

August 14, 2007

Ms. Janis L. Pechinger
Ministry of the Environment
733 Exeter Road
London, Ontario
N6E 1L3

Dear Ms. Pechinger:

Re: Preliminary Review Comments
Permit To Take Water Application
Cedarhurst Quarries and Crushing – Teedon Pit
Lots 79 & 80 Concession 1 WPR
Township of Tiny, County of Simcoe
Ministry Reference Number 3376-73NK64
Our File 880007.21

On behalf of the County of Simcoe, we are pleased to forward our preliminary review comments on the above-noted application. Our comments relate to the following report prepared by Waterloo Geoscience Consultants Inc.

Hydrogeological Investigation to Support an
Application for a Permit To Take Water
May 17, 2007

The design of County of Simcoe Landfill Site 41 is sensitive to the potentiometric groundwater pressure within a confined aquifer below the site. The source of water for this aquifer is principally from the recharge zone in the upland area in the vicinity of Waverley. As such it is recommended that the Ministry review this application in conjunction with our Revised Supplemental Hydrogeological and Geotechnical Investigation report dated January, 2007 and discuss the implications with their technical staff who were involved in the Site 41 approvals.

It is our concern that there is insufficient technical information to ensure that the water losses at the Teedon Pit will not affect the hydraulics at Site 41.

On page 22 of the report it is stated that the proposed undertaking will not affect the hydrogeological function of Site 41 as the proposed water taking is from a different regime than Site 41. The regime is defined by a groundwater divide as shown on Figure 9 in the



report. This divide corresponds to the topography. There is no factual data to verify this location as a divide in the regional system. If the divide was further east than shown on Figure 9, then the pond and catchment could be within the Site 41 groundwater regime.

The groundwater flow system documented in the report is within the upper 3 m to 4 m of ground surface. As such the study only addresses the shallow system. This aspect is further substantiated by the fact that the hydraulic gradients are mainly horizontal. The dominant regional hydraulic gradient should be vertical. An understanding of the regional system is required in order to address effects on Site 41.

The pond catchment area is given as 36 ha in Section 5.1.4 of the report. It is not clear how the catchment area was determined nor the configuration of the catchment area. If the catchment area extends to the groundwater divide, then there is a potential for the divide to shift closer to the pond with a resulting loss in recharge to the Site 41 regime.

The report does not address long term changes to the water budget related to global warming. These changes could increase evaporation and reduce groundwater levels which in turn will affect the catchment area.

Further, we are aware of an application for a sand and gravel pit to the south of the Teedon Pit. We recommend that the cumulative impact assessment be completed particularly with respect to the water budget.

As documented on page 86 of the Revised Supplemental Hydrogeological and Geotechnical Investigation report, any change in the recharge to the confined aquifer below Site 41 will affect the hydraulic buffer. It is in our opinion, prudent not to approve undertakings that will risk this buffer negatively. In this regard, the County needs to consider establishing the lands in the vicinity of Waverley as a groundwater protection zone.

We trust that these comments are of assistance. If there are any questions, please contact us.

Yours truly,
JAGGER HIMES LIMITED

D. E. Jagger, P.Eng.
Consulting Engineer
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c. Rob McCullough, County of Simcoe