



Harden Environmental Services Ltd.  
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Groundwater Studies  
Geochemistry  
Phase I / II  
Regional Flow Studies  
Contaminant Investigations  
OMB Hearings  
Water Quality Sampling  
Monitoring  
Groundwater Protection  
Studies  
Groundwater Modelling  
Groundwater Mapping

File: 1209- Capital Paving

March 17, 2022

Client Services and Permissions Branch  
135 St Clair Ave West  
1st Floor  
Toronto, ON  
M4V 1P5  
Canada

**Re: ERO Posting 019-5071 MECP Ref. #1057-CBHM72**

Dear Coordinator:

We are commenting on the Permit to Take Water renewal proposed by Capital Paving Inc. for their location at 4459 Concession 7, Puslinch, Ontario. This permit includes water taking from Pond B at a maximum daily volume of approximately 17,000,000 liters per day and four wells (A, B, C and D) for a combined taking of 1,432,000 liters per day from the underlying groundwater aquifer(s).

The Township of Puslinch requests that the Permit be issued for a maximum period of five years rather than the ten years being proposed. This request is made for the following reasons.

The Lake Erie Source Water Protection Region declares the Mill Creek Subwatershed as being 'moderately stressed' for the following reason.

*The greatest water demands placed on the Subwatershed are by the aggregate resources industry, and the cumulative effects of these activities are poorly understood. Given the importance of maintaining groundwater and surface water interactions, additional surface water and groundwater characterization and modelling is recommended to improve the understand of the hydrologic processes, and aid in assessing potential future impacts. Integrated groundwater and surface water modelling may be beneficial for this Subwatershed (Aqua Resources, 2009, Integrated Water Budget Report)*

There are other hydrologic factors such as the capture of runoff, increase in storage, increase in evaporation from ponds and a decrease of evapotranspiration in disturbed areas that must be considered before one

can declare that an actual loss of water is occurring from the watershed. In their stress assessment report the Lake Erie Source Water Protection Region says:

*While there are reported pumping rates for a number of the aggregate operations, a large portion of the estimated consumptive demand is a reflection of the consumptive factor applied to those pumping rates. Due to the uncertainty associated with aggregate washing consumptive use factors, there is a relatively high uncertainty in the estimated consumptive demand for these uses. As a result the Percent Water Demand for the assessment area may be over-estimated. (Aqua Resources, 2009, Water Quantity Stress Assessment Report)*

We have compiled the permits to take water issued nearby, including the permit issued for Capital Paving.

<b>PTTW</b>	<b>Max Volume Per Day</b>
2852-BDPNK5	8,182,800
8417-B5WQLE	23,567,040
1381-95ATPY	684,000
3388-BT5NN4	72,800
1381-95ATPY	3,600,000
4031-BCGP9H	23,568,000
5557-B93NZ5	8,183,000
7431-46LRQ6	653,760
Capital Paving	18,371,400
<b>Total</b>	<b>86,882,800</b>

Source: Permit to Take Water Map <https://www.ontario.ca/page/map-permits-take-water>

Each of these permits is designated from a groundwater source, either a well or from a man-made pond with direct connection to the Aberfoyle outwash sand and gravel deposit. Most of this water is taken by aggregate companies and recycled through sedimentation ponds for reuse and therefore the permitted values do not represent an accurate depiction of loss or consumption of water. However, there is a loss associated with evaporation and entrainment in shipped aggregate and as identified by the Source Water Protection group, adds to the identified ‘stress’ on the natural systems.

In addition, the City of Guelph has tested and is proceeding with an Environmental Assessment for a municipal well in the southwest area of Guelph on the border of the Township of Puslinch.

The cumulative effect of these permitted water takings in the Township of Puslinch and the potential for increased taking from the local aquifers, warrant the need for regular updates, external review and reconsideration by the MECP on a five year basis, rather than a ten year basis.

Sincerely,

Harden Environmental Services Ltd.

A handwritten signature in black ink, appearing to read 'S. Denhoed', followed by a long horizontal line extending to the right.

Stan Denhoed, P.Eng., M.Sc.  
Senior Hydrogeologist