

Ministry of the Environment
South-western Region
733 Exeter Road,
London, Ontario
N6E 1L3

February 29, 2008

Attention: Mr. Ian Kerr, P. Geo., Supervisor, Water Resources

RE: *Application for Permit to Take Water/ Lots 10 & 11 Conc. 2 Twp. Of Tiny (Site 41)*

Dear Mr. Kerr,

Please accept these comments from the Site 41 Community Monitoring Committee (CMC) in reference to the above noted application. Also in this submission, I thank the Ministry of the Environment (MoE) for the consideration given the CMC by extending the comment period allowing for our scheduled meetings and our efforts to obtain the requisite information. Regrettably, the CMC's ability to comment on this matter continues to be severely restricted as a result of the County of Simcoe's refusal to provide the CMC with a copy of the final calibrated model used in assessing the hydrogeological conditions on the site. Absent this information, we have been unable to challenge the input assumptions or establish the veracity of the data used in support of this application. The CMC's ability to comment has been further limited by the County's decision to refuse CMC funding for independent peer review of this application. Notwithstanding these limitations on our ability to comment, we submit the following for consideration by the Ministry.

Groundwater modeling was undertaken using the USGS MODFLOW to assist in the design of a construction dewatering system. At that time, it was assumed that it would be necessary to dewater 410,000 litres of water per day for a maximum of 90 days, resulting in a total withdrawal of 36,900,000 litres. The application under review however is for the dewatering of 820,000 litres of water per day for a maximum of 275 days, resulting in the withdrawal of 225,500,000 litres. The variance between what has been modeled and what has been applied for represents an increase of over 600%. As lay people, this seems a not insignificant number.

When this anomaly was brought to the attention of the applicant's agent, it was explained that the total included not only ground water removal but also an allowance for the removal of water that may enter the excavation as the result of a major precipitation event. Before the MoE can accept this explanation as justification for an increase of this magnitude, it would seem there is a deficit of information that must be addressed, including a complete and accurate application.

The CMC, in spite of our repeated efforts, has been unable to reconcile the Ministry accepted positions that the upland recharge area is both the source of the water in the confined aquifer below Site 41 (*Simcoe County PTTW*), and hydraulically isolated from Site 41 (*Cedarhurst Quarries PTTW*). It is difficult to understand how there can be both a connection, and not a connection, at the same time.

The CMC has recently received from the MoE (Mr. Ian Mitchell), a brief explanatory note on the subject though it has not yet been reviewed or clarified through the committee. It is clear however, that the letter does not attempt to reconcile the model assumptions with the now available on-site information, with respect to soil conditions found in the cell development test area at site 41. It would seem improbable that the modeling assumptions matched as much as necessary with the on-

ground conditions, given that the full range of hydraulic conductivity calculated by the applicant varied by as much as three orders of magnitude.

At the February 14/08 meeting of the CMC, there was some discussion with respect to the proposed monitoring program and the potential impacts of cold water discharge into the Mac Donald Creek. The technical support document (880007.21) attached to the application, attempts to address some of the issues that arise from dewatering activities but it is noteworthy that the report's stated objectives do not form a stringent requirement, incumbent upon the County. Again, this is especially important as the permit seeks to dewater more than 600% of what has been modeled.

Although not directly related to this application in the short term, the CMC has grave reservations concerning any project that may be impacted negatively by climate change. On Site 41, the CMC has seen water levels decline by as much as .36 m based on two previously unreported years. That level of decline, together with the unverifiable modeling assumptions, creates an intolerable level of risk in assuming the continued presence of upward/inward hydraulic gradients.

It is the view of the CMC that this application is irredeemably deficient. Approval of the application would not be in keeping with the precautionary approach of the Ministry. For these reasons, we advise that the Ministry *reject* the application.

Respectfully Submitted for the CMC,

Ray Millar
Site 41 CMC Chair.