



Harden Environmental Services Ltd.
4622 Nassagaweya-Puslinch Townline
Moffat, Ontario, L0P 1J0
Phone: (519) 826-0099 Fax: (519) 826-9099

Hydrogeological Assessment

Geochemistry

Phase I / II ESA

Regional Flow Studies

Contaminant Investigations

OLT Hearings

Water Quality Sampling

Groundwater & Surface Water
Monitoring

Groundwater Protection
Studies

Groundwater Modelling

Groundwater Mapping

Permits to Take Water

Environmental Compliance
Approvals

Designated Substance Surveys

Our File: 2610

March 31, 2026

Centre Wellington

Planning and Development Services

1 MacDonald Square, Elora ON, N0B 1S0

Attention: Chantalle Pellizzari
Supervisor of Development Administration
Sec-Tres. - Committee of Adjustment

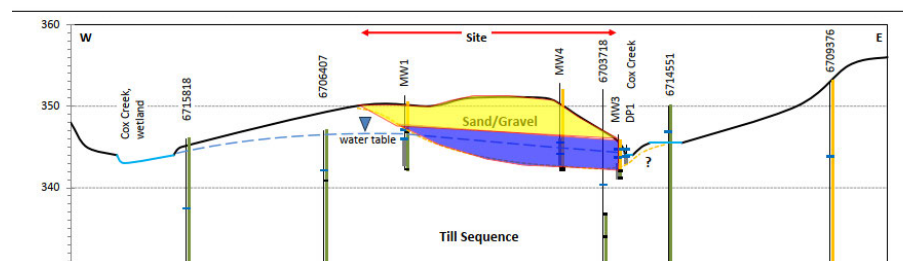
Re: Peer Review - Hydrogeology - Gravel Pit (Zoning Amendment - RZ002-2026)

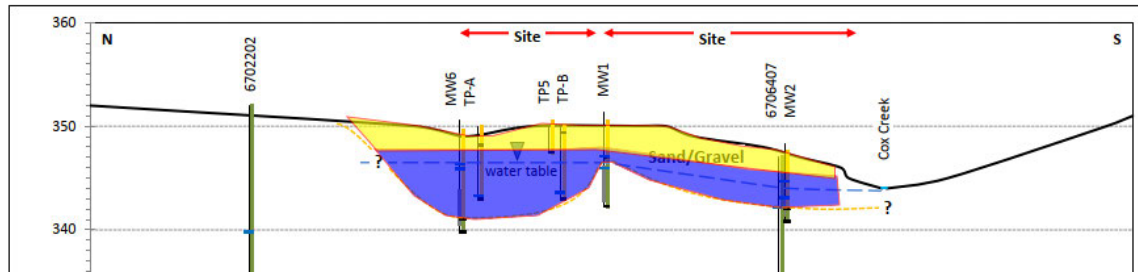
Dear Chantalle,

Harden Environmental Services Ltd. (Harden) is pleased to provide hydrogeological comments for zoning by-law amendment application for the Lichty Pit. The address is 5999, 6043, 8th Line East & 7190 Side Road 12, Part of Lots 11 & 12, Concession 4 West, Township Of Centre Wellington, Township of Pilkington, County of Wellington

Aggregate Resource

We have attached the two cross-sections prepared for this site and find that the proposed above water table extraction will not allow for the removal of approximately 50% of the aggregate at this site. The yellow highlighted areas approximate the above water table resources, and the blue highlighted areas are an approximation of the below water table resources.





Mining below the water table near to Cox Creek creates some challenges that make the application process more difficult to approve through Aggregate Resource Act.

We have no issue with the application being above water table only, we want the Township to be aware that there are considerable additional resources at this site. Should an above water table pit be approved and the zoning amended, the Township of Centre Wellington can comment on a future below water table application as it will require a major amendment issued by the Ministry of Natural Resources and Forestry.

Private Wells

Private wells near to the proposed zoning amendment obtain water from a deeper aquifer (not the sand and gravel targeted for removal). It is our opinion that private wells will not be impacted by the above-water-table mining.

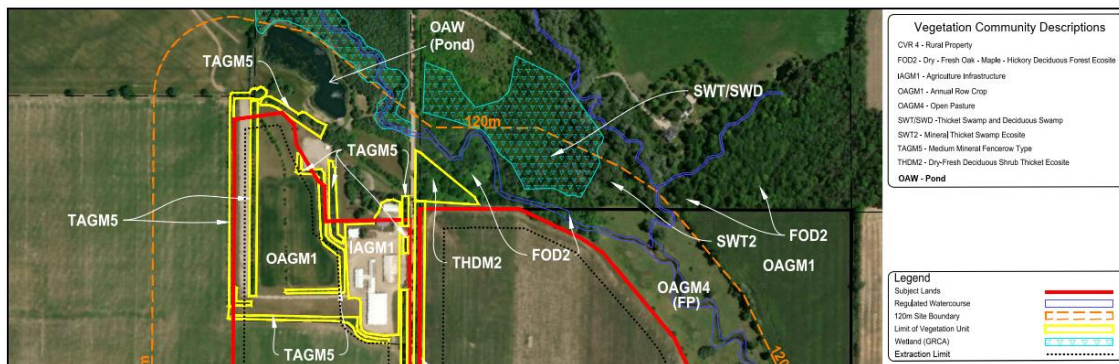
Cox Creek

There will be a redistribution of surplus water from runoff to infiltration because of the capture of water in the proposed excavation. It is our opinion that the pit represents a small area of the overall Cox Creek watershed and the proposed loss of spring runoff is a small volume in comparison to the entire watershed runoff. The conversion of runoff to infiltration may provide additional baseflow to Cox Creek in low water months.

We concur with Groundwater Science that the increase in solar thermal energy penetrating the pit floor and warming the underlying groundwater is unlikely to have an impact on overall stream temperatures. The removal of the aggregate to within 1.5 metres of the water table will cause the underlying groundwater to be cooler in the winter and warmer in the summer.

Wetlands

There are riparian wetlands located cross-groundwater-gradient and upstream from the proposed pit. Given the potential for increased infiltration and the presence of surface water in Cox Creek there is unlikely to be an impact to the wetlands.



Monitoring Plan

Given the low potential for impact to the natural environment or local wells, the proposed quarterly monitoring of six on-site wells for three years is acceptable.

Site Plan

The Operational Plan (Page 2 of 3) does not indicate a sloping pit floor in the area south of Sideroad 12. The lowest pit floor elevation as shown on the cross-section on Page 3 of 3 should be indicated on Page 2 of 3.

Review of GRCA Comments

We confirm that we have reviewed and considered the comments prepared by the GRCA on March 30, 2026 prepared by the Resource Planner.

We appreciate the opportunity to provide these comments. Should you have any questions or concerns, please do not hesitate to contact the undersigned.

Respectfully Submitted,

Harden Environmental Services Ltd.



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

