

# *Nichols Gravel Limited*

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November 23, 1999

Ministry of the Environment,  
119 King St. West,  
12<sup>th</sup> Floor,  
Hamilton, Ontario  
L8P 4Y7

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ENVIRONMENTAL ACTION  
SECTION - COMMUNICATION

Attention: Environmental Planning Officer, Barbara Ryter

Dear Madam:

In reference to your June 14, 1999 letter apparently your staff did not review our Level 1 & 2 Hydrogeological report very well.

A statement subject to speculation is quote: "The increased hydraulic conductivity close to the Escarpment means that the impacts from the LaFarge Quarry north of Hagersville will affect a wider area relative to the proposed quarry.", unquote. I do not perceive any relevance to anything in that statement. In the first place the La Farge operation almost borders the Escarpment. Our proposal is at least 2 kilometers away. Further more I don't know how such a connection could be determined unless La Farge has made an impact study of their operation in relation to the area of our proposed quarry. Has that been done?

It is further stated under Report Methodology and Assumptions, quote: "In this case, the model relies on very limited data from five on site wells collected in two days in November 1998 to characterize groundwater conditions over an area measured in square kilometers for a 50 year period.", unquote. I disagree with this statement that the model relies on very limited data from five on site wells. I suggest that in fact we have provided extensive data over and above that normally provided. My information is that the modeling pump test is usually conducted on one on site well only.

Part of that conclusion comes from my estimates for Level 2, Hydrogeological assessment provided by Consultants Agra and Stanly Consulting who have both indicated a pump test on one well only. (See estimates enclosed) My information is at this point, that previous Hydrogeological reports produced for La Farge conducted testing on only one well. In that respect I require clarification as to why testing on five well sites is considered limited data in comparison.

I take exception to determinations arrived at and comparisons used by your Ministry to arrive at such conclusions in respect to: May 13 question to Jacob Zaidel and his response May 26 numbers 1-10.

1. Table of water levels: Provided by Agra.
2. Onandaga Escarpment Impact on model: Explained by Agra.
3. Hydraulic conductivity close to Escarpment: Explained by Agra.
4. Regional groundwater divide impact: Explained by Agra.  
It should be noted that the Regional groundwater divide passes 2000 to 3000 meters north and east of our proposal, whereby it passes directly through the extraction area of the La Farge Quarry. Is there some relevance to this question? It would seem that this did not present a problem for La Farge.
5. Gaining streams: I find no attempt by our Consultants to make any correlation of impact on the water table by streams in the area which provide drainage for surface run off and at certain times of the year are completely dry. I believe it would be quite impossible to make such a correlation of impact based on variable, inconsistent and no flow conditions. How then is this relevant?
6. Hydrogeologic conductivity data Hagersville Tire Fire site comparison fully explained by Agra. I disagree with attempting to correlate a comparison of two sites seven kilometers apart with differing site specific conditions which could relate to a number of various factors. In this respect not relevant without comparable testing on both sites as to porosity of rock, density of rock and other geological evaluations.
7. La Farge Hagersville drawdown comparison: Explained by Agra.  
I find the drawdown numbers quoted do not correspond to the Map of interpreted drawdown provided by M.O.E. from Jagger Hims. Upon closer inspection I note the date of February 1996. It is my information that a later report was required for the most recent expanded dewatering program at La Farge in 1997. If this is in fact correct, I question as to why our consultant was provided with outdated information and not the most up to date information available. How can our Consultant be expected to accurately respond, if we are not provided with the same information that you are quoting from? This is like saying how do you compare an apple to an orange? The simple answer is, you don't.

8. Attempted comparison of the previous dewatering rates of Dufferin and present dewatering rates of La Farge to our projected dewatering rates. Explained by Agra.

My conclusion, a comparison is not possible because there is no comparable here to our proposal.

The 1972 report by B.T. Beswick, Page 1 states that dewatering rates at Dufferin were in the order of 500 gallons per minute until 1971. At the deepening of the quarry in 1971 from 50' to 90', dewatering commenced at the rate of 1500 gallons per minute, which almost immediately caused well interference in the lower aquifer. Our information is that there was no reported well interference until that time. Our proposed extraction on our site plan is 15 meters or approximately 50'. There is no comparable here, so why is your Ministry attempting to make a comparable to something not proposed or that will not take place. In respect to the comment that La Farge must pump at 2200 gallons per minute, Mr. Gautrey failed to mention that the only reason La Farge must pump at this rate is so they can extract a 4<sup>th</sup> lift deeper in the quarry similar to what Dufferin attempted in 1971. Again there is absolutely no comparable to our proposal, but Mr. Gautrey requests that our consultants justify our numbers based on these comparables. I find this to be a complete deception and misrepresentation of fact.

9. Modeling based on adjacent quarry depth of 10': Explained by Agra.
10. Boundary conditions along northern edge of model: Explained by Agra.

In respect to your letter of June 14, 1999, I have identified a number of inaccurate statements:

1. Quote, Page 1: "Several of the complaints related to the abandoned quarries have been documented in a 1972 Ministry of Environment report titled "Report on the Investigation of Well Interference Complaints" near Hagersville. This report concluded that the deepening of a quarry from 15 to 27 meters caused well interference of several domestic wells at a distance of several kilometers. The proposed quarry will be 15 meters deep.", unquote.  
In respect to the statement of well interference of several domestic wells at a distance of several kilometers, I find no such statement or conclusion in this report. No, not there!
2. The geology of the site consists of porous, fractured bedrock overlain by two to four meters of glaciolacustrine clay. In respect to the statement; the geology of the sites consists of porous, fractured bedrock. No, not according to the comments of

B.T. Beswick in his 1972 report, Page 3, quote: "At the quarry site, the bedrock appeared to have moderate permeability, which essentially results from the presence of irregularly distributed fracture systems.", unquote.

I find this comment accurately describes this rock formation, moderate permeability and irregularly fractured, not porous and fractured. Page 4, we have your comment: In a fractured bedrock like this one. This contention is further not supported in our Borehole logs Appendix A which makes comments such as:  
BHH1 below 6.3 meters to 15.2 meters thinly to thickly bedded limestone.  
BHH2 6.5 meters occasional shale partings to 15.2 meters occasional shale partings.

BHH3 7.6 meters medium bedded limestone to 13.7 meters occasional shale partings.

BHH4 not representative as was not completed past 9.4 meters.

These results indicate that this deposit is not highly fractured below 6.3 meters and therefore would not allow a high degree of water infiltration below this level which is further confirmed by the slow recover rate in the well slug tests report.

On November 11, 1999 an extended drilling program was conducted on site with the express purpose, to identify at what depth water would be contacted within the bedrock. The drilling of 4 additional well sites for future monitoring was done by Gibbons Contracting of Fort Erie, with Hydrogeologist Craig Kelly of Agra attending to record the information. A full report will be provided by Agra upon completion of our final report subject to receiving F.O.I. information as requested from M.O.E. The hole drilled in the central section on a rock outcrop at our proposed start of extraction was of particular interest. This hole was drilled to a depth of 38' before some dampness was encountered. This hole was checked with a water recording instrument by Craig Kelly and recorded no water. Another hole was drilled at the base of the south Hydro transmission tower. Water was not contacted until 27'6" depth. This contact with water would appear to be accurate as old gas well log records that we have located for the area confirm water contact on average at approximately 30 to 35' or deeper. The fact that these two drill holes on site did not make water contact until 27' to 38' compared to the fact that the west quarry contains water at a level of 12' from the surface of the bedrock, would further indicate that the true water table is not controlled or directly affected by these bodies of water and that this rock deposit is tight allowing very little water infiltration which confirms and supports the findings in our modeling report.

I suggest that this information should dispel any future speculation by the M.O.E. or the residents regarding future impacts of our proposal in respect the actual water table. In this respect we intend to extract this deposit on two lifts of approximately 24'. We do not intend to proceed to full depth extraction until required. In that way we shall

avoid the immediate and continued expense of dewatering until it becomes necessary. We calculate that at our projected rate of extraction of 100,000 tonnes per year to start, that it could be approximately 20 to 30 years before we shall require a permit to take water, unless it is required to pump to wash and process aggregate on site.

**Ministry concerns about the domestic well survey.** I find some of your comments to be inaccurate and misleading. Quote: "During the survey, a total of two residents were contacted in person, and of those two households visited water levels were taken on only one occasion.", unquote. The report indicates that the well of George Gowan was measured with water recorded 7.8 meters below ground level. It also indicates that at that point Mr. Gowan was agreeable to allow monitoring of his well but recently we received no response to our circulation of October 29, 1999. A survey was done at the residence of Wendy Parker, although the report does not indicate a measurement of water level. This could be explained under quote: condition of the top of well casing "filled with water", unquote. Also the residence of John Taylor which is at the location of the proposed quarry has well measurement at 3.77 meters to water from top of casing. My count is that three households were contacted in person with two confirmed wells checked.

Our report indicates that a total of 11 residences were visited with no responses at 9 houses. Of the 9 residents at least 7 use a cistern as their water supply which are filled as required, therefore these 7 would most likely not be adversely impacted by dewatering. This in fact only left 2 residences that should have been contacted.

Recently, October 29, 1999, it was attempted to invite all 17 of those listed as impacted at 50 years at quarry completion to participate in a well monitoring program and additionally Mr. & Mrs. Tom Phibbs who have expressed concern.

The response from that circulation of 18 residences was that 2 agreed to participate. This offer remains open, but we cannot force the residents to participate. I suggest that we can proceed no further in this respect at this time with the confrontational attitude that exist leading up to the O.M.B. hearing.

I am enclosing a response from Mr. Doug Wilson that seems to express the attitude of area residents at this time. I am quite prepared upon approval of our application to again contact the residents, as this offer of well monitoring remains open and subject to discussion along with the recommendations in your letter of June 14, 1999 and in any event will no doubt become part of the conditions for issuance of a Permit to take water prior to dewatering.

In response to your Summary, our latest drilling program has confirmed the true water table level and existing groundwater conditions on site.

In that respect I request that your staff fully review our Level 1 and 2 Hydrogeological report taking into consideration this latest information relative to the calculations in the report.

Since our Consultants cannot complete a final report until we have received the F.O.I. information from your Ministry as requested, this could conceivably take another 60 to 90 days.

Therefore please accept this letter as your response to your circulation letter of response, October 13, 1999.

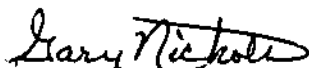
The Ministry of Natural Resources allows that if there is no response to this letter within 20 days that we may proceed to the O.M.B. hearing process.

In view of the speculation, misrepresentation and falsity of fact from your office regarding our Hydrogeological report provided in your letter of June 14, 1999 to Mr. Bell and in turn provided to area residents, I question as to what was the motivation for this action. The facts confirm to me that your office has not provided an impartial, unbiased review of our report. Do we have some sort of conspiracy at work to delay or prevent this application from proceeding?

You should be aware that if these concerns remain unresolved, we most certainly shall require yourself and Mr. Gautrey to attend the O.M.B. hearing in order to provide evidence in this regard. I shall expect a response to this letter at your earliest convenience.

Thank you for your co-operation in this respect.

Yours sincerely,

  
Gary Nichols, President  
Nichols Gravel Limited

c.c. M.P.P. Toby Barrett