

December 6, 2021  
File: 160900933 Task 237

**Attention: Iain Mudd – Manager of Planning**

County of Peterborough  
470 Water Street  
Peterborough, ON K9H 3M3  
VIA EMAIL: [imudd@ptbocounty.ca](mailto:imudd@ptbocounty.ca)

Dear Iain,

**Reference: Peer Review of a Hydrogeological Assessment  
1066 Syer Line, Fraserville, ON  
Township of Cavan Monaghan**

Peterborough County (the County) retained Stantec Consulting Ltd. (Stantec) to peer review a Hydrogeological Assessment in support of proposed land use changes at 1066 Syer Line, Fraserville, ON (the Site) from agricultural to employment. The report was prepared by Cambium Inc. (Cambium, 2021) for the Township of Cavan Monaghan. The Site would be developed on private on-site services.

**Site Description**

The Site is approximately 34 hectares in size and consists mostly of open fields as well as a watercourse that runs through the southern end of the Site. A vacant residence exists on the Site including a dug well.

**Scope of Work**

The Cambium (2021) report is essentially a water supply assessment completed in accordance with the Ministry of the Environment and Climate Change (MECP) Guideline D-5-5. Two drilled wells (i.e., Well 1 and Well 2) were constructed and tested to confirm if the Site had a reasonable potable water supply to support development.

The scope of work did not include installation of a monitoring well network to determine seasonally high groundwater levels, a water balance discussion and identification of mitigation measures to address the infiltration deficit, nor a discussion on potential hydrogeological constraints associated with the construction of onsite sewage systems. Presumably, this scope of work will be completed as part of a future hydrogeological assessment.

**Conclusions and Recommendations**

Cambium (2021) conservatively estimated that a sustainable water taking rate of 32 L/min exists on the Site. Stantec agrees that this quantity of water is sufficient to support some industrial uses that do not require process or washing water (i.e., dry industry uses). Should the water demand of the proposed development exceed 32 L/min, further water supply evaluation will need to be completed to determine if the Site could support this additional water demand.

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Some additional hydrogeological assessment work will need to be completed to identify other potential hydrogeological constraints, including:

- The installation of a monitoring well network to determine seasonally high groundwater levels as this information may present potential constraints with respect to foundation and septic system design.
- Cambium (2021) identified that the Site is situated within Source Water Protection vulnerable zones including: Significant Groundwater Recharge Area (SGRA), Highly Vulnerable Aquifer (HVA), and Intake Protection Zone 3 (IPZ-3). Development will need to adhere to the applicable Source Water Protection Plan policies that have been developed for these designations.
- A pre- and post-development water balance will need to be completed, including the identification of mitigation measures to address any projected on-Site post-development infiltration deficit.
- A discussion of potential hydrogeological constraints associated with the construction of on-Site sewage systems.

## **CLOSURE**

This review of the Hydrogeological Assessment has been prepared as per the Contract between Peterborough County and Stantec Consulting Ltd. Should you have any questions or concerns regarding the information detailed herein, please do not hesitate to contact the undersigned.

Sincerely,

**Stantec Consulting Ltd.**

**Roger Freymond** P.Eng.  
Senior Hydrogeologist  
Phone: (519) 585-7381  
roger.freymond@stantec.com



**Grant Whitehead** MES, P.Geo. (Limited)  
Senior Hydrogeologist  
Mobile: (519) 502-8933  
grant.whitehead@stantec.com