

Appendix Ei  
**N. J. Peralta Engineering Ltd.**

Consulting Engineers

June 28th, 2019

Corporation of the Town of Kingsville  
2021 Division Road North  
Kingsville, Ontario  
N9Y 2Y9

Attention: Robert Brown, Manager of Planning and Development  
Services

**SUBJECT:** Response to E.R.C.A. Comments

**PROJECT: GREAT NORTHERN GREENHOUSE EXPANSION**  
**(Geographic Township of Gosfield South)**  
**Town of Kingsville, County of Essex**  
**Project No. E-18-072**

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We have reviewed the comments provided by the Essex Region Conservation Authority (E.R.C.A.) dated June 27th, 2019 and have prepared the following information. The comments note that "...the developer undertake a groundwater impact assessment to address the highly vulnerable aquifer and significant groundwater recharge area associated with the proposed project to the satisfaction of the Municipality and the Essex Region Conservation Authority".

**GROUNDWATER ASSESSMENT**

Based on the maps from the Source Protection Information Atlas, the entire subject parcel is in a designated Highly Vulnerable Aquifer (H.V.A.) zone, and only a small part of the east limit of the site is in a designated Significant Groundwater Recharge Area (S.G.R.A.) zone. We have reviewed the current proposed development of the site and assessed whether the proposed alterations may pose a significant threat to the noted zones.

The main concern in the H.V.A. area is potential for contamination from both human activities and natural processes.

In the site area designated as being in the H.V.A. zone, there are drainage works for the installation of a stormwater pond and outlet and an oil and grit separator unit (O.G.S.) for stormwater quality treatment. The O.G.S. will protect against the release of oils and sediments from parking areas into the receiving drain. These proposed alternations pose little to no threat to the H.V.A. zone.

The proposed greenhouse and service area is also located in the H.V.A. area. The greenhouse building itself is benign, as well as the interior service areas. The cannabis growing areas will have plants located on troughs or tables and any excess greenhouse nutrient feed water will be collected and recycled. With most greenhouse sites the major risk for source water contamination

would come from back up fuel tanks. Please note that the current site plan does not show these tanks being installed and we are told by the Client that they are not being installed. We do wish to flag, that should they be desired in the future, they should be installed in accordance with the recommendations outlined in the Essex County Source Water Protection Program report.

Only a small part of the site is designated a S.G.R.A. zone. As a result, any proposed development should not significantly impact the infiltration capacity of the lands. While the proposed development increases the covered area and decreases infiltration on the east side of the site where the S.G.R.A. zone is located, the proposed stormwater management facility will increase infiltration near the south end of the site. The stormwater detention pond, with a restricted outflow rate will allow for more stormwater infiltration after storm events. The wet pond design with permanent pool storage also provides stormwater quality treatment. We also included overland flow conveyance swales on the site. These swales allow for the infiltration of rainwater along their paths. As a result, the proposed development poses no significant negative impact to the S.G.R.A. zone.

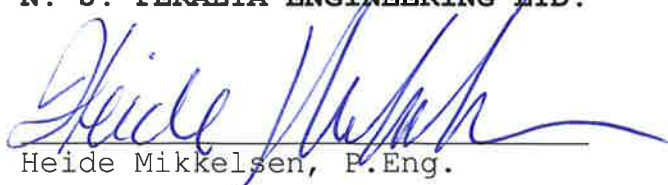
#### **CONCLUSION**

In conclusion, it is our opinion that none of the works pose a significant impact to either the H.V.A. or S.G.R.A. zones based on the type of proposed site works, buildings, and land use. Therefore, it is our opinion that no formal groundwater impact assessment should be required at this time, and there should be no delay to the permitting of the current proposed development and alterations.

We trust that you will find the above satisfactory at this time; however, should you have any questions relating to same, please contact us immediately. Thank you for your co-operation and assistance with this project.

Yours very truly,

**N. J. PERALTA ENGINEERING LTD.**



Heide Mikkelsen, P.Eng.

HCM/nf

cc. Guido Van Het Hof, Great Northern Hydroponics