

June 22, 2012

City Clerk
Attn: Planning Section, Growth and Development
PO Box 5000, Station A
200 Brady Street
Sudbury, ON P3A 5P3

**Re: File 571-6/11-13 and 780-611004 - McKinnon and Barry Street
Proponent 1232252 Ontario Inc.**

John Lindsay, President of the Minnow Lake Restoration Group, has asked me to provide the following review comments on the stormwater management (SWM) aspects on this proposed 700+ unit development, and the water quality impacts that stormwater could have on Minnow Lake.

These comments can be considered to be part of the Public Record, and reflect my professional and technical assessment of the subject matter as a recognized Qualified Person (QP) under the *Professional Geoscientists Act* and based on my 35+ years of applied experience as a Water Resources Manager with the Ministry of Environment (MOE) and as a Senior Environmental Consultant.

These comments are further predicated on having carried out numerous field and technical studies of Minnow Lake on both a fee for services and a voluntary basis since 1985. One of those studies included a 1993 hydrologic stormwater modeling assessment of Minnow Lake conducted under contract to the Ministry of the Environment as part of the Spanish River Remedial Action Plan. The general findings of that study were that a) Minnow Lake was severely degraded in terms of sediment and water quality, b) the lake was considered to be hyper-eutrophic, and c) these impacts were attributed to untreated stormwater contaminant loadings, 70% of which originated from the St. Jean storm sewer which drains The Kingsway.

On the basis of these findings, Minnow Lake has no assimilative capacity and, under both MOE's Water Management Policies and Guidelines (Blue Book) for Ontario and *O. Regulation 153*, which regulates sediment contamination, the lake and its catchment are not developable. Furthermore, the City as the owner of St. Jean storm sewer, continues to contravene the Federal *Fisheries Act* by depositing a defined deleterious substances (total suspended solids - TSS) into the lake which is a well documented area of fish habitat.

The City fully recognizes the public's concerns with regard to Minnow Lake, but has taken no effective action over a 30+ year timeline to address the resultant water and sediment quality concerns, and in my opinion have done so in violation of the *Ontario Water Resources Act* and *Environmental Protection Act*.

Impacts of the Proposed Development

To date, the proposal is in its early stages of application and approval, and thus only a qualitative assessment of the SWM issue can be considered.

Based on my inspection of local topographic maps, the development does occur within the catchment limits of Minnow Lake. At the recent Open House for the project, the developer's consulting engineers confirmed in a discussion with myself their intent to route the drainage from the proposed development to Minnow Lake, using a design criteria of 80% TSS removal via two storm water treatment ponds.

Technically, this translates to typically 30-35% removal of Total Phosphorus (TP) which is the primary contaminant of concern (CoC) in this hyper-eutrophic lake site-setting. Other known CoC's include: heavy metals, various forms of petroleum hydrocarbons, and TSS, which is defined as a Deleterious Substance under the *Fisheries Act*.

Although the treatment as proposed is typical as a Best Management Practice, and the design can accommodate hydraulic constraints of no change in peaking flows relative to pre-development, the design fails to recognize the receiving water limitation of the lake. The only options under this constraint are: a) no development, or b) an enhanced treatment design which achieves no increase in any contaminant loading to the lake. From an engineering design perspective, Option b) is not do-able, although enhanced treatment might achieve 95-99% removal dependent upon the technology adopted.

Closure

Based on this review, at a minimum the City should defer the proposed development and require the proponent to undertake a detailed technical review with regard to the SWM issue and impacts on Minnow Lake at this time. That information should be filed with the City and also presented to the public. The Minnow Lake Restoration Group is also on record that if the City approves the development, they intent to advance/appeal the project to the Ontario Municipal Board.

The Minnow Lake watershed and the proposed development fall within Intake Protection Zone 3 of the Draft *Source Protection Plan for Ramsey Lake*. However well intended that plan is, Policy S10EF-SA does not require the City to undertake a Stormwater Management Strategy until five years after implementation of the final Source Protection Plan, with construction implementation therefore well beyond that.

The better strategy is to implement technically accepted Stormwater Best Management Practices now on all new developments, and the adoption of retrofit technology on all City road reconstruction projects. The Kingsway and Bellevue are recent examples where this upgrading was not undertaken during road reconstruction.

A number of "straw-dog" options were discussed with the proponent's consultant during the June 13th Open House.

My comments are offered at this time to broadly address the water quality and water resource management issues of Minnow Lake, and thus to be constructive of how to improve a long recognized public concern that provided the rationale for the Minnow Lake Restoration Group's incorporation and 30+ years of commitment and community effort.

Sincerely

A.B. (Brad) Bowman, B.E.S., PGeo.
Senior Environmental Scientist/President

cc: J. Lindsay, Minnow Lake Restoration Group