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Mr. Craig Laing, Aggregate Resources Officer
Ontario Ministry of Natural Resources
2284 Nursery Road,
Midhurst, Ontario L0L 1X0

Copied to: 3191574 Nova Scotia Company
Operating as "The Highland Companies"
Box 377,
Shelburne, Ontario
L0N 1S0

Re. Objection to Highland Quarry Application

Dear Mr. Laing,

I am a resident of Toronto who owns a property in Mulmur. I am deeply concerned by the application submitted by Highland Companies to develop a massive quarry in Melancthon. Due to the tight time frame it is impossible to provide an indication of all my objections at this time so I would request the ability to raise additional issues at a later date. Please accept this letter outlining my initial objections.

Objection 1: The Scale and Complexity of the Project Presents Massive Risk

It is clear from the proposed scale and complexity of the project that it is impossible for Highland or any mortal to predict all the outcomes that would arise from the proposed project. In my business we have two questions we ask when judging risk. They are: "How thick is the ice?" and "How deep is the water?" The first question has to do with the likelihood of occurrence while the second has to do with the seriousness if an incident occurs. Risk= likelihood x seriousness. Likelihood and seriousness interact so that if there are multiple things that could go wrong then the multiplication can lead to absolute disaster as the Japanese people have recently discovered. In this context the question is how likely is it that perhaps Highland has made an error in its assurances that there are no risks and if it has made an error how disastrous could that error be? Given the strategic placing of the proposed quarry in the recharge area of at least one river system any disaster could be immense. The question to Highland then is: Is it possible that on a project of this magnitude that you may have missed a crucial detail? Is it possible that for instance you do not understand precisely how the water flows underground? Of course, if Highland was even a little bit candid they would acknowledge that they have less than perfect knowledge of the outcomes. The result is that the risk of the unknown in this potential project is to the account of all the citizens of Ontario. It is the scale and complexity of the project that almost guarantees disaster in the long run if the proposed quarry plan is instantiated.

Objection 2: There is No Science Behind the Application

In its newspaper ads and other promotional material applicant uses the term "Facts" as if they have established the scientific reality of how such a quarry would affect various natural and human systems. This is of course totally self-serving promotion not science. Science examines the world with studies and experiments that can be verified by third parties. The whole process in this case is structured to avoid independent review and verification. The applicant stands to turn a few hundred million dollars of investment into literally billions of dollars of returns. This prospect has allowed the applicant to spend millions of dollars on buying the studies of their choice. No scientific journal on earth would knowingly accept a paper that had been purchased by a self-interested party and call it "fact". The studies in the application are purchased. This is called promotion not science. Models will always reflect the inputs. Again we would ask: is it possible that the applicant has not put all the possible factors into its models? The answer is that all models simplify-that is they leave out factors. The greater the complexity of a project the more must be left out of the models. The more that is left out the greater the risk.

Objection 3: The Proposals Relative to Water are Irresponsible in the Extreme

The applicant makes certain proposals relative to dealing with the water pouring into its proposed quarry from its adjoining lands and from the lands of its neighbours. The proposal seems to differentiate between the water that is "taken" for the washing of trucks and such industrial uses and other water in the quarry that it refers to as "ground water". It is obvious to even the most uneducated that water that has been exposed to the air and floor of a quarry is now polluted water. When I was a boy we lived in a house with a cistern and a well. We didn't drink the cistern water because it had been exposed to the air even though it was perfectly clean rainwater. So the applicant pretends that the water does not change when it comes into the open pit and therefore it can be pumped right back into wells as if it is clean well water without the benefit of seeping through and being cleaned by the top layers of soil that filter rain water. This water is of course also "taken" by the applicant and would have to be treated in massive sewage plants before being safely put back into wells in the surrounding area. No such treatment is proposed. The applicant suggests that 80% of the water returned to wells would again end up in the proposed quarry. Thus through multiple round trips the water is repeatedly exposed to the quarry and pollutants would accumulate. This pollution is then put back into wells to allow everyone in the neighborhood to share in the polluted water.

Objection 4: The Applicant's Proposals Rest on Untenable Financial Arrangements

The applicant seems to believe that the various authorities in Melancthon, Dufferin and Ontario will accept a financial assurance from it that it can provide pumping for a giant played out quarry forever. Forever is a very long time for a corporation to make a commitment. For instance, of the companies in the Dow Jones Industrial Index one hundred years ago in 1911 only one company is still in existence. Companies cannot make long-term commitments so a bond would have to be lodged to cover these expenses forever. However, if rates stay at exceptionally low levels no amount of money would be enough to be certain that such perpetual costs could be covered. Sophisticated financial investors back the applicant. Therefore one can assume that the applicant knows that no amount of a bond could guarantee that this perpetual expense would not revert to the citizens of Ontario. There can only be one of two conclusions

drawn from this. First, there is a secret plan to create a lake when they are finished or secondly they don't care what costs fall on the municipality or province. Unincorporated numbered corporations intentionally set up in a remote jurisdiction and operating out of post box should not be trusted "forever". Even a bond from a more reputable name would be useless in this instance. Remember there are strong Canadian financial institutions such as Confederation Life that are no longer with us. No bond is safe in the long run.

Objection 5: The Proposed Quarry Would Destroy Some of Ontario's Most Productive Farmland

As noted above there is really no way to tell what affect there would be on the water resources of the surrounding farms and how far the drop in water pressure and water table in the surrounding area would extend. But there is another issue. The applicant claims it is possible to redistribute the topsoil on the bottom of the quarry years later and recreate farms. Such a claim shows a remarkable ignorance of how soils sustain life. First, the topsoil is a balanced life system that contains a great deal of organic material that is constantly being digested by microorganisms. One cannot pile up this material for 10 or 20 years and come back later and expect it to still be alive. That is as impossible as saying we will pile up our cows and pigs in the corner of a field and expect to put them back in the barn-yard 10 or 20 years later. The soil in these conditions would die and dead soil would not produce anything like the yields currently produced. Secondly, the limestone layers are exactly what make this land so special. It provides water in dry years and absorbs water in wet years. The different layers act as a system to produce food. Third, the light at the bottom of the quarry would be much lower than now falls on Melancthon farms. The multiplication of these three factors would make any quarry floor farm unproductive and uneconomic.

Objection 6: The Traffic Proposals Ignore Modern Management Science

The traffic proposals made by the applicant suggest that there would be up to 150 trucks each direction per hour. These proposals conflict with the suggestion that there would be no upper ceiling on the production rate of aggregate. If the latter is true then there is likely a scenario where there could be more trucks on the road. However, 150 trucks per hour in each direction suggest about two per kilometer or about three per mile. It can easily be predicted that due to stoplights, or some trucks ending up behind a slow moving vehicle that the result would be that these trucks would bunch up and effectively move in convoys. Any one conversant with modern management science (systems dynamics and theory of constraints) will recognize that it is impossible given the contingencies in any highway trip for this convoying effect not to happen when there are this many trucks mixed with normal traffic on the proposed routes. This convoy effect would be exceptionally dangerous to all users of these roads. Drivers impatient with the situation would take chances that would result in many deaths. This plan is absolutely inoperable.

Objection 7: The Applicant Has No Experience

Although there are some people involved that have previously been involved in quarries the applicant itself, that is, 3191574 Nova Scotia Company has never before developed a quarry of any size. I would not want to fly on a jumbo jet manufactured by a newly established numbered company who had hired a couple of Boeing engineers. This applicant is wholly unqualified to direct this proposed quarry.

Objection 8: The Applicant's Strategy is to Privatize Profits and Socialize Costs

There would be many costs associated with the proposed quarry that would fall on the municipality or the province. Central among these are the cost of upgrading and maintaining roads that are constantly being bombarded with heavy vehicles. Other direct expenses are policing and health care for accident victims. The cost of manning and maintenance of the perpetual pumps once the numbered company disappears is a most significant long run cost.

Objection 9: The Agency of the Ontario Government Responsible for Regulating Quarries has no Staff Able to Effectively Oversee such a Quarry

Of course, The Ministry of Natural Resources is responsible for verifying the commitments made by applicants are being carried out. However, the Ministry is not adequately staffed for such a function so even the minimal undertakings proposed by the applicant are made knowing there is no enforcement regime. Although this lack of enforcement is not the responsibility of the applicant it does suggest that the proposed quarry could not be depended upon to have "no effect" on the neighbouring properties or the environment.

Thank you, for registering my objections. I believe they are entirely adequate to justify the refusal of the application.

Yours truly,

David Patterson