

Notes of discussion about the applicability of the Lakeshore Capacity Model

Meeting by Video conference between

Frank Johnson, President¹

Andrew Kendrick, Lake Steward¹

Victor Castro, Supervisor, Water Resources Unit²

Jon Orpana, Regional Environmental Planner²

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Background.

This meeting was initiated by MECP when LSARLpoa reminded the Planner at Tay Valley Township (TVT) that a Lakeshore Capacity Model (LCM) was mentioned in the Lake Stewardship Plan (2018) as being desirable. It was brought to priority by the increased interest in development at Maberly Pines (MP), and the proposal of TVT to "assume" the roads of that subdivision and engender even more rapid development.

Jon commented that MP was established as a subdivision in the 1980s, and therefore lot owners were entitled to submit an application for a building permit. The recent use of the LCM on Farren and Adam lakes differs from this since those were new proposals or requests for severance.

Victor commented that the Provincial Policy Statement applies to new development, and the normal procedure is for the Lake Association or the Township to reach out to the MECP for assessment and guidance. In such cases the MECP will try to advise that the development is "built in a manner to minimize the impact".

Andrew provided the background to the Maberly Pines development. The TVT Planner had identified shortcomings in the hydrogeological survey conducted in 1980, and the TVT had commissioned BluMetric to review and report. This report is now with Jennifer Gorrell at the RVCA for her comment.

Current Status

In the meantime a "HOLD" has been placed on those applications from MP that had been submitted. The question of "what happens if the survey results are inadequate?" has not been addressed.

Recently a unilateral "freeze" has been mooted for LSARL, but decision on this (may or may not) have been "deferred".

Victor stated that development at MP would undoubtedly affect the watershed of the lakes in the long term.

It was not clear why TVT wanted to upgrade the roads, but this would itself create construction impacts and additional runoff that would need to be contained.

Another consideration would be the need for construction of storm water holding areas if the roads were upgraded and runoff therefore enhanced following application of bitumen covering.

Actions

If development proceeds then proper services have to be provided. These include road access; well and potable water; septic systems. Phosphate retaining septic systems are available (such as the "waterloo" system), but they are costly

and have further drawbacks. Since the soil cover in the MP is thin, then all septic systems will require further import of construction materials such as sand, and this again has an environmental impact that will need to be controlled.

The responsibility of the TVT in this process is to issue an appropriate Site Plan Control, with recommendations that shall be included in the report from the RVCA on the hydrogeology.

It was considered that MP is contiguous with the lakes for the purpose of the LCM. We identified two streams which run year-round from MP to LS Lake and Rainbow Lake. So any assessment using the LCM shall include both the current dwellings and the undeveloped lots at MP. It was noted that some of the lots in MP that are adjacent to CR#36 may be within the Mississippi watershed. This will need to be confirmed. If so, locating septic systems for those lots in areas outside the Little Silver Lake watershed should be explored.

If the lake is shown to be at capacity by this modelling, then this would justify a freeze of any new development in the entire area, such as severing lots to create additional properties or the creation of new subdivisions. Such a freeze does not prevent conversions or development of existing properties, although TVT could apply additional site plan restrictions.

Further details required for an LCM assessment to be carried out include:

Best estimates of the types of properties:

- Permanent
- Extended seasonal (i.e. having year round access)
- Seasonal

Frank undertook to provide those statistics from the membership list that the Association maintains.

A further question for consideration was the sedimentation, which is determined by the anoxic state of the lake in the hypolimnion at the end of summer. There is a specific criterion for this, and the RVCA should have the data for the lakes. Frank provided a copy of the 2012 paper by Boegman, Johnson, and Shkvoretz which reported on this for LSL. He also mentioned an extended and continuous data set covering the last 15 years. One of the effects of climate change is that it shortens the duration of spring turnover, and this increases the hypoxia in the lake. These are considered to be technical areas of LCM for which the expertise of MECP is required. Other GIS information was included, and Jon agreed to forward an updated copy of the worksheet.

It was suggested that any restrictions on LSL should be uniformly applied to all of the watershed. This may include considerations of storm water runoff, construction impact and specifications for sewage systems.

Jon undertook to provide TVT details of the subdivision, with items to consider; modelling for the watershed area, details of the 300m zone of importance, and make a request for the RVCA report. The Association should also provide comments and recommendations to the Township. These actions may take a couple of weeks.

Notes compiled by F. Johnson

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