

CRC Response to Howson Planning Report

Zoning By-law Amendment Application Township File ZBA 09/12, James Dick Construction Ltd. – Hidden Quarry Proposal

CRC ROCKWOOD INC.

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Introduction

CRC has thoroughly reviewed the Planning Report submitted by Elizabeth Howson of Macaulay Shiomi Howson Ltd. (MSH) on September 1 2015 in regard to Zoning By-law Amendment Application Township File ZBA 09/12, James Dick Construction Ltd. – Hidden Quarry Proposal. Our review has identified many, questionable assumptions, flaws and omissions, in many instances drawn from the source technical reports and simply repeated without critical analysis in the Howson Report. CRC presented our findings to Council at the September 15 Public Meeting. We also noted that the report contains many qualifiers in its statements about potential impacts—“subject to”, “conditional on”, “provided that”—which only emphasize how uncertain these impacts will be if the quarry is developed.

It is noteworthy that many residents from Guelph Eramosa Township, Halton Hills, and Milton spoke forcefully at the public meeting about their concerns and previous experience with pits and quarries and their impact on their quality of life, property values, and so on.

The issues related to the Howson Report for which CRC has serious concerns are:

1. Policy framework
2. Hydrogeology
3. Natural Environment
4. Air Quality
5. Traffic Impact and Haul Route
6. Noise
7. Blasting Impacts
8. Agricultural Impact
9. Cultural Heritage
10. Visual Impact
11. Economic Impacts
12. Radon gas risks
13. Use of Explosives
14. Conditions if approved

It is our view that GET Council should instruct the Planning Consultant to critically assess the input provided by CRC and individual citizens at the September 15 meeting and in this report and amend the Howson Report accordingly.

In summary, we strongly believe that the recommendation to approve the application even with conditions is premature in light of the unresolved issues. CRC therefore recommends that GET Council reject both the report and its recommendation, and take the position at the Ontario Municipal Board that the proposed Hidden Quarry should not be approved.

1.0 Policy Framework

1.1 **Provincial Policy Statement:** Ms. Howson's report places too much emphasis on Section 2.5.2.1 of the Provincial Policy Statement: "as much of the mineral aggregate resources as is realistically possible shall be made available as close to the markets as possible"--and not enough on the other policies of the Provincial Policy Statement which call for protection of communities, sensitive land uses, natural heritage, water, agriculture, cultural heritage and archaeology. And the Provincial Policy Statement 2014 now defines major facilities--as in keep major facilities away from sensitive land uses-- as including "resource extraction activities". Yet Ms. Howson's planning report does not even mention this critical change to the Provincial Policy Statement as affecting the balance between potential aggregate extraction and the other objectives of the Provincial Policy Statement.

1.2 **Wellington County Official Plan:** Nor does Ms. Howson's report give proper weight to the broad policies of the Wellington County Official Plan in striking the appropriate balance between aggregate extraction and what the County Official Plan says we are trying to achieve through land use planning. We brought these policies to Council's attention in a recent delegation. These policies include things like:

- "Wellington County is a good place to live, this Plan intends to keep it that way" and
- "the people of the County enjoy clean air, clean water, healthy communities, natural heritage, cultural heritage, public health and public safety".

That healthy communities are those that:

- "provide residents with a sense of control over decisions which affect them"; and
- "are designed to reduce the stress of daily living and meet the life-long needs of residents".

How is supporting the Hidden Quarry keeping our community a good place to live, how is it going to protect our clean air, clean water, our healthy communities, our natural heritage, our cultural heritage, our public health and our public safety?

How is supporting the Hidden Quarry going to provide residents with a sense of control over decisions that affect them?

And how is supporting the Hidden Quarry going to reduce the stress of daily living and meet the life-long needs of residents?

These broader policies in the County Official Plan are also important because they provide the context in which the more detailed policies of the County Official Plan affecting pits and quarries need to be applied. What these broader policies mean is that the more detailed policies for evaluating pits and quarries need to be very rigorously applied, that the sieve through which proposals for pits and quarries need to be passed must be a very tight one. In this case, it is unfortunately evident that Ms. Howson and the other consultants hired by the Township to help evaluate the proposed Hidden Quarry have not done that, and the balance to be struck in evaluating the Hidden Quarry is not the right one.

1.3 **Property Designation of Quarry Site:** Another problem with the Howson report is that it doesn't even get the Official Plan designation of the Hidden Quarry property right. The Howson report does correctly identify the fact that there is a Mineral Aggregate Area overlay on the property, but fails to identify what the underlying designation is. That underlying designation is mostly "Greenlands" with smaller areas of "Core Greenlands" and "Prime Agricultural". One of the problems with not getting the underlying designation right is that the Howson report fails to properly apply the policies of that underlying designation. This failure again means that the appropriate balance between potential aggregate extraction and the other objectives of the County Official Plan is not achieved by the Howson report.

1.4 **Requirement for Application of Good Planning:** The current official plan designation on the Hidden Quarry site is a result of the approval of OPA 81. Previously the lands had a predominantly "Prime Agricultural" underlying designation, with a small amount of "Core Greenlands". The Howson report asserts that the "**Clergy Principle**" applies in these circumstances and that, consistent with that principle, the official plan policies and designation in effect back in 2012 when James Dick Construction Limited made its application are what should be used to evaluate the application. This suggestion is wrong. In 2003 the OMB determined in the context of another James Dick quarry proposal--the Rockfort Quarry proposal in Caledon--that the Clergy principle should not apply and that "good planning", usually associated with the most up to date policies, should prevail.

1.5 **ARA Evaluation Criteria:** Another policy framework related problem with the Howson Report is that it fails to apply the evaluation criteria associated with the Aggregate Resources Act in making a recommendation to Council with regards to the Hidden Quarry proposal. The applications before the Board are both a rezoning application, but also an application for an aggregate licence, and Council needs to decide what its position is with respect to both applications. Before coming to a recommendation about the Hidden Quarry Ms. Howson should have also taken into account the evaluation criteria of the Aggregate Resources Act. One of these criteria is particularly important in the context of the Hidden Quarry and that criterion is "the applicant's history of compliance with this Act and the regulations". This criterion is, of course, particularly important given the problems with the proponent's other quarry in Guelph-Eramosa Township, the DOLIME Quarry adjacent to the City of Guelph.

2.0 Hydrogeology

It is our opinion that one of the most critical flaws in the Howson Report relates to adequately addressing many of the concerns identified in reports submitted on behalf of CRC by hydrogeological consultant, Hunter and Associates (Hunter), since their first report in mid-2014 and most recently in May 2015. There are numerous examples of evidence that has been submitted and not challenged, and that has been ignored in the Planning Report. Examples include the following:

2.1 **Drawdown predictions:** With regard to Section 2.2.2 of the Hunter 2015 report, the 2x drawdown interference safety factor has not been challenged by the applicant as indicated in the response letter from R.J. Burnside. We interpret this to mean that the applicant's hydrogeologist, Harden Environmental, agrees that drawdowns of the water table from the operations at this site could be out by a factor of 2X. The predicted draw-down of the water table level that is proposed by Harden Environmental may have serious impacts on wells immediately adjacent and south of the site and could potentially have significant impacts to the wetlands and agricultural lands adjacent to the site.

2.2 **Zone of Influence:** As discussed in Section 5.1 of Hunter (2015), the quarry hydrogeological influence (well exclusion distance) of 500 m was employed. Hunter has determined that it exceeds 750m and is approaching 1000 m. There has been no data analysis on well water at this extended distance. The Howson Report repeatedly presents, however, the vague statement that the zone of influence or testing area should be 500 m or "somewhat outside that area where appropriate".

2.3 **Historical Bedrock Water Level Data:** Hunter (2015) has identified that there is a lack of historical bedrock water level data adjacent to Tributary B, the Allen wetlands and north wetland and spring-fed ponds (W31). It appears that this lack of data has been accepted by the Howson Report and Burnside, since many of Howson's conditions of approval relate to obtaining this data. This data must be obtained to ensure that the true bedrock levels are established before approval and excavation.

2.4 **Groundwater Modelling:** Harden-modelled virtual water levels of groundwater are not consistent with actual water levels across the model domain. CRC has contested this fact for almost a year without a reasonable answer to this scientific challenge. Levels of the water table have to be accurately measured or the impacts of the operation cannot be determined.

2.5 **Up-gradient Hydrogeology:** There has been significant disagreement between Hunter and Harden about the geological/ hydrogeological conditions up-gradient of the proposed quarry. The northern area near the site is a significant recharge area and is also the location of a Provincially Significant Wetland (PSW). Now at this late date, Harden has requested testing to determine the source of the water that feeds tributary B, upstream ponds, the PSW and the Brydson Creek. If the hydrogeology of the area is not understood by the applicant, this application cannot be approved.

2.6 **Permit to Take Water:** Neither Harden nor Howson address the permit to take water that will be required for aggregate washing on site. The hydrogeological and environmental implications of a permit to take water must be assessed before approval. This issue is not addressed in the Howson Report.

2.7 **Hydraulic Barrier:** The Howson Report does not address the proposed hydraulic barrier to be constructed adjacent to the PSW. The hydraulic barrier and its ability to protect the PSW within the site has been questioned repeatedly, in numerous presentations by William Hill Mining Consultants Ltd. (HMC), that state that this barrier will not withstand blasting.

2.8 **Protection of Tributary B:** Tributary B is supposed to be protected by a 30 m barrier on both sides of the Creek that runs right through the middle of the site. The Howson Report states that M3 Township Zoning By-law will have to be changed to allow a setback of 20 m requested by the applicant. Howson does not seem to be aware of discussions which have now re-set the setback to 30 metres further to CRC and agency questions. HMC asserts that the 30 metre setback will still leave the creek at risk from blasting.

2.9 **Rockwood Well 4:** There has been no detailed discussion of the potential impact of the new Rockwood Municipal Well 4 drawing from the same recharge areas as the quarry and the mushroom farm as well as numerous private wells. The new wellhead protection plan from the GRCA indicates that the wellhead protection area is in the same area as the recharge area that the quarry will stress.

It is abundantly clear that the hydrogeology, vibration and blasting issues are interconnected. The Howson Report does not adequately address any of these inter-relationships and inherent risks.

In summary, the key issues for the CRC are:

- Hydrogeological issues listed should be completed **before approval**. This significant listing indicates that the hydrogeology of the area is not well understood.
- **Mining under water in hydrogeologically sensitive lands has not been discussed.** The Howson Report does not identify this as a **critical** issue. Mining underwater has been practised in Florida with serious negative impacts in geology similar to that of the proposed quarry. In the Hidden Quarry case, it would be experimental. The example of the Guelph Dolime quarry as an underwater mining operation identical to the Hidden Quarry application is inaccurate as the rock morphology of the land at the Dolime site is different, and the water table is significantly lowered in the pit prior to the underwater mining. The fact that the aquitard was breached due to JDCL's underwater mining operations and/or incorrect modeling of the rock structures at Dolime does not instill any confidence in the applicant's expertise in this technique and that similar issues will not happen at the proposed Hidden Quarry.

3.0 Natural Environment

There is no discussion in the Howson Report of the strong connection of the area with the Blue Springs System – a regionally significant life science Area of Natural Scientific Interest (ANSI) and Environmentally Sensitive (ESA). The Howson Report has ignored this natural capital that is a treasure for the Province, not just the region of Halton. There is no discussion of the “Open Space Protection” designation for the lands on the property and the connection to the same land type to the north and southeast. This entire area is highly sensitive to ground water contamination (ref. the Blue Springs Corridor study by the GRCA). In fact the applicant uses this sensitivity to contamination to indicate that the aquifer is already being exposed to surface water and therefore a little more contamination should not be a concern.

The PSW on the property is considered part of the Blue Springs Corridor. The Natural Environment consultant GWS states that there is no connection.

3.1 Brook Trout in Brydson Creek: The CRC commissioned an aquatic habitat and fish survey by Aquatic ecologist Dr. Karl Schiefer. His comments are shown below:

“Brydson Creek provides an exceptionally high quality, cold-water stream habitat for a natural and self-sustaining brook trout population. Stable, spring-sourced flows of very high quality ground-water are the major factor in sustaining this trout population. The preservation of a mature white cedar riparian forest and natural stream channel are also important factors in protecting this population. Areas with groundwater upwelling add to the high quality of trout spawning habitat in this stream.

Based on a review of fisheries studies carried out on nearby Blue Springs Creek and the Eramosa River over the past five decades, the brook trout population in Brydson Creek appears to be exceptional and very significant within this watershed. It is also worth noting that some of these trout populations in smaller headwater tributaries, such as Brydson Creek, may have been isolated for a sufficient period of time that they have unique genetic characteristics. Certainly, this population appears to have adapted very well to thrive in the habitats provided by Brydson Creek.

Operation of Hidden Quarry would appear to have the potential to negatively affect both groundwater and seasonal surface runoff to Brydson Creek, which is adjacent to and immediately downstream of the quarry site. In this area of Ontario, potential sites to quarry limestone bedrock are numerous. Healthy and self-sustaining populations of native brook trout are not.”

Halton region agrees that brook trout populations are becoming increasingly uncommon due to water quality” (ref. Halton Region 2005). In addition, the Howson Report ignores the concern voiced by Trout Unlimited and Jack G. Imhof, National Biologist/Director of Conservation Ecology, about the fish population:

“We do not have very many extant brook trout populations left in southern Ontario anymore and we do need to be extremely circumspect when it comes to any development that may affect groundwater movements towards spawning areas.”

There was no discussion of MP Michael Chong's letter to Department of Fisheries and Oceans in respect of the effect of quarry operations on this fish population.

There was also no discussion of Halton's region's request for clarification on how "JDCL plans to monitor ecological/fish habitat assessment to ensure current conditions are maintained".

Most importantly, there is no recognition by the Howson Report that there was NO REVIEW of the CRC fish study by MNRF or MOE.

3.2 **Species at Risk:** The Howson Report does not reference the disturbing fact that the MNRF neither reviewed nor commented on the CRC presentations related to the Natural Environment prepared by Dr. Bill McMartin, (GAIA Eco Consultants) and Canada Tier-2 Chair, Dr. Brian Husband (University of Guelph). There was,

- No discussion of breeding Eastern Wood-Pee (species of concern)
- No discussion of little brown bat in cattail marsh and on-site house (now endangered)
- No discussion of Monarch butterfly habitat
- No discussion of barn swallow (COSEWIC-Threatened)

Dr. McMartin indicated that further studies should be undertaken concerning the barn swallow discovery.

Dr. Husband commented on the sensitivity of the wetlands and asserted that extreme caution would have to be exercised if any extraction proceeded.

Dr. Husband states: *Ultimately, the most compelling arguments against the quarry that emerge from this report are made early on specifically that the water course feeds the Blue Springs creek wetland complex and aquifer. As a result it is recognized by GRCA and the BS to be highly vulnerable to ground water contamination. This is critically important.*

Dr. Husband goes on to state that the GWS Report commissioned by JDCL has two areas of weakness:

1. It doesn't give any weight to the fact that significant wetlands on and around the property are especially vulnerable to aggregate extraction below the water table. In fact, any change in water table as a result of extraction could have a devastating effect on the wetlands, even if they are separated from the site of extraction by a 30m buffer. There is a proposed hydraulic barrier, which is meant to minimize loss of water to the aquifer. We don't have much information about this barrier or confidence in it and the report doesn't spend much time exploring this mitigation method. For example, it may maintain the water table somewhat but it is not certain that it can control redirection of surface water flow from the wetlands into the extraction site.

2. Overall, the premise that proposed habitat rehabilitation and protection will ultimately improve or restore environmental health is questionable. Increasing the number of habitat forms (cliffs, lakes etc.) may increase diversity, but diversity alone is not a useful measure, given that these habitats are historically not associated with this site. What matters is the diversity AND function of the existing habitats that are being placed at risk. To assume that rehabilitation will leave the site better than it began also ignores the complexity of habitat rehabilitation and the large number of population restoration failures that have occurred in the past.

The Howson Report has not questioned the need for new information and the lack of comments by consulting authorities, including County of Wellington, MNR and GRCA, the latter having advised that it is open to reviewing new information. Burnside also indicates that JDCL has adequately addressed concerns related to the Natural Environment but reserves the right to review new information. Halton region has not provided final comments.

4.0 Air Quality

The CRC submitted to the Council and other stakeholders a review prepared by Airzone One Ltd. of the air quality report by JDCL's consultant, RWDI. The following recommendations were proposed by Airzone One with respect to revisions/omissions to the report:

- Major reworking of the AQA corrections and explanations based on the issues raised in the Airzone review (numerous issues).
- Use of (corrected) preliminary modeling to help identify locations to conduct background monitoring.
- Conduct background air monitoring; meanwhile conduct site-specific sampling (for aggregate composition for example).
- Re-do modeling with site specific input and site specific background data.
- Assess need for mitigation and predict effectiveness of mitigation (dust water controls) on a quantitative basis.

Airzone One also concluded that *"RWDI's conclusion that the resultant air quality levels are accurate are not supported by their analysis because many components of the analysis were missing and many analyses were conducted on a non-conservative basis"*.

Air quality and exposure to quarry dust (mostly generated by truck traffic at the site) has become a major concern for communities that are near quarry operations. For example, Dr. David Mowat, Peel Region Medical Officer of Health, has acknowledged the need for better air quality monitoring in the vicinity of pits and quarries, and has written letters of request to MNR and MOE officials seeking such testing.

The statement by JDCL that "The Hidden Quarry, being a largely wet extraction operation will have no difficulty controlling dust to acceptable levels" is not valid and has never been scientifically proven with a comparative study with a "like" quarry that uses dry extraction. Neither does the Howson Report address the significant above water table extraction that will take place.

The Canada-Wide Standard for PM2.5 requires the 99.9th percentile concentration to meet the limit. RWDI admits that they will not meet the 99.9th percentile criterion with off-highway traffic. Burnside states that “exceedances are likely to be acceptable.” According to the applicant, only if weather is appropriate and production is at a maximum will the limit be exceeded, and then states that these circumstances are unlikely. The possibility of exceedances was not discussed in detail in the Howson Report.

5.0 Traffic Impact and Haul Route

Traffic impact is a key concern of Halton Hills, Milton and Halton Region, and as the Howson Report acknowledges, these concerns have not been resolved.

CRC has presented information to Council that challenges the underestimation of truck traffic by the proponent, and the concern about underestimation has been expressed by other parties including Halton Hills and their traffic planning consultant. The devices by which the applicant underestimates traffic impact include the use of average values for daily, weekly, and monthly activity. Even accepting the applicant’s assertions about the load size for its fleet, the potential haulage of product by contractors whose load size may differ from JDCL’s, is not taken into account.

In addition, there has been no analysis of the impact of gravel pit traffic on the Sixth Line if the Hidden Quarry is approved and allowed to use the Sixth Line as a stacking driveway for gravel trucks. How long are residents and the school bus trying to turn onto Highway 7 going to have to wait behind a slow moving line of gravel trucks that have just exited the quarry site, especially at the worst times of the day? In light of this issue having not been addressed by the applicant, this quarry proposal should be turned down or, at least required to access Highway 7 directly. The applicant should not be permitted to use Sixth Line.

CRC also finds the deferral of MTO conditions to the post-approval phase unacceptable in light of the absence of an acceptable haul route plan.

6.0 Noise

The Howson Report has not considered that baseline noise level should be established before approval. For example noise is already produced by highway traffic, trains, animals, construction in Rockwood, and farming equipment.

The applicant’s consultant, Aercoustics, indicates the worst case scenario is within 2dba or equal to the MOE sound limit. This sound limit provides little factor of safety for nearby residents. Noise vibrations are also critical as the vibrations may kill fish or destroy eggs in the adjacent aquatic habitat. Horses and livestock may also be negatively affected by noise and vibration.

It is not enough that the quarry be able to satisfy provincial noise standards. The quarry also needs to demonstrate what pre-development noise levels are, and what post development noise levels are predicted to be. If post-development noise levels are more than 5 decibels higher than pre-development noise levels, then the quarry proposal should not be approved. In the absence of this pre-development and post-development noise level analysis, Council should oppose the quarry proposal at the Ontario Municipal Board.

7.0 Blasting

Hill Mining Consultants (HMC) has submitted extensive reports to GET addressing issues arising from the proposed mining operations to be employed in the Hidden Quarry. Of particular note are

- **Appraisal of the Mining Aspects of Reports Prepared as Part of the Hidden Quarry Rezoning Application to the Guelph/Eramosa Township Council**, October 21, 2013
- **Dangers Posed to Highway 7 by Hidden Quarry Flyrock**, December 10, 2013
- **An Appraisal of the Peer Review by Golder Associates Of Two Reports Titled Blast Impact Analysis James Dick Hidden Quarry By Explotech Engineering Ltd.**, January 31 2015,
- **A Review of the Blasting Issues at the Hidden Quarry**, August 19 2015.

Throughout the rezoning application assessment process, there has not been any detailed, complete response to the numerous technical issues raised in these reports. CRC's repeated requests for a thorough peer review of the proponent's blasting impact reports in light of the extensive details provided in the HMC reports have not been met. Blasting in particular remains a serious, unresolved issue for this application.

7.1 Introduction: It needs to be understood that the proposed quarry is a MINE. And yet, in the Howson Report, a pitiful 2-1/2 pages are devoted to this heart of the matter. In all mines around the world, there are the same basic components: Drilling; Blasting; Loading; Hauling; Treatment on-site and Shipping. The lack of attention paid to these all-important mining activities in the MSH Report clearly demonstrate a total lack of understanding of the main issue surrounding the Hidden Quarry.

Our two major criticisms of the Howson Report are:

1. The acceptance of JDCL's oversimplification of the significant outstanding mining issues and
2. In the MSH report the disregard for the non-disclosure by Golder of what could be interpreted as a serious conflict of interest.

7.2 JDCL and Peer Reviews – Oversimplification of the Mining and No Answers on Blasting Questions: In Hill Mining Consultants' delegation to Council on February 17th, 2015 on behalf of CRC, six specific

issues that were either dealt with inadequately, or not at all, were identified in both the Blasting Impact Analysis by Explotech and the Golder Peer Review dated October 1st, 2014. Those six issues were:

- Geology and Karst Weathering
- Unique Characteristics of the Mine
- Fly Rock
- Drilling and Blasting Considerations
- Blasting Patterns and Powder Factor
- Shockwaves and Ground Vibrations

GET Council took action on our request by forwarding the Hill Report to JDCL, who, in turn, forwarded it to their consultant, Golder Associates. Golder's response to JDCL was that they "did not intend to provide a formal technical response" to the appraisal of their so-called peer review. Our question remains: WHY NOT? Mining is the heart of the matter.

Worse still, the MSH Report acknowledged these six issues but chose to accept JDCL's explanation of Golder's credentials that as a big and highly-reputable company, they didn't have to reply to either Mr. Hill, a fellow Professional Engineer, or to you, the Guelph-Eramosa Council.

7.3 Disregard of Apparent Conflict of Interest: According to the *Professional Engineers of Ontario Code of Ethics, Section 77 of Regulation 941*, it is the professional duty of practitioners "to disclose IMMEDIATELY any direct or indirect interest that might prejudice (or appear to prejudice) their professional judgement". The MSH Report disregards the fact that JDCL has been a client of Golder in the past, as stated in a Golder email to JDCL that "we have done business with James Dick Construction Ltd. in the past". At no point, was this past association disclosed to Mr. Hill as a fellow Professional Engineer, even after he publically recommended that Golder be retained by GET to carry out a blasting peer review.

7.4 Summary: By down-playing and rubber-stamping all-important mining considerations in its report, MSH has shown a complete disregard for the dangers associated with the Hidden Quarry as pointed out time and again by HMC's reports. All of the other issues, such as brook trout spawning ponds, the Brydson Creek wetlands, property damage, and foremost, public safety, etc., arise from mining the Hidden Quarry.

8.0 Agriculture

8.1 No Peer Review: The Stovel Agricultural Impact report was reviewed by Howson. No peer review was posted on the GET website. It is inappropriate for the township's planner to perform this review without the required expertise and mandate. Moreover, the community was given no opportunity to provide input on the terms of reference, and had little time to respond formally.

8.2 **Inadequate Scope:** The Howson Report focuses only on two farming operations (horse and mushroom) and not the entire agricultural community. It does not address cash crop, beef, dairy, sheep farmers and woodlots. The findings still rely on flawed applicant reports (blasting, air, hydrogeology, noise, traffic). The study area also has limited geographic scope.

8.3 **Inadequate Analysis:** The statement in the Howson Report that “Agricultural and aggregate sites coexist around the world”, implying no problem, is incorrect. There are known dust impacts on plants and animals. Multi-million dollar businesses have been affected. For example:

- Padgett (2007): dust can cause physical damage such as abrasion to plant surfaces, and increased alkalinity due to the limestone.
- Plant growth is affected within 400m of a limestone landscape (Padgett et al, 2007).
- Mishra (2011) said air pollution was responsible for vegetation injury.

No forest will buffer the trucks on Hwy 7, which cause most of the dust. The mitigation measures are not specific to the need of each farm business and the modelled background dust levels have been taken from the Guelph MOECC station which is 15 km from the site.

8.3 **Water Table Drawdown:** The potential significant water table drawdowns discussed in the hydrogeology section of this report may have serious impacts on the surrounding agricultural lands.

We are custodians of the land. Council has a responsibility to protect our lands.

9.0 Cultural Heritage

The cultural heritage impact report completed by George Robb, Architect, on behalf of the applicant, James Dick Construction Limited, notes that the Provincial Policy Statement requires that:

"Significant built heritage resources and significant cultural heritage landscapes shall be preserved". Robb's report goes on to say that "the Sixth Line rural roadscape is a cultural heritage landscape based on its tree lined rural profile and remaining three nineteenth century farmsteads located to the north of the property." Furthermore, in indicating that impacts from the proposed Hidden Quarry on the Sixth Line require mitigation, Robb's report is acknowledging that this cultural heritage landscape is significant and needs to be conserved in accordance with the Provincial Policy Statement.

Mr. Robb adds that, in his view, the retention of the treed road verge and the landscaped berm beyond will be sufficient to achieve this mitigation. The CRC disagrees that this will be sufficient mitigation, particularly in light of the road improvements that will be necessary to the Sixth Line if the Quarry is approved.

The CRC believes that not permitting the proposed Hidden Quarry is the only sure way to conserve the significant cultural heritage landscape of the Sixth Line or, at the very least, the Quarry should not be permitted to use the Sixth Line as a stacking lane for its gravel trucks. The CRC has already raised the issue of the unacceptable traffic impact on the Sixth Line if the Quarry is approved. The unacceptable impacts of the Quarry on the significant cultural heritage landscape of the Sixth Line reinforce this conclusion.

10.0 Visual Impact

The Concerned Residents Coalition has reviewed the Visual Information Package submitted by the applicant and have found the analysis provided to be inadequate. Similarly, the CRC has found the peer review of the Visual Information Package to be inadequate. In addition there have been numerous changes to the Aggregate Act Site Plans affecting the visual environment since the applicant submitted his Visual Information Package and since the peer review took place, but none of these changes have been accounted for in either document.

11.0 Economic Impact

The Economic Impact Assessment Report by Altus Group although dated August 21 2015 was not made available publicly until September 3rd, the result being that there has not been an opportunity to comment on its findings until now. While we do not know how long the report was in the hands of the Planning Consultant, it is evident that its findings were simply pasted into the Howson Report with nothing to indicate that it was in any way critically assessed.

It is also pertinent to note that Altus Group rejected without discussion the concerns raised by CRC regarding the study's terms of references and the methodology that was to be employed.

CRC takes issue with the key conclusions of the **Altus Report**—and therefore, the Howson Report in regard to economic factors—for several reasons:

11.1 **Background Information:** Section 3 – Technical Reports of the Altus Report does not acknowledge or take into account CRC input, as for example our extensive reports on blasting impacts, air quality, natural environment and aquatic habitat.

The report draws conclusions from an incomplete haul route study that is still the subject of intensive review and has not been accepted by either the Township or the neighbouring municipalities. Once again the report repeats the unsubstantiated assertion that truck traffic through Rockwood would be reduced.

The report ignores the extensive hydrogeology peer review submitted by CRC and instead accepts the information provided on behalf of the proponent by Harden Environmental as fact.

The report ignores concerns raised by CRC regarding impacts on agriculture including dust, noise and vibration impacts on the adjacent W&T Mushroom farm and nearby forage crop, livestock and horse farms.

11.2 Study Methodology: The study employs an input-output model that is acknowledged by the consultant to be applicable to **provincial, national and international level** studies as opposed to the micro-economic level that exists in this case. "Estimates of economic impact from the standard I-O model are limited to the provincial level. . . Much of the economic impacts reported above would occur outside of the local market area [i.e. Guelph-Eramosa]." The assumption that the majority of the economic impact would be in the local area deserves critical review in light of the proponent's own assertion that haulage would involve their existing truck fleet which is not based in GET and very questionable assumptions about local employment.

Local employment is assumed to be 37 FTE jobs of which between 6.5 on-site and 8 off-site (haulage) jobs are assumed to be GET residents. Again, the proponent's assertion elsewhere that haulage will be provided by their existing fleet which is based outside GET puts these numbers into question, and with them, the follow up local personal spending estimate of nearly \$12 million over the quarry lifetime. Similar questionable assumptions are made regarding Halton Region residents.

11.3 Traffic Impacts: Regarding traffic impacts, the report simply repeats unsubstantiated assertions by the proponent that HQ traffic would supplant existing traffic from the Guelph quarry to Acton and Georgetown markets.

11.4 Property Value: The economic impact report is badly flawed in that it suggests that property values will not go down as a result of the Hidden Quarry because "the proposed quarry would operate on lands that have been identified for aggregate extraction uses". This non-sequitur is absolutely and completely wrong in that the Wellington County Official Plan makes it plain that the Mineral Aggregate Area overlay "only indicates that aggregate deposits are likely to be available. It does not presume that all conditions are appropriate to allow extraction or processing of the resource to proceed".

The Altus report alludes to but dismisses research done by both Lansink and Hite, which find evidence for significant declines in real estate values in the vicinity of quarries, the former specifically in the Caledon area. It ignores the 2009 Centre for Spatial Economics (C4SE) study on the proposed Rockfort Quarry in Caledon which estimates an

average 19% decline in residential property value within 2 km of the site. It also ignores other related and similar findings in research carried out by George Erickcek of the W.E. Upjohn Institute for Employment Research in the US.

Also the report asserts that MPAC finds no loss in price in residential housing in proximity to pits and quarries, which is simply not correct. CRC has previously referenced MPAC correspondence (2012) which states “MPAC has applied a -4% adjustment to residential properties that abut an active or proposed gravel pit . . . [and] a -2% adjustment will be applied to residential properties that do not abut but are within one kilometer of an active or proposed gravel pit.” Clearly there is sufficient reason to support the intuitive view that property values are not enhanced by proximity to pits and quarries and that it is reasonable to expect declining values and related property assessment.

11.5 **Additional Costs:** The estimate that additional costs to the Township due to the quarry operation of just over \$4000 per year again ignores the more thorough research done for the Rockfort Quarry by C4SE which takes into account impacts on fire and emergency services, maintenance of municipal roads, overseeing monitoring and mitigation of quarry impacts, etc.

11.6 **Social Impact:** Finally, no attempt is made in the Altus study to attribute value to social impacts and quality of life. As the C4SE study notes, “The quality of life sought by rural residents reflects the sum total of the many desirable attributes of rural settings including peace, solitude, proximity to nature, etc.” and this proposal puts these attributes in jeopardy.

As the C4SE Study states, "It is important to note that these impacts are permanent. While it is true that properties within a 2 to 5 kilometre radius of the proposed site will increase in value in the future in line with increases in average property values in general in the broader area, it is equally true that the gap in values resulting from the negative impact of the quarry persists over time".

Our disappointment with the methodology and findings of the Altus study are compounded by Ms. Howson’s verbatim acceptance of those findings with absolutely no critical analysis.

12.0 Radon Gas

CRC has previously submitted information to GET Council regarding the risk of exacerbating radon exposure for residents in the vicinity of the proposed Hidden Quarry as a result of blasting operations below the water table.

12.1 The Howson Report does not respond appropriately to the CRC Delegation Question: *“What action is being taken by Guelph Eramosa Township to address the possibility that the operations of Hidden Quarry will influence the increase of radon gas release into our environment?”*

12.2 The Howson Report does not indicate whether Wellington Health or Health Canada or any Professional was consulted on radon gas in Guelph Eramosa.

12.3 No consideration was given to the results of a one day radon test performed by the CRC on five houses within closest proximity of the Quarry. The closest house, on the 6^h Line Eramosa, was shown to have radon concentrations almost four times higher than the Health Canada acceptable level.

12.4 The Howson Report does not indicate/recommend whether GET will perform sampling tests for radon gas in order to establish baseline measurements for future reference.

12.5 The Howson Report indicates that JDCL will have RWDI provide additional inputs without a committed time frame. What does stand out more in the Howson Report is the acceptance of opinions from JDCL on radon gas without any critical assessment. For example, the report states: *“Therefore JDCL indicates that given that the quarry is designed not to impact on any surrounding structures there should be no impact.”* No justification for this conclusion is provided by nor required of the applicant.

12.6 The Howson Report does not address the potential for repeated structural repair caused by blasting vibration, destroying any previous renovation undertaken to protect homes from radon seepage.

Therefore the CRC believes the issue of radon gas requires a more comprehensive investigation by Guelph Eramosa Township before any position can be taken on the application.

13.0 Use of Explosives

JDCL is proposing the use of explosives to blast the karst formation rock for further processing.

The use of explosives falls under the following Federal and Provincial Acts, Regulations, and Guidelines:

1. Explosives Act of Canada R.S.C 1985, c. E-17
2. Explosives Regulations of Act 2013/SOR 2013 – 211
3. Ontario Occupational Health and Safety Act – R.R.O 1990 Regulations 854
4. Storage conforming to “Storage Standards for Industrial Explosives, May 2001” Explosives Regulatory Division of Natural Resources Canada
5. Location in conformity with “User Manual, Quantity Distance Tables published by the Explosives Regulatory Division of Natural Resources Canada
6. Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters. D.G. Wright and G.E. Hopky Science Directorate, Department of Oceans & Fisheries 1998

The proponent has not elaborated on the use of explosives nor has the company demonstrated how it will carry out its operations to comply with the relevant regulations and acts in its rezoning application.

In light of its record with regard to the breaching of the aquitard at Dolime Quarry Guelph (still being subject to closed door negotiations between JDCL with the City of Guelph and Wellington County) and the points above we recommend that GET council oppose the application at the OMB because the proponent has not addressed these issues

14.0 Inadequate Conditions if Approved

The Concerned Residents Coalition has also reviewed Appendix "B" of the Howson Report which is entitled "Initial Proposed Development Conditions". We have found the conditions in the Howson Report to be inadequate and insufficient and we would make the following detailed recommendations:

- A public liaison committee should be established by Council to help ensure that the quarry operation proceeds in accordance with conditions of approval and that deficiencies and problems with the operation are identified and dealt with . The public liaison committee should be entirely at the expense of the operator and members of the committee should be provided with all monitoring reports for review. A member of Council should be appointed to sit on the committee;
- Third party noise and vibration monitoring should occur prior to the commencement of any quarry related activities occurring on site, on a yearly basis when the quarry is in full operation, and whenever activities change on the site that could have an effect on the acoustical environment;
- Third party dust monitoring should occur prior to the commencement of any quarry related activities occurring on site, on a yearly basis when the quarry is in full operation, and whenever activities change on the site that could have an effect on air quality;
- The quarry operation should only be permitted by way of a temporary use by-law that would have to be renewed each year by the applicant, thereby enabling Council and the public to participate in on-going oversight of the quarry operation;
- The extractive industrial zoning of the site should only apply to those portions of the site that are going to be extracted;
- The maximum depth of extraction permitted should be added to those portions of the site identified for extraction;

- A sunset clause by which time the quarry shall cease should be added to the ARA site plan; and
- Hours of operation as previously recommended by the CRC and elimination of Saturday operation should be added to the ARA site plan
- 6th Line Eramosa should be used for truck access to the site.

It is clear that there are many other issues which would necessitate the application of conditions were the quarry to be approved. The Howson Report alludes to this fact and the need for an extensive process to establish conditions in the following statement:

However, this result can only be achieved provided appropriate conditions of development are established through the ARA licence approval, the zoning by-law amendment and through other available mechanisms. The precise range and nature of the conditions, including implementation mechanisms (e.g. ARA site plan, zoning by-law) for establishment of the conditions will require additional consideration and consultation, particularly with the Region of Halton, Town of Halton Hills and Town of Milton regarding cross jurisdictional issues such as the haul route and well contingency plan.

The Planning Consultant seems to believe that it will be possible to negotiate acceptable conditions with a proponent who has avoided any direct dialogue with residents regarding their concerns, who has been dismissive of the information submitted into the process by CRC and others, and who has treated GET Council in a threatening and demeaning manner in public pronouncements.

Furthermore, CRC strongly maintains that the order of steps—approve and then set conditions—is wrong and unacceptable. If indeed the quarry is to be approved, our view is that conditions must be set and agreed to as a condition of approval.

And finally, when conditions are being discussed, it is obvious that the question of enforcement must also be addressed, which the Howson Report fails to do. The problem of limited resources of the Province to adequately monitor and enforce conditions that fall within the jurisdiction of MNRF and MOE in particular is well known and yet totally ignored in the Howson Report.