the quarry will be reduced to less than 45 dBA at the nearest receptors during the hours of 7am and 7pm and 40 dBA otherwise. Sound (peak overpressure) and vibration (peak particle velocities) from quarry production blasting will meet the limits outlined in MOE publication NPC-119” (Exhibit # 19, paragraphs 5.2 and 5.3, Exhibit # 17, pages 10-12).

John Emeljanow was qualified by the Board as an engineer with expertise in noise/vibration measurement and analysis. He peer-reviewed the work of Messrs. Gambino and Sylvestre-Williams on behalf of the Town. His Witness Statement and relevant documents are found in Exhibit # 49. As Counsel for the Town acknowledged in his submissions, Mr. Emeljanow “accepted that for the most noise sensitive receptors, the noise generated by quarry operations (other than grout curtain installation) would meet applicable guidelines”.

Mr. Emeljanow’s primary concern, aside from grout curtain installation, was the noise impact on Receptor R-14. That receptor site is owned by JDCL and could have tenants living in it. Mr. Emeljanow testified that R-14 would be subject to noise exposure of 48 dBA, which exceeds MOE guidelines. It was therefore his opinion that for JDCL to meet the noise guidelines the dwelling would have to remain unoccupied for the life of the quarry. MNR agreed with Mr. Emeljanow. MNR compiled comments on the quarry site plan notes and said, in considering the noise issue, “the legislated requirements for noise, dust or vibration cannot be over-ridden by a note on the ARA site plan...tenants will need to vacate the dwellings or the applicant will have to provide suitable mitigation to address dust, noise and vibration” (Exhibit # 148, TAB 10, page 1). The Board therefore finds that if the Applications were to be approved, such approval

would have to be conditional upon JDCL keeping the dwelling at receptor R-14 unoccupied for the life of the quarry.

The operation of a properly mitigated quarry would be predicated on the installation and operation of a grout curtain. However, in terms of noise assessment, Mr. Emeljanow had concerns with respect to noise assessment for the installation of the grout curtain and the exclusion of this noise impact from the noise impact assessment (Exhibit # 49, TAB 1, section 4.2.1). The issue can be summarized as follows: if the installation of the grout curtain is part of the operation of the quarry, Provincial guidelines apply; if the installation constitutes construction, the guidelines do not apply. If the installation is construction it is exempt from the MOE Stationary Noise Guideline, NPC-232. Construction noise must meet a different standard, NPC-115. On the evidence, the Board finds that the noise associated with the installation of the grout curtain, primarily drilling, exceeds permitted levels set out in NPC-232 but meets the NPC-115 standard.

It is the position of JDCL that the installation of the grout curtain is construction for the purposes of MOE Guidelines. NPC-232, section A.3(2) specifically excludes "construction activities" from its application. "Construction" is defined in section A5 as follows: "construction includes erection, alteration, repair, dismantling, demolition, structural maintenance, painting, moving, land clearing, earth moving, grading, excavating, laying of pipe and conduit whether above or below ground level, street and highway building, concreting, equipment installation and alteration, and the structural installation of construction components and materials in any form and for any purpose, and includes any work in connection therewith; construction excludes activities associated with the operation at waste and disposal sites" (Exhibit # 49, TAB 9, page A11).

It was the opinion of Mr. Sylvestre-Williams that grout curtain installation is a construction activity not covered by NPC-232 and therefore the noise levels predicted for grout curtain installation would be acceptable as construction noise.

Mr. Emeljanow set out his concerns about the noise associated with grout curtain installation as early as December 1998. He said “generally construction activities are short-lived and are not subject to the MOE noise guideline limits. However, in this case, construction of the grout curtain could last for up to several years. In addition, grout curtain installation will involve the use of the rock drill. No noise mitigation is proposed for this activity. Thus, very high sound levels will occur at off-site receptor locations during grout curtain construction. Given the potential duration of grout curtain construction and the extremely high sound levels at off-site receptors, we believe that noise mitigation should be considered for at least this construction activity” (Exhibit # 49, TAB 2, page 9). He did not give an opinion as to whether grout curtain installation constituted “construction”.

In 1999 Mr. Gambino responded to Mr. Emeljanow’s comments on grout curtain installation. In Exhibit # 95, a memo to Mr. Emeljanow, Mr. Gambino addressed the issue of construction activities, differentiating between grout curtain installation and the construction of a re-injection trench. He noted that the construction of the trenches “is expected to be a short term activity. However the installation of “the grout wall/curtain...will take place in phases as the quarry is developed”. In his opinion grout curtain installation “is part of quarrying activities” while trench installation is “considered to be a construction activity” (Exhibit # 95, page 1).

In his November 2008 peer review letter Mr. Emeljanow noted that the JDCL noise experts were now considering the installation of the grout curtain to be a construction activity, not part of the quarrying operation. So he reiterated “construction is considered an activity that has a short duration”. The JDCL noise experts took the position that grout curtain installation is “construction” and noted that the MOE Guidelines do not speak to a time-duration limitation. Therefore “construction” need not be of short duration (Exhibit # 19, TAB 3, page 12).

Donald Bruce was qualified by the Board as an engineer with particular expertise in geotechnical construction activity, especially drilling and grouting techniques. He was retained by JDCL “to comment upon the feasibility of designing and constructing a durable grout curtain at the proposed Rockfort Quarry” (Exhibit # 30, TAB 2, page 68). On the issue of the time it would take to install the grout curtain, it was Dr. Bruce’s

evidence that the entire 3200 metres of grout curtain could be installed in “10 to 12 rig years”. If 3 or 4 rigs were used for the installation, the time could be reduced to 3 to 4 years (Transcript, November 2, 2009, page 207; November 3, 2009, pages 142-143, 149).

Having reviewed the evidence of the noise experts on the grout curtain issue, and perhaps more importantly, the detailed evidence on the role the grout curtain would play in JDCL’s Adaptive Management Plan (the “AMP”) which will be explored more fully below, the Board cannot find that grout curtain installation is “construction” for the purposes of MOE Noise Guidelines. It is the Board’s understanding that the grout curtain will not simply be installed over a number of years and then left with no further work required. It was the evidence of JDCL’s witnesses that as the various stages of quarrying below the water table roll out and the hydrogeological behaviour of the site is more clearly demonstrated, there could be a need to return to the “construction” of the grout curtain. It is possible that if target levels of permeability or impermeability are not reached the grout curtain could require “tightening”. Such “tightening” could involve the drilling of further holes for the purpose of injecting more grout into the curtain. The Board finds, based on all the evidence adduced, that it is possible that during the entire below water table quarrying process and the rehabilitation phase, the grout curtain could require tightening. This could involve additional work on the grout curtain not simply over years, but over decades.

The Board finds that the installation of the grout curtain is a critical element in JDCL’s mitigation plans for the proposed quarry. The installation and any ongoing work on the grout curtain are integral to the operation of the quarry. Therefore the Board finds that the installation of the grout curtain over years and decades is part of “aggregate extraction facilities”, not “construction activities” for the purposes of NPC-232. The Board reaches this conclusion in part based on the final words of the definition of “construction” found in NPC-232; “construction excludes activities associated with the operation at waste and disposal sites” (emphasis added). The installation of the grout curtain at the Rockfort Quarry would be an activity associated with the operation of the quarry, not a construction activity.

The Board therefore finds that the installation of the grout curtain would be a “stationary source” of sound for the purposes of NPC-232. The sound from the installation of the curtain would have to be mitigated to levels set out in NPC-232. The only evidence before the Board on the levels to which grout curtain noise could be mitigated is contained in Exhibit # 19, TAB 5, page 2, the Grout Curtain Noise Mitigation Plan. This plan says “with the proposed mitigation in place, the predicted levels vary from 50 dBA to 65 dBA. This constitutes an exceedence of NPC-232 noise levels of up to 20 dBA over the guideline level of 45 dBA for the 7am to 7pm period”.

The Board finds that the noise impact of grout curtain installation is such that JDCL has not met the requirements of OP Policy 5.11.2.4.2(i); the Applicant has not demonstrated that noise impacts would be mitigated to acceptable levels.

Finally, the proposed haul route gives rise to noise issues. JDCL’s noise experts prepared a Haul Route Noise Analysis – Rockfort Quarry (Exhibit # 18).

All noise experts confirmed that there are no MOE regulations or guidelines governing noise impact associated with haul routes. In fact MOE NPC-232 excludes from its operation “transportation corridors, i.e. roadways and railways”. MOE’s position on haul route noise is summarized in a May 1998 memorandum (Exhibit # 18, Appendix C): an access route shall be selected which will result in a minimum noise impact. The selection process shall be based on a detailed quantitative assessment of noise impact on individual receptors and the number of affected receptors along the alternative routes. The municipality and the affected citizens must be clearly informed of any potential noise impact” (emphasis added).

Using what Counsel described as the “accepted methodology”, the JDCL noise experts determined that haul route Alternative B would be the route of “least impact”. In their Witness Statement JDCL’s witnesses summarized their findings on haul route noise:

- The route of least impact is Haul Route B since its overall impact levels and the change in noise levels are the lowest of the haul route alternatives which have been reviewed. Therefore, the selection of this route satisfies MOE requirements for the selection of the route of minimum impact. The predicted noise levels are within the range of what would reasonably be

expected for pit or quarry haul routes in a rural area. The absolute and changes in predicted noise levels are not unique to this site. There are other aggregate operations that have resulted in similar absolute noise levels and similar changes in the levels. The provincial standard for selecting the preferred haul aggregate haul route has been followed. The preferred haul route was compared to other alternatives and found to have the least noise impact; therefore meeting the test of the provincially accepted approach for a Quarry Haul Route Assessment.

There is no question that haul route Alternative B is the haul route of least impact. Mr. Emeljanow did not dispute this fact.

The Board finds that the issue of haul route noise does not end with a determination of which haul route will result in the least impact. The May 1998 memorandum of MOE, dealing specifically with the Rockfort Quarry, cited above, does not say “choose the route of least impact and there will be no noise concerns”. Rather it provides that a route be selected “which will result in a minimum noise impact”, not “the minimum impact of the various alternatives”. For a haul route to be acceptable it must result in a minimum noise impact. A comparative analysis is not sufficient.

To determine whether a haul route would result in a “minimum noise impact” the Board must go beyond considering which is the “least bad” haul route alternative. In the MOE memorandum the work of JDCL’s noise experts on haul route noise was specifically considered. MOE said “the noise impact assessment in the report has found a significant to very significant increase in sound as a result of the additional trucks; i.e. a significant to very significant noise impact” (emphasis added). It went on to say in “Conclusions”: “the noise produced by the trucking activity will produce significant noise impacts”.

In addition, Policy 5.11.2.4.4(c) of the OP requires that the proposed haul route of least impact be identified, but also requires an assessment of the acceptability of the impacts along the proposed haul route.

In considering “acceptability” of noise impact the Board must have regard to the significance of the potential noise increase. In their report on quarry noise, Exhibit # 17, JDCL’s noise experts included a Glossary of Terms and Descriptors. This contains an “Evaluation of Noise Impact Due to Increase in Ambient Noise Levels”:

- 0 to 2 dBA increase is insignificant and typically not detectable
- 3 to 5 dBA increase is detectable, not likely to cause any adverse reaction
- 5 to 10 dBA increase is moderate to significant and may be adverse
- > 10 dBA is a significant increase and an adverse reaction is likely

Again the Board must note MOE's conclusion about haul route noise: "the noise produced by the trucking activity will produce significant noise impacts".

The evidence of JDCL's noise experts, at page 7, Exhibit # 18 is that, with respect to preferred haul route Alternative B "the maximum impact levels along Olde Baseline have been calculated to be up to the 62 dBA which results in changes up to 16 dBA above the background noise. The predicted noise levels for receptors along the rest of the haul route vary from 50 to 71 dBA with impacts of up to 9 dBA". On page 9 of their report the noise experts set out a chart of change in ambient level dBA and degree of impact similar to that described above. A change of > 10 dBA is described as "very significant". The noise experts note that their work has shown that for at least some of the extended period of quarry operation the changes in noise levels associated with the preferred haul route could be on the order of 13 dBA or 15 dBA. On their own evidence, this constitutes a "very significant" change.

To gain some understanding of what this "very significant change" would mean in terms of impact, the Board has considered MOE publication NPC-232, "Sound Level Limits for Stationary Sources in Class 1 and 2 Areas (Urban)" and NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)". As these publications deal with stationary noise sources they are not strictly applicable to haul route noise assessment. However, the Board finds their definitions of urban and rural areas to be helpful in assessing acceptability of noise impact from the proposed haul route.

A "Class 1 Area means an area with an acoustical environment typical of a major population centre, where the background noise is dominated by the urban hum". A "Class 2 Area means an area with an acoustical environment that has qualities of both Class 1 and Class 3 areas, and in which a low ambient sound level, normally occurring only between 23:00 and 07:00 hours in Class 1 Areas will typically be realized as early as 19:00 hours. Other characteristics which may indicate the presence of a Class 2 Area include: absence of urban hum between 19:00 and 23:00 hours, evening

background sound level defined by natural environment and infrequent human activity and no clearly audible sound from stationary sources other than those under assessment". A "Class 3 Area means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following: a small community with less than 1000 population, agricultural area"

The noise experts all confirmed that the area of the proposed Rockfort Quarry and proposed haul route is currently a Class 3 Rural Area. All also agreed that if the quarry and haul route were approved, the area would be considered to be a Class 2 Urban Area.

Having considered the fact that MOE found that the increase in sound levels as a result of additional trucks would have a "significant to very significant noise impact"; the fact that JDCL's own noise assessment work on the haul route demonstrates that there could be changes in noise levels associated with the haul route of up to 13 to 15 dBA, or a "very significant change"; and the fact that the operation of the quarry and the haul route would change the area from a "rural" classification to an "urban" classification in terms of noise; the Board finds that JDCL has not assessed and demonstrated the "acceptability of the impacts along the proposed haul route" (Policy 5.11.2.4.4(c)), nor that "an access route (has been selected) which will result in a minimum noise impact" (MOE memo, May 1998).

A haul route which would result in a "significant" or "very significant" change and which would contribute to changing the subject area from a "Rural Area" to an "Urban Area" cannot be seen by the Board to be an access route with a "minimum noise impact". Noise impacts of the haul route are not acceptable for the purposes of Policy 5.11.2.4.4(c).

Air Quality:

Mike Lepage was qualified by the Board as an engineer who is also a certified consulting meteorologist with expertise in air quality issues. He was qualified to testify on behalf of JDCL: his Witness Statement is contained in Exhibit # 16 and his Air Quality Assessment – Rockfort Quarry is Exhibit # 15.

Air quality issues arising from aggregate operations are dealt with under Provincial statutes, regulations and guidelines which Mr. Lepage set out in his report. Pursuant to the ARA, standards have been set out with respect to dust emissions from Category 2 licensed quarries. Dust must be mitigated onsite; dust suppressant must be used on internal roads and processing areas; and processing equipment must be equipped with dust suppressing or collecting devices. A Certificate of Approval (“COA”) may be required under the Environmental Protection Act (the “EPA”).

Section 9 of the EPA prohibits an operation from discharging a contaminant like dust except in accordance with a COA issued by the MOE. Section 14(1) of the EPA prohibits the discharge of a contaminant like dust into the environment that causes or is likely to cause an adverse effect. “Adverse effect” is defined to include impairment in the quality of the natural environment, injury or damage to plant or animal life, harm or discomfort to a person, an adverse effect on the health of a person or loss of enjoyment of property. The Board has no authority to comment on whether the MOE should issue a COA.

*Ontario Regulation 419/05* (O. Reg. 419/05) deals with the protection of people from the effects of air contaminants, prohibiting the emission of an air contaminant like dust which could cause discomfort to people, loss of enjoyment of use of property, interference with normal conduct of business or damage to property. O. Reg. 419/05 sets out contaminant standards and requires a proponent of an operation like a stone quarry to prepare extremely detailed emission summaries and complete modelling exercises and reports.

Having reviewed Mr. Lepage’s report, the Board finds that JDCL appears to have completed the requisite work. However the Board must note that summaries, exercises and reports required by the EPA must be done to the satisfaction of MOE, not this Board.

Tony van der Vooren was qualified by the Board as an engineer with expertise in air quality issues. He peer reviewed Mr. Lepage’s work on behalf of the Town. Mr. van der Vooren’s Witness Statement is contained in Exhibit # 70. On page 14 of this witness statement, Mr. van der Vooren, in overall conclusions about the work of Mr. Lepage, states “the documents and report have been critically reviewed and the details

have been provided (in this report). There are still a few minor areas of concern” (emphasis added).

His “minor concerns” were: on-site receptors, off-site traffic control and road cleaning. Under cross examination Mr. van der Vooren agreed that on-site dwellings are not, for the purpose of O.Reg. 419/05, receptors. With respect to off-site traffic control, he agreed that the JDCL Truck Policy satisfactorily addressed truck operation, enforcement and compliance. He found “it’s a very good policy” (Transcript, January 14, 2010, page 72). Finally, with respect to road cleaning, under cross examination, he was asked whether with details worked into the Best Management Plan, the Plan “is an acceptable one from your perspective?” He agreed that it was (Transcript, January 14, 2010, page 78).

Mr. van der Vooren, in his Witness Statement, reviewed the provisions of Policy 5.11 relevant to the issue of air quality. In his statement he indicated that “current information and studies address this section. There are a few areas that still need some additional information/clarification before this section is fully satisfied”. Under cross examination he confirmed that, in his opinion, the applications meet the requirements of the OP (Transcript, January 14, 2010, page 80).

Counsel for JDCL submitted that based on the work of Mr. Lepage, as confirmed by Mr. van der Vooren, JDCL has addressed the social impacts of air quality in accordance with the requirements of the OP by demonstrating compliance with Provincial air quality regulations and guidelines. As the Board noted above Policy 5.11.2.4.13 provides that impact studies required by the OP are to include “an assessment of social impacts based on predictable, measurable, significant, objective effects on people caused by factors such as...dust... studies will be based on Provincial standards, regulations and guidelines...”

The Board finds that the air quality work of JDCL, having demonstrated compliance with provincial standards, as confirmed by the Town’s own expert witness, meets the requirements of the OP.

Visual Impact:

OP Policy 5.11.2.4.2(e) requires an applicant to complete a Visual Impact Report and to demonstrate that the proposal will not have any unacceptable impacts. Policy 5.11.2.4.11 provides that the Report must address the following:

- (a) assess the significant views and how they might be affected by the proposed extractive operation;
- (b) assess changes to the natural landscape and the cultural landscape that would result from the operation;
- (c) identify any required mitigation measures, and the visual character of such measures. This may include berms, entrance design, vegetation, landscaping and operational matters such as phases, screening of equipment, direction of extraction which would seek to minimize impacts.

Wendy Shearer, a landscape architect with considerable experience in the assessment and rehabilitation of historic and natural landscapes was qualified by the Board to provide expert evidence on the issue of the visual impact of the proposed quarry on behalf of JDCL. Mr. Parkin, JDCL's land use planner also provided evidence on the issue.

They prepared Exhibit # 26, Visual Impact Report – Rockfort Quarry. Ms Shearer's Witness Statement as well as Mr. Parkin's response to the Visual Impact Peer Review are found in Exhibit # 27.

Eha Naylor, a landscape architect with experience in visual impact assessment was qualified by the Board to provide expert evidence on the issue on behalf of the Town. She peer reviewed the work of JDCL's experts. Her Witness Statement and peer reviews are contained in Exhibit # 48.

JDCL's Visual Impact Report is thorough. It is a detailed study including conclusions. The Study considered the cultural landscape, affected views, mitigation, landscape changes, residential locations and a detailed impact assessment chart. The chart is keyed to photographs of the area which the Board finds extremely helpful in considering the visual impact issue.

The Board will review the Report in detail as it ably sets out the cultural landscape context of the proposed quarry. This context, together with the natural environment context, to be explored below, are critical to an understanding of the potential impact of the proposed quarry.

In the Introduction the report says “views into the site, including from nearby properties, are an important part of the property’s heritage value. One of the key components of the report is how to mitigate changes in the views of the property from neighbouring properties and from the larger community who pass by the site on the adjacent roads. The site is presently well screened from the north, south and east. Mitigation has been developed to reduce visual impacts from viewpoints to the west”. The Board must note the characterization of the views into the site: they are part of the property’s heritage value. The Report makes a point of saying that “views change over time”. As vegetation in the area of the subject property has matured over time, the visibility of the proposed quarry site has been reduced. The Report in particular notes that views of the Rockfort barn, to be discussed below, from Winston Churchill Blvd. have been changed by the establishment of severed lots and the construction of new homes. The Report says “these types of changes are part of the evolving landscape”. To make a determination on the visual impact issue, the Board will have to decide whether the development of a large stone quarry, over decades, also constitutes a change which is part of an evolving landscape.

The Report considered views from a variety of locations around the proposed quarry site, including from public roads and private residential properties. Photographs documenting existing views are provided.

The impact assessment methodology used involved describing existing views and anticipated changes at each stage of the quarrying operation. Affected views were “given a no/low/medium/high change ranking”. “No change” means existing views are limited therefore changes on the site should not be noticeable to most viewers. “Low change” means the change would occur on a part of the site which is well screened from the view location and/or the proposed change is in the distance. “Medium change” means the anticipated change would occur on a visible or partly visible portion of the site in an area setback from the view location. “High change” means the anticipated

change will be very noticeable as it will occur in the foreground on a portion of the site that is clearly visible from the viewpoint.

To get a proper understanding of the impact of change of views, one must understand what is encompassed in the existing views. The built heritage is reviewed in Exhibits # 21 through # 25, and will be considered in detail below. The subject property, comprised of the Rockfort and Westerveld Sites, contains houses and barns built in the nineteenth century. The house on the Rockfort Site can only be described by the Board as impressive. The barn complex on the Rockfort Site, including a two storey stone bank barn is similarly impressive. The Westerveld Site contains a nineteenth century more modest house, and three barns dating from the nineteenth century. There are views of the Rockfort and Westerveld Sites from Winston Churchill Blvd. and from residences along the road.

In the Visual Impact Report the historic vegetation patterns on the subject property are detailed and are described as “part of the cultural heritage landscape taken into account in the quarry design”. “Vegetation features”, include fencerows, treelines, roadside shoulders and ditches, plantations, woodlots and landmark trees. The fencerows are comprised of vegetation along fences. On the subject property the fences include dry laid stone walls, cedar rail fences and paige wire fences. Trees found in the fencerows include mature maples, oaks, ash, walnut, apple and hawthorne. There are large, mature trees on the Rockfort Site “along property lines and laneways to define space and to add aesthetic value to its landscape design. This pattern began in the late 19<sup>th</sup> century and is an iconic planting feature of rural landscape design”.

The Report next considers “mitigation”, concluding that “existing conditions on and around the Rockfort Site are conducive to the development of an effectively screened quarry operation”. The Board notes that OP Policy 5.11. does not require “an effectively screened quarry operation”; it requires a demonstration that there will be no unacceptable impacts. The Report goes on to say that the views from the west, along Winston Churchill Blvd., and its residences “have the highest potential for impact and are the main focus of the mitigation developed for the site”.

It is proposed by JDCL that fencerow vegetation, onsite vegetation, perimeter fences and a landmark deciduous tree would be retained and in some case

“augmented”. The Rockfort farm complex, including the stone fence entrance and frontage on Winston Churchill Blvd. and the mature spruce trees along the driveway would be retained. “Supplemental plantings” are planned and “the design will ensure that views of the Rockfort barn are not blocked”.

Finally, the mitigation plan involves extensive “berming” of the site. Part 4 of the Report contains “Mitigation Details” which include the size, height and extent of the berms in various phases of the quarry operation. The Board notes that there is minimum berming required in Phases 1 and 2 but by Phase 3 and into Phases 4 and 5, extensive berming would be installed around the site.

The Visual Impact Report acknowledges that “the addition of berms to the landscape is a significant change affecting views and heritage value”. The Board finds that these words, in the mouths of JDCL’s own experts, are of vital importance to its findings on the issue of visual impact.

The Report describes the phasing, shaping, landscaping and positioning of the berms. The diagrams in Part 4, Mitigation Details, set out the elevations of the berms. They appear to range from between 380 and 395 metres above sea level. The acoustic berm detail drawing shows more details, depicting a berm of an average height of approximately 6m. The berm detail includes supplemental fence row plantings and berm landscaping. The portions of the berm “visible to offsite residences and from municipal roads will be augmented with perpendicular linear sections of split rail/rubble stone walls, and shrub masses relocated from the interior of the site to replicate existing field patterns”.

The Report includes a “Summary of Affected Views and Landscape Change” and an “Impact Assessment Chart”. The Chart includes particularly relevant details and conclusions.

The Summary concludes that during Phase 1 of the proposed operation, with the “extraction and processing area...well setback from affected view locations and surrounded by temporary berms...there will be no-low change in views...” It is noted that the views from Winston Churchill Blvd. would be “most affected. The berms and tops of stockpiles will be visible in the distance from some view locations”.

Phase 2 would bring further construction of the perimeter berm and the Report describes additional view changes as “low”. The section of berm added would be screened by existing trees; tops of stockpiles may be visible in the distance from some locations.

Phase 3 “involves full depth extraction of the south westerly portion of the site”. Additional perimeter berming “will be completed along Olde Baseline Rd. and Winston Churchill Blvd. so that the southerly boundary and southern two thirds of the west boundary have berms within the setbacks adjacent to the roads”. The Report says “there will be a medium – high change in views during Phase 3 of site development from some view locations along Winston Churchill Blvd. The perimeter berm will be clearly visible along sections of road and will block existing views of the farm fields and buildings” (emphasis added).

Phase 4 would require additional berming along Winston Churchill Blvd; “view changes are generally high for this phase as berms along the road will block existing views of the Westerveld farm fields and buildings (to be removed during this phase)” (emphasis added).

Phase 5 would bring few additional changes as the perimeter berms would have been completed in earlier phases. The Report notes “views of the landmark stone barn remain part of the visitor’s experience as they travel along Winston Churchill Blvd”.

Finally the Report considers the rehabilitation phase of the quarry operation: “the site will be progressively rehabilitated to create new terrestrial features on the landscape”. The extraction areas would gradually be filled to become two lakes. The Report states: “there will be high change as compared to existing views” (emphasis added). The Report concludes “the end result, i.e. rehabilitated quarry, will be a visual focal point for the community and make a contribution to the area cultural heritage landscape” The Report goes on to state:

While the quarry project proposes changes within the Rockfort farm property, the proposed plans will retain many existing heritage features of the site, its vegetation, circulation, spatial order and views and integrate these elements into the new development...

As the region's land use continues to change the evolution of the Rockfort farm as a working landscape continues from use of the site's agricultural resources to use of aggregate resources followed by creation of a lake complemented by both natural heritage and cultural heritage features. This evolution does not devalue the overall cultural heritage and landscape of the area.

The Board finds these assertions to be astounding and unsupported by the evidence contained in JDCL's Visual Impact Report. As noted above, the work associated with Phases 3 and 4 of the quarry and the "mitigation" would result in medium to high change in existing views. The perimeter berm, at some 6m in height would be clearly visible along sections of public road. The berm would block existing views of the Rockfort farm buildings and fields. In Phase 4 changes to the existing views would be "high" as the berm would block existing views of the Westerveld farm buildings and fields. In fact no such view would be possible as the buildings and fields would disappear to be replaced by a quarry operation.

The details of the changes are set out in the Impact Assessment Chart. The Chart is keyed to a series of photographs which clearly demonstrate the rural character of the relevant area and existing views. Photographs # 2 to #4 and # 6 to # 8 show Winston Churchill Blvd. at the McIntyre residence. In Phase 4 there would be "high change – view is lost". The berm would screen operations. Photographs # 9 to # 13 show Winston Churchill Blvd. looking south east from an elevated view point. In Phase 4 there would be a "high change – view is lost". The berm would screen the operation. Photograph # 14 shows Winston Churchill Blvd. looking south east. Again, in Phase 4 there would be a "high change – view is lost". The berm would screen the operation. Photographs # 19 to # 22 show a view from Winston Churchill Blvd. looking east at the Westerveld farm buildings and farm landscape. In Phase 3 there would be a "high change – view is lost". The berm would screen the operation. Finally, photographs # 23 and # 26 show a view from Winston Churchill Blvd. looking southeast just south of the Westerveld farm lane. In Phase 3 there would be a "high change – view is lost". The berm would screen the operation.

In the Conclusions of the Report the Board notes the following conclusions:

1. In the later stages of site development (Phases 4 and 5), approximately 11– 30 years) “there will be a high degree of change in the views of the site”.
2. “Following completion of the quarry...the extraction area will become a lake with surrounding vegetated shoreline, exposed cliff faces and beach areas. This will be a high degree of change as compared to the existing views”.
3. “Overall the visual impact of the proposed quarry will be reasonable and within the range of conditions that would be expected to occur in a close to market rural area that has identified high potential mineral aggregate resource. The operational design has incorporated a number of measures to mitigate the visual impact. On this basis the use of the Rockfort site for a quarry will not have any unexpected or unacceptable visual impacts”.

The Board finds that there is an inexplicable disconnect between the first two conclusions and the third. JDCL’s own work depicts an attractive rural area which includes wonderful views from Winston Churchill Blvd. of heritage farm buildings and fields. The views are enhanced by the presence of mature trees, hedgerows, fence rows, woodlots and plantations.

By Phases 3 and 4 of the proposed operation, on JDCL’s own evidence there would be a “high change – view is lost”. The views of heritage farm buildings, open fields and mature landscaping would be replaced with a view of a manmade 6m high berm which by Phase 5 would run around the entire perimeter of the aggregate extraction operation. In light of the wording of Policy 5.11.2.4.2(e) it is not sufficient for JDCL’s witnesses to conclude that the visual impact of the proposed quarry “will be reasonable and within the range of conditions that would be expected to occur in a close to market rural area that has an identified high potential mineral aggregate resource”. With respect, that is not the test set out in the Policy. Rather, an applicant must, through its Visual Impact Report, have “demonstrated that the proposal will not have any unacceptable impacts”. This applicant has failed to demonstrate no unacceptable impact. In fact, the evidence contained in the Visual Impact Report, despite its astounding conclusion of no unacceptable impact, demonstrates that along Winston Churchill Blvd. there would, without a doubt, be unacceptable impacts. There would not just be change; there would be unacceptable impacts.

The Board finds, as a fact, based on all the evidence before it, including that of the Town's peer reviewer, that the replacement of the existing rural views with a 6m high berm is the definition of unacceptable impact. It is irrelevant to a consideration of visual impact that the subject property contains a much needed source of high quality aggregate, located close to market.

In addition, the Board finds that the Visual Impact report in neglecting to consider visual impact along the proposed haul route fails to meet the requirements of the OP. The Report says in relation to haul route impact "the degree of change will be high when a truck passes by and no change when a truck is not passing by. The impact is typical for a rural area with important aggregate resources and is consistent with the planned functions of the roads that will be used". This demonstrates a lack of understanding of the test set out in Policy 5.11.2.4.2(e). The policy does not ask an applicant to do a comparative analysis of aggregate operations and determine whether impact would be "typical for a rural area with important aggregate resources". The applicant must demonstrate no unacceptable impact.

The Board reiterates: in the context of the subject site "high change – view is lost is by definition an unacceptable impact.

Cultural Heritage:

The PPS and the OP contain policies with respect to cultural heritage. PPS Policy 2.5.1 provides "significant built heritage resources and cultural heritage landscapes will be conserved". "Significant" means, in relation to built heritage resources "important in terms of amount, content, representation or effect". "Built heritage resources" means one or more buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and is identified as being important to a community. "Cultural heritage landscape" means a "defined geographical area of heritage significance which has been modified by human activities. Such an area is valued by a community, and is of significance to the understanding of the history of a people or place" (PPS, Definitions).

OP Policy 3.2 addresses Cultural Heritage Conservation, providing in Policy 3.2.1 that “the Town seeks to wisely manage cultural heritage resources within its municipal boundaries that are of historical, architectural and archaeological value...cultural heritage landscapes and built heritage resources need to be identified and conserved”.

Cultural heritage objectives are set out in Policy 3.2.2:

- (1) to identify and conserve the Town’s cultural heritage resources, in balance with other objectives of this Plan, through the implementation of appropriate designation, policies and programs;
- (2) to promote public and private awareness, appreciation and enjoyment of Caledon’s cultural heritage through educational activities and by providing guidance on sound conservation practises;
- (3) to develop partnerships between various agencies and organizations to conserve and promote cultural heritage resources; and
- (4) to use as appropriate all relevant Provincial legislation that references the conservation of cultural heritage resources.

“Cultural heritage surveys” may be required by the Town for development proposals (Policy 3.2.3.1.4). Such a survey must be completed by a proponent of development using “a qualified professional with appropriate expertise”. The survey should “identify the level of significance of any cultural heritage resources, including archaeological resources and potential, existing on and in close proximity to the lands”. The survey must also “make recommendations for the conservation of the cultural heritage resources, including whether a Cultural Heritage Impact Statement should be prepared”.

Policy 5, Mineral Resources, specifically addresses cultural heritage in Policy 5.11.2.4.2(f): an applicant “must complete a Cultural Heritage Survey as described by section 5.11.2.4.12 and, where required, additional cultural heritage studies, such as a Cultural Heritage Impact Statement, or an archaeological assessment and (have demonstrated) that there will not be any unacceptable impacts”.

Conservation measures are dealt with in Policy 5.11.2.4.12(b): such measures “may include, as appropriate, retention and use or adaptive reuse of heritage buildings and structures, incorporation of cultural heritage elements such as fence lines, and tree lines where possible, and carrying out appropriate salvage and recording of cultural heritage resources that may be removed as a result of aggregate extraction operations”.

As part of its 1993 Environmental Policy review, the Town commissioned a Cultural Heritage Study of the Town of Caledon (Exhibit # 183). One of the objectives of the Study was ‘to describe the importance of built heritage, archaeology, cultural landscapes and intangible heritage within the Town of Caledon’. The Study noted at Part 8 of the executive summary, Cultural Landscapes, that the Town “contains diverse historical landscapes. They range from the attractive agricultural lands that predominate in the Town to gritty industrial landscapes such as the Brampton Brick works at Cheltenham. By far the most dominant cultural landscape type in Caledon is farmscapes” (emphasis added). In this section the Report noted that “technological and economic change affect both cultural heritage landscapes and built heritage”. The changes most likely to be seen, with an impact on cultural heritage, are “changes in farm technology that may require new types of farm structures”. The Board notes that the Report does not indicate that the development of an aggregate extraction operation constitutes part of expected technological and economic change for the rural cultural heritage landscapes or the built heritage.

The Report, in considering the “Relationship of Cultural Landscapes, Built Heritage and Natural Landscapes” discussed the historic existence of pits and quarries in the Town. One “striking example is the Forks of the Credit area which displays the interrelationship between man and nature”. Since the quarries in that area closed over 80 years ago (now almost 100 years ago) “natural regeneration has created a valued landscape in which cultural features are not visually prominent”. The Board finds that the fact that the Town includes historical remnants of pits and quarries which have seen successful regeneration is not relevant to the issue before it. The issue is whether the proposed quarry situated in a specific context or cultural heritage landscape, would have any unacceptable cultural heritage impacts over its extremely long life, including the rehabilitation phase.

Of particular relevance in this Report is the identification of “Rockside”, the community in which the subject property is located, as an area to be considered for future study. Rockside is described as follows: “in 1820, William Crichton and approximately 20 other settlers from Scotland arrived at this locale. The name Rockside was appropriately given as the surrounding countryside was extremely rocky and was adopted when the post office was established in 1863. The place remained small with local services such as a store and a blacksmith’s shop”.

The significance of the Rockfort and Westerveld sites was specifically addressed in a technical report prepared for the Belfountain Area Environmental Assessment of regional roads in 1997 (Exhibit # 184). In this report the Rockfort farm “containing a 1 and ½ storey stone house, stone and wood gable roofed barns, stone gates, dry and mortared stone walls, Norway spruce and Sugar Maple tree rows and the former Rockdale P.O.” was characterized as “exceptional”. The Board notes that for the purposes of this report, “exceptional” is the highest rating for cultural and built heritage. It says that all sites of exceptional significance should be avoided for the purposes of rebuilding regional roads in the Belfountain area of the Town. The Westerveld site is classified as “ordinary”, the second lowest category of significance.

The Caledon Community Resources Study, 1999 (the “CCRS”) resulted in the identification of CHPMARA (Exhibit # 41). Cultural heritage was considered during the CCRS process. Such consideration did not result in the Rockfort and Westerveld sites being excluded from identification as a CHPMARA.

Richard Unterman, a cultural heritage resource specialist, was qualified by the Board to provide expert evidence on behalf of JDCL. Wendy Shearer who also provided evidence on visual impact of the proposed quarry was qualified to provide expert evidence on cultural heritage on behalf of JDCL.

The evidence referred to by Mr. Unterman and Ms Shearer is found in Exhibit # 21, Rockfort Quarry Site Documentation, June 1999; Exhibit # 22, Cultural Heritage Landscape Assessment Report, October 1999, prepared by Sally Drummond, a heritage planner; Exhibit # 23, Rockfort Quarry Site Interior Documentation, November 1999; Exhibit # 24, Cultural Heritage Landscape Analysis Report, May 2005 and Exhibit # 25, the Witness Statements of Mr. Unterman and Ms Shearer.

Andre Scheinman, heritage preservation consultant, was qualified by the Board to provide expert evidence on behalf of the Town. His Witness Statement and Peer Reviews are contained in Exhibit # 47.

The Board finds that the work performed by Mr. Unterman from 1999 to 2009 thoroughly documents the built heritage resources of the subject property and the attendant cultural heritage landscape. Ms Shearer's work on the stone walls on the site contributes to the Board's understanding of the site. The work of Mr. Unterman and Ms Shearer demonstrates that for some 10 years JDCL was responsive to issues raised by peer reviewers. The work is also responsive to the concerns of the Ministry of Citizenship, Culture and Recreation ("MCCR"). In 1998 MCCR staff reviewed the proposed site plan and archaeological report. They indicated that they had "no objections to the licensing of the property for aggregate extraction but there are continuing concerns for cultural heritage resources that may be impacted by future development following on the approval of this application". The recommended work was completed by Mr. Unterman.

Therefore the Board finds that JDCL has met the technical requirements for a Cultural Heritage Survey set out in the OP. The matter does not end there; Policy 5.1.2.4.2(f) requires an applicant to demonstrate that the proposal will have no unacceptable impacts on cultural heritage. Fundamental to the Board's determination on this issue is the significance of the cultural heritage resources on site. As the PPS provides in Policy 2.5.1: "significant built heritage resources and cultural heritage landscapes will be conserved". The Board finds that conservation does not necessarily require no change to the resources, but at the very least it requires mitigation to the extent required by the OP – no unacceptable impact.

The significance of the cultural heritage resources and the built heritage resources on the subject property is considered in Mr. Unterman's work. He evaluated the Rockfort site and the Westerveld site separately using MCCR criteria dating from the early 1990's. The criteria include age, context, rarity, integrity, historical significance, community interest and architectural significance (Exhibit # 21, part 4.1).

With respect to the Rockfort site, Mr. Unterman noted that JDCL proposes to “actively conserve” the farmhouse complex as part of the development of the site. Using the MCCR criteria Mr. Unterman reached a number of conclusions about the Rockfort site. The farmhouse complex includes a circa 1870 structure which replaced the original circa 1851 stone house, noting that the 1870’s residence “is a good representative example of farmhouse construction in this rural area”. He concluded that the stone buildings “are not rare in this immediate area due to the proximity of stone won from the nearby Niagara Escarpment”. However in the regional and provincial context “the stone buildings are relatively rare”.

With respect to integrity, Mr. Unterman found that the 1870’s stone house “possesses substantial integrity as an individual unit. The original treelined driveway to the former main house and later stone walls, fences and gateposts all remain intact”. However, he concluded that, as a new stone addition was under construction (1999), “the integrity of the entire farmhouse complex is considered to be compromised”.

With respect to architecture, Mr. Unterman described the 1870’s house as being “a good representative example of vernacular Ontario Gothic style with a cross gable roof, segmental and round headed window and door openings, one storey bay windows, paired gable windows and decorative, vermiculated and tooled stone wall surrounds”.

Mr. Unterman reviewed the historical associations of the Rockfort property. Briefly: John Kirkland acquired the property in the 1830’s and developed a prosperous farm. Kirkwood was a noteworthy member of the community, serving as a Township Councillor, Deputy Reeve and a Justice of the Peace. The farm remained in the Kirkwood family until it was sold in 1945. Mr. Unterman noted that the Kirkwood’s property was associated with the Scottish immigrants known as the “Rockside Pioneers” who took out land grants in this area in the first half of the nineteenth century.

The Rockside Pioneers are discussed in Mr. Unterman’s work. They arrived in the area in 1820. William and Mary (MacDonald) Kirkwood were Rockside Pioneers. The Kirkwoods and the MacDonalds acquired some 250 acres of land in the area. Eventually the lands developed into two farm complexes, now known as the Rockfort and Westerveld sites.

In 1863 a Township post office was established on what is now the Westerveld site. The Kirkwoods were post masters there until 1913.

Mr. Unterman describes the Rockfort farm as a “well-established, prosperous farm” by 1861. Of note is a date stone, inscribed “Dec. 10<sup>th</sup> 1864” on the foundation of the stone barn on the Rockfort site. Mr. Unterman says “stone barns were not built in any great numbers in Ontario after the 1860’s”. There is also a large bank barn on the property, probably built during the 1870’s.

Mr. Unterman goes on to consider the Rockfort site barn complex. The oldest part of the complex is now nearly 150 years old. He describes it as “an excellent example of barn construction techniques in this rural area and exemplifies the evolution and development of these landmark rural structures”. The stone barn is “particularly noteworthy as a rare surviving example of an English barn”. The barns, individually and as a complex “possess substantial integrity”. The timber structures “are considered good examples of vernacular frame construction” while the stone barn “is considered to be an excellent example of vernacular building”. The historical associations for the barn complex are as set out above for the Rockfort site.

Mr. Unterman then turns his attention to the Westerveld site, farmhouse complex. The existing farmhouse “is believed to be of circa mid-nineteenth century construction”. Mr. Unterman says the “circa 1850’s residence is a good representative example of farmhouse construction in this rural area. The ancillary stone building is a good representative example of vernacular construction”. As for rarity, Mr. Unterman notes that the stone building, while not unduly rare for the area is “relatively rare in a provincial context”.

The integrity of the farmhouse has been reduced through twentieth century alterations; “its integrity is considered to be compromised”. The ancillary stone building “is in good condition and appears to be relatively well preserved... (it) is a good example of vernacular construction”.

The Westerveld site is also associated with the Kirkwood property, but Mr. Unterman says it is to a lesser degree.

The barn complex on the Westerveld site is comprised of four structures, likely constructed between 1860 and 1960. Mr. Unterman describes it as a “fair” example of barn construction techniques, possessing moderate “moderate integrity”. Exhibit # 23, prepared by Mr. Unterman, contains photographs of the timber-framed bank barn. At page 3-15 there is a photograph of the interior of this barn showing curved bracing or bent. At page 3-17 is a photograph of a detail of the interior of the barn showing the champfering of the main timber post. Under cross-examination, Mr. Unterman testified that he had only seen a bent like the one in this barn in one or two other barns in Ontario but they are also documented in textbooks about barn construction and are preserved in museums. He described the champfering as unique. It strikes the Board that such rare or unique details take the barn past being a “fair” example of barn construction techniques into something more significant.

Mr. Unterman set out his conclusions at Part 4.6 of his report. He says “both properties are considered to be of heritage interest and are distinguished by a number of heritage attributes. Neither property has reached the end of the twentieth century without a variety of changes and modifications to their building and structural fabric”. He goes on to note that the Westerveld site “has witnessed the greatest change”. The farmhouse has been substantially altered as have the barns. He concludes that the property is “not of sufficient significance to warrant the preparation of a statement of heritage significance similar to reasons for designation under the *Ontario Heritage Act*.”

The Rockfort site has also “witnessed changes and modifications”. The integrity of the farmhouse complex has “diminished “with the loss of the circa 1851 structure and the later additions to the house. However “the barn complex displays a considerable degree of integrity as do the individual structures”. Therefore, Mr. Unterman concluded that the “property is of sufficient heritage interest and sufficient significance to warrant the preparation of a statement of heritage significance similar to reasons for designation under the *Ontario Heritage Act*”.

Such a statement is purportedly contained in Part 5 of the report. The historical context, architectural and landscape setting are described. No conclusions about “significance” are found in this part; it is descriptive only.

In Part 6 Mr. Unterman considers Heritage Designation, Planning Restrictions or Other Constraints. He focuses in part on “mitigation measures” as envisioned by MCCR in its “Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments”, October 1992. Mitigation measures are to include:

- avoidance of documented heritage resources;
- avoidance of moderate to high potential heritage resources;
- description of mitigation measures proposed where site impacts are unavoidable. Such measures may include sympathetic alteration of built heritage sites; compatible design of new construction; satisfactory documentation in advance of demolition of built heritage or cultural landscapes; and
- hiring qualified consultants.

Mr. Unterman then set out to describe “impacts” for the site. Certain features of the Rockfort site are to be “conserved and maintained” including a “variety of individual buildings and features that together form a larger, cohesive cultural heritage unit”. These include the stone house, the driveway entrance with flanking stone fence, the extensive barn complex, an ancillary stone structure and the dry stone wall along the eastern property boundary. Mr. Unterman is of the opinion that “these buildings and features collectively warrant designation under Part IV of the *Ontario Heritage Act*”. He says that “surrounding fields and tracks will be lost as aggregate is quarried over the lifespan of the quarry. Adequate documentation will exist in the form of aerial photographs and topographical mapping”.

The Board notes Mr. Unterman’s words: “surrounding fields and tracks will be lost as aggregate is quarried”. The Board finds that this would leave the Rockfort site, which Mr. Unterman confirms is of heritage significance, on an isolated island in the midst of an industrial operation, the quarry.

Mr. Unterman acknowledges that all heritage attributes of the Westerveld site, including the farmhouse, the barn complex, the ancillary stone structure and a dry stone wall would be lost to the site in the later stages of quarrying. As with the Rockfort site, surrounding fields would be progressively lost over the life of the quarry, never to return.

“Adequate documentation” would exist in the form of aerial photographs and topographical mapping. Under Recommendations with respect to the Westerveld site, Mr. Unterman concludes that “although of some heritage interest (it) is not considered of sufficient merit to warrant preservation in its entirety in situ”. Perhaps structures could be moved to other locations. As the buildings are demolished, Mr. Unterman recommends documenting building materials and construction techniques.

Mr. Unterman revisited his conclusions in May 2005 in his Cultural Heritage Landscape Analysis Report, Exhibit # 24. The landscape of the subject property is described as a “continuing landscape” which has “maintained the historic use of the land and continue(s) to evolve”. The Westerveld site, no longer being farmed, was described as a “relict landscape where the evolutionary process has come to an end but important features are still visible”. The Rockfort farm is described as a “very good example of a nineteenth century farm complex”. Mr. Unterman says the farmstead “is extensive and includes a circa 1870 stone farmhouse, barn complex with English style barn and heavy timber frame barns, outbuildings, field patterns, stone walls, hedgerows, remnant orchards and mature tree plantings. The whole forms a distinctive agricultural landscape in the area that is visually attractive and generally well preserved. The complex is visible from Winston Churchill Blvd. and would be a familiar farmstead in the area. There are notable views to the Rockfort Farm from a local high point on Winston Churchill Blvd. just to the north of the site. Views to the south east encompass field patterns, stone boundary wall, hedgerow and stone barn” (emphasis added).

Mr. Unterman goes on to consider Potential Impacts and Mitigation. He quotes from The Cultural Heritage Landscape Assessment Report, October 1999, prepared on behalf of JDCL by Dillon Consulting, Exhibit # 22. That Report said “the cultural heritage attributes of these two farmscapes...are representative of the principle landscape elements of the broader cultural heritage landscape unit...the cultural heritage of the Rockfort Quarry (sic) property is considered to be of ordinary significance.” That report concluded “development of the Rockfort Quarry (sic) site for aggregate extraction will result in permanent physical and visual impacts to the existing cultural heritage landscapes of the Rockfort and Westerveld farmscapes and the associated haul route”. Further, “apart from the physical loss of representative features from the subject farmscapes, impacts to the broader cultural heritage landscape

resulting from the introduction of an industrial activity into a predominantly rural agricultural area are largely visual in nature”. The Board also notes the following description taken from the 1999 Report: “the Rockfort Quarry (sic) property comprises two historic farmscapes, Rockfort and Westerveld, and the southern portion of a third, the Vandermisson farmscape. These farmscapes have been in continuous agricultural use since first settled by Scottish immigrants in the early nineteenth century. The property is visually well defined as an ensemble...” (emphasis added).

Mr. Unterman took this Report and pointed out that the development “will be phased in over a fifty year period so impacts will be experienced at different points in the quarry’s development. “Some impacts such as the acoustic perimeter and interim berms will be removed as part of the rehabilitation of the quarry”. Mr. Unterman confirmed in his May 2005 Report “that the Rockfort farmscape comprises Phase 1, 2 and 5 of the quarry development. The quarry processing plant is to be located to the east of the Rockfort barn complex. The project will result in the loss of the agricultural landscape including fields, fence lines, hedgerows, remnant orchards and mature plantings” (emphasis added). He went on to say “the farm house and barn complex will be retained; however significance is affected by the changes to the immediate context and surroundings” (emphasis added). He confirms the loss of the Westerveld site, including fields, fence lines, hedgerows, remnant orchards, plantings and built heritage features.

In his Conclusions, Part 5, Mr. Unterman reiterates his previous conclusions, describing the Rockfort Farm as a “very good example of a nineteenth century farm complex” and Westerveld as a “good example”. He speaks to mitigation measures including the retention of some dry stone walls, the possible relocation of the Westerveld farmhouse and the phased installation of berms.

After considering the extensive evidence of JDCL’s cultural heritage experts the Board finds that the proposed quarry would have two inescapable results for the purposes of cultural heritage:

1. the Rockfort site which was described by Mr. Unterman as displaying a “considerable degree of integrity” with important historical associations,

would be situated on a small island of land surrounded by an active quarry, for decades; and

2. the Westerveld site, with acknowledged heritage attributes would be entirely lost.

The Board is required by Policy 5.11.2.4.2(f) to determine whether JDCL has demonstrated, for the purposes of cultural heritage, that there would be no unacceptable impacts from the development of a quarry. Has JDCL demonstrated that the radical alteration of the context of the Rockfort site from a rural landscape to an island in the midst of a quarry does not constitute an unacceptable impact? Has JDCL demonstrated that the complete loss of the Westerveld site does not constitute an unacceptable impact?

The Board finds that JDCL has not demonstrated no unacceptable cultural heritage impact. The PPS directs the conservation of significant built heritage resources and cultural heritage landscapes. It is the Board's finding, on the evidence of JDCL's own witnesses, that the Rockfort and Westerveld sites are integral parts of a significant cultural heritage landscape. The PPS describes such a landscape as being "valued by a community and is of significance to the understanding of the history of a people or place". The Board is satisfied that the Rockfort and Westerveld sites are significant to an understanding of the history of the Town, particularly the Rockside area. On the evidence of JDCL's experts, confirmed by the Town's experts, the subject property is inextricably linked to the history of the settlement and subsequent development of Rockside. The property was acquired in the 1830's by the Kirkwood family. The family remained on the property until 1945. It is also significant that the property was the site of the first Rockside post office with Kirkwood post masters into the twentieth century.

As the work of JDCL's experts makes clear: the farm setting or landscape is a vital component in appreciating the subject and its historical context. As long ago as 1993, as part of its Environmental Policy Review, the Town recognized that the "most dominant cultural landscape in Caledon is farmscape".

In his May 2005 Report Mr. Unterman confirmed that the Rockfort site contains a very good example of a nineteenth century farm complex. He specifically said that the

farm complex includes “field patterns”, concluding “the whole forms a distinctive agricultural landscape...that is visually attractive and well preserved”. The Board can only conclude that the loss of this “distinctive agricultural landscape” resulting in the farm complex being isolated in the midst of an industrial activity would constitute an unacceptable impact for the purposes of the OP.

The PPS directs conservation of significant cultural heritage landscapes. The subject property is part of such a landscape and the eradication of the agricultural context does not constitute conservation; it constitutes destruction. Such destruction is an unacceptable impact.

The Board acknowledges that, as JDCL’s experts said, change is inevitable. However when one is considering a significant cultural heritage landscape and its component parts, the degree of change must be circumscribed. The complete annihilation of the Westerveld farm complex and the destruction of the rural context of the Rockfort farm complex are not the type of change which should be countenanced.

Natural Heritage, Hydrogeology, Engineering, Adaptive Management Plan:

The *Planning Act* and the ARA speak to environmental impact or impact of development on natural heritage features and functions and water supply. Section 2 of the *Planning Act* provides that the Board shall have regard to matters of provincial interest including (a) the protection of ecological systems, including natural areas, features and functions and (e) the supply and efficient use and conservation of energy and water. The ARA at section 2(d) provides that one of the purposes of the Act is to “minimize adverse impact on the environment in respect of aggregate operations”. In considering whether a licence should be issued this Board shall have regard to section 12(1) (a) the effect of the operation of the proposed quarry on the environment and (e) any possible effects on ground and surface water resources.

The PPS addresses natural heritage in Policy 2.3. Policy 2.3.2 provides “development and site alteration may be permitted on adjacent lands to (significant wetlands, significant portions of the habitat of endangered and threatened species, fish habitat, significant wildlife habitat and significant areas of natural and scientific interest) if it has been demonstrated that there will be no negative impacts on the natural

features or ecological functions for which an area has been identified” (emphasis added). Policy 2.3.3 provides “the diversity of natural features in an area, and the natural connections should be maintained, and improved where possible”.

A number of words and phrases are defined in the PPS. Most relevant to the matter before the Board are:

- “adjacent lands” means lands contiguous to a specific natural heritage feature or area, where it is likely that development or site alteration would have a negative impact on the feature or area;
- “areas of natural and scientific interest” (“ANSI”) means areas containing natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study, or education;
- “natural heritage features and areas” means features and areas such as *inter alia* significant wetlands and fish habitat, portions of the habitat of endangered or threatened species and ANSI’s which are important for the environmental and social values as a legacy of the natural landscape of an area;
- “negative impact” means in regard to fish habitat, the harmful alteration, disruption or destruction of fish habitat and in regard to other natural features and areas, the loss of the natural features or ecological functions for which the area is identified;
- “significant” means in regard to wetlands and ANSI’s, areas identified as provincially significant by MNR;
- “wetlands” means lands that seasonally or permanently covered by shallow water as well as lands where the watertable is close to or at the surface.

Policy 2.4.1 addresses Water Quality and Quantity, providing “the quality and quantity of groundwater and surface water and the function of sensitive groundwater recharge/discharge areas, aquifers and headwaters will be protected and enhanced.

The ROP, in Policy 2.2 addresses “large environmental systems” which include watersheds and groundwater resources. A “general objective” of the ROP is to

recognize and promote connections between local ecosystem functions and the larger environmental system, and promote their integrity.

The significance of groundwater is dealt with in Policy 2.2.5. It is noted that “groundwater plays an important role in the hydrological cycle of the water resource system in Peel...groundwater is an important source of drinking water” and is vital to fish and wildlife habitat.

Policy 3.4 provides for the protection, maintenance and enhancement of the quality and quantity of groundwater resources and the elimination or minimization of potential land use impacts on recharge and discharge areas, aquifers, wells and streams.

Policy 3.4.2.6 directs the area municipalities to require appropriate hydrological and hydrogeological studies to be undertaken, to the satisfaction of the Region, the area municipality and the conservation authority, for all planning initiatives which could have an impact on water resources.

Policy 2.3 sets policies in respect to the Region’s “Greenlands System”. The system “is intended to support and express the region’s vision for the protection of the natural environment”. “Core Areas” of the system include provincially significant wetlands, environmentally sensitive or significant areas, ANSI’s and habitats of vulnerable or threatened species. The Areas are set out on Schedule AA to the ROP, a map. The Board notes that the subject property is not located in a Core Area. However, the subject property is adjacent to Core Areas as well as “Areas with Special Policies”. These areas are set out on Figure 2; the subject property is adjacent to the Niagara Escarpment Plan Area (the “NEPA”) to the south and southeast.

Policy 3.3.2.6 provides that Core Areas are not to be “damaged or destroyed”. Finally, Policy 2.3.2.8 directs area municipalities to require an environmental impact study if new mineral extraction is proposed for lands adjacent to a Core Area.

The OP contains policies within Policy 5.11, Mineral Resources, which speak to the natural environment. Policy 5.11.2.2.5 prohibits new or expanded mineral aggregate extraction in the Core Areas of the Region’s Greenlands System. This policy

is not relevant to the Applications as the subject property is not within a Core Area. However, Policy 5.11.2.2.6 is relevant. It provides that mineral aggregate operations may be permitted within and adjacent to (d) "Other Wetland" if it can be demonstrated that, inter alia, the alteration or elimination of the Other Wetland will not result in negative impacts on the adjacent Core Areas. "Negative impacts" is defined in Policy 5.2.9.11 to mean any loss of an area of a Core Area or any loss of significant ecological functions or attributes within a Core Area.

The Town's policies with respect to the natural environment go to the determination which must be made under Policy 5.11.2.4.2(d): has the Applicant "completed all environmental investigations and studies as required by this Plan and by all relevant approval agencies and demonstrated that the proposal will not have any unacceptable impacts" (emphasis added).

It was agreed by all parties that there are no significant natural heritage features on the subject property within the proposed excavation area and the associated area of disturbance like berms (Exhibit # 88). It was further agreed that the Comprehensive Broader Scale Environmental Study ("CBSES") completed by JDCL in March 2008, Exhibit # 4(a) –(h), has been completed in accordance with the requirements of the OP. It was agreed that the CBSES "provides an acceptable level of detail and provides appropriate technical guidance for the review of future developments in Resource Area 9A" (Exhibit # 143).

Anne MacMillan, an ecologist and aquatic biologist was qualified by the Board to provide evidence on aquatic biology, wetlands and fisheries and natural environment impact on behalf of JDCL. Anthony Goodban, an ecologist and planner was qualified to provide evidence on terrestrial ecology, natural heritage planning and natural environment impact assessment on behalf of JDCL. Their Witness Statement is found at Exhibit # 30, TAB 1. Details of their retainer and their involvement since 1996 with the project are set out at Part 2 of their statement. To summarize: they were retained to undertake the required field surveys and analyses with respect to the natural environment. They were to "provide an independent opinion as to how natural environmental features on and adjacent to the site should be integrated and/or protected in the quarry proposal, based on their character and in relation to current

environmental policies”. Most significantly, Ms MacMillan and Mr. Goodban co-authored the Environmental Impact Assessment – Proposed Rockfort Quarry, August 2000 (Exhibit # 28) and the Environmental Impact Assessment Addendum, July 2008 (Exhibit # 29). Between 2005 and 2008 they were involved in data collection and analysis prepared for the CBSES. On the evidence, they worked closely with Conestoga-Rovers (“CRA”), JDCL’s engineers and hydrologists, on the development of mitigation measures to protect the natural environment. Such measures are incorporated into the Adaptive management Plan (“AMP”) to be discussed at length below.

Their work is extensive and well-documented. That Board notes what can only be characterized as the essential foundation to their work: the majority of the features and associated functions adjacent to the proposed quarry are partially or entirely dependant on groundwater features, and without appropriate mitigation, excavation of the proposed quarry would result in unacceptable impacts to the natural environment; and their analysis of potential impact is premised on the proposed mitigation measures working as designed (Transcripts, October 13 and 14, 2009).

Using Exhibit # 82, Natural Environment Characterization, Evidence Outline, Ms MacMillan and Mr. Goodban reviewed their work found in detail in Exhibits # 28 and # 29. Exhibit # 83 illustrates the site and the natural features surrounding it. In their Witness Statement the witnesses provided a good summary of what their work revealed.

They determined that the natural features surrounding the site include intermittent, ephemeral, or short isolated permanent reaches of Rogers and Second Creeks, together with wetlands and woodlands. The wetlands include thicket swamp, mixed and deciduous swamp, meadow marsh and open areas associated with small streams and ponds. They concluded “the largest and most interesting local habitat system is the Northeast Wetland and Eastern Woodlot to the east/northeast of the site”.

These features, they said, “contribute local aquatic and terrestrial habitat, hydrological and biological functions”. However “their general character and sensitivities reflect a history of agricultural and rural residential disturbance. Streams and wetlands have been altered by construction of ponds, channelization/straightening,

removal and alteration of riparian covering and pasturing and historical agricultural practices”. There are fish communities in the watercourses, dominated by warm water bait and forage species.

The witnesses summarize at page 5 of their Witness Statement the “most important and sensitive aquatic and terrestrial habitats in the vicinity of the site”, noting that they are “well beyond ‘adjacent lands’ to the proposed quarry as defined by the PPS”. The Board finds that the proposed quarry is “adjacent lands” to the specific natural heritage features or area, as “it is likely that the development...would have a negative impact on the features or the area”. JDCL’s own witnesses agreed that the impact on groundwater and groundwater dependant features of an unmitigated quarry would be negative or unacceptable.

The “sensitive aquatic and terrestrial habitats” in the vicinity of the site, as identified by Ms MacMillan and Mr. Goodban include:

1. the reaches of Rogers Creek and Second Creek that support small, isolated Brook Trout populations;
2. the extensive Caledon Mountain system of a PSW and an ANSI;
3. a vernal pond which has been identified as supporting Jefferson Salamander breeding (the Jefferson Salamander is a species identified as threatened under the *Endangered Species Act*).

The Board notes that in respect of each of these sensitive aquatic and terrestrial habitats, Ms MacMillan and Mr. Goodban said “the water resource mitigation measures embodied in the comprehensive Adaptive Management and Protection Plan were designed specifically to protect these features”. With respect to the habitat of the Jefferson Salamander, “specific mitigation and monitoring measures have been specifically refined in consultation with MNR and others to address these wetlands and their functions”.

The AMP and its significance to the protection of natural heritage features and functions are summarized in the Witness Statement of Ms MacMillan and Mr. Goodban:

The AMP is a system of design, implementation, performance monitoring, evaluation and optimization/adjustment of mitigation measures. It provides a proactive, responsive and fully integrated system for implementing mitigation and monitoring measures to protect water-dependant ecological features, based on a sound understanding of the underlying surface water and groundwater systems. Specific seasonal targets are based on sensitive coldwater stream, fish refuge and wetland functions. The AMP also incorporates specific ecological mitigation and contingency response measures and supplementary aspects...The adaptive nature of an AMP recognizes and responds to uncertainty typical of most natural and physical environments. By its very nature, an adaptive management process is protective and precautionary in that it involves ongoing measurement and evaluation of results, which enables the detection of potentially undesirable changes, and proactive response or adjustment of mitigation/management to avoid or mitigate such changes.

The conclusions of all of the work of Ms MacMillan and Mr. Goodban are contained in Part 5 of their Witness Statement. The general conclusion may be summarized as follows:

- Study has lead to a “sound ecosystems-based understanding” of the water inter-relationship between the Rockfort Site and the natural features, on, adjacent to, or in the vicinity of the Site. The “interrelationships of many of the ecological features with water and the inherent variability of the groundwater system in particular, were clearly realized from the outset”. The AMP “was specifically developed and refined to address this variability. Therefore a decision to approve the project would be consistent with the Statement of Environmental values of the relevant ministries”.

The following specific conclusions of the witnesses are based on a significant premise: “the recommended extraction envelope” would be adhered to and there would be “the implementation of the proposed mitigation measures outlined in the 2000 EIA and 2008 Addendum, and as specifically supported by the measures laid out in the May 4, 2009 AMP”.

Conclusions:

1. The proposed extraction envelope will not result in the loss of any significant or designated natural features. The most important features to the south, northeast and east of the site will be protected;
2. The AMP provides an appropriate level of mitigation for features based on their character, sensitivity and importance. Important natural features such as Brook Trout habitat and the significant Caledon Mountain forest and wetland complex and the Credit River will be protected;
3. Residual impacts on adjacent natural features are not considered significant based on the quality and character of the affected features, or in the context of the broader natural system. Specifically:
  - (a) some minor noise effects on breeding birds in the Eastern Woodlot may occur;
  - (b) no loss of PSW;
  - (c) minor changes in wetland function due to species shift or local changes in structure as a result of minor seasonal drying effects will not result in loss of function or a significant adverse change in function. The May 2009 Updated AMP includes provisions for monitoring and mitigation/contingencies for the Northwest Wetland, Eastern Wetland and Jefferson Salamander breeding pool “which will be subject to approval by MNR (emphasis added).”
4. The minor reduction in the spring/early summer flow and associated seasonal baitfish use that may occur in the east branch of Roger’s Creek is not considered harmful to overall fish habitat and therefore does not constitute a harmful alteration, disruption, or destruction of fish habitat for the purpose of the *Fisheries Act*. The Department of Fisheries and Oceans (“DFO”) has confirmed this;
5. “Residual impacts” (3 and 4 above) are limited to the duration of the quarrying. The rehabilitation phase plans will provide opportunities to create new aquatic and terrestrial habitats. There is a range of long-term mitigation and contingency options available for the Northwest Wetland; “any selected mitigation/contingency options are subject to MNR approval” (emphasis added);

6. The quarry application satisfies the natural heritage provisions of the PPS. With the “implementation of the AMP” there will be no negative impacts on the adjacent natural heritage features and areas (emphasis added); and
7. “With the implementation of the proposed water resources AMP... anticipated impacts of the proposed quarry operation on natural environmental features around the site are not considered to be significant, and the quarry can be developed in conformity with relevant federal, provincial and municipal natural heritage policies and legislation” (emphasis added).

The Board finds that the “bottom line” of the data collection, analysis and assessment work done by Ms MacMillan and Mr. Goodban may be simplistically, but accurately summarized as follows: if the AMP works properly, the impact of the quarry on the natural heritage features and functions around the site will be acceptable.

Mirek Sharpe, a terrestrial ecologist, was qualified by the Board to provide expert evidence on behalf of the Region and the Town. His Witness Statement and Peer Review material are found in Exhibit # 53. In a letter to Counsel for the Region and the Town, in response to comments from JDCL’s consultants, he said “as has been recognized from the initial review of the application, the protection of natural heritage features relies on the success of proposed mitigation measures that require a thorough understanding of the hydrogeology of the site and engineering techniques (the grout curtain and groundwater recharge system)”. He acknowledged that an evaluation of these aspects was outside his area of expertise (Exhibit # 53, page 5).

It is the opinion of Mr. Sharpe, in his role as peer reviewer, that JDCL and its consultants have not afforded the certainty about potential impact on natural features that is required. In his opinion “even if the planned mitigation and rehabilitation works as proposed for the full 80 year lifespan of the operation, there are risks that amphibian populations could be impacted or potentially lost resulting from changes to the groundwater regime, in particular the lowering of the groundwater levels and shortening of the duration of standing water” (Exhibit # 53, page 7). He went on to say that if “the proposed mitigation measures do not function as proposed, the risk to (the) amphibian populations would increase accordingly. The loss of...these populations would

demonstrate a lack of regard for the 1997 PPS and may not be in conformity with policy 2.3.2.6 of the ROP”.

Mr. Sharpe addressed the question of whether JDCL has sufficiently demonstrated that the mitigation planned, including the AMP, would actually be able to prevent unacceptable off-site impacts to groundwater, surface water and the associated natural features. In his opinion such a demonstration has not been done:

there has been insufficient demonstration that the proposed mitigation will reduce impacts to off-site natural heritage features to an acceptable level. The assumption has been made that if groundwater levels are maintained at the same levels as if the quarry was not excavated, then the quarry will not impact on the features dependant on groundwater levels. However, the AMP allows for the possibility, perhaps the expectation that groundwater levels may fall below target levels from time to time. Protocols have been developed to identify these occurrence instances and instigate corrective action to avoid potential impacts. However there has been no in-field demonstrations of the relationship among sentry wells that detect changes, the proposed groundwater recharge wells and the groundwater dependant features which would enable an understanding of the lag time between water levels falling below targets, and the actual impact to the feature, and subsequently the lag time for remedial action to have a positive effect on the natural feature” (Exhibit # 53, page 8).

Mr. Sharpe expressed concerns about the lack of pre-approval field demonstrations that the proposed mitigation measures, including the AMP, can and will work as planned.

Richard Murphy, an engineer and hydrogeologist with broad experience in evaluation of water resources, groundwater modelling and environmental management issues arising from aggregate resource development, was qualified by the Board to provide expert evidence on behalf of JDCL. Mr. Murphy was responsible for the completion of Exhibit # 31 A-D, Water Resources Evaluation, August 2000; Exhibit # 32, Water Resources Evaluation and Design Addendum, July 2008; Exhibit # 33, Preliminary Design Report, Water Resources Mitigation Measures; and Exhibit # 34, Updated Adaptive Management (AMP), Water Resources Protection, May 2009. Mr. Murphy also prepared Exhibit # 96, Hydrogeology Slides, which he used as a map and a summary of his evidence; and Exhibit # 97, 3D Visualization – Hydrogeology. The

Board can only describe Mr. Murphy's work done in advance of this hearing as exceptional. His reports and testimony enabled the Board to acquire an understanding of a complex issue which is essential to any fair determination on the issue of water resources and the protection of natural features and functions.

Mr. Murphy's work was supplemented by, or in part, dependant upon the work of a number of other consultants retained by JDCL. Thomas Guoth is an engineer with experience in environmental/hydrogeological and geological issues; Dougal McCreath is a geotechnical engineer; and Donald Bruce is an engineer with expertise in specialty geotechnical construction, including grout curtains. The Board qualified these witnesses to provide expert evidence on behalf of JDCL.

The Board finds that all of JDCL's consultants in the areas of geology, hydrogeology and engineering undeniably collected data, assessed data, and modelled the behaviour of the hydrogeological system on and off site and arrived at countless supportable conclusions. However, demonstration of no unacceptable impact on the natural environment is the test established by the PPS and OP, and that test goes beyond supportable conclusions.

Dr. Bruce was not retained by JDCL to complete a detailed design of the grout curtain which is essential to the mitigation measures proposed by JDCL. Rather he was retained "to review reports and work generated by other parties and to comment upon the feasibility of designing and constructing a durable grout curtain at the proposed Rockfort Site" (Exhibit # 30, TAB 2). Dr. Bruce said "assuming that appropriate standards of design, construction and performance monitoring will be utilized, I am of the firm opinion that the installation of a durable curtain with a maximum residual permeability of (10 lugeons) or less is entirely feasible and practical on this site".

Dr. Bruce testified that "a large scale pilot grouting program will be conducted in (Phase 2) to gather further information to refine curtain design and construction details and to demonstrate curtain viability under induced flow/gradient conditions" (emphasis added). The Board finds that if anyone in the world could design and oversee the construction of an effective grout curtain for the proposed quarry, it would be Dr. Bruce. However that does not mean that at this point in time JDCL has demonstrated that the grout curtain upon which the AMP is dependant can and will work such that the natural

environment will be protected from unacceptable impact. In fact, Dr. Bruce has explicitly acknowledged that further work must be done before grout curtain viability could be demonstrated. Further, the Board understands from the evidence of Dr. Bruce, that he has not been retained by JDCL to design and oversee the construction of the curtain and any required ongoing work to keep the curtain performing as required by the AMP.

After reviewing hundreds of pages of evidence on hydrogeology, modelling, water monitoring and potential impacts of reduced groundwater on natural heritage features; the evidence of expert witnesses for all parties; and the submissions of Counsel, the Board finds that the most significant piece of evidence on this issue is Exhibit # 34, The May 2009 Updated Adaptive Management Plan (AMP), Water Resources Protection. It is in the context of this document that the Board will determine whether JDCL has, for the purposes of the PPS, Policy 2.3.2, demonstrated that there will be no negative impacts on natural heritage features and functions and for the purposes of Policy 5.11.2.4(d) of the OP demonstrated that the proposal will not have any unacceptable impacts. Further, for the purposes of the ARA, section 2(d) and section 12(1)(a) and (e), the Board finds that the AMP is critical to the determination it must make.

In his Witness Statement, Exhibit # 30, TAB 5, Mr. Murphy reaches what the Board finds are germane conclusions. At paragraph 5.1 he says:

The Rockfort site and surrounding area have been extensively studied and monitored providing a sound understanding of the existing systems in the area for analysis of the proposed Rockfort Quarry. The variable nature of the bedrock groundwater flow system is clearly recognized and, as appropriate, further more detailed investigation and analyses will be conducted in support of the detailed engineering design and other approvals following a land use decision as specified in the AMP. These additional detailed studies as well as the planned adaptive management approach suitably address the variability inherent in the hydrogeologic and mining conditions and any associated uncertainty and the risk of undesirable outcomes. The proposed approach is precautionary by its very nature (emphasis added).

Mr. Murphy says “the AMP approach is a well established method of managing natural systems where there is inherent variability or uncertainty in the conditions that will be encountered. The AMP is an organized system of design, implementation, performance monitoring, evaluation and optimization of mitigation measures. The adaptive nature of an AMP recognizes the uncertainty that results from variability and strongly diminishes the risk of undesirable outcomes” (emphasis added). The Board notes that the relevant policy provisions do not require a strongly diminished risk of undesirable outcomes; it requires a demonstration of no unacceptable or negative impacts.

Mr. Murphy speaks to the “specific confirmatory milestones and rigorous checks and balances” contained in the AMP. The AMP includes in Milestones, requirements “to implement and demonstrate mitigation performance before mitigation components are needed as well as comprehensive ongoing monitoring for early identification of any concerns and detailed reporting”. If mitigation objectives are not being met, response actions are provided for and the matter is “subject to ongoing agency review and approval by MNR as well as MOE for aspects pertaining to the *Ontario Water Resources Act*”.

The AMP contains details on the matters which JDCL submit may be left to post-approval by the Board. Implementation Milestones and Approvals are found in Part 8 of Exhibit # 34, the May 2009 AMP. In this part it is acknowledged that “the protection of water resources, including water supplies and related ecological features depends on both the successful implementation and the successful operation of the mitigation and rehabilitation measures that are planned for the Rockfort Quarry. The AMP is the key implementing document for these matters and any modifications to the AMP will require approval by MNR” (emphasis added). The Board finds that these words indicate that demonstration of the efficacy of the AMP is proposed to be left to some post-Board approval process involving formally only MNR.

When the Board examines the details of Implementation Milestones and Approvals, all to be completed post-Board approval, the Board finds that matters vital to the operation of the AMP, and therefore vital to the protection of natural heritage features and functions are left solely to the determination of MNR.

Milestone 1, Monitoring Network and Detailed Design Characterization is “to be completed and approved by MNR prior to Phase 1 bedrock extraction”. Milestone 1 includes the installation of field instrumentation; implementation of baseline monitoring; details of residential well monitoring; review and refinement of the groundwater model; and the grout curtain work plan.

Milestone 2, Groundwater Recharge System Demonstration, is “to be completed and approved by MNR prior to Phase 2 bedrock extraction below the watertable”. This Milestone involves completing the engineering design for the groundwater recharge system; construction of the initial recharge system; demonstration of the recharge system; and reviewing and refining the groundwater model.

Milestone 3, Phase 2 Pre-Extraction Report is “to be completed and approved by MNR prior to Phase 2 bedrock extraction below the watertable”. This Milestone involves the completion of the evaluation of information to be collected pursuant to Milestone 1; establishment of “operating mitigation target levels”; identification of modifications to response/notification timelines; and provision of results of the recharge demonstration testing.

Milestone 4, Grout Curtain Detailed Design and Trial Segment is “to be completed and approved by MNR prior to Phase 3”. This Milestone includes the complete installation of two grout curtain segments; review and refinement of the groundwater model; completion of detailed engineering design of full grout curtain; updated plans for contingency grouting “including rapid response measures should such be necessary”.

Milestone 5, Full Depth Mitigation Performance Demonstration is “to be completed and approved by MNR prior to any site preparation in Phase 4”. This Milestone includes the completion of a detailed review of the combined performance of the recharge system and grout curtain for the full depth extraction; review of “success in achieving performance objectives, the level of mitigation efforts required...the primary basis for the assessment will be the success in maintaining AMP performance targets”; comparison of observed performance to the conceptual and groundwater model; and identification of any “appropriate modifications to the AMP, the mitigation measures, or the quarry operation”.

Finally, Milestone 6, Rehabilitation Confirmation is “to be completed and approved by MNR prior to Phase 5B bedrock extraction”. This Milestone involves the review of final rehabilitation plans.

Appendix I, Wetland Monitoring and Mitigation/Contingency Plans, is contained in the AMP. On the cover page of the Appendix it states “plan details to be developed pursuant to comments from MNR. Concepts for development of plans as discussed with MNR are enclosed”. On page 1 of Appendix I it says “this document outlines the proposed framework for wetland specific monitoring and mitigation/contingency plans for the four wetland areas...the details of the wetland plans will be subject to approval by MNR prior to the start of bedrock extraction in Phase 1” (emphasis added).

The Appendix deals with monitoring selected features in the wetlands and based on this monitoring “additional mitigation/contingency measures will be implemented. This approach utilizing off-site access to private property is the optimal means of ensuring that target levels are maintained”. JDCL’s consultants confirmed that JDCL has no agreements in place with private landowners which would facilitate required access.

Appendix I goes on to “provide mitigation and/or contingency options will vary by location and will be subject to MNR approval”.

Having considered the provisions of the AMP, in particular the Milestones and Appendix I, the Board finds that JDCL has not met the requirements of the PPS. Policy 2.3.2 provides that development may be permitted on lands adjacent to certain significant natural heritage features if it has been demonstrated that there would be no negative impacts on those features. The subject property is “adjacent lands” for the purposes of the PPS.

It may be that if all the Milestones set out in the AMP can be met to the satisfaction of MNR after Board approval of these applications, it could be concluded that the JDCL will have demonstrated no negative impacts on natural heritage features. However the Board cannot find that this possibility affords the certainty, pre-Board approval, required by the PPS.

Further, the Board finds that JDCL has not met the requirements of Policy 5.11.2.4.2(d) of the OP. JDCL has not “completed all environmental investigations and studies as required by this Plan and by all relevant agencies and demonstrated that the proposal will not have any unacceptable impacts”. Again, the completion of the Milestones might allow for such demonstration, but that would be post- not pre-Board approval.

The Board would be abdicating the responsibility assigned to it by the *Planning Act*, the ARA, the PPS and the OP. if it determined that proof that the mitigation measures will work as planned could be left to post-approval. Section 11 of the ARA specifically delegates to the Board the authority to consider issues with respect to an application that has been referred by the Minister to the Board. Section 12 sets out matters to which the Board must have regard in considering a referred application. The Board must make a determination on these matters, not leave them to be dealt with by another authority post-Board approval. With respect to the natural environment, section 12(1)(a) requires the Board to have regard to the effect of the operation of the quarry on the environment. As the AMP leaves so much demonstration work to be completed in a post-approval process, the Board cannot find that the operation of the quarry would have an acceptable effect on the environment. Until the work set out in the AMP is completed, the Board finds that the requisite degree of certainty about the efficacy of mitigation has not been demonstrated. The Board finds that an unmitigated or an inadequately mitigated quarry could have a disastrous effect on the natural features and functions on the lands surrounding the subject property. Therefore a high degree of certainty, which would be attendant upon demonstration by JDCL, is required before the Board approves the applications. Such demonstration has not taken place.

Counsel for the Town argued that if the Board permitted the applications, while leaving the AMP Milestones to the approval of MNR, the Board would be party to improper delegation. He cited an authoritative article on the principle of *delegatus non potest delegare* which the Board has fully reviewed and which the Board finds is relevant to this case (“*Delegatus non potest delegare*”, *The Canadian Bar Review*, [1943], Vol. XXI).

The maxim *delegatus non potest delegare* deals “with the extent to which an authority may permit another to exercise a discretion entrusted by a statute to itself...Its most important application...is to authorities which are by statute empowered to exercise discretions affecting the rights and interests of the public...”

Delegation would involve “the conferring of an authority to do things which otherwise that person would have to do himself...” In the case at hand, the *Planning Act* gives the Board the authority to dispose of land use planning applications and the ARA gives the Board authority to deal with an application for a license to extract aggregate. In discharging its duty under these statutes the Board must make a determination on all issues before it, including, in the case at hand, whether JDCL has demonstrated that the proposed quarry would not result in an unacceptable or negative impact on natural features and functions. The Board finds that the AMP, its Milestones and Appendix I do not allow for the Board to make such a determination. Rather, the AMP says: approve the applications and leave it up to JDCL and MNR to work out how the natural features and functions are to be protected. In effect, the demonstration required by the PPS and the OP is proposed to be done to the satisfaction of MNR.

Given that the ARA provides for the delegation by the Minister of Natural Resources of authority to the Board to dispose of license applications, it would be unreasonable for the Board to redelegate its authority to MNR. The AMP involves far more than what MNR normally deals with in site plan notes; it allows for matters, central to a determination of issues before the Board to be left to MNR. Even if the Board accepted, which it does not, that MNR has the resources to fulfill the requirements of the AMP, the Board cannot leave the matter of protection of the natural environment to MNR staff who deal with aggregate applications.

Catherine Douglas, Aggregate Technical Specialist with MNR testified that she has responsibility for “the administration and inspection of 146 licensed pits and quarries” in the district in which the subject property is located (Exhibit # 56, TAB 1). Under cross-examination, Ms Douglas acknowledged that she tries to visit most active aggregate sites once per year. Her District meets a target of “field-checking” 20% of licensed applications per year. Most inspections take one or two days (Transcript, January 12, 2010, pages 9 – 12). There was nothing in the evidence of Ms Douglas or

her colleague Steven Strong that gives the Board any certainty that even if it decided that it would be appropriate for MNR to take on the responsibilities assigned to it in the AMP, that MNR has the resources to deal adequately with those responsibilities. With respect, one Aggregate Technical Specialist with the responsibility for 146 licensed pits and quarries, does not fill the Board with confidence when it considers the extent of the work left to MNR approval by the AMP. It is of concern to the Board and it should be of concern to the public, that despite the provisions of the ARA, MNR would attempt, via its agreement with the provisions of the AMP, to arrogate to itself authority that should rest with the Board.

The Board will not approve an aggregate proposal which leaves an issue like the protection of the natural environment to be dealt with by a third party with demonstrably inadequate resources, like MNR. The AMP Milestone approval process leaves no room for the participation of bodies like the Region, the Town and CVC which have the mandate of protecting the public interest.

This panel of the Board must reiterate its findings in *Ron Forbes Ent. Ltd. V. Bruce (County)*, [2006] O.M.B.D. No 1328: “the Board makes a manifest error of law or fact if it approves planning instruments but in effect puts off the burdensome task of properly considering issues of compatibility and impact to some future date. In doing so, the Board abdicates its responsibility and commits a jurisdictional error”. If the Board were to allow a land use redesignation and an aggregate licence to go forward while leaving the critical work of the AMP to be done to the satisfaction of MNR, it would be abdicating its responsibility. The Board will not abdicate its responsibility; to do so would be contrary to the public interest and would constitute an error of law.

Fiscal Impact:

The Region and the Town raised the issue of the potential fiscal impact of the proposed quarry on the public. In the Issues List the Region asks: “has the applicant demonstrated that there is an appropriate administrative mechanism and appropriate financial assurances to ensure that all of the short term and long term costs, risks and uncertainties will be appropriately managed over the 80+ years that the site will require active management to prevent unacceptable impacts off-site, to implement necessary

monitoring and mitigation measures and to implement contingency plans, as necessary?”

The Town asks: “should any approvals be granted in the absence of appropriate financial assurances and agreements for:

- (a) the proper and adequate design, construction, operation and maintenance of the engineered grout curtain structure and recharge wells during the full life of the quarry operation;
- (b) the proper and adequate design, operation and completion of the rehabilitation and closure of the quarry site;
- (c) the provision of potable water equivalent to the existing quantity and quality to other water users in the event of any adverse impact to their water supplies caused by the quarry; and
- (d) the compensation of property owners for the decrease in property values consequent to the approval of the aggregate licence?”

The Town further asks: “should any approvals be granted in the absence of a host municipality agreement between the applicant and the Town of Caledon to protect the interests of the Town?”

Having reviewed the provisions of the ARA and the OP, particularly Policy 5.11, Mineral Resources, the Board finds that there is no requirement for an applicant either to prepare a fiscal impact assessment of a proposed quarry, or to provide financial guarantees to any public authority. In fact, the Board finds that Policy 3.3.3.5 of the OP provides that “a fiscal impact analysis shall not be required for...application for a new or expansion of gravel pits, pending the completion of the Caledon Community Resource Study (“CCRS”)”. The CCRS has been completed. The Town has not included a policy in the OP requiring an applicant for a new aggregate operation to complete a fiscal impact assessment. JDCL is not required to produce such an assessment.

The Board finds that as section 12(1)(k) of the ARA requires the Board to have regard to “such other matters as are considered appropriate”, it must have regard to the cost of the mitigation measures and who will bear the costs of them. The Board is cognizant of the fact that all parties have agreed that an unmitigated quarry is

inappropriate for the site. The Board would go further to find that such an unmitigated quarry would, without a doubt, result in a catastrophe for water dependent natural heritage features and functions around the site. It appears to the Board, from all the evidence adduced by all the parties, that the only thing standing between the proposed quarry and a catastrophic impact on the environment is the AMP. Therefore the Board must be convinced that the applicant would have the financial resources to complete all that is required by the AMP.

Under cross-examination, Mr. Murphy was asked by Counsel for the Region whether JDCL has “costed out the various construction, maintenance, repair and operational costs” associated with the proposed mitigation measures. Mr. Murphy replied “...the cost estimates that were prepared were done awhile ago in 2003. In fact, when we were – there was a movement in terms of having discussions with the Region and the Town in that regard, so my – I’m just saying that as my memory is a little vague. But the present value of those costs was in the range of \$80 million to \$90 million”. Mr. Murphy agreed “that over time, if it was spread out, it would be much more” (Transcript, October 27, 2009).

The Board finds that no public authority, not the Province, the Region, the Town, nor the CVC should ever find itself responsible for the costs of mitigation measures for the proposed quarry. There was no evidence before the Board that JDCL is not a good corporate citizen or that it would ever choose to leave public authorities “holding the bag” for the cost of the mitigation measures. In fact, in his Reply Witness Statement, Exhibit # 30, TAB 6, Mr. Murphy stated “even though the (ARA) does not require financial assurances for a quarry, JDCL has stated as far back as 2003 that it is prepared to post reasonable financial assurances. JDCL offered to discuss this issue with the municipal agencies, but they have not taken JDCL up on the offer”.

The Board finds that such a stated intention by JDCL is inadequate in the circumstances. As noted above, the only thing that stands between the proposed quarry and a negative impact on the natural environment is a complex, highly engineered and closely monitored mitigation system which would have to operate effectively for approximately 80 years. On the limited evidence before it, the Board finds that such a mitigation system could cost well in excess of \$90 million. The Province, the

Region and the Town and their residents must have clear assurances embodied in executed legal agreements that JDCL will always be responsible for the costs of mitigation.

Exhibit # 113, Dufferin Aggregates - Milton Quarry Extension - Agreements and Decisions is relevant to the Board's finding on this issue. Prior to the Milton Quarry expansion matter going to the Board, comprehensive agreements, including an Adaptive Management Plan Agreement, a Water Management Agreement, a Protocol for a Working Relationship and a License Agreement were entered into by the proponent of the expansion and, variously, the Regional Municipality of Halton and the Halton Region Conservation Authority. The Board will not review these agreements here, but suffice it to say that this aggregate expansion proposal, reliant on an adaptive management plan, should not result in any public authority bearing the cost of quarry mitigation or rehabilitation.

Pursuant to the Agreements contained in Exhibit # 113, the proponent is responsible for operation costs of the mitigation measures, a letter of credit and an endowment fund in relation to future operating costs. In the event of a default by the proponent, Conservation Halton has a right to enter the proponent's lands and remedy the default at the expense of the proponents by drawing on securities posted by the proponent.

The Board finds that the template established in the Milton Quarry Extension is a good one when it is considering a proposed quarry which would be reliant on a costly, long-term adaptive management plan. It would not be in the public interest to approve such a quarry in the absence of agreements similar to those executed in the Milton Quarry Extension matter. No statute or policy affords the Board the authority to require any person to enter into such agreements. However the Board cannot envision the approval of a quarry dependant upon a complex, highly engineered adaptive management plan, without such agreements being in place or without making the execution of such agreements a condition of approval.

Reserve Lands vs. Resource Lands:

Policy 5.11.2.1.2 of the OP provides:

Those Areas identified as CHPMARA have been prioritized as Aggregate Resource Lands and Aggregate Reserve Lands as shown on Schedule L. New pits and quarries are encouraged to locate in Aggregate Resource Lands as the lands have been determined to be suitable for aggregate extraction subject to Sections 5.11.2.4.1, 5.11.2.4.2 and 5.11.2.4.3 and shall be designated to Extractive Industrial A Area or Extractive Industrial B Area subject also to Sections 5.11.2.4.1, 5.11.2.4.2 and 5.11.2.4.3. New pits and quarries will be considered in Aggregate Reserve Lands. It is the intent of this Plan that Aggregate Reserve Lands will be considered for Extractive Industrial A Area or Extractive Industrial B Area subject to the Applicant providing a planning justification having regard to the potential impacts that affect the broader community, that the location is suitable for aggregate extraction and subject to meeting the requirements of Section 5.11.2.4.4.

Policy 5.11.2.4.2, reviewed extensively above, requires that prior to an aggregate extraction operation being approved in either a Resource or Reserve Area studies must be submitted which demonstrate a number of things, including no unacceptable social, visual, cultural heritage or environmental impacts. As the Board has found above that JDCL has failed to demonstrate no unacceptable social, visual, cultural heritage or environmental impacts of the proposed quarry, the Board can find no basis upon which to allow the subject property to be designated Aggregate Resource Lands. The lands are properly designated Aggregate Reserve Lands, recognizing their inclusion in a CHMARA. The lands may be considered for extraction, but extraction should certainly not be encouraged.

**Conclusion:**

The balance among competing interests mandated by the PPS and the OP has been thoroughly considered by the Board. It is apparent, that with respect to these particular applications, the interest in protecting the natural heritage and cultural heritage resources of the subject lands and those surrounding them outweighs the interest in making the aggregate resource on the subject property available to supply mineral aggregate needs. Too much of enormous value to the Province, the Region and the Town could be lost if the proposed quarry went forward. A failure in the mitigation measures proposed for the quarry, as set out in the AMP, would have a catastrophic

impact on the natural environment or the natural features and functions of the area. Such an impact cannot be countenanced by the Board. In addition, the fundamental change to the character of the area attendant upon the proposed quarry would not be acceptable. The loss of views of rural lands, the loss of a cultural heritage landscape and cultural heritage resources and the conversion of a rural area into an urban area centred on a heavy industrial operation cannot be permitted in the interest of the production of more aggregate for infrastructure development. It is time for alternatives to aggregate for infrastructure construction to be found. Too much of what is essential to the character of this Province would be lost if aggregate extraction were to be permitted on lands like the subject property. Lands situated in a significant cultural landscape, surrounded by significant natural heritage features and functions, are not lands on which extraction should be permitted in the absence of demonstration of no negative impacts. No such demonstration has been completed in this case.

Having regard to the provisions of the PPS, the ROP and the OP, the Board finds that the requested OPA and ZBLA do not represent good planning. Having regard to the ARA, particularly section 12(1), the Board finds that the requested licence should not be issued.

**Board Order:**

The Board Orders:

1. the appeal of OPA 161 is dismissed; Area 9A shall be identified as Aggregate Reserve Lands on Schedule L of the OP;
2. the appeal by JDCL with respect to its proposed amendment to the OP under section 22(7) of the *Planning Act* is dismissed;
3. the appeal by JDCL with respect to its proposed amendments to Zoning By-law 87-250 and Zoning By-law 2006-50 under sections 34(11) and 34(19), respectively, are dismissed; and
4. the Minister of Natural Resources is to refuse to issue a licence under the *Aggregate Resources Act* with respect to JDCL's application for a new Category 2 licence for the removal of aggregate from the subject property.

This is the Order of the Board.

“Susan B. Campbell”

SUSAN B. CAMPBELL  
VICE CHAIR