



April 15, 2016

Via: Email

Mr. Shawn Persaud, B.A., MCIP, RRP
Manager of Planning and Development
Tiny Township
130 Balm Beach Road West
Tiny ON L0L 2J0

Dear Mr. Persaud:

**Re: Application for the Site Plan Amendment
Aggregate Licence #3670 (Teedon Pit)
Cedarhurst Quarries and Crushing Limited
Project No.: 300031221.0000**

R.J. Burnside & Associates Limited (Burnside) previously provided a letter to the Township (February 24, 2016) with the following recommendations:

1. The current condition of nearby domestic wells should be established, including the well depth and condition of the casing/screen, and the well yield and general water quality. The work should be completed by the proponent using an independent qualified consultant.
2. The monitoring network at the Teedon Pit should be expanded to include a staff gauge in the wash pond, a nested well with screens completed at a variety of depths (to monitor change in gradients during use of the wash pond), along with a number of wells completed in the aquifer(s) that are used by domestic wells in the area. A professional geoscientist (or equivalent) should be present during the drilling of the wells to describe the geology and select the intervals for monitoring well completion.

On March 22, 2016, Burnside received a call from Mr. Ross Campbell of Alpha Environmental, the hydrogeologist for Cedarhurst Quarries and Crushing Limited (Cedarhurst). Mr. Campbell suggested that we review his August 2015 Report *Assessment of Local Well Water Quality Complaints* as he felt it would address the above two recommendations.

1.0 Domestic Wells – Current Condition

The report includes detailed door to door surveys and water quality sampling for a number of nearby domestic wells. The report recommends that the four residents who had concerns about silty water investigate well construction, particularly the nature of the well screen. Although Burnside concurs with the Ministry of the Environment and Climate Change (MOECC) that activities at the pit have not caused the silty water well complaints have been made. As a due

diligence measure to protect the potable water supply of the residents, we continue to support our Recommendation #1 that the well conditions be confirmed. Given the age of the wells, it will be necessary to proceed cautiously with any investigations to prevent damage to the wells and any associated equipment. Any repairs or well replacement would be the responsibility of the well owners.

2.0 Teedon Pit Monitoring Network

The August 2015 Alpha Report includes MOECC well records for the pumping well and monitoring wells on the site. The descriptions of the geology are not sufficiently detailed to demonstrate that the wash pond is separated from the underlying aquifer by a clay layer and that water levels in the pond do not impact off-site water levels.

In addition, the Ruland report that was commissioned by some of the local residents suggests that water levels in the area will be rapidly impacted by water levels in the wash pond. Although Burnside does not think that this is likely, a multi-level monitoring well will provide the data needed to quantify the impacts. It is our understanding that there are no water well records for some of the wells where residents have complained about impacts from the pit.

Approximate depths were established during the door to door survey completed by Alpha. If possible, the depths of the Pigeon-Pauze, Anderson, Irvine and Towers should be established so that an on-site monitoring well can be completed in the same water bearing zone.

As a result of the above, Burnside continues to support our Recommendation #2 that additional wells be added to the on-site monitoring network.

If the Ministry of Natural Resources and Forestry approves the Site Plan Amendments, the recommendations noted in this letter should be undertaken as part of the approval process.

We trust that you shall find the above to be in order. Please contact me if you have any questions or require further clarification.

Yours truly,

R.J. Burnside & Associates Limited



Dave Hopkins, P.Geo.
Senior Hydrogeologist
DH:sd

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