

Our ref: 12662580

08 July 2025

Saverio Montemarano
Bromont Homes
60 Saramia Crescent, Unit 7
Concord, ON L4K 4J7

**Subject: Vargas North, Millbrook Subdivision, 963 County Road 10
Part Lot 13, Concession 6
Township of Cavan- Monaghan, County of Peterborough**

Natural Environment Constraints Letter

Dear Saverio Montemarano,

1. Introduction

GHD Limited (GHD) was retained by Bromont Homes (the 'Client') to complete an Environmental Impact Study (EIS) for a proposed residential development located along County Road 10 between Fallis Line and Larmer Line, also known as Part of Lot 13, Concession 6 in the Township of Cavan- Monaghan (the 'Site').

The Site is located at 963 Peterborough County Road 10 within the Township of Cavan-Monaghan, Ontario and encompasses a total area of 33.6 ha (83.1 acres). At the time of GHD's field investigation, the Site is being used for agricultural purposes. A creek runs through the northern portion of the Site flowing from west to east and two residential structures are present on the Site. It is understood by GHD that the Site will be municipally serviced for water and sanitary services.

A pre-consultation meeting was held on April 1, 2025 with the applicant, Township, County and Otonabee Conservation (ORCA) in attendance.

A total of 9.21 hectares of commercial lands are being proposed adjacent to County Road 10, inclusive of the 3.06 hectares that are subject to a Minister Zoning Order (MZO), being referenced as "Phase-1". The commercial land use will be constructed prior to any residential uses on the subject site. 12.7 hectares of residential uses are proposed mainly along the interior of the site, and rear to the commercial uses, including two (2) medium density parcels. Several additional blocks have been integrated into the concept plan, inclusive of parkland, stormwater management/retention, and natural heritage system. The subject lands are located within the urban settlement area boundary of Millbrook, in the Township of Cavan Monaghan.

The County of Peterborough also noted the natural heritage requirements:

As per Section 4.1.3.4 of the County OP, development of lands adjacent to key natural heritage features will require an assessment to demonstrate that the ecological function of the adjacent lands have been evaluated and determined that there will be no negative impacts on the natural features or on their ecological functions. Data and mapping available to the County indicates that the subject lands are adjacent to Significant

Woodlands. Therefore, and in concert with Section 4.1.3.4 of the County OP, an environmental impact study (EIS) will be required.

The following report summarizes the background review information and site data collected to date on the natural heritage features. As well as the preliminary development constraints identified by GHD.

A comprehensive EIS will be prepared to accompany the draft plan of subdivision application for the proposed residential and commercial land use and to support agency permitting requirements. The field work started in spring of 2025 is still ongoing. The final EIS being provided in the Fall of 2025 and is intended to be submitted with the second submission of materials. The EIS report will follow the County and ORCA EIS Guideline requirements, and include details on our survey methodologies, field data, mapping, buffer recommendations and mitigation measures.

The EIS will include compliance statements regarding ORCA regulatory and planning requirements, Fisheries Act, Township of Cavan Monaghan Official Plan, County of Peterborough Official Plan, Provincial Planning Statement, Endangered Species Act and the Migratory Birds Convention Act.

2. Background

Prior to site assessments, GHD reviewed all available background information on the Site including, recent air photography, Ministry of Natural Resources (MNR) key natural features GIS mapping, wetland mapping, Official plan schedules and other correspondence or files available from the Township of Cavan-Monaghan, Otonabee Conservation Authority (ORCA), MNR, Department of Fisheries and Oceans (DFO), Natural Heritage Information Center(NHIC) make-a-map, as well as several on-line data sources.

The background review identified several natural heritage features that will be confirmed as part of our current field work schedule.

A desktop review found that several natural heritage features may be associated with the Site, including a watercourse, unevaluated wetland, a Natural Linkage Area identified in the Township of Cavan-Monaghan Official Plan and potential habitat for Species at Risk. There are no provincially significant wetlands or ANSI's found on Site or within 120 m adjacent lands.

The latest site plans (Biglieri Group, June 2025) and Functional Servicing Report and Preliminary grading plan, (Valdor Engineering, June 2025) were also reviewed. As well as the Geotechnical and Hydrogeological Investigation report (GHD, June 12, 2025). A more thorough impact assessment will be included in the EIS report of the impacts of grading, servicing and infrastructure on the natural heritage features.

3. Existing Conditions - To Date

To date, four (4) site visits have been completed: two terrestrial visits that focused on Marsh Monitoring Protocol (MMP) and Ecological Land Classification (ELC), one breeding bird survey and one aquatic visit that focused on fish habitat assessments and surface water quality. The terrestrial site visits took place on April 28, April 30 (aquatic visit), May 20 and June 18, 2025. Together, these visits included walking the extent of the property, the length of watercourses crossing through the centre of the property, all wetland and woodland communities, as well as the agricultural field and road edge. From the date of this letter, two more site visits need to be completed.

The purpose of the site visits was to identify the natural heritage features of the property, including the presence of fish habitat, extent of vegetation communities, presence of Species at Risk (SAR) and their habitat. During the site visit, GHD biologists also searched for regionally rare and/or uncommon plant species, unique

habitat types, and Significant Wildlife Habitat (SWH), as defined by the Significant Wildlife Habitat Technical Guide (MNR 2014). Survey locations to date and constraints have been illustrated in **Attachment 1**.

It should be noted that additional field surveys are scheduled for the summer of 2025 to complete the remaining field work. That scope of works includes our second breeding bird survey (BBS) and remaining Ecological Land Classification (ELC) ongoing, Species at Risk habitat assessments, confirming Significant Wildlife Habitat, ongoing wetland and woodland boundary delineation and wildlife corridors and conducting fish community sampling (can occur after July 16th as stated on the DFO licence) within the watercourse. The field program will also include searches for bat cavity trees, red-headed woodpecker and pileated woodpecker nests and butternut and black ash trees.

3.1 Vegetation and Communities

To date, six vegetation communities have been identified. Those communities include:

- Agricultural fields
- Meadow marsh
- Deciduous forest
- Coniferous forest
- Cultural meadows
- Shallow marsh

The ELC community boundaries will be confirmed during our site visits and details on vegetation, ecological functions and for wetlands, soil sampling will be conducted. The preliminary community polygons are shown of Figure 1 (attachment 1).

None of the ELC found to date are according to the community type criteria which follows that of MNR's Ecological Land Classification for Southern Ontario program (Lee et al., 1998).

A full plant species and sensitive or rare plant list will be provided with the EIS submission.

3.2 Birds, Herpetozoa and other Wildlife

To date, one breeding bird survey has been completed, with the second, occurring in a few days. Birds observed have been typical rural, fencerow and agricultural field species.

Two Marsh Monitoring Program surveys have been completed with no significant frog species presence on the property within the four stations completed on the property. All species (spring peepers) heard to date, have been located off property to the east.

A full list of birds, amphibians and wildlife will be provided in the EIS submission along with any statements regarding any identified significant species such as species at risk or area sensitive species. Analysis and discussion will be included in the EIS along with policy compliance guidelines and permitting requirements.

Once surveys are completed this summer, a comparison to the latest Species at Risk lists will be conducted and detailed discussion on habitat, impacts and possible ESA compliance included in the EIS report.

3.3 Fish and Fish Habitat

Review of ARA mapping identified three watercourses present on site, one watercourse is a tributary to Cavan Creek and the remaining two function as tributaries to the Cavan Creek tributary. Field assessments confirmed the presence of the three watercourses on the site with the Cavan Creek tributary being confirmed as a permanently flowing watercourse and the two tributaries assessed as Headwater Drainage Features (HDF).

The Cavan Creek tributary originates west of the site and flows in an easterly direction crossing the site in the northern portion of the site. Based on the ARA mapping, HDF1 originates within the site, and HDF2 originates south of the site, and generally flow in an easterly direction, eventually discharging into the Cavan Creek tributary east of the property boundaries. The Cavan Creek tributary has been illustrated as Habitat Zone 1 and the HDFs have been illustrated as HDF 1 and HDF 2 in **Attachment 1**. Assessments were conducted following standardized provincial aquatic protocols, specifically, the Ontario Ministry of Transportation (MTO) Environmental Guide for Fish and Fish Habitat Protocol Section 4.0 0 (MTO, 2009) and applicable sections of the Ontario Stream Assessment modules Rapid Assessment Methodology for Channel Structure (S4:M1) and the Ontario Stream Assessment Protocol, Section 4, Module 11 (Stanfield, 2017).

The tributary of Cavan Creek was located in the north portion of the Site and flows east off Site. The tributary is classified as a coldwater watercourse (ARA, 2024) and was located in the north portion of the Site. The watercourse was confirmed to be a permanently flowing watercourse with well-defined channel, with a hydraulic head of 8 mm, low instream and overhead cover observed during the assessments on April 30, 2025. Based upon conditions observed at the time of field investigations, the tributary provides direct fish habitat. Fish community sampling was not completed during the April 2025 assessments due to timing restrictions outlined in the conditions of the Ministry of Natural Resources (MNR) Licence to Collect Fish for Scientific Purposes (Permit: PEBA-2025_FWCA-00262). The conditions stipulate that sampling can only occur between July 16 and September 30, 2025. GHD will conduct fish community sampling within the watercourse within the approved timing window. Surface water quality was collected within the watercourse and details will be included in the EIS report.

The two HDFs (HDF1 and HDF2) within the Site were classified as swale features providing seasonal indirect fish habitat downstream to the Cavan Creek tributary. Specially they may provide nutrients, and food supply downstream to the watercourse. During the time of field assessments both features had minimal to no flow and no sorted substrates. These features were located in the middle of the Site and flow east off Site, based on aerial imagery it appears these features have the potential to directly connect to the watercourse east off Site. Assessments were not conducted outside of the Site property limits however during the spring freshet and large storm events these features have the potential to directly connect to the watercourse off Site.

It should be noted that HDF1 is mapped as a permanent watercourse (ARA, 2024), however during GHDs site visit fish habitat was not observed within this feature based on a lack of flow, dense vegetation within the channel and a lack of sorted substrates. Direct fish habitat may be present downstream east of the Site where flows may be present for longer periods. The two HDFs will be revisited during when GHD conducts the fish community surveys within the Cavan Creek tributary to confirm if water is present and is sufficient to conduct fish community sampling. This will be used to confirm the function of the HDFs for the EIS.

4. Recommendations

Recommendations will be included in the EIS report, once the field surveys are completed and we have confirmed the boundaries of any natural heritage features and their ecological functions. Recommendations regarding buffers and mitigation measures will be included in the EIS report.

The Cavan Creek tributary (Habitat Zone 1) functions as direct fish habitat. Specifically, it provides cover, feeding, rearing, potential overwintering, and potential spawning habitat for the watercourse and downstream Cavan Creek fish community. These attributes are important for the sustainability of the coldwater fish community that inhabits the tributary and main Cavan Creek channel. It is recommended that the form and function of the tributary within the Site be protected with a 30 m setback from the high-water mark (attached figure), no development, including any proposed stormwater outlet channels shall occur within this setback. If any near or in-water works are proposed it is recommended that the design be reviewed by a qualified biologist

to determine potential impacts and identify any required permits. Permitting may be required from the Conservation Authority and the Department of Fisheries and Oceans (DFO) for any in or near water works.

The HDFs within the Site (HDF 1 and HDF 2) are unlikely to provide direct fish habitat, therefore a buffer has not been applied to these features. If these features are proposed to be altered to facilitate the development, it is recommended that flows from these features are maintained downstream to Cavan Creek tributary through LID lot level conveyance to ensure the project is in compliance with the Fisheries Act.

Woodland significance, woodland dripline and buffer recommendations will be included in the EIS in the second submission.

5. Conclusion

We trust that this constraints letter will help support the design process of the subdivision layout and the other supporting documentation. GHD will work with the study team by identifying potential impacts to natural features and discussing mitigation measures and buffers. The EIS report will review the latest development plan along with proposed infrastructure and grading and the potential impact the natural features and their ecological functions.

The EIS will be completed once the remaining field work has been completed. The EIS will include our detailed methodologies, survey results, discussion, impact assessment and recommendations and mitigation measures. Should you wish to discuss any aspect of this letter, please do not hesitate to contact the undersigned.

Regards,



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Attachments

Attachment 1

Constraints Figure

Ecological Land Classification for Southern Ontario: First Approximation and Its Application. 1998.

ELC Code	Ecosite-Vegetation Type Description
CUM1-1	Dry-Moist Old Field Meadow
CUW1	Mineral Cultural Woodland
FOC2-2	Dry-Fresh White Cedar Coniferous Forest
FOD	Deciduous Forest
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAS2-9	Forb Mineral Shallow Marsh

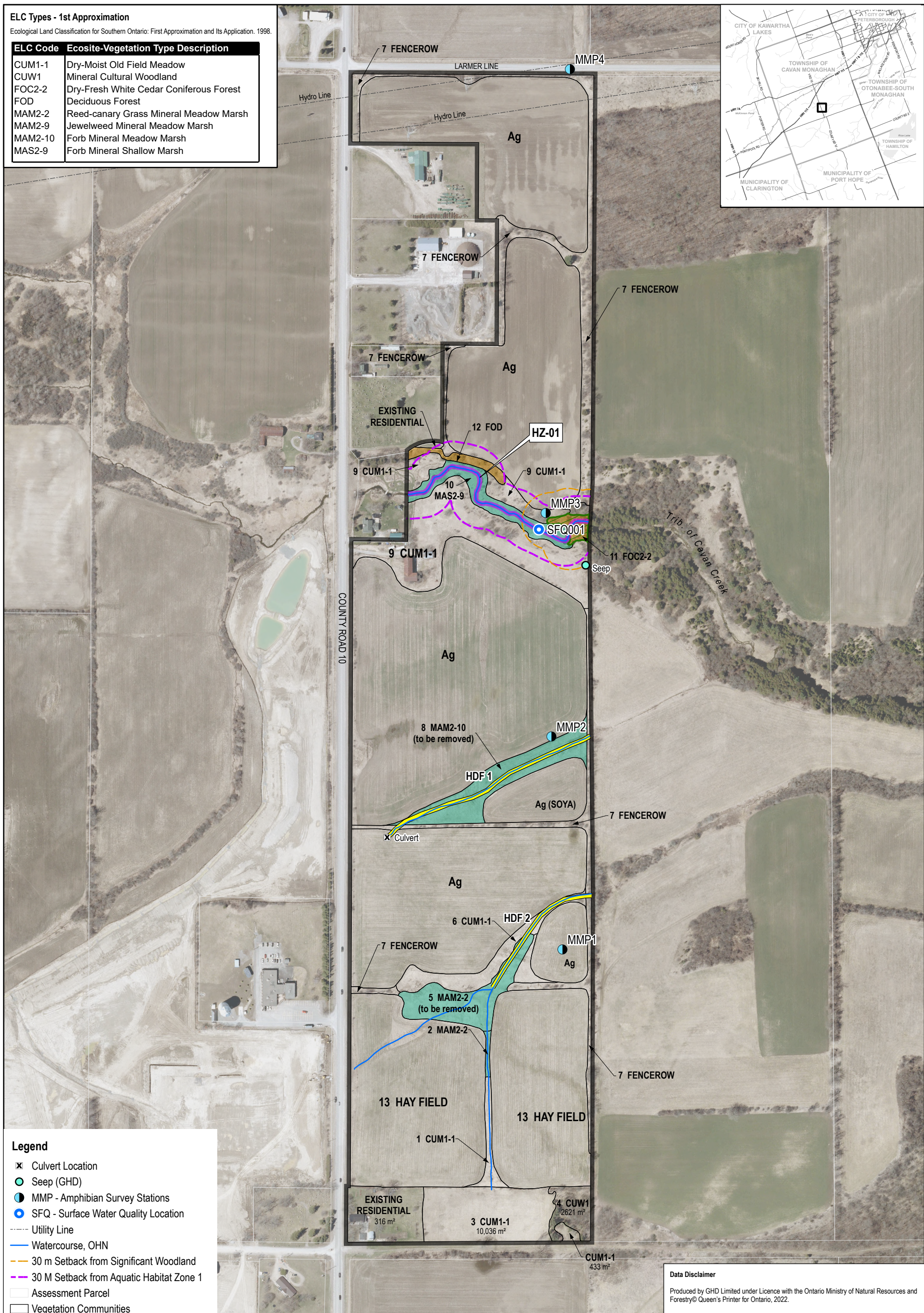


Figure 1