PLANNING JUSTIFICATION REPORT & AGGREGATE RESOURCES ACT SUMMARY STATEMENT

PREPARED FOR:

Safarik Pit

CBM Aggregates, a Division of St. Marys Cement Inc. (Canada)

File no. Y321AR

November 2025

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1.0 Executive Summary

CBM Aggregates, a division of St. Marys Cement Inc. (Canada) ("CBM") is applying for a Class 'A' Licence under the *Aggregate Resources Act* ("ARA"), a Township of Puslinch Zoning By-law Amendment and a County of Wellington Official Plan Amendment to permit aggregate extraction on lands located at 4275 Concession Road 7, legally described as Part of Lot 29, Concession 7, geographic Township of Puslinch. The proposed aggregate extraction operation is referred to as the "Safarik Pit". In this Report, the "subject lands" refer to the area proposed to be Licenced under the Aggregate Resources Act.

The area proposed to be licenced is approximately 27.6 ha, with 21.3 ha proposed for extraction in two areas that are bisected by a hydro corridor. The pit is proposed to operate above and below the water table.

The subject lands are located approximately 1.4 km to the south of the CBM McNally Pit. There will be no on-site processing of aggregate at the Safarik Pit.

The subject lands contain a two-story farmhouse, garage, barn, and accessory structures. Agricultural activities are currently present within the subject lands, including crops and an old livestock barn. All of these features are located within the proposed licensed boundary but outside the proposed extraction limit.

There are several licenced pits located to the west and north of the subject lands, including CBM's McNally Pit, Neubauer Pit, and PQA Pit. Agricultural lands and rural residential uses abut the north and west of the subject lands. Highway 401 is located approximately 430 m to the north. Environmental areas, residential uses and the future Highway 6 By-pass are located to the east of the subject lands. The Village of Morriston is located 420 m southeast of the proposed pit. South of the subject lands are agricultural uses and rural residential uses.

The subject lands are adjacent to significant woodlands identified in the County of Wellington Official Plan. Potential impacts of the proposed pit on the significant woodland have been thoroughly examined through technical studies undertaken with the application to demonstrate no negative impacts.

A portion of the woodland is within the Natural Heritage System of the Greenbelt Plan, although this feature is beyond the subject lands. A small area of the subject lands is within the Protected Countryside designation of the Greenbelt Plan (0.9 ha) but does not include any natural heritage features. Aggregate extraction is permitted in this area subject to policies outlined in the Greenbelt Plan (see Section 4.2 of this Report).

The subject lands are designated Secondary Agricultural, Core Greenlands and Greenlands on Schedule B7 of the County of Wellington Official Plan. The subject lands are not located within the Mineral Aggregate Resource Overlay on Schedule D of the County's Official Plan, however, they contain high quality aggregate resources based on site specific resource testing. The subject lands are zoned Agricultural and Natural Environment with a portion within the Environmental Protection Overlay in the Township of Puslinch Zoning By-law 23/2018. No portion of the proposed extraction area is located within the Core Greenlands designation or Natural Environment zone.

Applications to amend the County of Wellington Official Plan and Township of Puslinch Zoning By-law have been submitted in conjunction with the ARA licence application.

The subject lands contain approximately 5.0 million tonnes of high-quality sand and gravel resources within the proposed extraction area. CBM is applying for a maximum annual extraction tonnage of 1,000,000 per year.

The proposed pit will be progressively rehabilitated to replace and enhance the natural features and associated ecological functions of the site. Rehabilitation activities will include a new wetland area, pollinator habitat, forest cover and naturalized ponds.

The proposed Safarik Pit represents the wise use and management of provincially significant resources, is consistent with the Provincial Planning Statement, and conforms to the Greenbelt Plan, and the County of Wellington Official Plan based on the following:

- WSP prepared a Natural Environment Report (WSP, 2025) which confirmed that there is no fish habitat, significant wetland, or significant valleyland on or within 120 m of the Safarik Pit. Three non-significant wetlands are located within the proposed licence area, and another six are in the 120 m adjacent lands. Habitat for Species at Risk ("SAR"), significant woodlands and significant wildlife habitat (associated with the non-significant wetlands and significant woodlands) were identified on and within 120 m of the proposed licence area. A significant Earth Science ANSI is located within 50 m of the proposed licence area. The Natural Environment Report concluded that through the implementation of the recommended mitigations measures (notably setbacks from the woodlands and wetlands during operations and plantings and wetland creation during rehabilitation) there will be no negative impacts to the wetlands, woodlands or wildlife habitat (including SAR habitat).
- WSP prepared a Level 1 and 2 Water Report and Maximum Predicted Water Table Report (WSP, 2025) which concluded that groundwater users in the vicinity of the site will not be impacted subject to recommended mitigation measures, including: a proactive and long-term groundwater and surface water monitoring program during the pit operational and rehabilitation phases, until the licence is surrendered; a well interference and mitigation plan implemented proactively prior to pit operation; and, a spill action plan developed and administered throughout all phases of pit operations.
- WSP prepared a Noise Assessment Report (WSP, 2025) which concluded that the proposed Safarik Pit operation is predicted to satisfy Ministry of Environment, Conservation and Parks (MECP) sound level limits at nearby receptors based on the recommendations and mitigation measures provided in the assessment and implemented on the ARA Site Plan. Mitigation measures include the construction of acoustic berms and operational restrictions that will be applied to mitigate noise to acceptable levels.
- WSP prepared a Stage 1 and 2 Archaeological Assessment (WSP, 2025) that identified four archaeological sites within the proposed licence area. One of these sites (Location 1), consisted of historic Euro-Canadian artifacts and faunal elements representative of a mid-late 19th century historical homestead, and was considered to have further cultural heritage value or interest for which WSP recommended a Stage 3 archaeological assessment be conducted. The other three sites (i.e., Locations 2, 3 & 4) did not meet the criteria within the standards set by the Ministry of

Citizenship and Multiculturalism (MCM), and were not considered to have further cultural heritage value or interest; as such, further assessment was not recommended for these sites. The recommended Stage 3 archaeological assessment will be conducted in advance of the approval of the Safarik Pit.

- T.Y. Lin International Canada Inc. prepared a Traffic Impact Study (TYLin, 2025) which concluded that that the existing transportation infrastructure can accommodate the projected increase in traffic resulting from the proposed Safarik Pit's operation. The report also concluded that both current and future traffic conditions, including the added site-generated traffic, will not result in significant impacts on the surrounding road network and proposed haul route.
- The operational design of the proposed Safarik Pit incorporates the recommendations of the technical reports prepared for the application to ensure that the pit can operate within the Provincial guidelines and minimize social, economic and environmental impacts.

2.0 Proposal

2.1 CBM Aggregates

CBM Aggregates is a division of St. Marys Cement Inc. (Canada) ("CBM") and is a full-service provider and distributor of high-quality aggregate materials for all construction needs. CBM has licensed pits and quarries across southern Ontario, including several other pits in the Township of Puslinch that are both active and rehabilitated. Over the last 10 years, CBM has rehabilitated and surrendered approximately 40 ha of land within the Township of Puslinch which includes areas subject to redevelopment for industrial and rural uses. This total does not account for lands that are currently being progressively rehabilitated that are still licenced under the *Aggregate Resources Act* (ARA).

2.2 Subject Lands

The subject lands are located at 4275 Concession Road 7, legally described as Part of Lot 29, Concession 7, Geographic Township of Puslinch (**Figure 1**). The lands are currently used for agricultural operations and contain a two-story farmhouse, garage, barn, and accessory structures. Both the farmhouse and the barn are identified as cultural heritage resources of value according to the Cultural Heritage Report (WSP, 2025). The proposed operation does not propose to remove any of the existing buildings on the subject lands.

The subject lands are located within a larger site that is approximately 32.4 ha in size. As shown in **Figure 1**, the proposed licensed area has been delineated to avoid significant natural features. The proposed licensed area is made up of two areas separated by a Hydro Corridor which is a separate land parcel. The area fronting onto Concession Road 7 is referred to as Area B, and the rear portion is referred to as Area A; in accordance with the proposed extraction phasing. The two areas are connected by a Right of Way Easement over the Hydro corridor, as shown on the ARA Site Plans.

2.3 Project Description

CBM is proposing a below water pit ("Safarik Pit") on the subject lands with a proposed licenced area of 27.6 hectares (68.2 acres). The proposed extraction area of the pit is approximately 21.3 hectares (52.6 acres). The proposed Safarik Pit will serve as a feeder pit to the nearby McNally Pit (Licence #624864) located 1.4 km north of the subject lands or other nearby CBM processing facilities. The proposed Safarik Pit will not contain any processing, washing, or recycling on the site.

The proposed Safarik Pit will be accessed via a new entrance located at the west end of the subject lands along Concession Road 7 between the barn and the farmhouse. Truck travel will head north along Concession Road 7 and will not be permitted to head south from the site on Concession Road 7 (**Figure 2**). The current residential entrance north of the subject lands along Concession Road 7 will remain in place for access to the residence. Trucks will not be permitted to use this entrance.

Lands that are not located within the proposed extraction area will be used for setbacks from environmental features and for landscaped visual and acoustic berms. The existing vegetation in these setbacks will be maintained, except where berms are required to be constructed. Along Concession Road 7, the

setback from the road will be 30 metres. Setbacks from the Hydro Corridor will be 15 metres. The portion of the proposed licensed area at the western edge of the subject lands that contains the farmhouse, and barn is not proposed for extraction or any aggregate-related activities. This area would remain under licence to ensure the protection of the cultural heritage resources.

There are approximately 5.0 million tonnes of high-quality sand and gravel available within the proposed extraction area. The proposed maximum annual extraction tonnage for the site is 1,000,000 tonnes. The subject lands are not identified in Aggregate Resources Inventory Paper 162 (Ontario Geological Survey, 1999) as containing sand and gravel deposits (**Figure 3**). However, on-site drilling results indicate the resources would be capable of producing These resources granular products, as well as course and fine aggregates used in hot-mix asphalt paving and concrete production.

There will be no aggregate processing at the proposed Safarik Pit. Materials will be extracted via loaders and dragline for below water extraction, stockpiled within the extraction area and then shipped, via highway trucks, for processing to the CBM McNally Pit operation or other nearby CBM processing plants.

Extracted material from Area A will be trucked across the hydro corridor in accordance with existing right-of-way agreement.

Highway trucks will ship materials from the subject lands along Concession Road 7 to the main processing plant at the McNally Pit. This is a distance of approximately 1.4 km. Trucks will not be permitted to travel south of the pit entrance on Concession Road 7.

The processed aggregate from the McNally Pit will then be shipped to market using the existing truck entrance/exit on Concession Road 7, north across Highway 401 to McLean Road and then primarily east to Highway 6. This is the existing truck haul route from the McNally Pit.

The proposed hours of operation for the Safarik Pit are 7 am to 7 pm, except statutory holidays. Shipping hours are restricted to 7 am to 6 pm on weekdays and 8 am to 4 pm on Saturdays.

The maximum proposed pit floor elevation both Area A and Area B is 295.0 masl. The removal of aggregate resources from below the water table will result in the creation of two ponds that will be approximately 2.9 ha (Area A) and 6.3 ha (Area B) in size. The water level in these lakes post-rehabilitation is predicted to be approximately 309.0 masl. Shallow shoreline areas are proposed around the perimeter of the lakes, with a wetland area approximately 0.1 ha in area created along the northern limits of the Area A pond.

Approximately 1.0 ha of new forest cover will be created within the 10-metre setback adjacent to the significant woodland along the eastern limits of Area A, as well as surrounding the wetland to the northwest of Area A. A pollinator plot area of 0.6 ha will be developed in the area of the subject lands that is within the Greenbelt Plan.

The ARA Site Plans (Rehabilitation Plan) include additional details regarding progressive and final rehabilitation. The rehabilitated landform will be compatible with the surrounding area.

2.4 Required Applications

The following approvals are required to permit the proposed Safarik Pit:

- An amendment to Schedules B7 and Schedule D of the County of Wellington Official Plan to permit the aggregate operation;
- An amendment to the Township of Puslinch Zoning By-law to rezone the

subject lands from Agricultural (A) to the Extractive Industrial (EXI) zone; and
- A Class 'A' licence for a below water pit under the *Aggregate Resources Act*.

The Technical Reports prepared by CBM for the ARA licence and planning applications include the following:

- Aggregate Resources Act Site Plans, MHBC, November 2025
- Planning Report and ARA Summary Statement, MHBC, November 2025
- Natural Environment Report, WSP Canada, September 2025
- Level 1 and 2 Water Report, WSP Canada, October 2025
- Maximum Predicted Water Table Report, WSP Canada, October 2025
- Stage 1 and 2 Archaeological Assessment, WSP Canada, September 2025
- Noise Assessment Report, WSP Canada, November 2025
- Cultural Heritage Report, WSP Canada, July 2025
- Heritage Impact Assessment, WSP Canada, October 2025
- Traffic Impact Assessment, TYLin, August 2025
- Best Management Practices Plan for the Control of Fugitive Dust, WSP Canada, October 2025

3.0 Background

3.1 Surrounding Land Uses and Features

The subject lands are located within a rural area of the Township of Puslinch. The following is a description of the land use surrounding the proposed Safarik Pit (**Figure 1**):

NORTH: Agricultural lands owned by Hydro One are located to the north of the subject lands. An unevaluated wetland is to the north of the subject lands. One two-story house is located directly north of Area A. Highway 401 is located approximately 430 metres to the north.

EAST: A woodland is located immediately east of Area A. The approved future Highway 6 By-pass is located within the woodland. The Village of Morriston is located approximately 420 metres to the east of the subject lands.

SOUTH: Agricultural lands and rural residential uses are located to the south of the subject lands. Three unevaluated wetlands are also located to the south of Area A.

WEST: Concession Road 7 is immediately to the west of the subject lands. Agricultural lands and one detached house are located west of Concession Road 7. Active and rehabilitated mineral aggregate operations are located to the west.

In total, there are six off-site houses located within 120.0 metres of the proposed licenced boundary.

The approved future Highway 6 By-pass project is located on adjacent property to the east which covers a large portion of the adjacent woodland and is owned by Ministry of Transportation.

3.2 Aggregate Resources

The subject lands are not mapped in the Wellington County Aggregate Resources Inventory Paper 162 (OGS, 1999; **Figure 3**). However, on-site drilling results indicate the resources would be capable of producing granular products, as well as course and fine aggregates used in hot-mix asphalt paving and concrete production.

Based on the on-site testing, there are approximately 5.0 million tonnes of high quality and sand and gravel available within the proposed extraction area with approximately 40% of resources located below the water table. The sand and gravel deposit on site has an average thickness of approximately 14.0 metres. CBM is applying for an annual maximum extraction limit of 1,000,000 tonnes.

Resources extracted from the proposed Safarik Pit will be processed at the existing McNally Pit, located approximately 1.4 kilometres north of the subject lands. This location is close to market and will facilitate the continued supply a source of high-quality materials in a close to market location. Making additional resources available from the subject lands for processing at the existing plant would allow CBM to continue to serve local infrastructure and

construction projects including areas that have been designated for a significant amount of growth and development.

3.3 Natural Heritage Features

The Natural Environment Report (WSP Canada, 2025) was prepared to fulfill the ARA technical standards for a Natural Environment Report (MNR, 2020), as well as the requirement for an Environmental Impact Assessment (EIA) in Wellington County's Official Plan (Wellington County, 1999) and the Greenbelt Plan.

The Natural Environment Report assessed the potential impact of the proposed Safarik Pit on natural heritage features identified on, or within 120 metres of, the proposed licence area. The report included the following components: a review of available background information; a SAR screening; plant community surveys and botanical inventories; anuran call count surveys; breeding bird surveys; bat habitat surveys; turtle habitat assessment and basking surveys; and, general wildlife surveys. Data from field surveys and desktop analyses were used to determine if the proposed pit would have any negative impact on the identified natural features or related ecological functions. The Natural Environment Report also identifies any mitigation and monitoring requirements to ensure there will be no impact to natural heritage features on adjacent lands.

The report included a field assessment summary of the eight unevaluated wetlands mapped on and within 120 m of the proposed licence area to evaluate their potential significance. Through the field assessments, all eight of the features were confirmed to be wetlands, although none of them met the criteria to be classified as provincially significant wetlands. Four of the wetlands straddle the proposed licence boundary, but will be set back 10 metres from the limit of extraction to ensure no direct loss of these features. The remaining wetlands were located on adjacent lands outside of the proposed licence area, and will not be affected by the proposed Safarik Pit. The Natural Environment Report concluded that there are no impacts anticipated to the wetlands features or functions.

Field assessments by WSP confirmed and delineated the limits of the woodland to the east of Area A. A setback of 10 metres will be established between the staked drip line of the woodland and the proposed extraction limit of the Safarik Pit. The delineation of the feature by WSP excludes a small portion of the hedgerow which is not considered part of the significant woodland based on field verified assessment. As such, this area is proposed to be included in the extraction limit and be replaced through progressive rehabilitation by planting an equal area of forested habitat.

The Safarik Pit will be progressively rehabilitated to provide naturalized areas that enhance the ecological value of the lands. A wooded area, a wetland, two naturalized ponds and pollinator habitat will be created.

Significant wildlife habitat was identified within the proposed licence area and adjacent lands, including seasonal concentration areas, specialized habitat for wildlife, and habitat for species of conservation concern. The Natural Environment Report indicated that impacts to these features will be mitigated through avoidance, setbacks and/or rehabilitation so that there will no negative impacts to significant wildlife habitat as a result of the proposed Safarik Pit.

The Natural Environment Report also confirmed habitat for Species at Risk (SAR) including Bobolink and Eastern meadowlark in the meadows and pastures on and within 120 m of the proposed licence area; and eastern red bat, eastern small-footed myotis, hoary bat, little

brown myotis and silver-haired bat in the adjacent woodlands to the east and south of the proposed licence area. With respect to bat SAR, no confirmed habitat will be removed for the proposed Safarik Pit, foraging habitat will be maintained over the ponds during extraction and improved upon post-rehabilitation through the planting program, with the result that no impacts to bat SAR or their habitats are anticipated as a result of the proposed Safarik Pit.

The Natural Environment Report confirmed there is no significant wetland, fish habitat, significant valleyland, or significant area of natural and scientific interest located within the proposed licence area of the Safarik Pit.

The Natural Environment Report concluded that through the implementation of the recommended mitigation measures, there will be no negative impacts to the wetlands, significant woodland, significant wildlife habitat or SAR habitat on or within 120m of the proposed Safarik Pit.

3.4 Water Resources

The Level 1 & 2 Water Report and Maximum Predicted Water Table Report (WSP Canada, 2025) were prepared to fulfill the ARA technical standards for a Maximum Predicted Water Table Report and Water Report, where proposing to extract below the maximum predicted water table. The reports were also prepared to fulfill the requirement of water resources impact studies as required in the Wellington County Official Plan. The report also considers the Provincial Planning Statement, the Clean Water Act (2006) and the Drinking Water Source Protection Plan.

The Water Report identified and assessed the potential impacts of the proposed below-water pit on local groundwater and surface water resources. The principal objectives of the Level 1 and 2 Water Report were to:

- Characterize the baseline groundwater and surface water conditions and uses;
- Establish a baseline water budget for the Site and local study area;
- Provide input to the proposed pit design and end use, particularly related to water management at the Site;
- Predict potential effects of the proposed pit on water resources within the study area; and
- Implement a proactive environmental monitoring program to confirm the predicted effects of the proposed pit that includes a trigger mechanism and contingency measures to ensure compliance with the Site Plan and other permits.

The Water Report work program included a review of published hydrogeological studies and available water monitoring data to assess the local geology, hydrogeology and hydrology and to identify gaps in the conceptual understanding of the Site. A drilling program was conducted at the Site to improve the understanding of the local geology, as well as to establish a groundwater monitoring well network. Hydraulic testing, groundwater quality sampling, groundwater level monitoring and surface water monitoring were also completed to characterize baseline water conditions.

The Maximum Predicted Water Table Report determined the maximum water table elevation by advancing two separate drilling programs at the Site in 2020 (nine boreholes) and 2021 (eight boreholes). Four of the boreholes from the 2021 drilling program were completed as monitoring wells, with an additional deep monitoring well installed in the northeast corner of the Site. In total, five monitoring wells were installed on the Site. The baseline groundwater monitoring program completed for this study consisted of continuous groundwater level and

temperature monitoring from using dataloggers installed at the five monitoring wells. Periodic manual water level measurements at each monitoring well were made over the course of the baseline monitoring period (December 2021 to September 2024), generally occurring on a quarterly basis. The manual measurements were used to confirm the datalogger water levels.

The Maximum Predicted Water Table Report concluded that the maximum water table at the Site ranges from 306.99 masl in the northwest corner of the Site to 308.52 masl in the northeast corner, and that groundwater flows across the Site in a west-southwest direction. The proposed Safarik Pit will be developed below the natural groundwater table to a maximum depth of approximately 33.0 m, or to a maximum depth of approximately 295 masl.

The Water Report determined that the proposed extraction below the water table will result in the creation of two ponds on the site, with pond water elevation estimated to be approximately 309 masl. The report also stated that several other existing aggregate pits are in close proximity to the Site, and that detailed monitoring programs in place for each of these existing pits indicates that adverse impacts to local groundwater users and surface water resources have not been observed.

The Report concluded that the unevaluated wetlands mapped on and near the Site are not interpreted to be hydraulically connected to the regional water table.

The Water Report identified several water wells are present near the subject lands, with the majority of the wells being installed into the bedrock underlying the sand and gravel resource at the Site. A total of eight wells completed in the overburden aquifer were identified within 500 m of the Site. The report concluded that there are no adverse impacts to off-site well users predicted.

The Water Report concluded that during full pit development, a drawdown of up to 0.25 m relative to baseline water levels in the water table are predicted to impact a relatively small area adjacent to the northern end of the proposed pit in Area A. The radius of influence (i.e., 0.25 m drawdown contour) in the aquifer extends to the east and northeast by approximately 600 m and 400 m, respectively. Under final rehabilitation conditions, the radius of influence in the aquifer in this location is predicted to cover an area of approximately 0.9 km^2.

The Water Report determined there are no permanent surface watercourses on-Site, and the Site is to be internally drained.

To mitigate the impacts of the proposed Safarik Pit, the Water Report recommended the following should be implemented upon licence approval:

- A proactive and long-term groundwater and surface water monitoring program will be completed during the pit operational and rehabilitation phases, until the licence is surrendered;
- A well interference and mitigation plan will be implemented proactively prior to pit operation; and
- A spill action plan will be developed and administered throughout all phases of pit operations.

3.5 Agricultural Resources

The proposed licence area is actively farmed for crops, and contains a barn, a house and a detached garage which are outside of the extraction limit. The proposed licence area contains Class 3 soils, Dumfries Sandy Loam, which are considered prime agricultural lands (OMAFA, 2025).

The County of Wellington's Official Plan designates the subject lands as 'Secondary Agricultural' (**Figure 7**). The subject lands are not located within a prime agricultural area based on the County of Wellington Official Plan. While Area B of the proposed pit was identified as a prime agricultural area in the former Growth Plan prime agricultural area mapping, this was not implemented in the County's Official Plan. Furthermore, OMAFA has clarified that the former Growth Plan prime agricultural area mapping only applies within the Greenbelt Plan. Area B is not located within the Greenbelt Plan. Therefore, there are no prime agricultural areas located on the subject lands per the PPS and County Official Plan

An Agricultural Considerations Review was completed by MHBC (**Appendix A**) which evaluated the agricultural resources both on the subject lands and within the surrounding area (1 km). The review included a survey of the subject lands and surrounding agricultural land uses to understand any potential impacts that the proposed operation could have on the agricultural system.

The review concluded that, subject to the implementation of the proposed mitigation measures regarding water quality and quantity, noise, dust, and traffic, there are no anticipated impacts to the agricultural system as a result of the proposed pit.

3.6 Cultural Heritage Resources

The Cultural Heritage Report and Heritage Impact Assessment (WSP, 2025) were prepared to fulfill the ARA technical standards for a Cultural Heritage Report, as well as to satisfy the Heritage Impact Assessment requirements of the County of Wellington Official Plan. The Cultural Heritage Report summarizes the applicable heritage policies, provides the Study Area's geography and history, and identifies known and/or potential built heritage resources (BHRs) or cultural heritage landscapes (CHLs). For the purposes of the Cultural Heritage Report, the study area was comprised of the proposed extraction area plus an area 50 m around it to account for the risk of potential adverse impacts to built heritage resources or cultural heritage landscapes on adjacent parcels. Background research, information gathering, and field investigations conducted for the Cultural Heritage Assessment identified one potential heritage property within the study area as a CHL, notably the farm complex consisting of the farmhouse, barn and outbuildings adjacent to the extraction limits within the western limits of the proposed licence area. The Heritage Impact Assessment determined that the farmhouse and barn have Cultural Heritage Value or Interest (CHVI) as they are representative of 19th century Evangelical German settlement and pioneering in Puslinch Township.

Due to the location of the barn and farmhouse, the proposed access road will pass between the buildings and approach Concession Road 7 at a slight angle. The Heritage Impact Assessment concluded that the proposed pit would result in no negative impact to the heritage structure subject to the implementation of the recommended mitigation measures.

To mitigate potential impacts, the Heritage Impact Assessment recommended that CBM conduct a structural conditions assessment on the barn and farmhouse to identify and address any deficiencies or deteriorations compromising the structural integrity of each structure, and that yearly inspections and regular maintenance should be conducted on the barn and farmhouse to prevent demolition by neglect.

3.7 Transportation System

The proposed Safarik Pit is located on Concession Road 7, approximately 1.4 km from the processing plant at the CBM McNally Pit.

Access to the Safarik Pit will be from Concession Road 7, approximately 40 metres and 10 meters north of the existing barn structure and the driveway to 4275 Concession Road 7, respectively (**Figure 2**). Approximately 600 m of the proposed haul route is or has been used for truck traffic related to the other licensed pits in the area. According to Phase 4 Land Options Report of Puslinch by Design, the Employment Lands Study for the Township, Concession Road 7 has been repaved in 2023 to accommodate truck traffic in the area (February 2025).

There are four houses located along the proposed haul route along Concession Road 7. Three of these houses are located within 300 m of the nearby active pits, with one is located approximately 25 m from CBM's Neubauer Pit. All other uses along the proposed route are agricultural, industrial and aggregate operations.

The Traffic Impact Study (TYLin, 2025) assessed the traffic impacts resulting from the proposed Safarik Pit, particularly on the local road network, and identified any required infrastructure improvements to accommodate future traffic volumes. The TIS was prepared to ensure the proposed pit access and traffic operations are consistent with Township standards. The TIS included a traffic data review, truck traffic projection, and traffic operations analysis to determine the anticipated traffic volumes during the weekday AM and PM peak periods, assess their impact on the existing and future road network, and recommend any necessary improvements to accommodate the projected traffic.

The TIS evaluated the potential impacts from the future truck traffic that will be generated from the proposed pit along the 1.4 km stretch between the proposed Safarik Pit and the McNally Pit along Concession Road 7. The proposed Safarik Pit operation would generate a total of 28 trips during the AM and PM peak hours (14 in, 14 out). The TIS concluded that this relatively low volume of additional traffic is not expected to cause significant impact on the surrounding road network. When combining background traffic with the site-generated traffic from the proposed Safarik Pit, the analysis indicates that intersections along Concession Road 7 will continue to function well in the year 2030, operating at an acceptable Level of Service (LOS) C and better during AM and PM peak hours. The traffic system is expected to remain efficient, with no significant capacity issues or unacceptable delays. This suggests that the proposed Pit will have minimal impact on overall traffic operations in the area.

As part of the TIS, a site visit was conducted to assess potential access locations (one northern and one southern) along Concession Road 7 for the proposed Safarik Pit. The evaluation focused on vertical and horizontal sightlines and the Stopping Sight Distance (SSD) for both access points, in accordance with the guidelines provided by the Transportation Association of Canada. Accordingly, the future access of the proposed pit and is projected to meet (or exceed) the applicable sightline requirements. After considering vertical sightline constraints and ensuring sufficient sight distance for local traffic, the TIS recommended that the access be positioned closer to the southern limit of the identified northern access range.

Left-turn analysis confirmed that left-turn lanes are not warranted along Concession Road 7 at the existing McNally Pit and proposed Safarik Pit accesses.

Overall, the TIS indicates that the existing transportation infrastructure can accommodate the projected increase in traffic due to the proposed Safarik Pit's operation. Both current and future traffic conditions, including the added site-generated traffic, will not result in significant impacts on the surrounding road network.

4.0 Policy Review

The following is an assessment of the proposed Safarik Pit relative to the policies and provisions of the following documents:

- Provincial Planning Statement (2024);
- Greenbelt Plan (2017);
- County of Wellington Official Plan 1999 (Office Consolidation May 2025); and,
- Township of Puslinch Zoning By-law No. 023-18.

4.1 Provincial Planning Statement

The Provincial Planning Statement (PPS) is issued under the authority of Section 3 of the Planning Act and came into effect October 20, 2024. The PPS aims to provide appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment.

Provincial plans are to be read in conjunction with the PPS and take precedence over the PPS where any conflict arises, except where the relevant legislation provides otherwise.

The PPS recognizes the key Provincial interest in natural heritage, water, agricultural, mineral, and cultural heritage and archeological resources as they provide important economic, environmental, and social benefits. The wise use and management of these resources over the long term is a key provincial interest.

The intent of the PPS is to provide a vision for land use planning in Ontario that encourages the efficient use of land, resources and public investment in infrastructure. One of the key considerations of the PPS is that planning decisions 'shall be consistent' with the Planning Statement. The following is an analysis of the proposed Safarik Pit in the context of the applicable policies in the PPS.

Rural Lands in Municipalities

Section 2.6.1 *On rural lands located in municipalities, permitted uses are:*

a) the management or use of resources;

The use and management of mineral aggregate resources and their extraction is permitted within the rural lands of municipalities.

Land Use Compatibility

Section 3.5.1 *Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures.*

The proposed Safarik Pit has been designed and buffered to mitigate potential adverse impacts on surrounding sensitive land uses. Acoustic and visual berms will be constructed in accordance with the Noise Assessment Report (WSP, 2025) and as included in the ARA Site Plans to mitigate noise impacts in compliance with Provincial regulations. The berms will also screen pit operations from adjacent roads and residences. The closest house is approximately 60 m from the proposed extraction area. Many of the houses along the proposed haul route of the pit on Concession Road 7 are located within 300 m of other active pits.

Natural Heritage

Section 4.1.2 *The diversity and connectivity of natural features in an area, and the long-term*

ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

The diversity and connectivity of natural features in the area, and the long-term ecological function and biodiversity of natural heritage systems will be maintained during operations by establishing a minimum 10 m vegetated buffer from significant woodlands and (non-significant) wetlands adjacent to the proposed licence area. This will ensure that the form and ecological functions of these features, including the provision of significant wildlife habitat and bat SAR habitat, will be maintained throughout the life of the Safarik Pit. Progressive rehabilitation of the pit will increase the area of natural features including wooded areas (1.0 ha), wetland (0.1 ha), pollinator habitat (0.6 ha) and open water (9.2 ha) and improve the overall diversity of naturalized habitats on the landscape post-rehabilitation.

The Natural Environment Report concluded that through the implementation of the recommended mitigation measures, there will be no negative impacts to the wetlands, significant woodland, significant wildlife habitat or SAR habitat on or within 120m of the proposed Safarik Pit.

Section 4.1. 5 *Development and site alteration shall not be permitted in:*

a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E[1];

b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)[1];

c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)[1];

d) significant wildlife habitat;

e) significant areas of natural and scientific interest; and

f) coastal wetlands in Ecoregions 5E, 6E and 7E[1] that are not subject to policy 4.1.4.b),

unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

There are no significant wetlands, significant woodlands, significant valleylands, significant wildlife habitat, or significant areas of natural and scientific interest located within the proposed extraction area of the pit. No development proposed within any of the unevaluated wetlands on the subject lands; a 10-metre setback is proposed from the extraction limit.

The Natural Environment Report concluded that there will be no negative impacts to the natural features on or within 120m of the proposed license area. The report considered the small, unevaluated wetlands on the Subject Lands and determined that they were not considered Provincially Significant Wetlands. Therefore, there is no development or site alteration proposed in significant natural heritage features.

Section 4.1.6 *Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.*

There are no surface water features on or around the subject lands. Therefore, no development or site alteration is proposed in fish habitat.

Section 4.1.7 *Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.*

Development will occur in accordance with the Endangered Species Act ("ESA, 2007"). The Ministry of Environment, Conservation and Parks will be consulted through the licence application.

The Natural Environment Report provides that protected habitat for endangered and threatened species will be delineated and mapped as part of future approvals under the ESA, as required.

Water

Section 4.2.2 *Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored, which may require mitigative measures and/or alternative development approaches.*

The Level 1 and 2 Water Report (WSP, 2025) assessed potential impacts to surface water and groundwater features due to the proposed Safarik Pit. The Water Report concludes that no adverse surface water quality impacts are predicted as a result of the proposed pit. Further, recommendations outlined in the Water Report will be contained within the ARA Site Plan to mitigate potential impacts.

4.3 Agriculture

Section 4.3.1 General Policies for Agriculture

2. As part of the agricultural land base, prime agricultural areas, including specialty crop areas, shall be designated and protected for long-term use for agriculture.

The subject lands are not located within a prime agricultural area based on the County of Wellington Official Plan. While Area B of the proposed pit was identified as a prime agricultural area in the former Growth Plan prime agricultural area mapping, this was not implemented in the County's Official Plan. Furthermore, OMAFA has clarified that the former Growth Plan prime agricultural area mapping only applies within the Greenbelt Plan. Area B is not located within the Greenbelt Plan. Therefore, there are no prime agricultural areas located on the subject lands per the PPS and County Official Plan.

Mineral Aggregate Resources

Section 4.5.2 Protection of Long-Term Resource Supply

1. As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible.

The proposed Safarik Pit makes significant, high quality aggregate resources available from a close to market location.

2. Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.

The Safarik Pit has been carefully designed so that extraction occurs in a way that minimizes social, economic and environmental impacts.

4.5.3 Rehabilitation

1. Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, to recognize the interim nature of extraction, and to mitigate negative impacts to the extent possible. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.

The subject lands will be progressively rehabilitated to natural heritage features including new wetlands and woodlands, and final rehabilitation will be compatible with surrounding land uses and approved land use designations.

2. Comprehensive rehabilitation planning is encouraged where there is a concentration of mineral aggregate operations.

The proposed rehabilitation of the Safarik Pit is coordinated and complementary with the rehabilitation of other sites in the nearby area. While there are no adjacent licensed pit operations, the proposed rehabilitation plan takes into account the approved and ongoing rehabilitation activities at nearby pits including Neubauer Pit, Puslinch Pit and McNally Pit.

Section 4.5.4 Extraction in Prime Agricultural Areas

Policies outlined under section 4.5.4 of the PPS do not apply to the Safarik Pit since it is not within a Prime Agricultural Area.

Cultural Heritage & Archaeology

Section 4.6.1 *Protected heritage property, which may contain built heritage resources or cultural heritage landscapes, shall be conserved.*

The farmhouse and barn located within the licenced boundary of the proposed pit will be retained and avoided in accordance with the recommendations of the Heritage Impact Assessment. Further, yearly inspections are recommended for the barn and farmhouse to prevent further deterioration.

2. Planning authorities shall not permit development and site alteration on lands containing archaeological resources or areas of archaeological potential unless the significant archaeological resources have been conserved.

A Stage 1 and 2 Archaeological Assessment was completed for the subject lands. There are no archaeological resources within the proposed extraction area. The remaining archaeological resources near Concession Road 7 will be assessed through the completion of a Stage 3 assessment.

In summary, the proposed Safarik Pit is consistent with the policies of the PPS.

4.2 Greenbelt Plan (2017)

Approximately 0.9 ha of the subject lands are located within the Greenbelt Plan. As outlined in the Greenbelt Act (2005), decisions under the Planning Act must conform to the Greenbelt Plan (2017). Additionally, under the Planning Act, decisions on planning matters must conform to provincial plans. The Greenbelt Plan builds on the PPS to establish a land use planning framework for the Greater Golden Horseshoe that supports a thriving economy, a clean and healthy environment and social equity.

The Greenbelt Plan was amended on August 14, 2024 such that the policies of the Provincial Policy Statement (PPS 2020) and the Growth Plan for the Greater Golden Horseshoe 2019 (APTG) will continue to apply where the Greenbelt Plan refers to them to maintain existing protections for the Greenbelt following the revocation of the PPS 2020 and APTG.

A small portion of Area A, approximately 0.9 ha, of the subject lands is located within the 'Protected Countryside Area' of the Greenbelt Plan, and outside of the 'Natural Heritage System' (**Figure 6**). The following is an analysis of the proposed Safarik Pit with the policies of the Greenbelt Plan as it relates to these specific lands. Section 4.3 of the Greenbelt Plan identifies a number of specific requirements for aggregate operations occurring within the Greenbelt Plan Area. Aggregate uses are permitted within the Protected Countryside.

Section 4.3.2 of the Greenbelt Plan provides the policy direction and requirements for Non-Renewable Resources for lands within the Protected Countryside, including:

4. *In prime agricultural areas, applications for new mineral aggregate operations shall be supported by an agricultural impact assessment and, where possible, shall seek to maintain or improve connectivity of the Agricultural System*.

The subject lands are not located within a prime agricultural area per the PPS and County's Official Plan.

5. *New and existing mineral aggregate operations and wayside pits and quarries within the Protected Countryside shall ensure that:*
    a) *The rehabilitated area will be maximized and disturbed area minimized on an ongoing basis during the life cycle of an operation;*
    b) *Progressive and final rehabilitation efforts will contribute to the goals of the Greenbelt Plan;*
    c) *Any excess disturbed area above the maximum allowable disturbed area, as determined by the Ministry of Natural Resources and Forestry, will be rehabilitated. For new operations, the total disturbed area shall not exceed an established maximum allowable disturbed area; and*
    d) *The applicant demonstrates that the quantity and quality of groundwater and surface water will be maintained as per Provincial Standards under the Aggregate Resources Act*.

The rehabilitation of the area of the Safarik Pit mapped in the Greenbelt Plan will be maximized through the provision of a 0.6 ha pollinator habitat, which contributes to the goals of the Plan.

The extraction of the pit will be phased to minimize the total disturbed area of the subject lands.

The completed Level 1 and 2 Water Report (WSP, 2025) determined that surface and groundwater features within the zone of influence will be maintained according to provincial standards.

Section 4.3.2.6 provides policies regarding the rehabilitation of the new mineral aggregate operations in the Protected Countryside as it relates to the proposal:

a) The disturbed area of a site shall be rehabilitated to a state of equal or greater ecological value and, for the entire site, long-term ecological integrity shall be maintained or enhanced;
b) If there are key natural heritage features or key hydrologic features on the site, or if such features existed on the site at the time of an application:
    i. The health, diversity and size of these key natural heritage features and key hydrologic features shall be maintained or enhanced; and
    ii. Any permitted extraction of mineral aggregates that occurs in a feature shall be completed, and the area shall be rehabilitated, as early as possible in the life of the operation;
c) Aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement, which shall be representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation shall meet the intent of section 4.3.2.6 (b); and
d) *Outside the Natural Heritage System, and except as provided in sections 4.3.2.6 (a), (b) and (c), final*

rehabilitation shall appropriately reflect the long-term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies. In prime agricultural areas, the site shall be rehabilitated in accordance with section 2.5.4 of the PPS.

As outlined in Sections 2.3 and 5.6 of this report, once extraction is completed, the licenced area within the Greenbelt Plan will be rehabilitated to a pollinator habitat to enhance the long-term ecological integrity of the site.

There are no key natural heritage features on the subject lands within the Greenbelt Plan.

Aquatic enhancement will be promoted within the remaining ponds on the subject lands through the placing of organic material on the pond shorelines to promote amphibian breeding and potential fish spawning and other aquatic organisms.

Lands are outside Natural Heritage System and final rehabilitation appropriately reflects long-term land use of the general area taking into account applicable provincial and municipal policies. Policy analysis of the PPS and municipal policies are included in Sections 4.1 and 4.3 if this Report, respectively.

4.3 County of Wellington Official Plan

The County of Wellington Official Plan provides direction over the next 20 years to the physical development of the County, its local municipalities, and to the long-term protection of County Resources.

The current version of the County of Wellington Official Plan was adopted by Council on September 24, 1998, and approved by the Ministry of Municipal Affairs on April 13, 1999, and came into effect on May 6, 1999. The Official Plan was most recently consolidated in May 2025.

The subject lands are part of the Rural System of the County of Wellington. The County of Wellington Official Plan recognizes that the Rural System will provide opportunities for employment and that the main employment generator in the rural system will be resource-based industries, including aggregate operations (Policy 4.2.5).

The majority of the subject lands are designated as 'Secondary Agricultural' in Schedule B7 of the County Official Plan (**Figure 7**). Section 4.3.2 identifies that 'Secondary Agricultural' areas are those "*with agricultural capability, but determined not to be prime agricultural areas.*" The County Official Plan permits a range of other uses within the designation following the dominant agricultural use.

Small areas within the subject lands are mapped in the Greenlands System identified on Schedule B7, including 'Core Greenlands' and 'Greenlands'. No portion of the proposed extraction area is located within the Core Greenlands designation which will be maintained.

The majority of the subject lands is also included in the 'Regionally Significant Development Study Area', which is under consideration by the County and Township of Puslinch for additional Rural Employment lands.

At the time of writing this Report, the County of Wellington has initiated an Official Plan Amendment (OPA 131) to designate additional employment lands within the Township of Puslinch. An Employment Lands Study, titled Puslinch by Design, was initiated in January 2024 by the County to accommodate an additional 30.0 hectares of employment land, as

a minimum, for the Township. The Puslinch by Design Study proposes that Area B of Safarik Pit and lands to the north up to Highway 401, be re-designated to a Rural Employment Area.

At the time of the Safarik Pit application, OPA 131 remains a draft and is not in full force and effect.

4.6 Impact Assessment

Section 4.6.1 of the Official Plan states that the County or local municipality may require studies to be undertaken to measure various impacts and to propose methods of reducing or eliminating impacts. The Official Plan states that studies completed as part of a licensing procedure (e.g. Aggregate Resources Act) may fulfill all or part of the requirements of this section.

The following studies have been submitted with the proposed Safarik Pit Application:

- Aggregate Resources Act (ARA) Site Plans;
- Planning Report and ARA Summary Statement;
- Natural Environment Report / Environmental Impact Study;
- Level 1 and 2 Water Report;
- Maximum Predicted Water Table Report;
- Stage 1 and 2 Archaeological Assessment;
- Cultural Heritage Report;
- Heritage Impact Assessment;
- Noise Assessment Report; and
- Transportation Impact Assessment; and
- Best Management Practices Plan for the Control of Fugitive Dust.

4.9.7 Paris Galt Moraine Policy Area

Section 4.9.7 of the County Official Plan outlines policies pertaining to the Paris and Galt Moraine. The Paris and Galt Moraines are unique landforms with a combination of soil types, numerous land surface depressions, and higher elevations relative to surrounding lands. The Moraines function as a support for hydrologic processes and features that influence groundwater and surface water resources at regional and local scales. Policies within this section are intended to protect and enhance these features.

The entirety of the subject lands is located within the Paris and Galt Moraine Policy Area (**Figure 8**). Proposals such as mineral aggregate operations are required to demonstrate that ground and surface water functions will be maintained, and where possible, restored and enhanced (Policy 4.9.7.2). WSP's Water Report concluded that ground and surface water functions will be maintained throughout the duration of the pit operations including after final rehabilitation is complete. The proposed rehabilitation after-use of naturalized ponds will maintain moraine features and processes.

4.10.1 Mill Creek Watershed

The proposed licenced area is located within two individual subwatersheds. As delineated and described in WSP's Water Report, the majority of the subject lands are located within the Mill Creek subwatershed. The southeastern corner of the subject lands is located within the Bronte Creek subwatershed. Further, the study area (500 m) of the Water Report extends to the Fletcher Creek/Spencer Creek subwatershed present to the south of the Site.

To ensure the protection of Mill Creek and its watershed, the County Official Plan outlines policies to be followed, which include:

> *a) the natural heritage features identified by the Mill Creek Watershed Study will be included within Wellington County's Greenland System and will be protected;*

The extraction area was designed to avoid, protect and mitigate potential impacts to the natural heritage features located on and adjacent to the subject lands. Final rehabilitation activities of the pit will include enhancements to the natural area.

b) infiltration levels will be maintained by:

- *Limiting impervious cover (buildings & pavement) in a subcatchment area(s) to 20% requiring storm water best management practices to encourage infiltration and maintain water quality and quantity.*

There are no permanent structures or development proposed that would result in impervious cover on the subject lands.

5.0 Greenlands System

The Greenlands System is divided into two categories, Core Greenlands and Greenlands. Core Greenlands include lands which have greater sensitivity or significance. This includes PSWs, all other wetlands, habitat of endangered or threatened species and fish habitat, and hazardous lands. The Greenlands System will be maintained or enhanced. Activities which diminish or degrade the essential functions of the Greenlands System will be prohibited.

5.4 Core Greenlands

Core Greenlands include lands which have greater sensitivity or significance. This includes all wetlands, habitats of endangered or threatened species and fish habitat, and hazardous lands.

All areas proximal to the Safarik Pit designated 'Core Greenlands' are located outside of the extraction limit and will be buffered by a minimum 10 m setback from extraction activities. There is no development proposed within any of the unevaluated wetlands on the subject lands. Approximately 0.1 ha of new wetland will be created along the northern edge of the proposed pit pond in Area A.

The County Official Plan requires that "*the appropriate Conservation Authority should be contacted when development is proposed in or adjacent to a wetland*," (5.4.1).

The Grand River Conservation Authority will be circulated as a commenting agency for the ARA and Planning Act applications.

5.5 Greenlands

The Greenlands designation includes other significant natural heritage features including habitat, areas of natural and scientific interest (ANSI), streams and valley lands, woodlands, environmentally sensitive areas, ponds, lakes and reservoirs and natural links.

A hedgerow located in Area A is designated 'Greenlands' and is proposed to be removed for the efficient use of mineral aggregate resources on the site. WSP's Natural Environment Report (WSP, 2025) demonstrates that the hedgerow to be removed does not meet the criteria to be classified as a significant woodland.

Additionally, the 10 m setback, as measured from the dripline of the significant woodland to the east, is expected to be sufficient to protect the woodland root zone. The removed portion of the woodland will be replaced as part of the rehabilitation plan. Therefore, the proposed pit is not anticipated to negatively impact the adjacent woodland or its ecological function (Policy 5.5.4). It should be noted that the approved future Highway 6 bypass is expected to be located within this woodland.

5.6 Development Control in Core Greenlands & Greenlands

Within the 'Core Greenlands' designation, development and site alteration shall not be permitted in significant habitat of threatened or endangered species, except in accordance with provincial and federal requirements (5.6.1).

The Natural Environment Report prepared by WSP (2025) assessed the potential impacts of the proposed pit on the aforementioned habitats. The report provided mitigation measures such as restrictions on tree removal within active bat season.

5.7 Restoration and Enhancement

Section 5.7 of the Official Plan recognizes that while the majority of the County policy framework is focused on protecting natural heritage features from development and site alteration, the County also supports restoration and enhancement of the natural heritage system. This section acknowledges that the development control process can provide a means to identify opportunities for restoration and enhancement where development activities are taking place.

The proposed pit application represents an opportunity to enhance the County's Greenlands system by creating new aquatic and terrestrial habitat while also making available high quality aggregate resources available close to market.

6.5 Secondary Agricultural Areas

Section 6.5 states that uses permitted within the 'Secondary Agricultural' area designation include those permitted in Prime Agricultural Areas. Licenced Aggregate Operations are permitted within Prime Agricultural Areas (6.4.3).

6.6 Mineral Aggregate Areas

Mineral aggregate areas are part of the County's Rural System which is primarily natural resource land and other uses typically found in non-urban areas. The Rural System, for the most part, is a relatively stable part of the County landscape devoted to economic activities based on natural resources. The County's policies are intended to maintain the essential character of these areas to ensure that the economic activities and employment opportunities which depend on Wellington's natural resources are maintained and enhanced.

6.6.1 Mineral Aggregate Resource Overlay

Policy 6.6.1 states that lands within the Mineral Aggregate Resource Overlay are areas of high potential for mineral aggregate extraction and are shown as an overlay on Schedule D. These lands have been identified by the Province in the Aggregate Resource Inventory Paper (ARIP) 162 which generally consists of sand and gravel deposits and selected bedrock resources that the Province has identified as being of primary, or secondary significance.

Section 6.6.1 also states that there are sites in the Mineral Aggregate Resource Overlay where there is an existing or approved mineral aggregate operation that lies outside of the sand and gravel resource areas of Primary or Secondary Significance and selected bedrock resources. The subject lands are not located within the Mineral Aggregate Resource Overlay (**Figure 9**) as they are not identified in ARIP 162 as containing sand and gravel deposits. However, on-site drilling results indicate the resources would be capable of producing These resources granular products, as well as course and fine aggregates used in hot-mix asphalt paving and concrete production.

The Mineral Aggregate Resource Overlay only indicates that aggregate deposits are likely to be available, it does not presume that all conditions are appropriate to allow extraction to proceed. Similarly, the Mineral Aggregate Resource Overlay does not limit applications for new or expanding aggregate operations only to these areas in the County as specifically recognized in Section 6.6.1. The intention is to make as much aggregate resources available as close to markets as is realistically possible consistent with the direction provided in the PPS.

6.6.5 New Mineral Aggregate Operations

Aggregate operations are identified as a permitted use in the 'Secondary Agriculture,' 'Core Greenlands' and 'Greenlands' designations, subject to the policies of the Plan. Section 6.5.5 states that new or expanding mineral aggregate operations require an amendment to the Mineral Aggregate Area shown on Schedule B of the Official Plan. CBM is applying for an amendment to the County's Official Plan to permit the proposed pit by establishing the Mineral Aggregate Area on the subject lands as well as the Mineral Aggregate Resource Areas Overlay. A draft Official Plan Amendment is included as **Appendix B**.

Section 6.6.5 of the Official Plan outlines the policies to be satisfied when establishing a new or expanding mineral aggregate operation. The following policies are considered:

a) the impact on adjacent land uses and residents and public health and safety;

There will be no adverse impacts to public health and safety related to this proposal as demonstrated by the technical studies and reports submitted with the applications.

b) the impact on the physical (including natural) environment;

According to the technical reports, the proposed Safarik Pit is not anticipated to have a negative impact on the natural environment, water resources and transportation network.

c) the capabilities for agriculture and other land uses;

The subject lands are not designated as a prime agricultural area in the County's Official Plan. An Agricultural Considerations review, attached as **Appendix A**, was completed to assess agricultural resources on the subject lands and within the surrounding area. It was determined that there will be no negative impacts on agricultural resources as a result of the proposed pit.

d) the impact on the transportation system;

The traffic study (TYLin, 2025) concluded that the existing transportation infrastructure can accommodate the projected increase in traffic due to the pit's operation. Additionally, both current and future traffic conditions, including the added site-generated traffic, are anticipated to not result in significant impacts on the surrounding road network.

e) existing and potential municipal water supply resources are protected in accordance with Sections 4.9.5 and 4.9.5.9 of this Plan and the applicable Source Protection Plan.

Existing and potential municipal water supply resources will be protected. The subject lands are not located within a wellhead protection area, intake protection zone, or issue contributing area, however are located within the Draft Wellhead Water Quantity Zone (WHPA-Q) based on the Grand River Source Protection Plan (**Figure 11**). Therefore, best management practices and a spills protection plan will be in place for equipment maintenance and on-site fuel storage.

f) the possible effect on the water table or surface drainage patterns;

The Level 1 and 2 Water Report (WSP, 2025) concluded that the implementation of the recommended mitigation measures is anticipated to create no negative impacts to the water table or surface drainage patterns.

g) the manner in which the operation will be carried out;

Extraction will occur in 2 phases generally in an east to west direction, beginning in Area A, at the rear of the subject lands. Extracted materials will be shipped to the Aberfoyle Pit for processing using Highway trucks. Details of the

operation including phasing and progressive rehabilitation are provided in Section 2.3 of this Report.

h) the nature of rehabilitation work that is proposed; and

The subject lands will be rehabilitated through the creation of two naturalized ponds, establishing a total of 9.2 ha in size, 0.1 ha of new wetlands, and 1.0 ha of new woodlands. Pollinator habitat of approximately 0.6 ha will be provided in the southwest portion of Area A. Details of the rehabilitation plan are provided in the ARA site plans.

i) the effect on cultural heritage resources and other matters deemed relevant by Council.

A Cultural Heritage Report and the recommended Heritage Impact Assessment (WSP, 2025) have been completed, and the required mitigation has been incorporated on the ARA Site Plan to protect structures of cultural heritage value and interest. Mitigation measures include yearly inspections of the structures, a structural assessment and regular maintenance.

6.6.6 Public Information

When approvals are being considered for mineral aggregate operations, the following information shall be made available to the public:

a) Detailed site plans;
b) Estimated quality and quantity of the resource;
c) Description of the surrounding lands;
d) Any related reports prepared by the proponent; and
e) Any other information deemed relevant by Council.

The preceding information will be made available to the public including the Aggregate Resources Act Site Plan. This Report and the Site Plan contains information on the surrounding lands. Further, the related reports and other information required under the Planning Act and Aggregate Resources Act have been submitted with the proposed pit application. CBM will establish a project website where these studies and information will be available to the public.

6.6.7 Ancillary Uses

Section 6.6.7 identifies criteria for establishing ancillary uses. The ancillary uses specifically identified in Section 6.6.4 which include "asphalt plants, concrete plants, aggregate transfer stations, stockpiling and blending of aggregates with materials such as salt, sand-salt mixture and recycled road material," which are not proposed at the pit. For greater clarity, this pit operation will strictly act as a "feeder pit" with no aggregate processing or washing.

6.6.8 Rehabilitation

Section 6.6.8 of the County's Official Plan directs that all proposals for new aggregate extraction operations should include a rehabilitation plan which should:

a) provide for progressive rehabilitation whenever feasible;
b) be prepared in detail by a recognized expect;
c) be compatible with the long term uses permitted by the surrounding official plan designations;
d) on lands designated Prime Agricultural Areas, provide a detailed agricultural rehabilitation plan which restores substantially the same areas and average soil quality for agriculture as before extraction occurred; and
e) on lands designated Secondary Agricultural Areas, provide an agricultural rehabilitation plan which, whenever feasible, restores substantially the same areas and average soil quality for agriculture as before extraction occurred.

A Rehabilitation Plan has been submitted for the proposed pit and was prepared by a qualified expert authorized to prepare site plans under the Aggregate Resources Act. The proposed pit will be progressively rehabilitated throughout the planned phases of extraction.

The subject lands are proposed for below water extraction and designated 'Secondary Agriculture,' Core Greenlands' and 'Greenlands. The pit will be rehabilitated to natural heritage features including a naturalized pond, new wetlands, a pollinator habitat and woodlands. These features will provide aquatic and terrestrial habitat, and the final rehabilitation will be compatible with surrounding land uses and approved land use designations.

6.6.9 Mining Below Water Table

Section 6.6.9 states that extraction below the water table may only be allowed and complete rehabilitation is not required under if the following is demonstrated:

a) there is a substantial quantity of mineral aggregates below the water table warranting extraction or the depth of planned extraction in a quarry makes rehabilitation unfeasible;

The proposed licence area contains about 5.0 million tonnes of high-quality aggregate resources. Over 40% of the sand and gravel resources located on the subject lands are located below the water table; therefore, there is a substantial quantity of mineral aggregates below the water table warranting extraction.

b) on lands designated Prime Agricultural Areas, other alternatives have been considered by the applicant and found unsuitable, and rehabilitation in remaining areas will be maximized;

The subject lands are not designated Prime Agricultural Area in the County's Official Plan based on Schedule B7.

c) impacts on the environment, including quality and quantity of surface and groundwater resources, will be minimal; and

Impacts on the environment will be minimized in accordance with provincial and municipal standards as detailed in the Water Report and Natural Environment Report (WSP, 2025).

d) the intended after use will be compatible with the long term uses of adjacent areas.

The proposed extraction area will be rehabilitated to natural heritage features compatible with the long-term uses of adjacent areas.

Mitigation measures have been put in place and the operation has been carefully designed to ensure the proposed pit minimizes social, economic and environmental impacts.

9.9 Greenbelt Policies (Erin and Puslinch)

Approximately 0.9 ha of Area A of the proposed pit is located within the Greenbelt Plan (**Figure 6**). Note that there are no natural heritage features on Area A within the Greenbelt Plan.

9.9.10.2 Non-Renewable Resources

Section 9.9.10.2 states that non-renewable resources are non-agricultural based natural resources which are finite, including mineral aggregates. Within the Greenbelt Plan, activities related to the use of non-renewable resources are permitted in the Protected Countryside. Further, the availability of mineral aggregate resources for long-term use will be determined in accordance with the PPS, except as provided below:

e) When operators are undertaking rehabilitation of mineral aggregate operation sites in the Protected Countryside, the following provisions apply:

i. The aggregate industry will work with the Ministry of Natural Resources to consider the development and implementation of comprehensive rehabilitation plans in areas of high concentration of mineral aggregate operations;

The rehabilitation plan has taken into account approved rehabilitation plans for other pits in the area.

ii. The disturbed area of a site will be rehabilitated to a state of equal or greater ecological value, and for the entire site, long-term ecological integrity will be maintained or restored, and to the extent possible, improved;

The Safarik Pit will be rehabilitated to a state of greater ecological value within the area mapped in the Greenbelt Plan.

iii. If there are key natural heritage features or key hydrologic features on the site, or if such features existed on the site at the time of application:

- *The health, diversity and size of these key natural heritage features and key hydrologic features will be maintained or restored and, to the extent possible, improved to promote a net gain of ecological health; and*
- *Any permitted extraction of mineral aggregates that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation.*

There are no key natural heritage features on the subject lands within the Greenbelt Plan.

iv. Aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement, which shall be representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation shall meet the intent of bullet iii) above;

Rehabilitation activities of the Safarik Pit will promote the enhancement of the remaining aquatic areas.

v. Outside the Natural Heritage System, and except as provided by bullets iii) and iv) above, final rehabilitation will appropriately reflect the long-term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies.

The rehabilitation activities have been determined based on the existing provincial and municipal policies.

g) Operators are encouraged to consider and provide for public access to former aggregate sites upon final rehabilitation;

Plans for the future of the subject lands will be contemplated following final rehabilitation.

h) All land use activities related to the post extraction rehabilitation of mineral aggregate operations should be consistent with any relevant approved source protection plan and relevant watershed or subwatershed plan.

To be compatible with nearby aggregate operations and agricultural land uses, the subject lands will be rehabilitated to two ponds with natural features and agricultural land located near the entrance of the site. Further detail on the Greenbelt Plan policies is provided in Section 4.2 of this Report.

The proposed amendment and pit conform to the County's Official Plan.

4.4 Township of Puslinch Zoning By-law No. 23-18

The subject lands are zoned Agricultural (A) and Natural Environment (NE) in Township of

Puslinch Zoning By-law 23/2018 (**Figure 10**). The subject lands also contain the Environmental Protection (EP) Overlay. This is not a separate zone but an overlay that represents natural heritage features included in the Greenlands designation in the County's Official Plan as well as lands regulated by the GRCA.

No portion of the proposed extraction area is located within the Natural Environment Zone.

Section 13.2 outlines the special provisions that may apply to proposed development within the EP Overlay. It must be demonstrated that there will be no negative impacts on the specified natural features or their ecological functions. This has been demonstrated through the completed studies and by implementing a 10-metre setback from adjacent natural features.

Surrounding lands are zoned Agricultural (A), Natural Environment (NE), and Extractive Industrial (EXI).

CBM is applying to amend the Zoning By-law from the Agricultural (A) zone to the Extractive Industrial (EXI) zone.

A draft Zoning Amendment is included as **Appendix C** of this report.

5.0 Aggregate Resources Act Summary Statement

The following information is provided to address the requirements for a Summary Statement for a Class A Licence as set out in the Aggregate Resources of Ontario Standards (2020).

The CVs for the Report Authors are included in **Appendix D**.

5.1 Agricultural Classification of the Site - Standard 1.1

According to soils mapping from OMAFA, the subject lands contain Class 3 soils, Dumfries Sandy Loam. The Dumfries Sandy Loam is described as containing "irregular steeply sloping" topography with a stoniness class of "very stony".

The County of Wellington's Official Plan designates the subject lands as 'Secondary Agricultural' (**Figure 7**). The subject lands are not located within a prime agricultural area based on the County of Wellington Official Plan. While Area B of the proposed pit was identified as a prime agricultural area in the former Growth Plan prime agricultural area mapping, this was not implemented in the County's Official Plan. Furthermore, OMAFA has clarified that the former Growth Plan prime agricultural area mapping only applies within the Greenbelt Plan. Area B is not located within the Greenbelt Plan. Therefore, there are no prime agricultural areas located on the subject lands per the PPS and County Official Plan.

Please refer to Section 3.5 and **Appendix A** of this Report for further information on agricultural resources.

5.2 Applicable Planning and Land Use Considerations - Standard 1.2

The lands surrounding the proposed Safarik Pit include natural heritage features (significant woodlands), rural residential uses, agricultural uses and licenced aggregate operations. There are six off-site residences located within 120 m of the proposed licence boundary with the closest house being approximately 60 m from the extraction area. The future Highway 6 bypass is located adjacent to the subject lands east of Area A. Highway 401 is located 430 m north of the subject lands.

The subject lands are designated Secondary Agricultural, Core Greenlands and Greenlands in the County's Official Plan based on Schedule B7 (**Figure 7**). The lands are zoned Natural Environment and Agricultural with an Environmental Protection overlay in the Township's Zoning By-law (**Figure 10**).

A small portion of the subject lands are located within the Greenbelt Plan and are subject to those policies.

In addition to the ARA Licence Application, a County of Wellington Official Plan Amendment

and Township of Puslinch Zoning By-law Amendment are also required to permit the proposed pit.

Please refer to Sections 3.0 and 4.0 of this Report for a further discussion on Planning and Land Use Considerations.

5.3 Source Protection Area Considerations - Standard 1.3

The subject lands are not located within a wellhead protection area, intake protection zone, or issue contributing area, however are located within the Draft Wellhead Water Quantity Zone (WHPA-Q) based on the Grand River Source Protection Plan (**Figure 11**).

The subject lands are classed as a Significant Groundwater Recharge Area. The operation and rehabilitation of the pit are expected to result in annual recharge rates that will maintain the Significant Groundwater Recharge Area classification.

Best management practices and a spills protection plan will be in place for on-site fuel storage.

5.4 Quality and Quantity of Aggregate On Site Standard 1.4

The subject lands are not identified as having sand and gravel resources according to the ARIP 162 (**Figure 3**). However, on-site drilling results indicate the resources would be capable of producing granular products, as well as coarse and fine aggregates used in hot-mix asphalt paving and concrete production.

Based on the on-site resource testing, there are approximately 5.0 million tonnes of high-quality sand and gravel resource available within the proposed extraction area. Over 40% of the sand and gravel resources located on the subject lands are located below the water table.

Resources extracted from the subject land will be transferred via highway trucks and processed at the McNally Pit. This location provides high quality materials in a close to market location including concrete, asphalt, crushed stone, granular and sand products.

Please refer to Section 3.2 for further information on aggregate quantity and quality.

5.5 Main Haulage Routes - Standard 1.5

The proposed pit is considered a "feeder pit" or a "load and haul" as materials extracted from the subject lands would be processed at the McNally Pit or other nearby CBM processing facilities and then shipped to market using the existing entrance and haul route at Concession Road 7. Materials will be hauled using highway trucks from the subject lands approximately 1.4 km to the McNally Pit, along Concession Road 7. There will be no truck traffic heading south on Concession Road 7.

The Traffic Impact Study found that during the peak hour, there would be 28 trips during both the AM and PM peak hour (14 inbound, 14 outbound).

A single truck entrance/exit is proposed along the western portion of the subject lands on Concession Road 7. An access permit will be obtained from the Township as the applicable road authority.

Please refer to Section 3.6 for further information on haul routes and truck traffic.

5.6 Progressive and Final Rehabilitation - Standard 1.6

The lands will be extracted to a maximum depth of approximately 295 masl. The resulting total pond areas will be approximately 9.2 ha in size. Area A will result in a pond of 2.9 ha and Area B will be approximately 6.3 ha in size. Below water, the rehabilitated side slopes will be 2:1 or the natural angle of response, while above the water side slopes will be 3:1. Shallow and undulating shoreline areas are proposed around the perimeter of the lake to create varying topography and lake depths, with a wetland area created along the northern limits of the Area A pond.

Approximately 1.0 ha of new forest cover will be created within the 10-metre setback adjacent to the off-site significant woodland. Within the area identified in the Greenbelt Plan, approximately 0.6 ha of pollinator habitat will be created. These features will be created progressively as extraction proceeds through the site as outlined on the phasing plans of the ARA Site Plans.

The rehabilitated landform will be compatible with the surrounding area. Refer to the ARA site Plans (Rehabilitation Plan) and Section 2.3 of this Report for additional details regarding progressive and final rehabilitation.

6.0 Summary and Conclusions

CBM is applying for a Class 'A' Licence under the Aggregate Resources Act, a County of Wellington Official Plan Amendment and a Township of Puslinch Zoning By-law Amendment to permit aggregate extraction below the water table on lands located at 4275 Concession Road 7, legally described as Part of Lot 29, Concession 7, geographic Township of Puslinch.

The subject lands are located to the south and east of existing CBM operations including the Neubauer Pit and McNally Pit. The Safarik Pit will act as a feeder pit to the existing processing plant at the McNally Pit or other nearby CBM facilities.

The subject lands contain about 5.0 million tonnes of high-quality sand and gravel resources in a location that is close to market with ongoing aggregate extraction and approved facilities to process the materials extracted from the subject lands. Resources extracted from the subject lands will help support the timely provision of infrastructure and reduce transportations-related greenhouse gas emissions.

The operational design of the pit incorporates the recommendations of the technical reports prepared for the application in order that the pit can operate within Provincial guidelines and minimize social, economic and environmental impacts.

The proposed Safarik Pit represents the wise use and management of significant aggregate resources and is in the public interest in consideration of the economic, social and environmental factors that apply to this application. The proposal is consistent with the PPS, conforms to the Greenbelt Plan and Wellington County Official Plan.

Respectfully submitted,

MHBC

[redacted]

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Partner

[redacted]

Vince Deschamps, M.Sc, MCIP, RPP
Associate

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Yara Elmahdy, BES
Planner

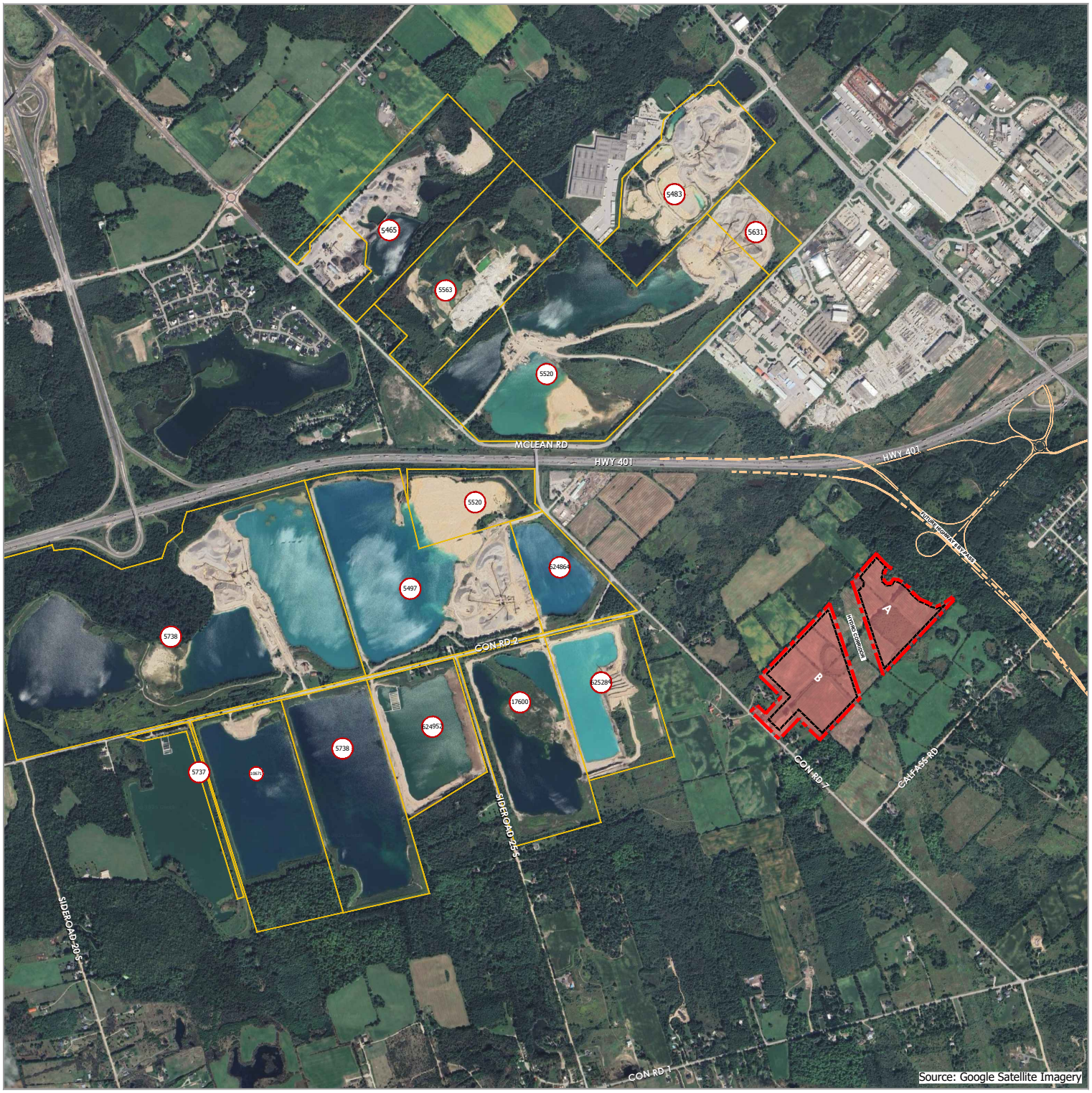

Figure 1 - Context Map

- Subject Lands
- Subject Lands- Area Classification
- Limit of Excavation
- Boundary of Licensed Pits

Figure 2 - Proposed Haul Route

- Subject Lands
- Limit of Excavation
- Boundary of Licensed Pits
- Proposed Haul Route
- McNally Pit

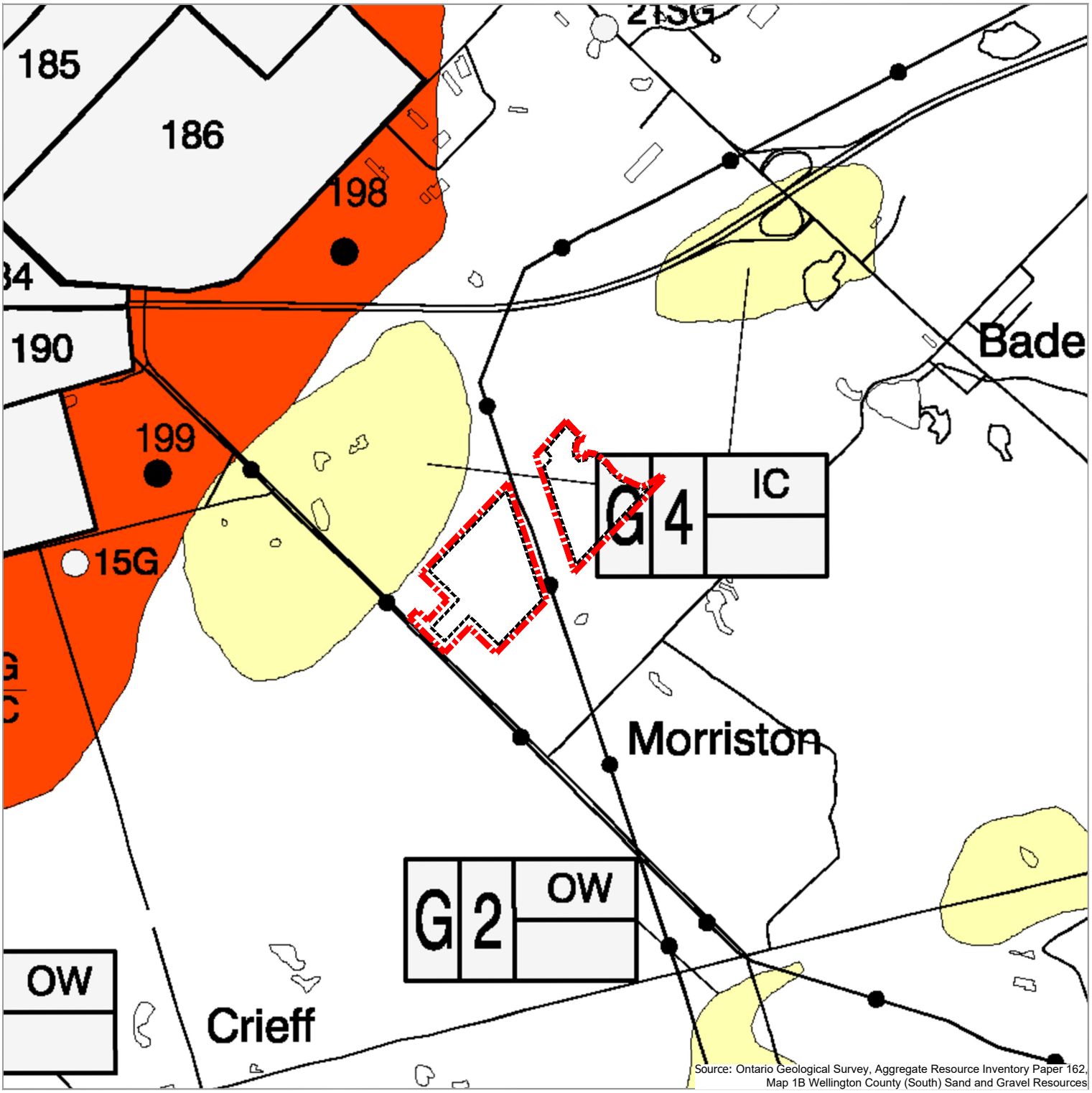

Figure 3 - Wellington County Aggregate Resources Inventory Paper 162 Sand and Gravel Resources

Subject Lands

Limit of Excavation

40 Selected Sand and Gravel Resource Area ,Primary Significance; Deposit Number; See Table 3

Sand and Gravel Deposit, Tertiary Significance

Other Surficial Deposits or Exposed Bedrock

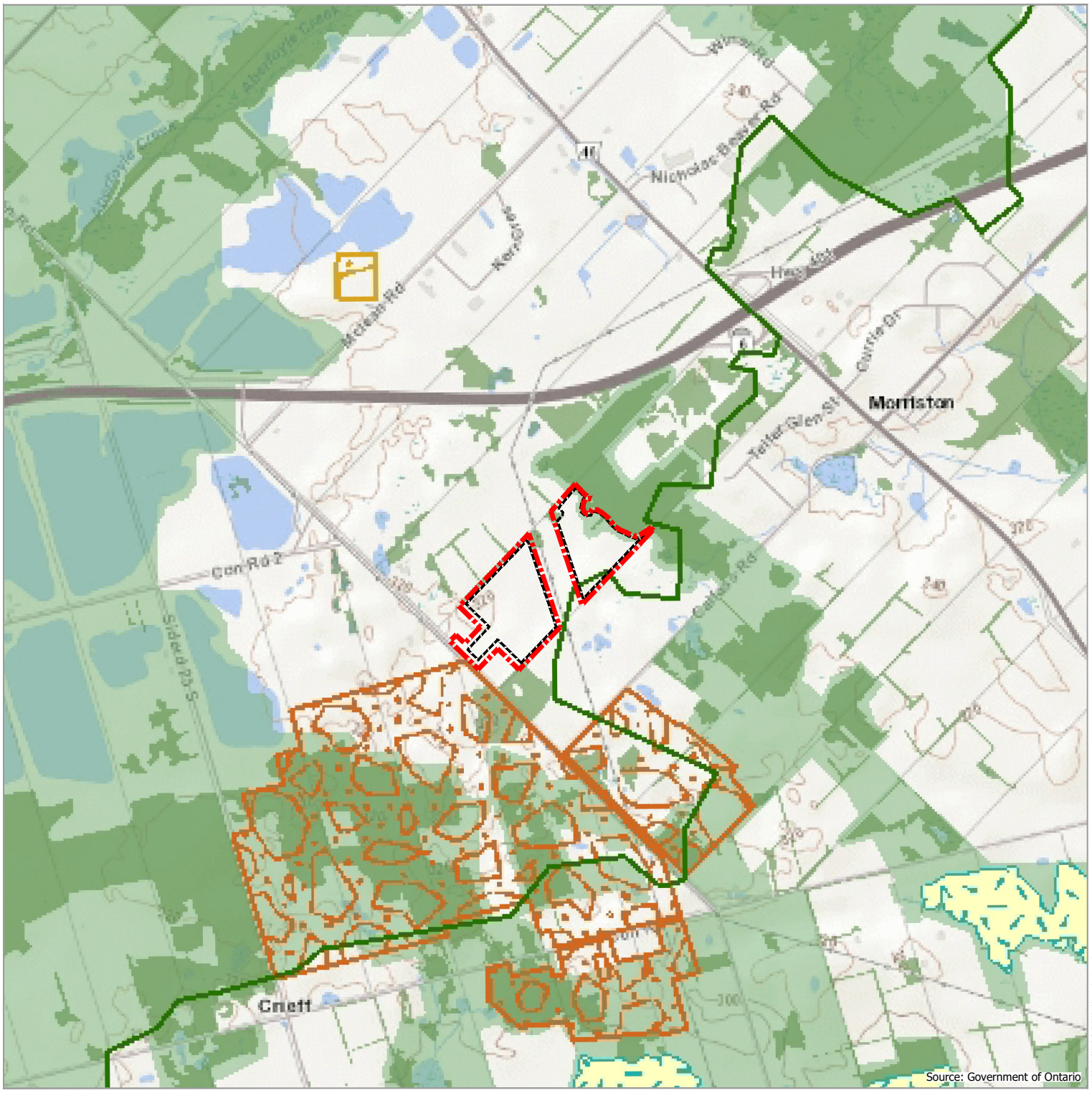

Figure 4 - Natural Heritage Areas

- Subject Lands
- Limit of Excavation
- Greenbelt Area Boundary
- Earth Science Provincially Significant
- Earth Science Regionally Significant
- Life Science Regionally Significant
- Woodland
- Natural Heritage System

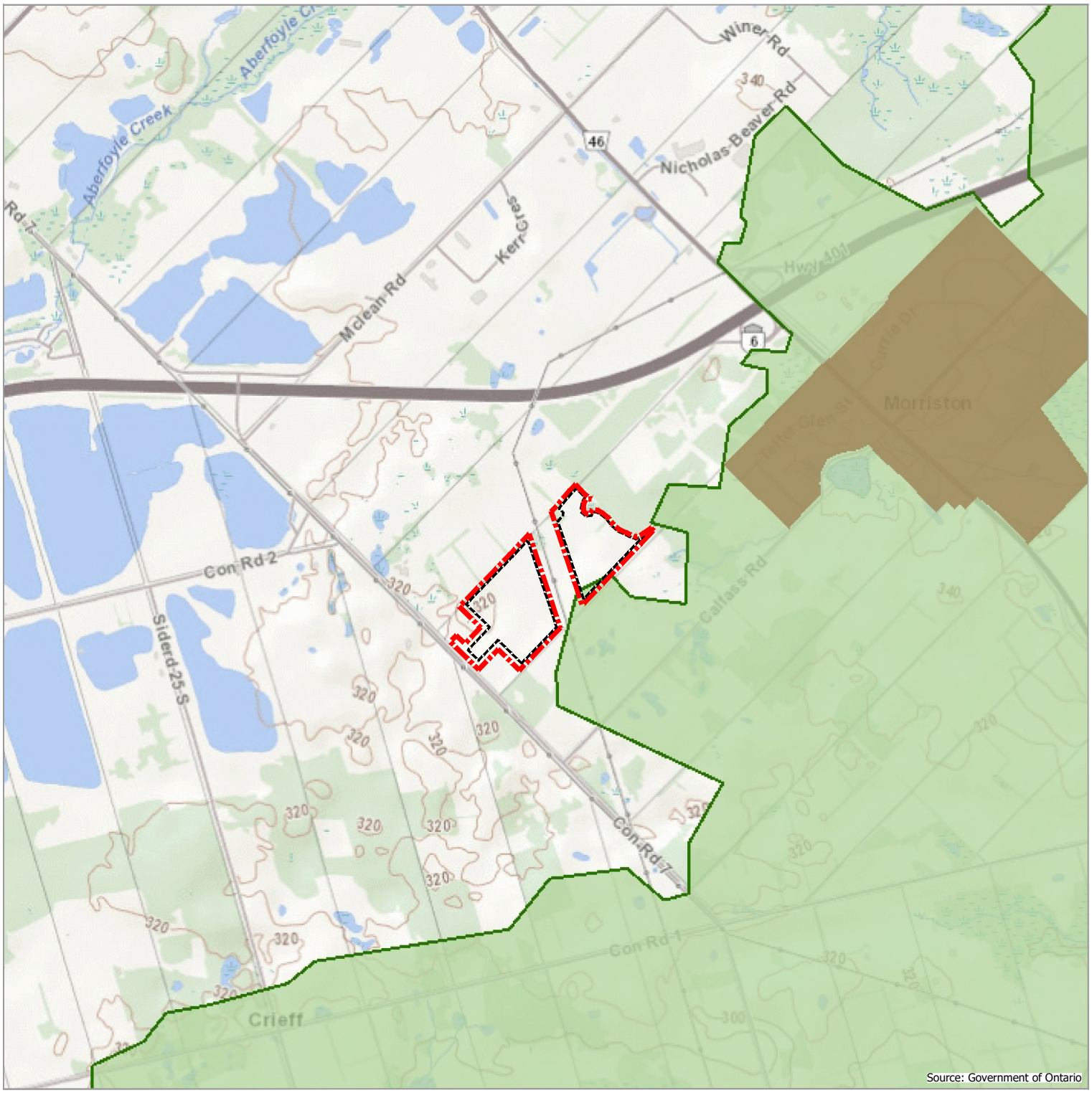

Figure 5 - Greenbelt Plan

- Subject Lands
- Limit of Excavation
- Greenbelt Area Boundary
- Greenbelt Towns and Villages
- Protected Countryside

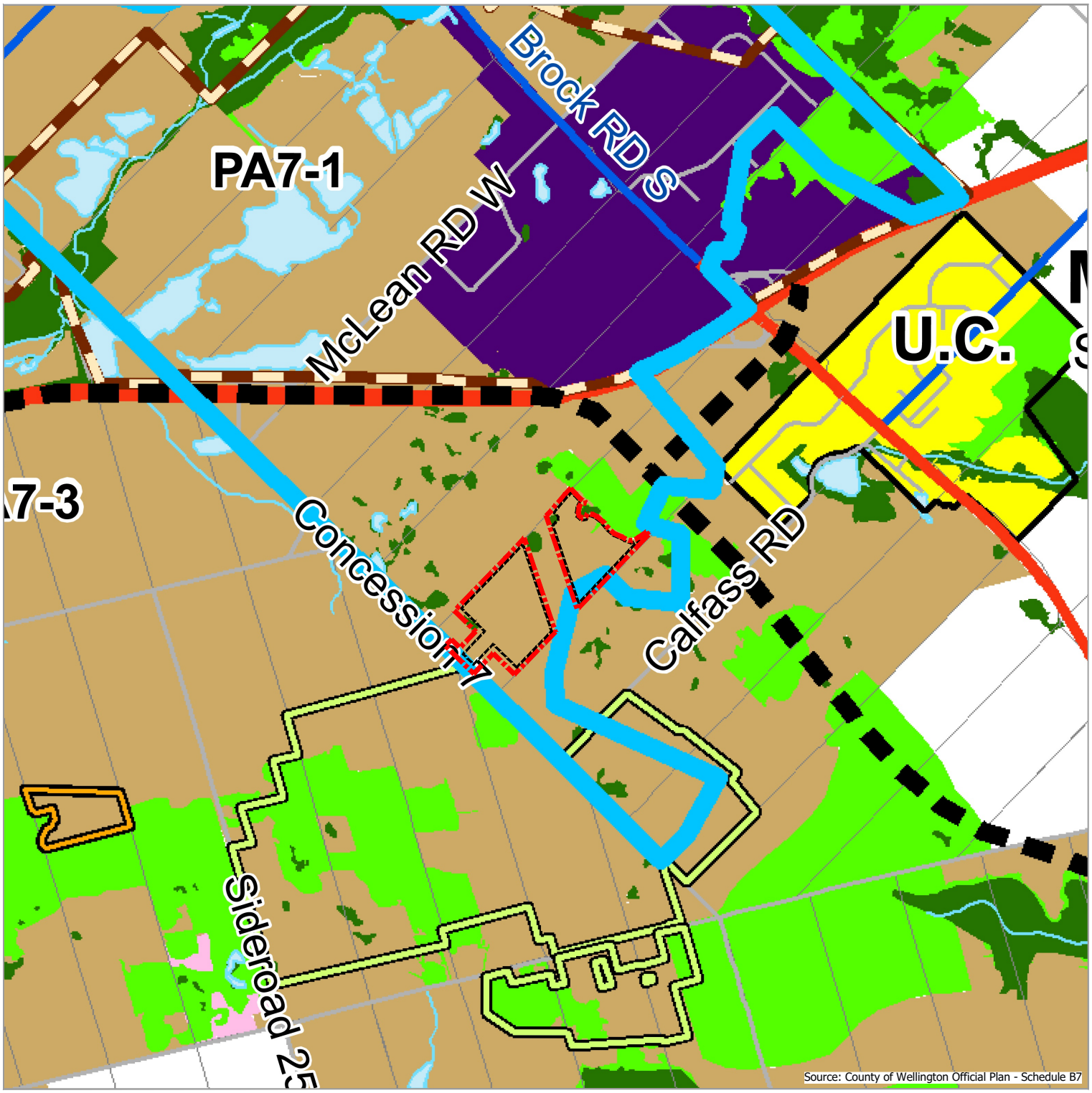

Figure 6 - County of Wellington Official Plan, Schedule B7 Land Use Puslinch

Subject Lands
Limit of Excavation

The Greenlands System
Core Greenlands
Greenlands
Earth Science ANSI

The Rural System
Prime Agricultural
Secondary Agricultural
U.C. Secondary Urban Centre
Mineral Aggregate Area
Recreational
Rural Employment Area

PA Policy Area
Regionally Significant Economic Development Study Area
Proposed Major Roadways
County Roads
Provincial Highway
Waterbody
Watercourse

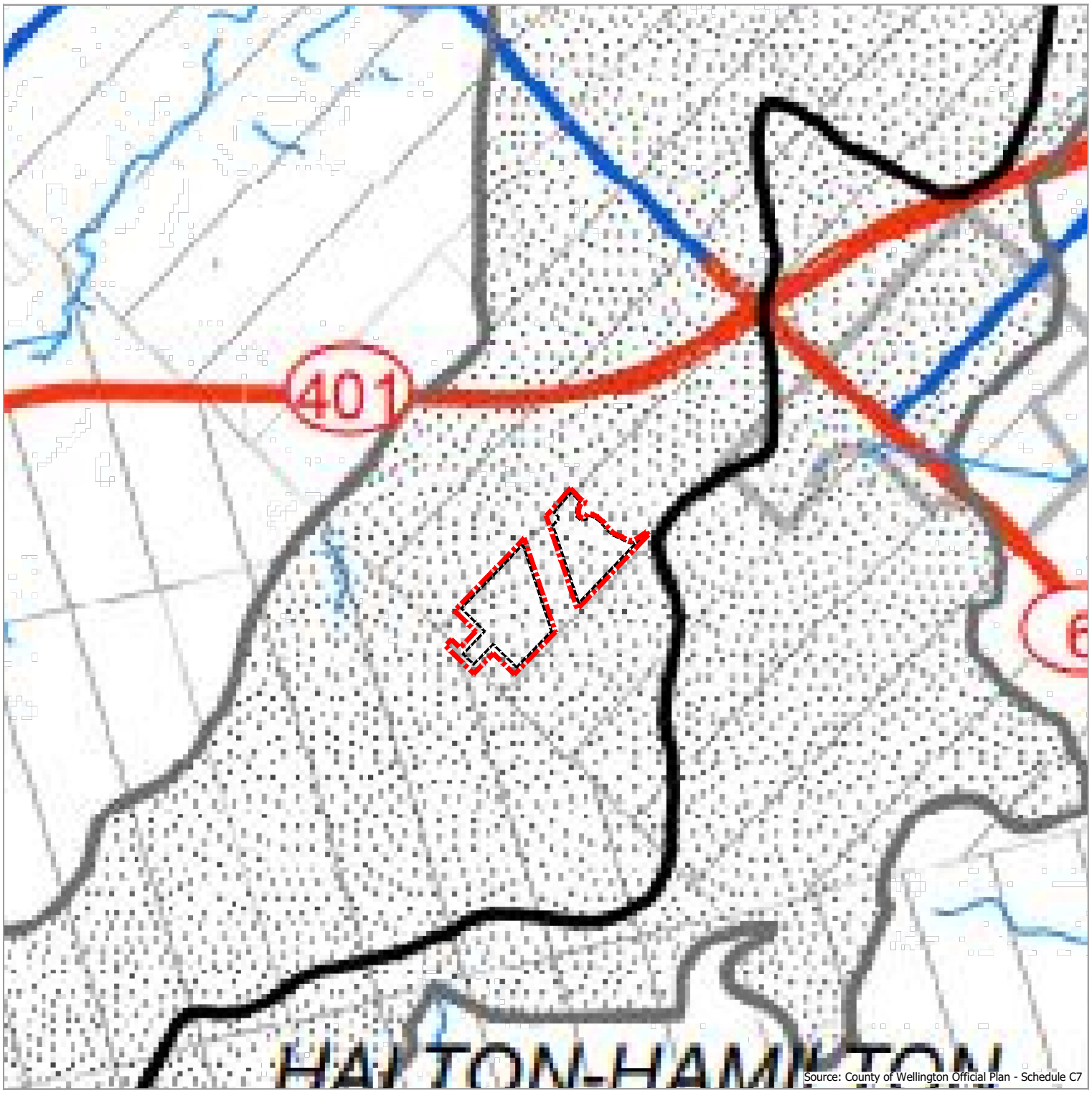

Figure 7 - County of Wellington Official Plan, Schedule C7 Sourcewater Protection Puslinch

Subject Lands

Limit of Excavation

Source Protection Plan Boundary

Paris Galt Moraine Policy Area

Wellhead Protection Area

A

B

C

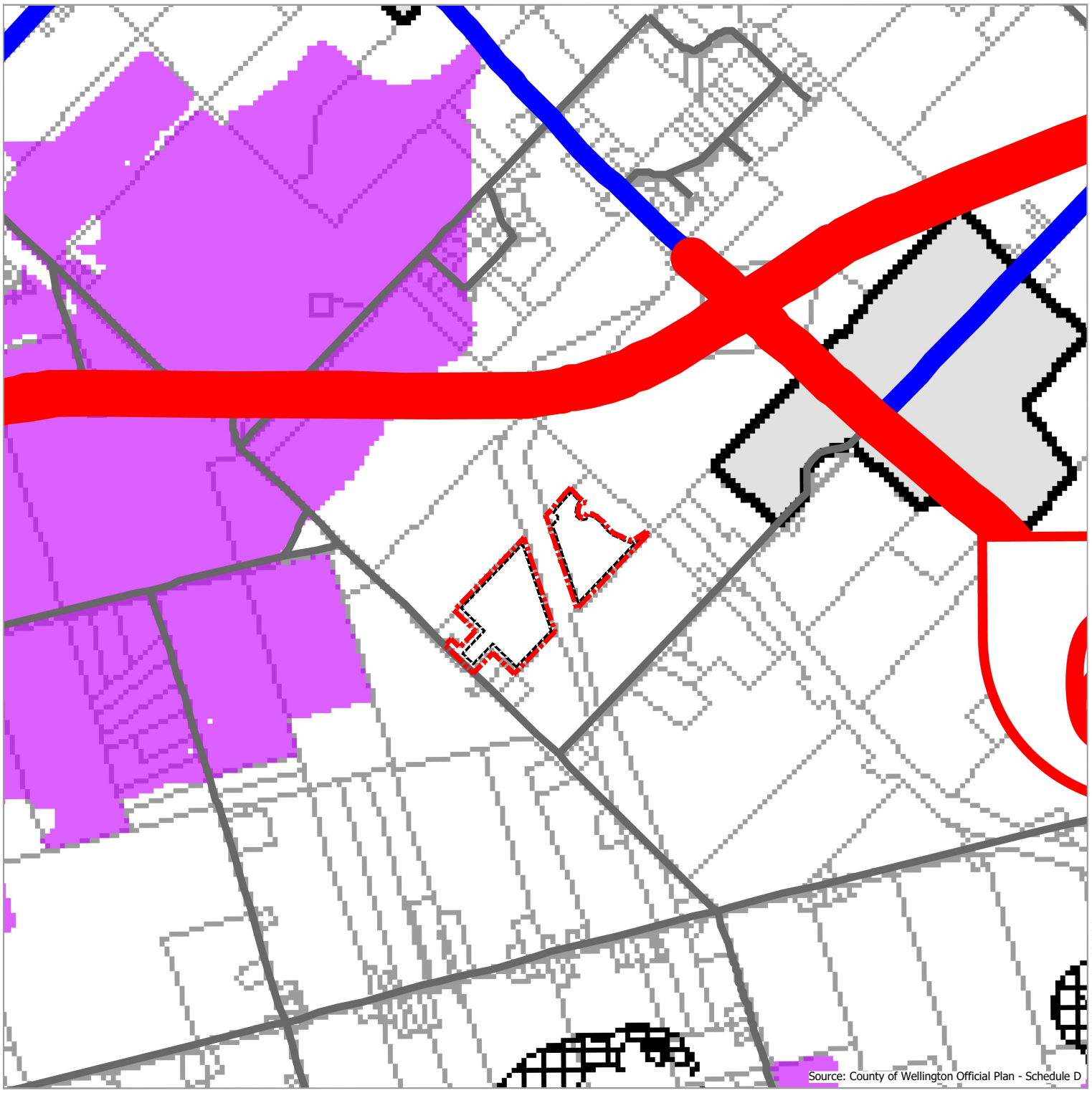

Figure 8 - County of Wellington Official Plan, Schedule D Mineral Aggregate Resource Overlay

Subject Lands

Limit of Excavation

Sand and Gravel Resources of Primary and Secondary Significance

Selected Bedrock Resource Areas

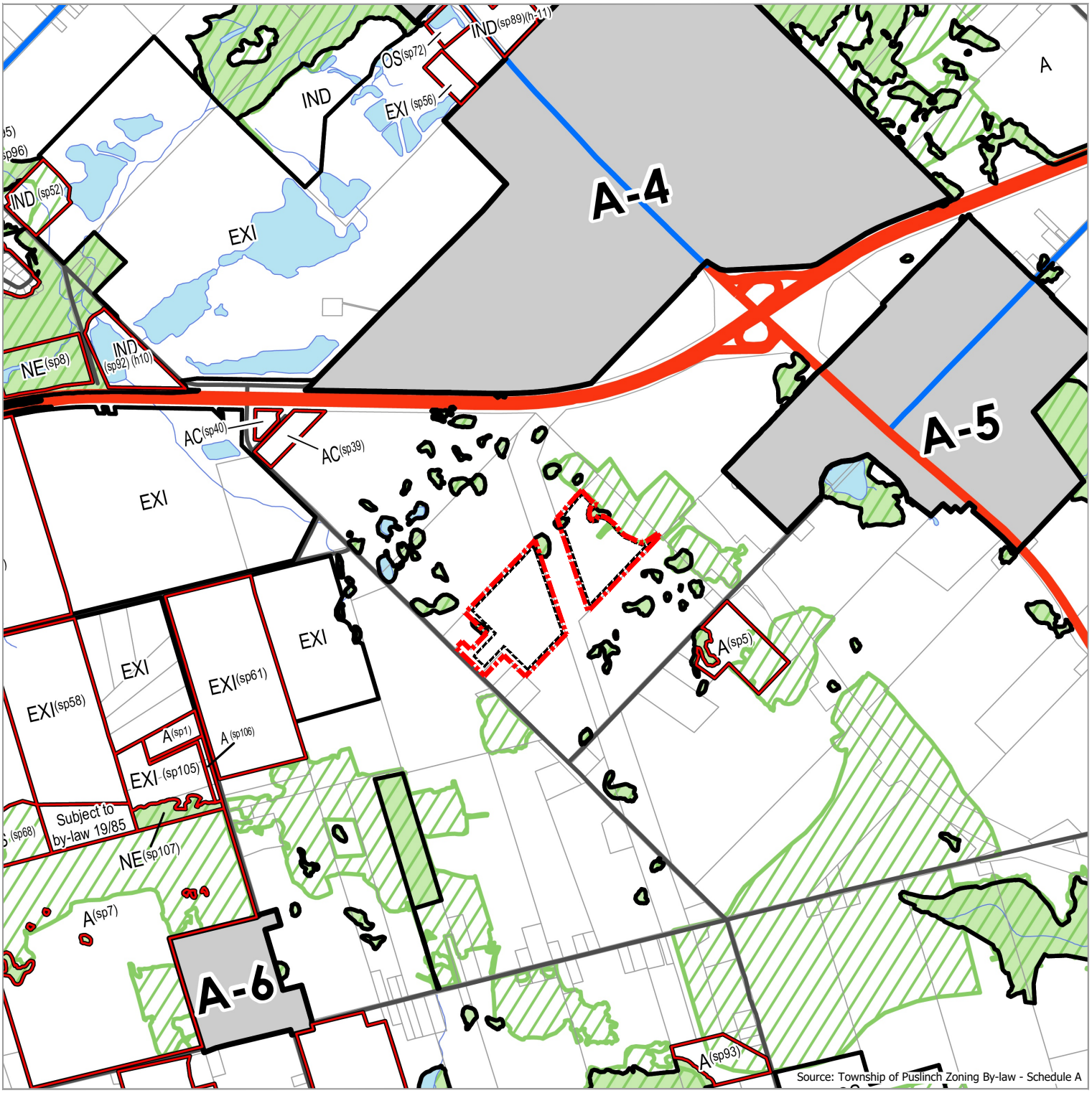

Figure 9 - Township of Puslinch Zoning By-law, Schedule A

Subject Lands
Limit of Excavation
Site Specific Exemption
Zoning Limits
Environmental Protection
Natural Environment

Zone Descriptions

A	Agricultural
AC	Agricultural Commercial
EXI	Extractive Industrial
IND	Industrial
NE	Natural Environment
OS	Open Space

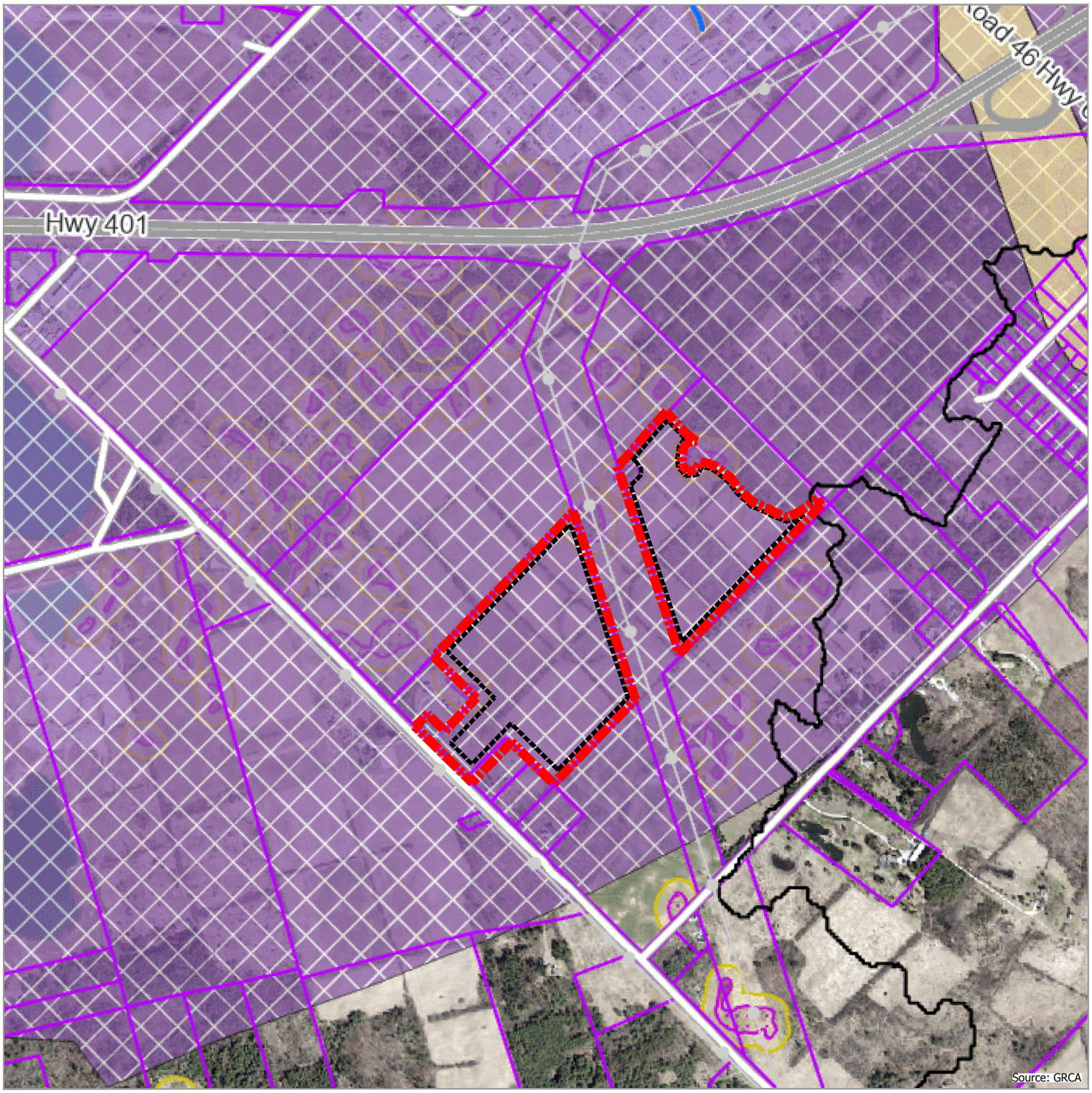

Figure 10 - GRCA Source Water Protection Plan

- Subject Lands
- Limit of Excavation
- Regulation Limit (GRCA)
- Parcel - Assessment (MPAC/ MNRF)
- Wetland (GRCA)
- Regulated Watercourse (GRCA)
- WHPA-D Wellhead Protection Area (GRCA)
- Significant Risk (Draft) Wellhead Water Quantity Zone (WHPA-Q)
- Issue Contributing Area (GRCA)

IPZ- Intake Protection Zone (GRCA)

- IPZ-1
- IPZ-2
- IPZ-3 corresponding to Event Based Area

A

Appendix A: Agricultural Considerations Review

MHBC | PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

November 26, 2025

CBM Aggregates, a division of St. Marys Cement Inc. (Canada)
55 Industrial Street,
Toronto
M4G 3W9

RE: Proposed Safarik Pit: Agricultural Considerations
OUR FILE Y321AR

MacNaughton Hermson Britton Clarkson Planning Ltd. ("MHBC") has been retained by CBM Aggregates, a division of St. Marys Cement Inc. (Canada) ("CBM"), to complete an Agricultural Review in support of their application to permit the Safarik Pit on lands located at 4275 Concession Road 7, legally described as Part of Lot 29, Concession 7, geographic Township of Puslinch (**Figure 1**). The proposed pit is a below water, Class A licence pit application.

The purpose of this letter is to outline any potential impacts that the proposed pit may have on the agricultural system, and the agricultural operations in the surrounding area. The subject lands are designated Secondary Agriculture, Core Greenlands and Greenlands in the County's Official Plan (**Figure 2**). The County has implemented the Agricultural Impact Assessment and Agricultural System in their Official Plan. The Plan defines Agricultural Impact Assessment as "*a study that evaluates the potential impacts of non-agricultural development on agricultural operations and the Agricultural System and recommends ways to avoid or, if avoidance is not possible, minimize and mitigate adverse impacts*". It also defines Agricultural System as:

> "*the system mapped and issued by the Province, comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components:*
>
> 1. *An agricultural land base comprised of prime agricultural areas, including specialty crop areas and rural lands that together create a continuous productive land base for agriculture;*
> 2. *An agri-food network which includes infrastructure, services, and assets important to the viability of the agri-food sector."*

Key Findings & Summary

- Northeast of the subject lands are buffered from surrounding agricultural operations via the Natural Heritage System ("NHS") Area and the future Highway 6 By-pass.
- The majority of the subject lands are designated Secondary Agricultural by the County Official Plan. Lands northeast of the subject land are within Core Greenlands and Greenlands designation.

- The subject lands are not located within a prime agricultural area based on the County of Wellington Official Plan. While Area B of the proposed pit was identified as a prime agricultural area in the former Growth Plan prime agricultural area mapping, this was not implemented in the County's Official Plan. Furthermore, OMAFA has clarified that the former Growth Plan prime agricultural area mapping only applies within the Greenbelt Plan. Therefore, there are no prime agricultural areas located on the subject lands per the PPS and County Official Plan.
- The subject lands contain 53.4% CLI Class 2-3 soils, 45% CLI Class 4-5 soils, and 1.6% of Not Rated soils and are located within a 2700-2900 Crop Heat Unit Range (**Figure 3**). They are not identified as Specialty Crop Area by Provincial Mapping.
- The secondary study area consists primarily of rural residential lots, with some cash cropping/hay production. Four agricultural related uses were identified in the Secondary Study Area.
- The proposed pit is not anticipated to have any negative impacts on the agricultural system in the area, subject to the implementation of recommended mitigation measures.

Introduction & Project Description

The Safarik Pit lands are located at 4275 Concession Road 7, legally described as Part of Lots 29, Concession 7, in the geographic Township of Puslinch. The application is for a Class A below water pit, with an annual extraction limit of 1 million tonnes. Based on resource testing completed by CBM, there is an estimated 5 million tonnes of high-quality sand and gravel resources available within the proposed extraction area.

The proposed application is for extraction of a below water pit on the subject lands with a proposed licenced area of 27.6 hectares (68.2 acres) in two areas that are bisected by a hydro corridor which is a separate land parcel. The proposed extraction area of the pit is approximately 21.3 hectares (52.6 acres). The proposed Safarik Pit will serve as a feeder pit to the nearby McNally Pit located 1.4 km north of the subject lands. The proposed Safarik Pit will not contain any processing, washing, or recycling on the site. The proposed Safarik Pit will be accessed via a new entrance located at the west end of the subject lands along Concession Road 7. Truck travel will head north along Concession Road 7 and will not be permitted to head south from the site on Concession Road 7. The current residential entrance north of the subject lands along Concession Road 7 will remain in place for access to the residence. Trucks will not be permitted to use this entrance.

The maximum proposed pit floor elevation both Area A and Area B is 295.0 masl. The removal of aggregate resources from below the water table will result in the creation of two ponds that will be approximately 2.9 ha (Area A) and 6.3 ha (Area B) in size (**Figure 1**). The water level in these lakes post-rehabilitation is predicted to be approximately 309 masl.

The proponent is required to apply for an Aggregate Resources Act licence. This application requires several technical studies which have been reviewed as part of this letter. These include:

- Aggregate Resources Act Site Plans, MHBC
- Planning Report and ARA Summary Statement, MHBC
- Natural Environment Report, WSP Canada
- Water Report Level 1 and 2, WSP Canada
- Maximum Predicted Water Table Report, WSP Canada

- Stage 1 and 2 Archeological Assessments, WSP Canada
- Noise Assessment Report, WSP Canada
- Cultural Heritage Report, WSP Canada
- Heritage Impact Assessment, WSP Canada
- Traffic Impact Assessment, TYLin
- Best Management Practices Plan for the Control of Fugitive Dust, WSP Canada

As part of this review, the following documents and resources were also reviewed:

- Site plans including Existing Features Plan, Operational Plan, and Rehabilitation Plan;
- Soil data resource information, which should include Ontario Soil Survey reports and mapping, the provincial digital soil resource database, Canada Land Inventory Agricultural Capability mapping, and Soil Suitability information and mapping;
- Aerial Photography (historic and recent) with an effective user scale of 1:10,000 or smaller;
- OMAFRA's constructed and agricultural Artificial Drainage Mapping;
- Agricultural Systems data form OMAFRA's Agricultural Systems Portal;
- Parcel mapping/fabric of the area;
- Soil Survey and Canada Land Inventory Classification was prepared by DBH Soil Services Inc.;
- Agronomy Guide for Field Crops – Publication 811; and
- Statistics Canada (2021 and 2011).

A land use survey was conducted in July 2022, with additional information gathered from Google Satellite imagery used to gain a better understanding of agricultural operations in the primary and secondary study areas that were inaccessible or unobservable. A summary of the land use survey is included in this report. The potential for impacts will vary based on the type, concentration, and sensitivity of agricultural activities identified in the Primary and Secondary Study Areas.

The purpose of this Agricultural Considerations Review is to provide a high-level evaluation of the potential impacts of the proposed aggregate extraction operation on surrounding agricultural operations as well as the greater Agricultural System. This letter will identify necessary mitigation measures to minimize and mitigate any potential impacts.

As previously discussed, the subject lands are designated 'Secondary Agricultural Area' within the Wellington County Official Plan, according to Schedule B7. The Official Plan does not consider Secondary Agricultural Areas as Prime Agricultural Areas. As such, the PPS does not require an Agricultural Impact Assessment in support of the proposed applications.

The Wellington County Official Plan requires consideration of capabilities of the lands for agriculture (Policy 6.6.5c) and agricultural rehabilitation where feasible (Policy 6.6.8e) for applications to permit mineral aggregate operations, including in Secondary Agricultural Areas. As such, this report provides a review of soil capability for agriculture, surrounding agricultural land uses, an assessment of any potential impact to surrounding agricultural uses and resources, and recommendations for the area of the site proposed to be rehabilitated to a pond surrounded with natural and ecological area.

Description of Soils

The Canada Land Inventory ("CLI") system uses soil attributes to create a seven-class system of land use capabilities. Class 1, 2 and 3 soils are capable of sustained common field crop production. Class 4 soils are limited for sustained agriculture while Class 5 is capable for use of permanent pasture and hay. The sixth class is best utilized for wild pasture and Class 7 is for soils or landforms that are not capable for use for arable culture or permanent pasture.

To confirm the soil type and classification a Soil Survey and Canada Land Inventory Classification was prepared by DBH Soil Services Inc. (DBH). A copy of the Soil Survey is included as **Appendix A** of this report. On-site soil surveys were conducted on December 4th, 2023, to more accurately map and classify the soil resources of the soil materials on the subject lands. The soil survey included a number of tasks including:

- Completion of a review of published soil information (*Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)*);
- Review of published CLI ratings for the soils in the area surrounding the subject lands;
- Review of aerial photography and interpretation of the soil polygons, disturbed soil areas and miscellaneous landscape units (i.e. streams, boulder pavement, wayside pits);
- On-site soil survey; and
- Mapping to illustrate the location of the subject lands, the occurrence of soil polygons and appropriate CLI capability ratings.

A total of 50 soil inspection sites within the subject lands were examined. The onsite soil survey also revealed numerous small areas of eroded soil, particularly on the upper slope and shoulder slope areas. The soil materials in these eroded areas often comprised gravelly materials. The soil inspection information was then correlated with soil descriptions to produce the soils map. A soil map identifying the soil series present on the subject lands is shown on **Figure 4.** The onsite soil survey identified one soil series, and one miscellaneous soil group. The one soil series was identified as Dumfries Sandy Loam. The miscellaneous soil group comprised the lands associated with the farmstead area and laneway. The miscellaneous soil group is considered disturbed lands.

Dumfries Loam is the well-drained member of the Dumfries Soil catena and developed on stony soil material derived from limestone. The topography is generally hilly with steep complex (slope length less than 50 m) slopes. It is noted in the *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)* that "there are often areas of poorly drained soils too small to be delineated". The following tables summarize the relative percent area occupied by each capability class for the subject lands:

Table 1: Canada Land Inventory – Safarik Pit

Canada Land Inventory Class (CLI)	Total Site Area		Limit of Extraction	
	Area (ha)	Percent Occurrence (%)	Area (ha)	Percent Occurrence (%)
Class 1	-	-	-	-
Class 2	5.5	17.1	4.7	21.5
Class 3	11.7	36.3	8.5	39.0
Class 4	5.7	17.7	3.7	17.0
Class 5	8.8	27.3	4.8	22.0
Class 6	-	-	-	-
Class 7	-	-	-	-
Not Rated	0.5	1.6	0.1	0.5
Totals	32.2	100	21.8	100

The total site area is comprised of approximately 53.4% CLI class 2 – 3 soils, consisting of approximately 17.1% CLI class 2, and approximately 36.3% CLI class 3. The remaining mineral soils (CLI class 4 – 7) comprise approximately 45% of the subject lands. Unrated soils comprise 1.6% of the subject lands.

The proposed Extraction Area comprises approximately 60.5% CLI class 2 – 3 soils, with CLI class 2 representing approximately 21.5% and CLI class 3 representing approximately 39%. The remaining mineral soils (CLI class 4 – 7) comprise approximately 39% of the Extraction Area. The presence of the Class 2 and 3 soils mean that the subject lands are considered prime agricultural lands.

Concerning drainage on the properties, an evaluation was done by DBH through a correlation of observations noted during windshield surveys, aerial photographic interpretation, and a review of the OMAFRA's Artificial Drainage System Mapping. Based on the information available, it does not appear that drainage systems are registered to the subject lands. As well, observations noted during the surficial soil survey indicated that the lands are not irrigated, and that the property is not set up for the use of irrigation equipment. Therefore, no additional investment in agriculture is associated with these lands.

The Hoffman Productivity Index ("HPI") is a tool that is used to relate the productivity of lands to the CLI soil capability. The value is derived from the sum of the percent occurrence of each CLI Soil Capability Class on the parcel multiplied by the productivity index corresponding to the soil class. Based on the findings from the Soil Survey prepared by DBH Soil Services Inc., the calculated Soil Productivity Rating is 0.55 or a CLI class 4 equivalent for the proposed licenced area, and 0.58 or a CLI Class 3 equivalent for the proposed extraction area.

The DBH analysis confirms that a large portion of the subject lands is comprised of Class 2 and 3 soils. The presence of the Class 2 and 3 soils mean that the subject lands are considered prime agricultural lands.

Agricultural Uses on the Subject Lands and the Surrounding Area

The agricultural land use assessment completed as part of this review was based on a study area comprised of a 'Primary Study Area' and 'Secondary Study Area.' The Primary Study Area is comprised of the lands within 120 metres of the proposed area to be licenced that will be directly affected by aggregate extraction. The Secondary Study Area encompasses a radius of 1.5 kilometers from the subject lands that has the potential to be directly and indirectly impacted by the proposed aggregate extraction operations.

Agricultural activities are currently present within the licenced boundary, including crops and an old livestock barn. A plan identifying the adjacent properties, existing crops and barns within the study area is included as **Figure 5** of this report.

The inventory of existing agricultural land uses, cropping practices and structures is based on observations made during a site visit completed in July 2022, review of satellite and aerial images and input from the current landowner, CBM. A review of 2021, 2016, and 2011 Census of Agriculture data was also undertaken to confirm if the agricultural uses in the Study Areas are representative of agricultural production patterns and livestock types in the broader region.

Primary Study Area

Based on the Ontario Ministry of Agriculture, Food, and Rural Affairs ("OMAFRA") 'Draft Agricultural Impact Assessment (AIA) Guidance Document' (herein referred to as 'OMAFRA AIA Guidelines'), the primary study area when conducting an Agricultural Impact Assessment for mineral aggregate resource extraction consists of the proposed licence area and lands within 120 metres of the licenced area. As shown in **Figure 5,** land uses within the primary study area consist of agriculture and rural residential with natural heritage features (i.e. woodlands and wetlands) interspersed. At the time of the site visit, agricultural uses within the primary study area consist of typical cash crops (i.e. corn, soy, wheat, and oats) with some fields visible only in aerial imagery, due to surrounding woodlots, making roadside crop identification impossible. Through a review of aerial imagery, these fields do not appear to have any established specialty cropping practices or perennial crops (e.g. orchards) that stray from the characteristics of the surrounding agricultural area. There are no visible signs of extensive agricultural improvements to the lands proposed to be licenced (e.g. new fencing, tile drainage).

Secondary Study Area

According to the OMAFRA AIA Guidelines, the secondary study area should include lands that will be potentially impacted by the development and should, at a minimum, include lands adjacent to the primary study area. For mineral aggregate operations, the extent of the secondary study area varies depending on the scale and extent of the proposed mineral aggregate operation and on agriculture in the surrounding area. The secondary study area for this review includes lands within 1.5 kilometers of the proposed licenced boundary.

As shown on **Figure 5**, land uses within the secondary study area consist of a mixture of agriculture (i.e. cash crops and livestock barns), aggregate operations, environmental features (i.e. wetlands and woodlands), and lands within the Morriston Settlement Area. Surrounding crops at the time of the site visit included soy, corn, and hay to the south and west. Several fields within this area were observed as fallow at the time of the site visit. Three livestock operations were observed within the Secondary Study Area.

Based on the site visit, the agricultural lands within the Primary and Secondary Study Areas reflect typical agricultural cropping practices that are predominant throughout southern Ontario (i.e. soybean and corn production). No extensive land improvement investment such as tile drainage, irrigation or other specialized cropping practices or equipment were observed or documented within the Primary or Secondary Study Areas.

The Secondary Study Area includes seven aggregate pits owned by St. Marys Cement Inc. (Licences #5520, #5631, #5497, #624864, #624952, #17600, and #625284). More aggregate operations exist beyond the Secondary Study Area to the west of the site.

There are also many rural residential lots within the Secondary Study Area, along Concession Road 1 and Queen Street. A number of these lots were likely created through rural residential severances.

Overall, the Secondary Study Area is representative of normal cropping practices for the County (i.e. typical crop patterns) and is highly fragmented by nature of existing aggregate operations, numerous rural residential dwellings, environmental features and the Morriston Settlement Area.

Census of Agriculture & Ontario Business, Agri-Food, and Farm Data Profile for Wellington County

The 2021 and 2016 Census of Agriculture and OMAFRA's Ontario business, agri-food, and farm data profile for Wellington County were reviewed to provide an overview of agricultural production patterns and parcel size in the County.

North American Industry Classification System ("NAICS") data for 2011, 2016, and 2021 were utilized to determine trends in farm types within the County. In 2021, regarding crop production, Wellington County crop farming was dominated by oilseed and grain farming (26.9% of all farms), predominantly soybean farming (37.1% of oilseed and grain farms) and other grain farming (31.0%) as well as corn farming (18.6%)[1]. Oilseed and grain farming has increased in the County since 2011 (an increase of 28.3% in number of oilseed and grain farms from 2011 to 2021)[2]. As of 2021, the next most common category of crop farming in Wellington County is 'other crop farming' (8.1% of all farms), which primarily includes hay farming (62.3% of other crop farming). Other crop farming has decreased since 2011 (decrease of 13.8%)[1]. Although **Figure 5** shows the majority of farmlands categorized as "Other," this is primarily due to limited visibility from the road during the site visit, making it difficult to accurately identify the crops. Oilseed and grain farming, along with corn farming, are the most common crop types within the study area, which generally reflects broader agricultural patterns across Wellington County.

[1] Table 32-10-0231-01 Farms classified by farm type, Census of Agriculture, 2021

[2] Table 32-10-0403-01 (formerly CANSIM 004-0200) Farms classified by farm type, Census of Agriculture, 2011 and 2016, inactive

In terms of livestock, cattle ranching and farming comprised 33.5% of all farms (of which 57.1% of farms were beef cattle and 42.6% dairy cattle) in Wellington County. Cattle farming has exhibited a 10.4% increase in number of farms since 2011. Other animal farming comprises 12% of all farms within the County, primarily horse and other equine production (53.2%) and animal combination farming (32.8%). Five livestock barns were observed within the entire Study Area.

In terms of parcel size, in 2021 the greatest number of farms (28.4%) were within the range of 70-129 acres, followed by 23.1% of farms falling in the 10-69-acre range[3]. The number of lands in crop production has increased since 2011 from 163,045[4] hectares to 176,601[5] hectares, representing an increase in cropland of 8.3%.

Census of Agriculture & Ontario Business, Agri-Food, and Farm Data Profile for Township of Puslinch

The 2021, 2016, and 2011 Census of Agriculture and OMAFRA's Ontario business, agri-food, and farm data profile for Township of Puslinch were reviewed to provide an overview of agricultural production patterns and parcel size in this census consolidated subdivision.

NAICS data for 2011, 2016, and 2021 were also utilized to determine trends in farm types within the Township. In 2021, crop farming in the Township of Puslinch was dominated by oilseed and grain farming, which accounted for 22% of all farms. Within this category, soybean farming made up 37.9%, corn farming 34.5%, and other grain farming 17.2%[1]. Oilseed and grain farming has increased in the Township since 2011 (increase of 3.6% in number of oilseed and grain farms from 2011 to 2021)[2]. As of 2021, the next most common category of crop framing in Puslinch is 'other crop farming' (15.2%), which primarily includes hay farming (65% of other crop farming). Other crop farming has decreased since 2011 (decrease by 23.1%). Oilseed and grain farming and corn farming are the most common crop type within the study area, which is generally reflective of agricultural patterns throughout Township of Puslinch.

In terms of livestock, other animal production comprised 26.5% of total farms (of which 65.7% of farms were horse and other equine production and 20% of animal combination farming) in Puslinch. Other animal production has exhibited a 35.2% decrease in number of farms since 2011. Cattle ranching and farming comprises 15.2% of total farms within the Township, of which primarily beef cattle (90%) and dairy cattle (10%). Four horse farms were observed within the Secondary Study Area, and no other occupied livestock facilities. This is consistent with the agricultural trends identified in the Township's census data.

In terms of parcel size, in 2021 the greatest number of farms (35.6%) were within the range of 10-69 acres, followed by 27.3% of farms falling in the 70-129-acre range[3]. The area of lands in crop production has decreased since 2011 from 7,491[4] hectares to 3,925[5] hectares, representing a decrease by 47.6%.

[3] Table 32-10-0232-01 Farms classified by total farm area, Census of Agriculture, 2021

[4] Table 32-10-0406-01 Land use, Census of Agriculture, 2011 and 2016, inactive

[5] Table 32-10-0249-01 Land use, Census of Agriculture, 2021

Based on the site visit, agricultural activities within the Primary and Secondary Study Area appear to be consistent with broader cropping trends observed in Wellington County and Township of Puslinch. The surrounding crops include typical cash crops such as soybeans, wheat and corn. Five livestock barns observed during site visit. Overall, both the Primary and Secondary Study Areas are representative of normal agricultural production for this area and do not consist of specialized farming practices or specialty crops. The proposed rehabilitation approach, discussed in further detail below, will return a portion of the lands to an agricultural condition.

4273 Concession Road 7

4278 Concession Road 7

7350 Calfass Road

7176 Concession Road 1

Assessment of Impacts

This section serves to provide a summary of potential impacts that the proposed operation may have on surrounding agricultural lands and the agricultural system. This assessment is based on the Province's Draft Agricultural Impact Assessment Guidelines; although it should be noted that an Agricultural Impact Assessment is not specifically required for this application.

The assessment of impact assumes the implementation of all technical study recommendations regarding water quality and quantity, noise, transportation, and fugitive dust.

Table 1: Summary of Net Impacts

Objective	Mitigation Measure	Description
Minimize the loss of agricultural land	Select areas with less agricultural land and lower priority agricultural lands	The subject lands are not located within the County's prime agricultural area and constitute lower-priority agricultural lands. Soil Survey indicated that CLI subclassifications related to topography, stoniness, moisture deficiency, and low natural fertility negatively affect soil productivity and quality.
	Phased Extraction	The extraction of the pit will be phased to minimize the total disturbed are of the subject lands.
Minimize the fragmentation of agricultural land	Maintain farm parcels	The surrounding agricultural system is already highly fragmented by nature of surrounding aggregate uses, rural residential, Hydro Corridor, natural features, settlement areas, Highway 401 and the future Highway 6 bypass. The proposed pit will not serve to significantly worsen fragmentation, with the proposed to be rehabilitated to ponds and natural features which can provide ecosystem services that support agriculture.
Minimize impacts on farmland and agricultural operations	Minimum Distance Separation	MDS I and II setbacks are not required for mineral aggregate resources.
	Select compatible land uses; put lower impact development adjacent to farmland and operations	The proposed pit would be buffered from adjacent agricultural land uses through the provision of setbacks, berms, and existing vegetation.
	Design to support agriculture (e.g. help farms to continue to operate; help prevent and reduce trespassing and vandalism)	Conflicts between the proposed pit and the surrounding agricultural land uses will be minimized through the implementation of physical and visual barriers (i.e. vegetative berms) as required by the ARA site plans. Concession Road 7 has recently been upgraded to handle increased truck traffic in the area. Further, it is anticipated that a future Highway 6 By-Pass will be constructed to the rear of the subject lands. This will

		reduce the traffic on Concession Road 7 and reduce impacts of the proposed haul route.
Minimize and mitigate changes in water quality or quantity	Implement a groundwater monitoring program	A drilling program was conducted at the Site to improve the understanding of the local geology, as well as to establish a groundwater monitoring well network. In total, five monitoring wells were installed on the Site. The baseline groundwater monitoring program completed for this study consisted of continuous groundwater levels.
Mitigating impacts during construction or operations (e.g. mitigate dust, noise)	Adjust operational procedures to accommodate agriculture in the area	This area of the County and Township is characterized by higher levels of aggregate activities; surrounding agricultural uses are accustomed to the operational procedures associated with mineral resource extraction. Dust suppression will be applied as required by O. Reg. 244/97 under the Aggregate Resources Act.
	Vegetative berms	Proposed setbacks will create buffering between the proposed pit and surrounding land uses, including agricultural operations.
	Maintain, restore, or construct farm infrastructure	The subject lands do not include any farm infrastructure that is proposed to be removed. The existing barn on the property is proposed to be retained.
Mitigate ongoing impacts from new development	Implement measures that can be in place post development to support compatibility with agriculture	Upon rehabilitation, the pit will be left as two ponds similar to other aggregate ponds in the area. Habitat for aquatic and upland plant communities will be created with plantings surrounding the ponds. All plantings (i.e., nodal plantings) included in the rehabilitation plan will be locally native, non-invasive species that create habitat in the short term and promote natural succession processes.
Education to achieve greater compatibility between agricultural and non-agricultural uses	Education and awareness	CBM will educate the public on rehabilitation efforts to demonstrate the importance and impact of rehabilitation procedures on natural environment and neighbouring agroecosystems. CBM plans to continue to build internal expertise and knowledge on agroecological rehabilitation through working closely with local farmers.

Proposed Mitigation & Recommendations

The proposed Safarik Pit will be buffered from surrounding agricultural operations. One barn is located on the subject land which will be retained. One barn was identified adjacent to the subject lands, approximately 225 metres from the proposed limit of extraction. Any potential impacts to the operation will be mitigated through required measurements.

It is concluded that the proposed mitigation measures for water quality and quantity, noise, and dust are sufficient to mitigate any potential agricultural impacts. As such, the following is recommended:

- Implement all recommended mitigation measures pertaining to water quality and quantity, noise, dust, and traffic on the ARA site plans.

Yours truly,

MHBC

Pierre Chauvin, BSc (Agr), MA, MCIP, RPP
Partner

Danial Salari, MSc (Agr), MSc (Pl), A.Ag.
Planner

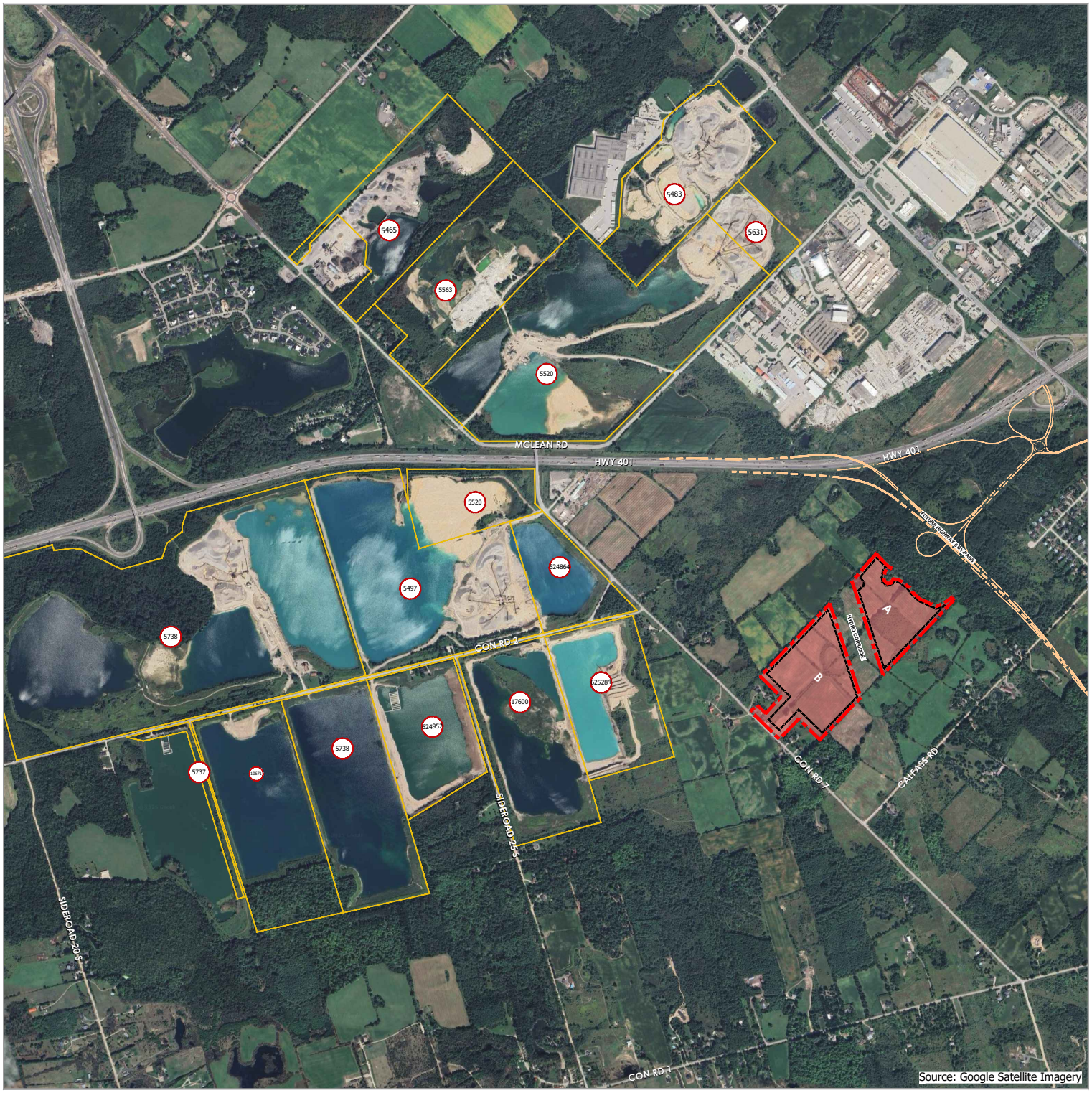

Figure 1 - Context Map

- Subject Lands
- Subject Lands- Area Classification
- Limit of Excavation
- Boundary of Licensed Pits

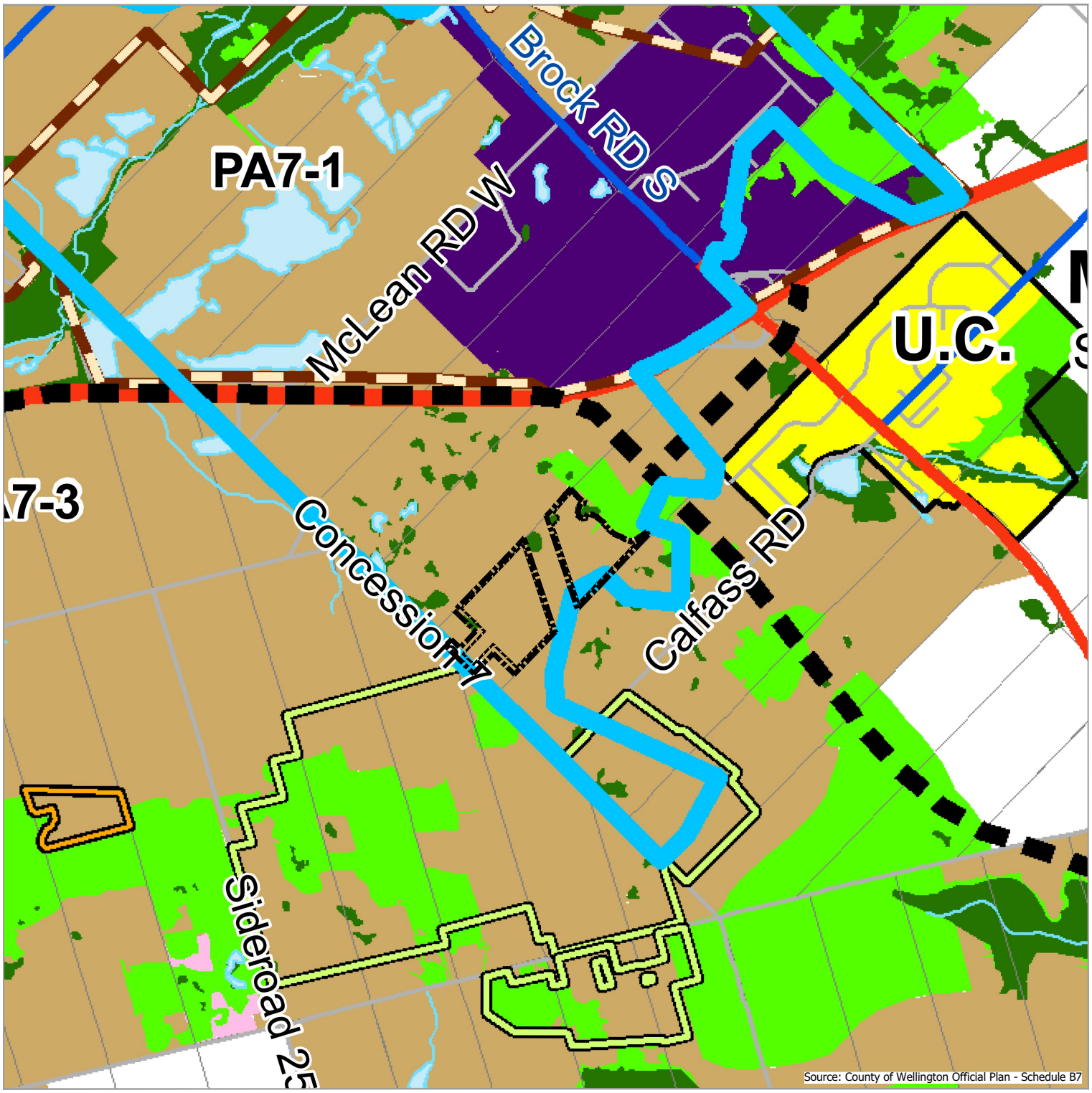

Figure 2 - County of Wellington Official Plan, Schedule B7 Land Use Puslinch

Subject Lands
Limit of Excavation

The Greenlands System
Core Greenlands
Greenlands
Earth Science ANSI

The Rural System
Prime Agricultural
Secondary Agricultural
U.C. Secondary Urban Centre
Mineral Aggregate Area
Recreational
Rural Employment Area

PA Policy Area
Regionally Significant Economic Development Study Area
Proposed Major Roadways
County Roads
Provincial Highway
Waterbody
Watercourse

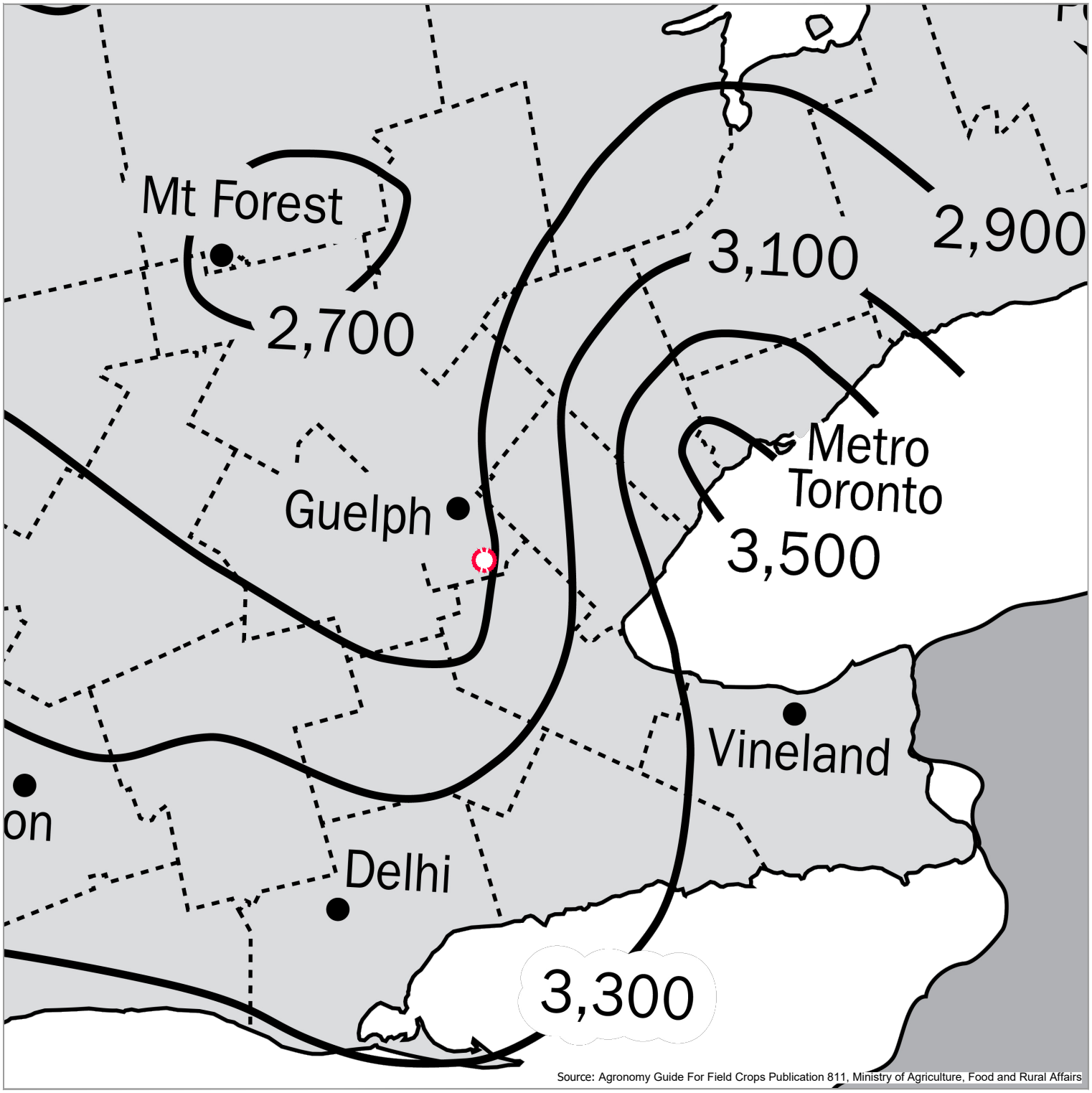

Figure 3 - Crop Heat Units

Subject Lands

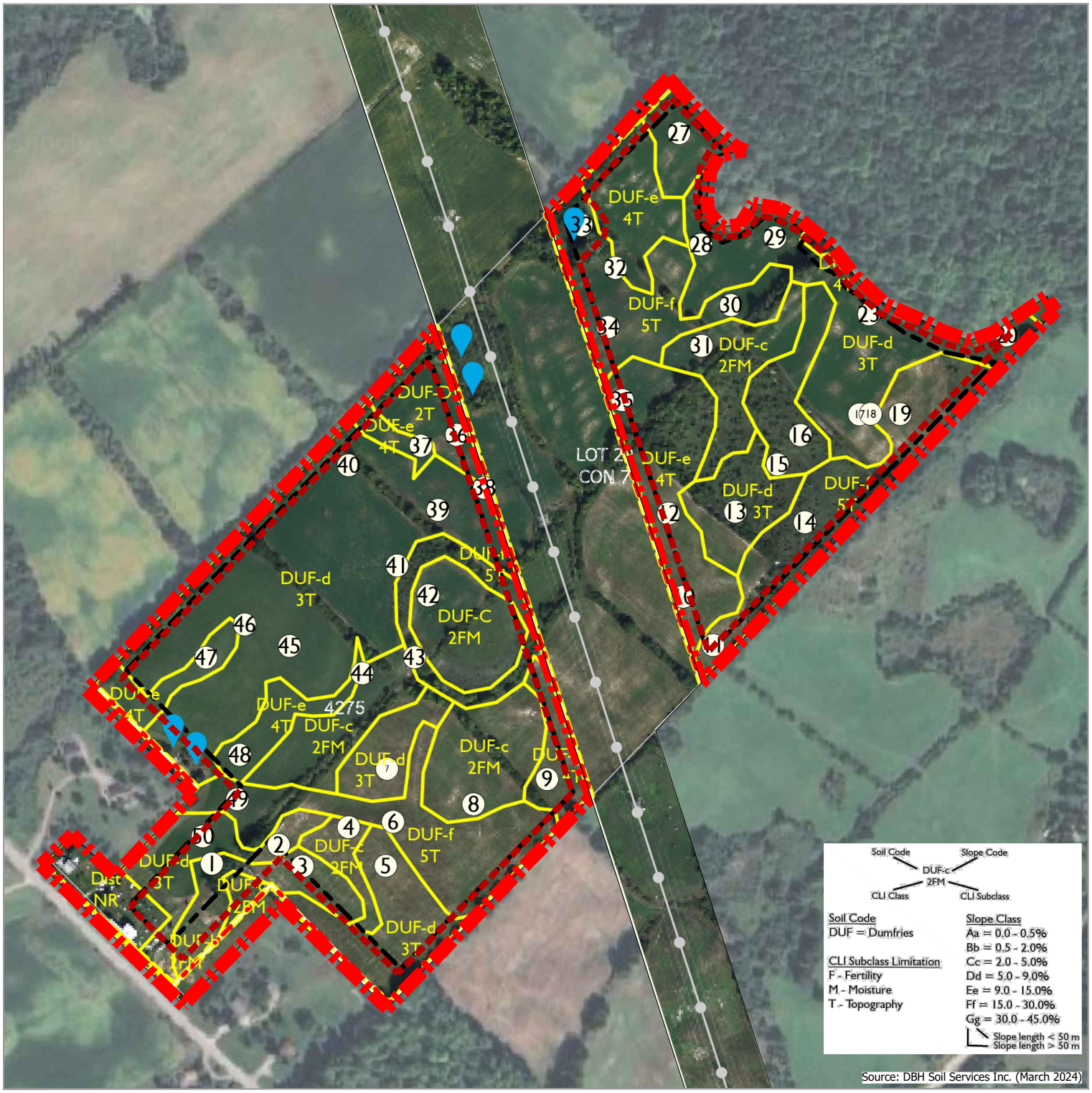

Figure 4 - Detailed Soil Survey and Canada Land Inventory (CLI)

Subject Lands
Limit of Excavation
Soil Polygon Boundary
Ponded Area
Soil Inspection Sites
Roads (MNRF)
Utility Line (MNRF)
Preliminary Limit of Extraction

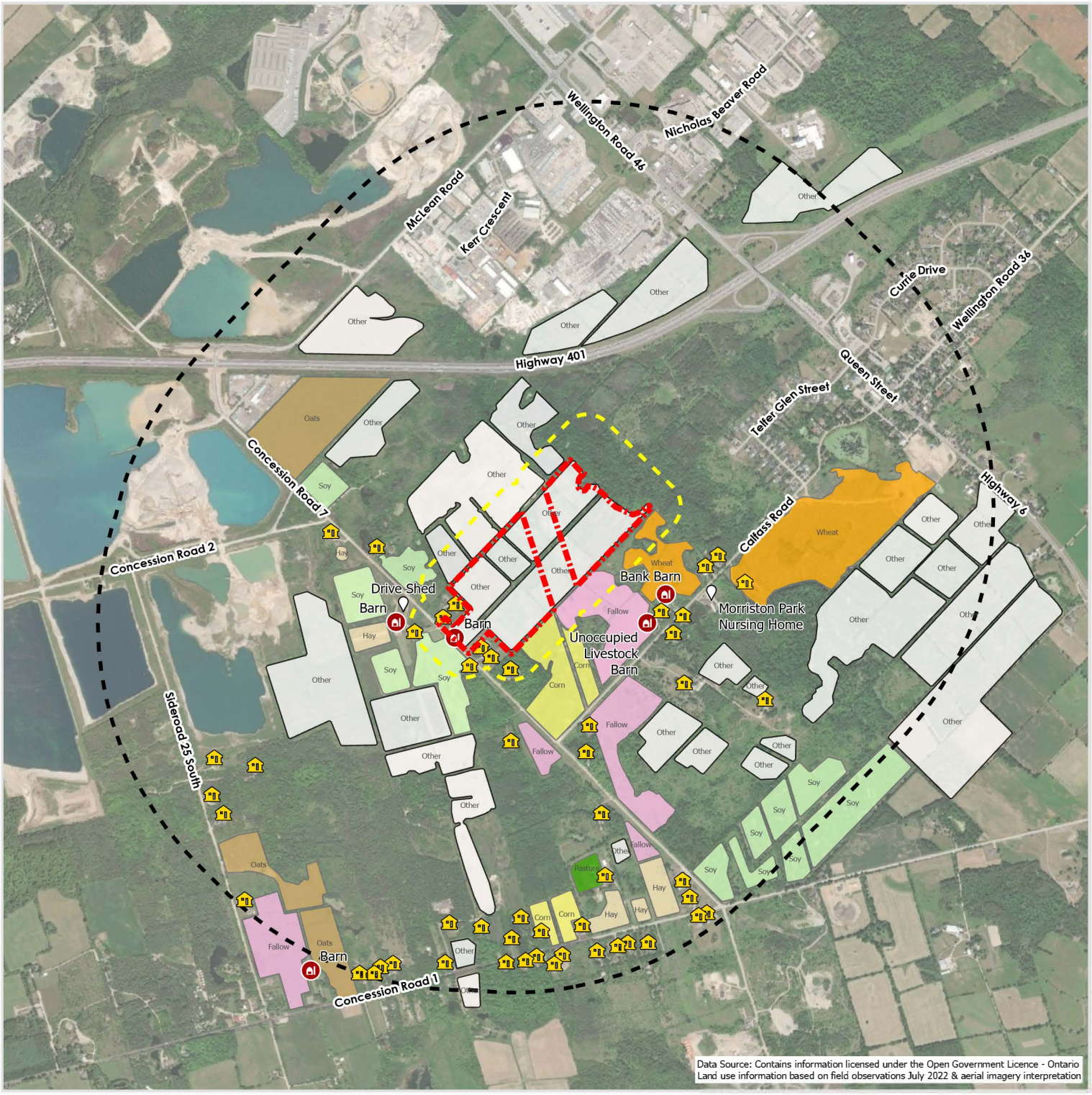

Figure 5 - Agricultural Land Uses

- Subject Lands
- Barn
- Other
- House
- Primary Study Area (120m)
- Secondary Study Area (1.5km)

Agricultural Land Use

- Corn
- Fallow
- Hay
- Oats
- Pasture
- Soy
- Wheat
- Other

Education

University of Waterloo
Master of Arts, Regional Planning and Resource Development
1997

University of Guelph
Bachelor of Science in Agriculture
1993

Professional Associations

Registered Professional Planner (RPP)

Member, Canadian Institute of Planners (CIP)

Full member, Ontario Professional Planners Institute (OPPI)

Member of Parks & Recreation Ontario

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MHBC | PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Pierre Chauvin

BSc(Agr), MA, MCIP, RPP

Pierre Chauvin joined the firm as a Planner in 1998. Mr. Chauvin provides urban and rural planning analysis and research services for public and private sector projects across Ontario.

His professional activities include project management, community planning, and land development. Pierre's experience ranges from residential and commercial development, environmental and recreational planning and resource management.

Pierre also has specific expertise in rural and agricultural planning. He has prepared agricultural impact assessments as part of settlement area expansions and development proposals. He also has experience with MDS and the Nutrient Management Act, and has provided expert agricultural and planning evidence at the Ontario Land Tribunal and other similar boards/tribunals.

Pierre holds a Masters degree in Regional Planning and Resource Development and a Bachelor of Science in Agriculture degree with a major in Natural Resources Management. Pierre is also a full member of the Canadian Institute of Planners and Ontario Professional Planners Institute.

Professional History

Partner, MacNaughton Hermsen Britton Clarkson Planning Limited (2013 – Present)

Associate, MacNaughton Hermsen Britton Clarkson Planning Limited (2004– 2013)

Planner/Senior Planner, MacNaughton Hermsen Britton Clarkson Planning Limited (1998 – 2004)

Assistant Planning Officer, Upper Grand District School Board (1997 – 1998)

Research Assistant (Nutrient Management), Land Resource Science Department, University of Guelph (1993 – 1995)

Professional Associations

Member of the Waterloo Region Homebuilder's Association and City of Kitchener Liaison Group

Member of the Waterloo Region Homebuilder's Association and Waterloo Region Liaison Group

Member of the Waterloo Region Homebuilder's Association Laison Group with the Townships of Woolwich and Wilmot

Past Chair of the Homebuilders' Association Liaison Committee with the Grand River Conservation Authority

Past Chair and member of the Industry Luncheon Committee, Guelph & District Homebuilders' Association

Past Member of Board of Directors, Guelph & District Homebuilders' Association

Past Member, Committee of Adjustment for the Township of Centre Wellington

Past Member, Heritage Centre Wellington Committee (LACAC)

Past Vice-Chair, Village of Elora Planning Advisory Committee

Selected Project Experience

Agricultural/Rural Planning

- Project lead to undertake a LEAR Study for the Township of Amaranth, County of Dufferin
- Project planner to undertake a review of the Minimum Distance Separation formulae for the Region of Peel and Town of Caledon as part of their LEAR Study.
- Review and provided opinion to the Township of Guelph-Eramosa regarding the revised Minimum Distance Separation Formulae.
- Project planner for the preparation of an agricultural assessment of potential growth areas as part of the City of Brantford Growth Strategy/Official Plan Review.
- Preparation of agricultural impact statements/assessments including MDS I & II assessments on behalf of various private sector clients in support of development and aggregate applications.
- Preparation of an agricultural assessment on behalf of the Township of Guelph/Eramosa to explore the feasibility and potential of a dual Agricultural/Rural designation approach in the Official Plan.

Parks & Recreation

- Project lead and consultant to the City of Port Colborne to complete a Parks and Recreation Master Plan.
- Project lead and consultant to the Town of Collingwood to complete a Parks and Recreation Master Plan.
- Project lead and consultant to the Town of Grimsby to complete a Parks and Recreation Master Plan.
- Project lead and consultant to the City of Kitchener to undertake a Business Case for the Doon Pioneer Park Community Centre Expansion.
- Project lead and consultant to the Town of Cobourg for the Cobourg Community Centre and YMCA Northumberland Joint Facility Needs Assessment.
- Project lead and consultant to the Town of Cobourg for the preparation a Recreation Strategy and Implementation Plan.
- Project Lead and Consultant to the Town of Caledon in the preparation of a Parks and Recreation Visioning Plan.
- Consultant to the Township of West Lincoln in the preparation of a Parks and Recreation Master Plan.

- Project planner, Township of Guelph-Eramosa Parks, Recreation and Culture Master Plan.

Source Water Protection

- Prepared Official Plan Amendment and policies as well as implementing Zoning By-law to implement the Source Water Protection Plan policies for the Counties of Norfolk, Elgin and Middlesex.
- Prepared Official Plan Amendment and policies to implement the Source Water Protection Plan policies for the County of Wellington.
- Consultant to Grand River Conservation Authority, County of Wellington and County of Perth in the development of Source Water Protection water quality policies for the Lake Erie Region Source Protection Plan.
- Prepared Official Plan Amendment and policies to implement the Groundwater Protection Strategy for the County of Wellington.

Official Plan/Zoning By-laws

- Project lead and consultant for the preparation of an Official Plan Update for the Township of Amaranth (on-going)
- Project lead and consultant for the preparation of an Official Plan Update for the Municipality of Kincardine.
- Project lead and consultant to the Municipality of Kincardine for the preparation of a Comprehensive Zoning By-law Review (on-going).
- Project lead and consultant to the Township of Huron-Kinloss for the preparation of a Comprehensive Zoning By-law Review.
- Project lead and consultant for the preparation of an Official Plan Update for the Township of Huron-Kinloss.
- Project lead and consultant to the County of Norfolk to prepare an Issues and Report for the Hastings Drive Zoning By-law Study.
- Project planner for preparation of a Consolidated Zoning By-law for the City of Kawartha Lakes (involved consolidating 17 By-laws).

Special Studies & Other

- Consulting planner for the City of Stratford to review and process select development applications.
- Consulting planner for the County of Perth to review and process planning applications.
- Consulting planner for the County of Bruce to review Consent and Minor Variance applications for the Lakeshore and Peninsula Hubs.
- Project planner for the Municipality of North Perth to complete a Secondary Plan and Master Servicing Plan for North-East Listowel (on-going).
- Project Lead and planner for the Upper Grand District School Board for the approval of new secondary school in the City of Guelph.
- Consultant to the Upper Grand District School Board regarding the justification and approval of a new secondary school in the Township of Centre Wellington, including a settlement area expansion.
- Consultant to the Huron-Perth Catholic District School Board regarding the justification and approval of a new elementary school in the Town of North Perth, including an agricultural impact assessment for a proposed expansion of the settlement boundary to accommodate the school.
- Justification of an urban expansion in the former Town of Listowel (Municipality of North Perth) and preparation of a Plan of Subdivision for a 50 acre property. The justification included an assessment of agricultural impacts and servicing considerations.

- Consultant to the City of Woodstock regarding the justification and approval of the East Woodstock Secondary Plan & Design Study. Prepared Official Plan Amendment and policies to implement the Secondary Plan.
- Consultant to the Town of North Perth on the Southeast Listowel Community Plan.
- Project planner providing planning services to the Township of Guelph-Eramosa. Review of applications, and preparation and presentation of planning reports to Council.
- Review and/or preparation of numerous planning approvals relating to draft plan of subdivisions, draft plan of condominiums, site plans, Official Plan amendments, Zoning By-law amendments, consents and minor variances throughout the Region of Waterloo, the Counties of Wellington, Perth, Bruce, Oxford, Huron and surrounding areas.
- Advisor to various aggregate producers regarding the review of new Official Plan policies in the Region of Durham and County of Oxford.
- Project Planner to the Aggregate Producers' Association of Ontario on the review of the Oak Ridges Moraine Conservation Plan.
- Coordinating the design and preparation of site plans under the Aggregate Resources Act. Research and preparation of Planning Reports and Aggregate Resources Act Reports for license and permit applications, including work for companies such as Lafarge Canada, Dufferin Aggregates, Federal White Cement and Beachville Lime Limited.

Awards / Publications / Presentations

2025	OPPI PlanON Award – Education Category – Empowering the Future: Activa Partners with Groh Public School for a Unique Community Project, September 18, 2025
2017	Designing Public Spaces to Support Vibrant Communities – Presentation on Park Land Dedication and Implications of Bill 73, September 15, 2017
2012	OPPI – Southwest District – Presentation on Source Water Protection Planning and Implementation, October 25, 2012
2012	Ontario Sand and Gravel Association – Presentation on Implications of Source Water Protection on Aggregate Operations, November 8, 2012.
2004	B. Hermsen and P. Chauvin, 2004. Elementary Schools and Residential Absorption Rates in New Neighbourhoods. Spring 2004 Ontario Expropriation Association Newsletter.
2003	Nutrient Management Act - Presentation to the Municipal Law Seminar Series, in co-operation with Kearns McKinnon LLP, February 26, 2003.
1997	Planning and Development of Recreational Trails on Private Lands: A Case Study of the Grand Valley Trails Association. Unpublished M.A. Thesis, School of Urban and Resource Development Planning, Faculty of Environmental Studies, University of Waterloo, Ontario

Danial Salari

MSc(Agr), MSc(Pl), A.Ag.

Danial Salari joined MHBC in January 2025. He provides a range of planning support and consulting services to both public and private sector clients mainly in related to rurl planning initiatives. This support includes conducting policy reviews and analyses and preparing due diligence reports and assessments.

Danial regularly assists with obtaining various development approvals including Plan of Subdivisions, Site Plans, Official Plan Amendments, Zoning By-law Amendments, Consents and Minor Variances. He also regularly provides support to senior staff in a range of projects including supporting the development of Consent applications, Aggregate Resource extraction, and Battery Energy Strategy System (BESS) applications.

Danial received his Master of Science in Rural Planning from the University of Guelph in 2024. He also received a Master of Science in Ecologic Agriculture in 2018 and a Bachelor of Science in Agricultural Engineering in 2010.

Professional History

Planner, MacNaughton Hermsen Britton Clarkson Planning Limited (2025 – present)

Student Planner, Region of Peel (2024)

Farm Inspector, Ecocert Canada (2023)

Project Planner & Data Analyst, Rural Ontario Institute (2023)

Production Committee Chair & Board Member, Khorasan Organic Association (2014-2019)

Sustainability Consultant, Sadaf rah Abrisham (2011-2014)

Education

University of Guelph
Master of Science in Rural Planning and Development
2024

University of Shahid Beheshti
Master of Science in Ecologic Agriculture
2018

Ferdowsi University of Mashhad
Bachelor of Science in Agronomy
2010

Professional Associations

Articling Agrologist (A.Ag.)

Member, Ontario Professional Planners Institute (OPPI)

Member, Ontario Institute of Agrologists (OIA)

Member, Agriculture and natural Resources Engineering Organization of Iran

Trained in the UNEP for Sustainable Development

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MHBC | PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Professional Experience

Agriculture / Rural

- Agricultural Impact Assessments for aggregate licence applications, settlement area boundary expansions, and non-agricultural uses in prime agricultural areas
- Minimum Distance Separation (MDS) review and analysis
- Research, preparation and co-ordination of reports and approvals for agricultural uses, agriculture-related uses, and On-Farm Diversified Uses (OFDUs)

Aggregate / Industrial

- Property investigations and planning assessments for due diligence reviews for mineral aggregate and concrete and asphalt plant projects
- Preparation of Planning and Land Use Considerations reports for aggregate projects

Policy Research and Analysis

- Provincial and local Municipal Policy Review and Analysis
    - Provincial Planning Statement, 2024
    - Agricultural Impact Assessment (AIA) Guidance Document
- Undertake extensive research of land use policy and housing market data to support Regional Housing Affordability analysis.
- Review planning applications in support of Regional Housing comments
- Preparation of due diligence reports to identify applicable policies and regulations for proposed developments in municipalities across Ontario.

Residential / Mixed-use / Retail

- Preparation of planning assessments and due diligence reviews to identify development potential of properties for a range of clients
- Research, preparation and co-ordination of reports / applications under the *Planning Act* (Zoning By-law Amendment, Official Plan Amendment)

Project Coordination

- Consent and land severance applications
- Coordination of technical requirements with various internal and external subcontractors.

Public Engagement

- Facilitation of the Indigenous Seed Selection Knowledge sharing workshop with Biinjitiwaabik Zaaging Anishinaabek (Rockey Bay First nation) and Netmizaaggamig Nishnaabeg (Pic Mobert First Nation)

Special Initiatives and Accomplishments

- Received the Highly Qualified Personnel (HQP) Scholarship from OMAFA

DOCUMENT TRANSMITTAL

Document:	**SOIL SURVEY AND CANADA LAND INVENTORY (CLI) EVALUATION** **SAFAIRK PIT** **4275 CONCESSION 7** **TOWNSHIP OF PUSLINCH** **COUNTY OF WELLINGTON**		
Prepared for:	Ms. Caitlin Port MHBC – Urban Design & Landscape Architecture 540 Bingemans Centre Drive Suite 200 Kitchener, ON N2B 3X9	Date Our Ref. No. Your Ref. No.	November 27, 2025 2024 - 03
Attention:	Ms. Port	DRAFT	FINAL ☑

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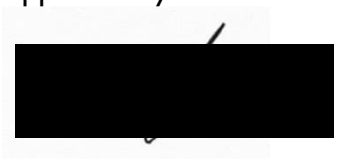
Approved by:



Dave Hodgson, P. Ag.
President
DBH Soil Services Inc.

SOIL SURVEY AND CANADA LAND INVENTORY (CLI) EVALUATION
SAFAIRK PIT
4275 CONCESSION 7
TOWNSHIP OF PUSLINCH
COUNTY OF WELLINGTON

Prepared for:

Ms. Caitlin Port
Associate
MHBC – Urban Design & Landscape Architecture
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Kitchener, ON
N2B 3X9

DBH Soil Services Inc.

November 27, 2025

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1.0 BACKGROUND

DBH Soil Services Inc. was retained to complete a Soil Survey and Canada Land Inventory (CLI) classification assessment for an area identified as:

4275 Concession 7
Township of Puslinch
County of Wellington

This area is comprised of one parcel identified by the Municipal Property Assessment Corporation (MPAC) Roll Number 23010000051440400. The Roll Number was identified in the County of Wellington online mapping (https://sgis.wellington.ca/Maps/index.html?viewer=WellingtonCountyExternal).

A visual representation of the property size, shape and relative location is presented as an image reproduced from Explore Wellington online mapping viewer. Image 1 (below) illustrates the relative location and shape of the Subject Lands as provided in the Explore Wellington Imagery (https://sgis.wellington.ca/Maps/index.html?viewer=WellingtonCountyExternal) as teal and yellow outline and fill. It is noted that the property comprised two separate pieces divided by a hydro corridor.

Image 1 Explore Wellington Imagery

Source: Explore Wellington Imagery (https://sgis.wellington.ca/Maps/index.html?viewer=WellingtonCountyExternal)

For the purposes of this Soil Survey and CLI evaluation, these two pieces are henceforth referred to as the Study Area.

The Study Area lands comprise approximately 32.2 ha (79.6 acres) of which much of the lands are used for agricultural crop production (common field crop). The non-cropped lands included wooded areas that are located in fence rows, a large woodland area to the northeast, and the lands associated with the farmstead along Concession Road 7.

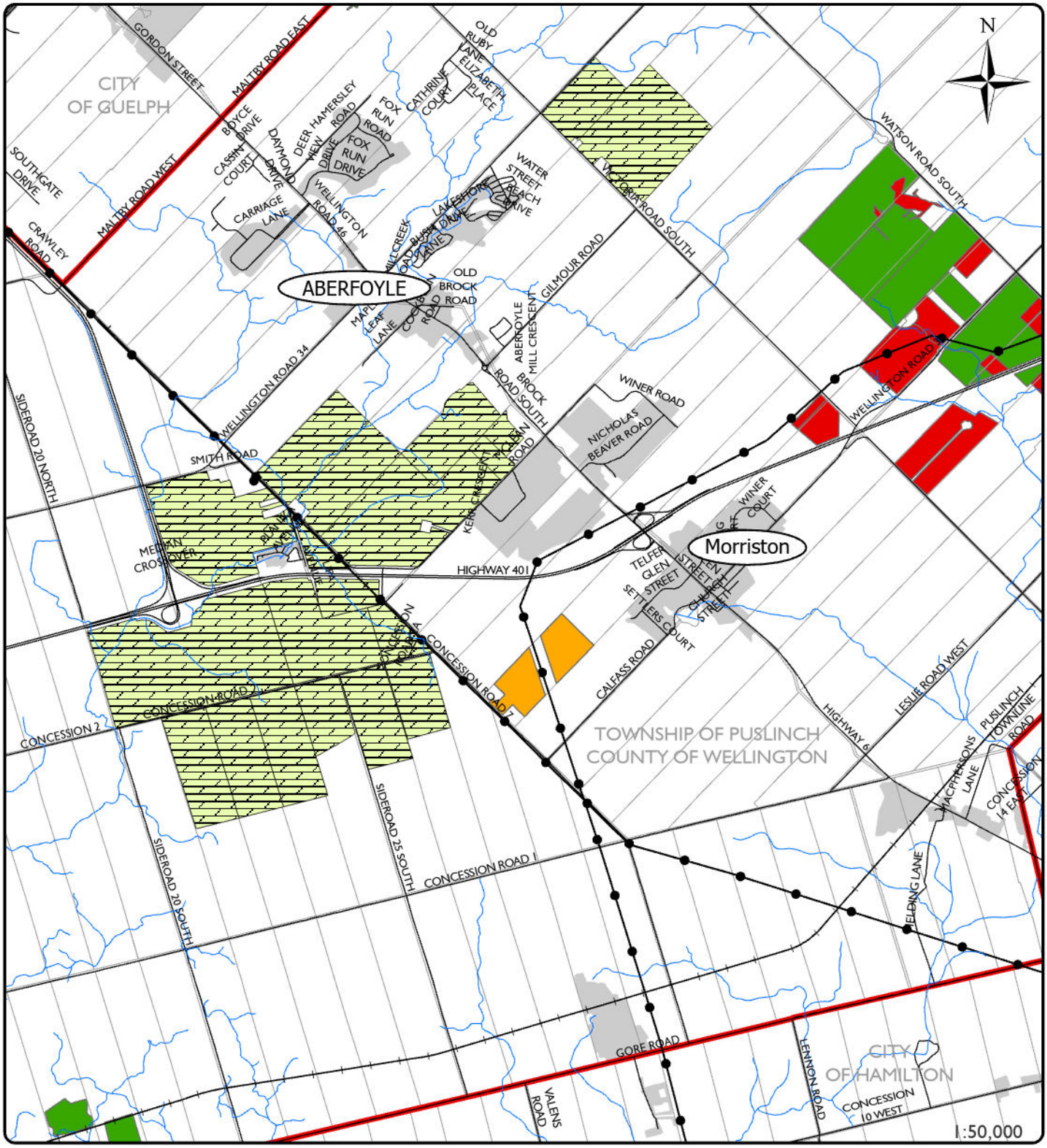
The farmstead area included a bank barn with extension, a residential unit, and a few sheds. No livestock was observed on the property during the onsite soil survey.

The Study Area is roughly bounded: on the west by Concession Road 7, on the north by a rural residential unit, agricultural lands, and woodland areas; on the east by woodland areas; on the south by agricultural lands, woodlands, and rural residential units.

The Study Area is located approximately 350 m south of Highway 401, 2.5 km south of the settlement of Aberfoyle, and 500 m west of the settlement of Morriston.

This report was completed to document the existing soil conditions and to provide a more detailed assessment of the CLI classification of the soil resources onsite. This report documents the methodology, findings, conclusions, and mapping completed for this study.

Figure 1 illustrates the relative location of the Study Area with respect to the above-mentioned geographical features.



Legend

- Railway (MNRF)
- Roads (MNRF)
- Utility Line (MNRF)
- Watercourse (MNRF)
- Aggregate Authorized Active (MNRF)
- Built-up Area (MNRF)
- Lot Line (MNRF)
- Municipal Boundary (MNRF)
- Study Area

Tile Drainage (OMAFRA)

- Random
- Systematic

Figure 1

Location

DBH Soil Services Inc.

November 2025

2.0 METHODOLOGY

2.1 FIELD DATA COLLECTION

2.1.1 SOIL INVESTIGATION

Basic soils (and CLI) information was provided in the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFA) soils and mapping report *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963),* Digital mapping was provided by OMAFA through the Land Information Ontario (LIO) warehouse website. The digital mapping was provided at a scale of 1:50000. Mapping at this scale is of a general nature when referring to site-specific planning; therefore, detailed soils or soil verification assessments are often required for farm scale or lot size planning initiatives and applications for amendments to Official Plans and/or Zoning By-Laws.

In an effort to 'standardize' the approach or methodology used in detailed soil surveys, OMAFA created guidelines for detailed soil surveys in a document titled *Guidelines for Detailed Soil Surveys for Agricultural Land Use Planning*. This OMAFA document was available online until recently. Recent email conversations with staff from OMAFA indicated that OMAFA is transitioning from the older government website to a new centralized website. It was noted that this document is slated for transition but has not been added to the new site. Further, OMAFA will be updating the document to include more detailed instructions as to the depths of soil inspection, and to indicate that detailed soil survey is useful in more than just agricultural land use planning. Staff from OMAFA have indicated that in the interim, the document can still be identified (included as Appendix A), with further reference being made to the Mapping Systems Working Group documents as follows:

Soil Mapping System for Canada: (https://sis.agr.gc.ca/cansis/publications/manuals/1981-smsc/index.html).

Soil Survey Handbook: (https://sis.agr.gc.ca/cansis/publications/manuals/1987-9/index.html).

The original OMAFA guidelines (Appendix A) were created in response to concerns with the accuracy of published mapping and classification of soil materials and that the existing information is of too general a nature to adequately describe and interpret the soil properties for site-specific planning purposes.

The standards for completing a detailed soil evaluation included the following tasks:

- Completion of a review of published soil information – County/Region Soil Report of the Ontario Soil Survey (OMAFA),
- Conduct a review of published Canada Land Inventory (CLI) ratings for the soils of this area,
- Conduct an aerial photographic review and interpretation of the soil polygons, disturbed soil areas and miscellaneous landscape units (ie: streams, wayside pits),

- Conduct an onsite soil survey at an appropriate scale and survey density,
- Completion of mapping to illustrate the location of the property, the occurrence of the OMAFA soil polygons and appropriate CLI capability ratings,
- Completion of a report outlining the methodologies employed, findings (including a discussion of relevant features identified) and a conclusion as to the relevance of the CLI classifications for the soil polygons on the property and how they relate to the Provincial Policy Statement.

Further, OMAFA has provided a document titled "Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario."

A detailed onsite soil survey and surrounding land reconnaissance survey were conducted on December 4, 2023.

2.1.2 PHYSIOGRAPHY

Physiographic information and Quaternary Geology information was provided in *The Physiography of Southern Ontario 3rd Edition, Ontario Geological Survey Special Volume 2, Ministry of Natural Resources, 1984*. A further review of the digital Physiographic from the Land Information Ontario website was completed.

Physiographic information provides details on the parent materials from which the soil developed in a specific area.

2.1.3 TOPOGRAPHY AND CLIMATE

Topographic information was reviewed and correlated to the 0.5 m contour mapping available from the Grand River Conservation Authority (GRCA) website (https://maps.grandriver.ca/web-gis/public/?theme=MYP&bbox=539184,4790579,566563,4805220). The GRCA contour mapping is provided in Appendix B.

Additional contour data, mapping and assessments were reviewed and included the 1:10000 scale Ontario Base Mapping, LIO digital contour mapping, detailed soil survey assessment (using a handheld clinometer), aerial photo interpretation and windshield surveys.

Climate data was taken from the OMAFA document titled *Agronomy Guide for Field Crops – Publication 811 (2017)* and the *Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFA) Factsheet – Crop Heat Units for Corn and Other Warm Season Crops in Ontario, 1993*.

3.0 FINDINGS

3.1 PHYSIOGRAPHY AND CLIMATE

The *Physiography of Southern Ontario* Physiographic Unit Map indicates that the Study Area is located in the Horseshoe Moraines Physiographic Region. The Horseshoe Moraines Physiographic Region is a large, horseshoe shaped area that flanks the upland areas west of the highest portions of the Niagara Cuesta. The chief landforms are irregular stony knobs and ridges that are composed of till, with some sand and gravel deposits, and sand/gravel terraces with swampy valley floors. The southern portion of the Horseshoe Moraine Physiographic Region near Paris comprises moderately hilly areas that flatten out.

The surface material in this physiographic region is generally sandy overlying till, kames, moraines and outwash sands which may occur in the hollows. The majority of the surface sands are fine sandy materials.

3.2 TOPOGRAPHY

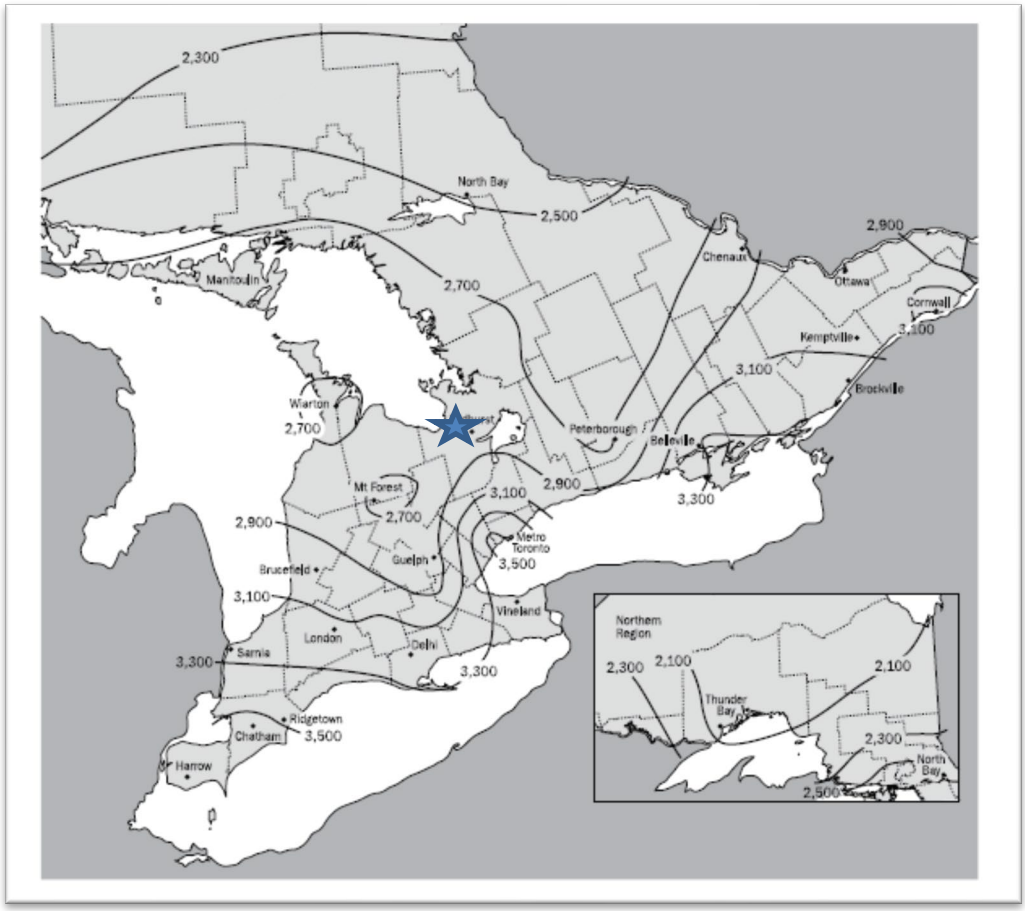
The topography of the Study Area is a mix of gently sloping lands, combined with steeper slopes located along the northeastern portion, the central portion, and the southern portion of the property.

3.3 CLIMATE

The Study Area is located within the 2700 - 2900 average accumulated Crop Heat Units area in Ontario. The Crop Heat Units (CHU) index was originally developed for field corn and has been in use in Ontario for 30 years. The CHU ratings are based on the total accumulated crop heat units for the frost-free growing season in each area of the province. CHU averages range between 2500 near North Bay to over 3500 near Windsor. The higher the CHU value, the longer the growing season and greater are the opportunities for growing value crops.

Crop Heat Units for corn (based on 1971-2000 observed daily minimum and maximum temperature (OMAFA, 2017)) map image is illustrated below. The approximate location of the Study Area is marked with a blue star.

Image 2 Crop Heat Units Mapping



Source: Agronomy Guide for Field Crops OMAFA – Publication 811

3.4 DETAILED SOIL SURVEY

A detailed on-site soil survey was conducted to map and classify the soil resources of the soil materials on the Study Area lands. The soil survey included the following tasks:

- Completion of a review of published soil information (*Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963))*
- Conduct a review of published Canada Land Inventory (CLI) ratings for the soils of this area,
- Conduct an aerial photographic review and interpretation of the soil polygons, disturbed soil areas and miscellaneous landscape units (ie: streams, boulder pavement, wayside pits),
- Conduct an on-site soil survey,
- Completion of mapping to illustrate the location of the property, the occurrence of soil polygons and appropriate CLI capability ratings,
- Completion of a report outlining the methodologies employed, findings (including a

discussion of relevant features identified) and a conclusion as to the relevance of the CLI classifications for the soil polygons on the property.

The detailed soil survey of the Study Area lands, and reconnaissance of the surrounding area was conducted on December 4, 2023. Aerial photographic interpretation was used to delineate soil polygon boundaries by comparing areas, on stereoscopic photographs (and imagery), for similar tone and texture. Delineated soil polygons were evaluated for the purpose of verifying soil series and polygon boundaries. The evaluation was completed through an examination of the existing soil conditions to a minimum depth of 100 cm or to refusal. A handheld Dutch soil auger and/or Dutch stone auger was used to extract the soil material to a minimum depth of one metre (or to refusal).

Each soil profile was examined to assess inherent soil characteristics. Soil attributes were correlated with the *Canadian System of Soil Classification (CSSC) (Agriculture Canada, 1998)* and the *Field Manual for Describing Soils in Ontario (Ontario Centre for Soil Resource Evaluation, 1993)*. A handheld clinometer was used to assess percent slope characteristics. Soils were assigned to a soil map unit (series) based on soil texture (hand texturing assessment), soil drainage class and topography (position and slope).

Depth to free water within one metre of the soil surface was also recorded at inspection sites located on lower slope positions (where applicable). Names for the soil series and the CLI ratings were assigned to each soil polygon by correlating the soil series with soils information presented in the *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)* and with the CLI information presented on the 1:50000 scale manuscript mapping, and the OMAFA digital soils data.

Observations noted at the time of the onsite soil survey included:

- The majority of the Study Area lands were used for the production of common field crop.
- Woodland areas were noted to the east and along fencerows.
- A small area of scrubland (or possibly old pasture) was noted in the eastern portion of the Study Area.
- The lands were moderately to steeply sloping in the central and east sections. The western and west central sections included more gentle slopes.
- Stone piles were noted along the edge of the fields in various locations around the Study Area.
- Stones were noted on the surface of the soils throughout the parcel.
- Stones were of varying size including gravels and cobble sizes.
- Stones were rounded (river stone).
- Numerous areas of eroded soils (highly calcareous materials, with limited or shallow profile development) were noted on upper slope and slope shoulder positions.
- A few small ponds and seasonally ponded areas were noted.

Photograph 1 illustrates the hummocky topography looking from the western portion of the Study Area toward the eastern portion of the Study Area.

Photograph 1

Photograph 2 illustrates the hummocky terrain in the southwestern portion of the Study Area.

Photograph 2

Photograph 3 looks to the north (to the industrial area near the Highway 401 and Highway 6 South interchange) and illustrates the hummocky topography.

Photograph 3

Photograph 4 illustrates the steeply sloped lands in the southwest portion of the Study Area.

Photograph 4

Photograph 5 illustrates the relative size and density of surface stone that was observed in the Study Area.

Photograph 5

Photograph 6 illustrates the relative size and quantity of stone observed in one of the stone piles observed on the Study Area.

Photograph 6

Photograph 7 also illustrates the relative size and quantity of stone observed in one of the stone piles observed on the Study Area.

Photograph 7

A total of 50 soil inspection sites were examined in the Study Area. The onsite soil survey also revealed numerous small areas of eroded soil, particularly on the upper slope and shoulder slope areas. The soil materials in these eroded areas often comprised gravelly materials.

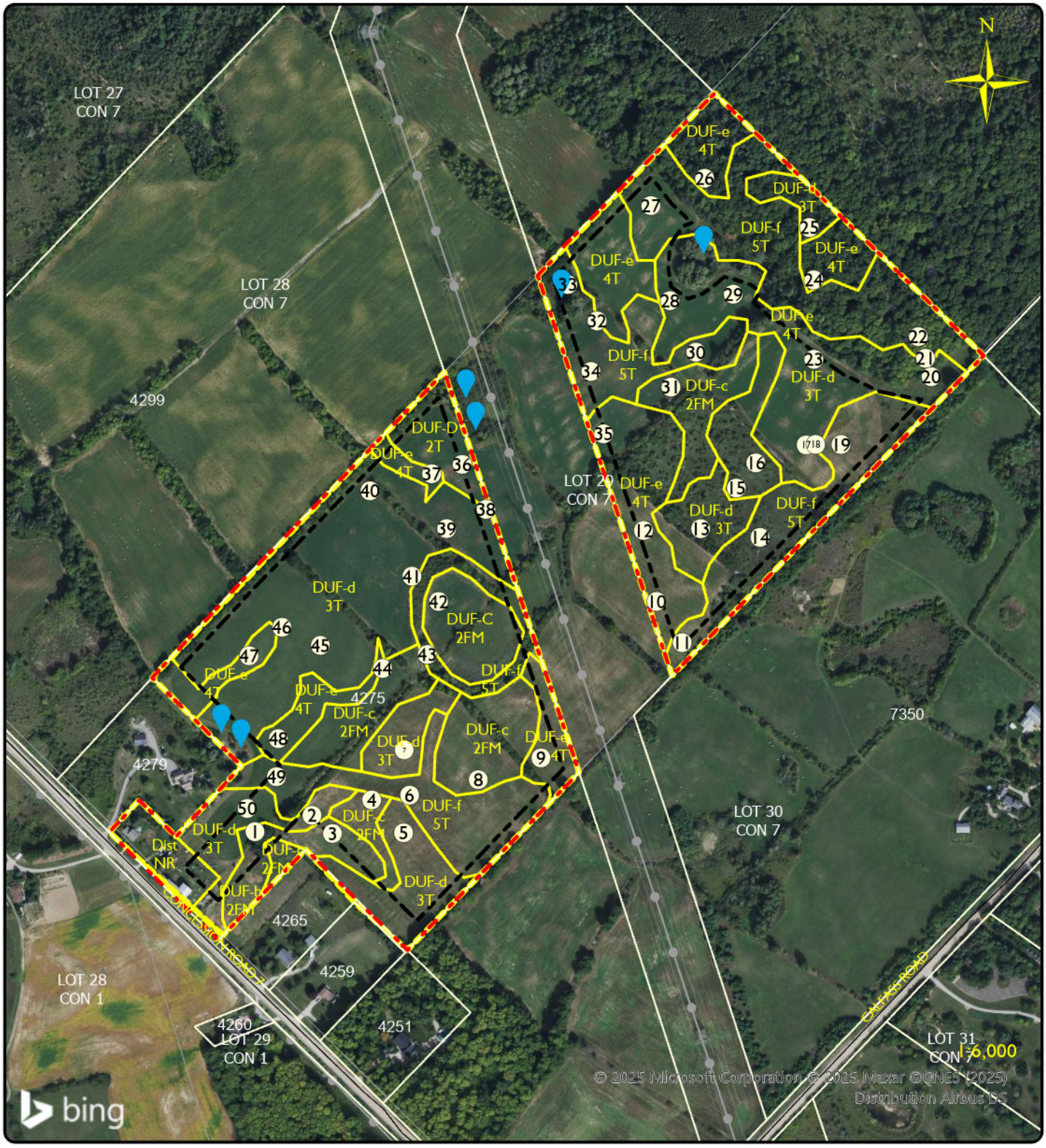
The soil inspection information was correlated with soil descriptions in the *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963) and* the OMAFA digital soils data (Land Information Ontario, 2022), prior to the production of the soils map in Figure 2. Soil names used in the identification of the soil series on Figure 2 were taken from the *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)*.

It should be noted that the soil mapping provided with the *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)* report makes use of slope groupings as follows:

TOPOGRAPHIC CLASSES

A_0 - Smooth basin	B_0 - Irregular basin
A_1 - Smooth level	B_1 - Irregular level
A_2 - Smooth very gently sloping	B_2 - Irregular very gently sloping
A_3 - Smooth gently sloping	B_3 - Irregular gently sloping
A_4 - Smooth moderately sloping	B_4 - Irregular moderately sloping
A_5 - Smooth steeply sloping	B_5 - Irregular steeply sloping
A_6 - Smooth very steeply sloping	B_6 - Irregular very steeply sloping

Source: *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)*.



Legend

- Ponded Area
- Soil Inspection Sites
- Roads (MNRF)
- Utility Line (MNRF)
- Parcels
- Preliminary Limit of Extraction
- Total Site Area
- Soil Polygon Boundary

Soil Code — Slope Code

DUF-c

2FM

CLI Class — CLI Subclass

Soil Code
DUF = Dumfries

CLI Subclass Limitation
F - Fertility
M - Moisture
T - Topography

Slope Class
Aa = 0.0 - 0.5%
Bb = 0.5 - 2.0%
Cc = 2.0 - 5.0%
Dd = 5.0 - 9.0%
Ee = 9.0 - 15.0%
Ff = 15.0 - 30.0%
Gg = 30.0 - 45.0%

Slope length < 50 m
Slope length > 50 m

Figure 2

Detailed Soil Survey and
Canada Land Inventory (CLI)

DBH Soil Services Inc.

November 2025

The normal or standard slope groupings (as presented in the Ontario Centre for Soil Resource Evaluation document *Field Manual for Describing Soils in Ontario*, 4th Edition (1993) provides slope groupings as follows: Aa = 0.0 – 0.5 percent; Bb = 0.5 – 2.0 percent; Cc = 2.0 – 5.0 percent; Dd = 5.0 – 9.0 percent; Ee = 9.0 – 15.0 percent; Ff = 15.0 – 30.0 percent; and Gg = 30.0 – 45.0 percent. Where capital letters represent simple slopes (slope lengths greater than 50 metres), while lower case letters represent complex slopes (slope lengths less than 50 metres).

On review of the OMAFA document *Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory In Ontario* soils are rated for topography with slopes grouped similar to the description provided in the *Field Manual for Describing Soils in Ontario* and are presented as follows: <2; 2-5; 5-9; 9-15; 15-30; 30-60; and >60.

For the purposes of providing mapping and soil capability ratings that are consistent with the OMAFA document *Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory In Ontario*, the slope groupings and mapping presented in this report reflect the standard percent slope groupings as are documented in the *Field Manual for Describing Soils in Ontario*, 4th Edition (1993).

The onsite soil survey identified one soil series, and one miscellaneous soil group. The one soil series was identified as Dumfries Sandy Loam. The miscellaneous soil group comprised the lands associated with the farmstead area and laneway. The miscellaneous soil group is considered disturbed lands.

Small ponds and seasonally ponded areas were noted on the mapping but were considered too small to map out individually. Similarly, small pockets of poorly drained soils were observed in the small ponded and seasonally ponded areas. These poorly drained soil areas were too small to map out individually.

Dumfries Loam is the well-drained member of the Dumfries Soils Catena. Dumfries soils developed on stony soil material derived from limestone. The topography is generally hilly with steep complex (slope length less than 50 m) slopes. It is noted in the *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)* that "there are often areas of poorly drained soils too small to be delineated". These areas are not easily drained and are often not arable.

A description of the soil at each inspection site is included in Appendix C.

3.5 ARTIFICIAL DRAINAGE

An evaluation of artificial drainage on the Study Area was completed through a correlation of observations noted during the windshield surveys, aerial photographic interpretation, and a review of the OMAFA Artificial Drainage System Mapping. Figure 1 illustrates the tile drainage areas that are registered in the OMAFA database.

Visual evidence supporting the use of subsurface tile drains would include observations of drain outlets to roadside ditches or surface waterways, and surface inlet structures (hickenbottom or french drain inlets).

Evidence in support of subsurface tile drainage on aerial photographs would be based on the visual pattern of tile drainage lines as identified by linear features in the agricultural lands and by the respective light and dark tones on the aerial photographs. The light and dark tones relate to the moisture content in the surface soils at the time the aerial photograph was taken.

OMAFA Artificial Drainage System Maps were reviewed to determine if an agricultural tile drainage system had been registered to the Study Area. The OMAFA maps revealed that no agricultural drainage systems were registered on the Study Area (Figure 1).

Absence of agricultural drainage systems is typical of areas where the soil developed on sandy or gravelly materials. The soil is generally open or coarse texture where water easily infiltrates and moves through the soil profile.

3.6 IRRIGATION

Observations noted during the surficial soil survey indicated that the Study Area is not irrigated, and that the property is not set up for the use of irrigation equipment. Visual evidence supporting the use of irrigation equipment would include the presence of the irrigation equipment (piping, water guns, sprayers, tubing, etc), the presence of a body of water capable of sustaining the irrigation operation and lands that are appropriate for the use of such equipment.

No irrigation equipment was observed onsite during the course of the on-site survey.

3.7 LANDFORMING

With the exception of the creation of a laneway to allow access to the property (and the farmstead area and farther to the east portion of the parcel) there is no evidence of any landforming for the purposes of leveling or reducing slope for the enhancement of agricultural activities or operations.

3.8 SOIL CAPABILITY FOR AGRICULTURE

Basic information about the soils of Ontario is made more useful by providing an interpretation of the agricultural capability of the soil for various crops. The CLI system combines attributes of the soil to place the soils into a seven-class system of land use capabilities. The CLI soil capability classification system groups mineral soils according to their potentialities and limitations for agricultural use. The first three classes are considered capable of sustained production of common field crops, the fourth is marginal for sustained agriculture, the fifth is capable for use of permanent pasture and hay, the sixth for wild pasture and the seventh class is for soils or

landforms incapable for use for arable culture or permanent pasture. Organic or Muck soils are not classified under this system. Disturbed Soil Areas are not rated under this system.

The OMAFA document *Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario* defines CLI classification as follows:

Class 1 - Soils in this class have no significant limitations in use for crops. Soils in Class 1 are level to nearly level, deep, well to imperfectly drained and have good nutrient and water holding capacity. They can be managed and cropped without difficulty. Under good management they are moderately high to high in productivity for the full range of common field crops

Class 2 - Soils in this class have moderate limitations that reduce the choice of crops, or require moderate conservation practices. These soils are deep and may not hold moisture and nutrients as well as Class 1 soils. The limitations are moderate and the soils can be managed and cropped with little difficulty. Under good management they are moderately high to high in productivity for a wide range of common field crops.

Class 3 - Soils in this class have moderately severe limitations that reduce the choice of crops or require special conservation practices. The limitations are more severe than for Class 2 soils. They affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. Under good management these soils are fair to moderately high in productivity for a wide range of common field crops.

Class 4 - Soils in this class have severe limitations that restrict the choice of crops, or require special conservation practices and very careful management, or both. The severe limitations seriously affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. These soils are low to medium in productivity for a narrow to wide range of common field crops, but may have higher productivity for a specially adapted crop.

Class 5 - Soils in this class have very severe limitations that restrict their capability to producing perennial forage crops, and improvement practices are feasible. The limitations are so severe that the soils are not capable of use for sustained production of annual field crops. The soils are capable of producing native or tame species of perennial forage plants and may be improved through the use of farm machinery. Feasible improvement practices may include clearing of bush, cultivation, seeding, fertilizing or water control.

Class 6 - Soils in this class are unsuited for cultivation, but are capable of use for unimproved permanent pasture. These soils may provide some sustained grazing for farm animals, but the limitations are so severe that improvement through the use of farm machinery is impractical. The terrain may be unsuitable for the use of farm machinery, or the soils may not respond to improvement, or the grazing season may be very short.

Class 7 - Soils in this class have no capability for arable culture or permanent pasture. This class includes marsh, rockland and soil on very steep slopes.

The OMAFA document *Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario* defines the CLI subclassification as follows:

Subclass F – Low Natural Fertility: This subclass is made up of soils having low fertility that is either correctable with careful management in the use of fertilizers and soil amendments or is difficult to correct in a feasible way. The limitation may be due to a lack of available plant nutrients, high acidity, low exchange capacity, or presence of toxic compounds.

Subclass M – Moisture Deficiency: This subclass denotes soils which have low moisture holding capacities and are more prone to droughtiness.

Subclass S – Adverse Soil Characteristics: This subclass denotes a combination of limitations of equal severity. In Ontario it has often been used to denote a combination of fertility (f) and moisture (m) when these are present with a third limitation such as topography (t) or stoniness (p).

Subclass T - Topography: This subclass denotes limitations due to slope steepness and length. Such limitations may hinder machinery use, decrease the uniformity of crop growth and maturity, and increase water erosion potential.

Each polygon identified on-site was classified according to the CLI rating system then correlated to the CLI classifications as presented in the *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)*, the digital soil data provided by OMAFA, and the OMAFA document *Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for the Application of the Canada Land Inventory in Ontario*.

Dumfries soils located on complex (slope length less than 50 m) 'b' slopes (2-5 percent) were rated as CLI class 2FM, on complex 'c' slopes (2-5 percent) were rated as CLI class 2FM, on complex 'd' slopes (5-9 percent) as CLI class 3T, on simple 'D' slopes (5-9 percent) as CLI class 2T, on complex 'e' slopes (9-15 percent) as CLI class 4T, and on complex 'f' slopes (15-30 percent) as CLI class 5T.

Disturbed soils are not rated in the CLI classification system.

Table 1 summarizes the relative percent area occupied by each capability class for the Total Site Area and the Preliminary Extraction Area.

Table 1 Canada Land Inventory – Study Area

Canada Land Inventory Class (CLI)	Total Site Area (ha)	Total Site Area Percent Occurrence	Preliminary Extraction Area (ha)	Preliminary Extraction Area Percent Occurrence
Class 1	-	-	-	-
Class 2	5.5	17.1	4.7	21.5
Class 3	11.7	36.3	8.5	39.0
Class 4	5.7	17.7	3.7	17.0
Class 5	8.8	27.3	4.8	22.0
Class 6	-	-	-	-
Class 7	-	-	-	-
Not Rated (Disturbed and Organic soil)	0.5	1.6	0.1	0.5
Totals	32.2	100.0	21.8	100.0

The Total Site Area comprised approximately 53.4 percent CLI class 1 – 3 soils, with CLI class 2 of approximately 17.1 percent, and CLI class 3 of approximately 36.3 percent. The remaining mineral soils (CLI class 4 – 7) comprise approximately 45.0 percent of the Study Area. Not rated (disturbed soil areas) comprised approximately 1.6 percent.

The Preliminary Extraction Area comprised approximately 60.5 percent CLI class 1 – 3 soils, with CLI class 2 of approximately 21.5 percent, and CLI class 3 of approximately 39.0 percent. The remaining mineral soils (CLI class 4 – 7) comprise approximately 39.0 percent of the Study Area. Not rated (disturbed soil areas) comprised approximately 0.5 percent.

3.9 HOFFMAN PRODUCTIVITY INDEX (SOIL PRODUCTIVITY RATING)

The Hoffman Productivity Index (HPI) is a tool that was published in ARDA Report No. 4 *The Assessment of Soil Productivity for Agriculture* and is used to relate the productivity of lands to the CLI soil capability.

These indices are also referred to as the Soil Productivity Index and are used to calculate and assign a parcel or polygon a single value which represents the overall productivity of that parcel or polygon.

The single value is derived from the sum of the percent occurrence of each CLI Soil Capability Class on the parcel or within the polygon multiplied by the productivity index corresponding to the soil class.

Certain assumptions are made when using the productivity index. The HPI assumes that if the same level of management is applied to areas of differing CLI classes, then the productivity for

each class will differ. Hoffman determined the average yields produced for common field crops on lands with CLI classes 1 to 4 within Ontario.

In developing the HPI, it was determined that a CLI class 2 land produced approximately 80% of the yield that would be associated with a CLI class 1 land. Further that a CLI class 3 land produced approximately 64% of the yield that would be associated with a CLI class1 land, while a CLI class 4 land produced approximately 49%. Values for class 5 through class 7 lands were extrapolated. As a result, it was determined that the productivity ranges were as follows as illustrated in Table 2.

Table 2 Soil Productivity Index Ranges

Soil Productivity Index Ratings	
CLI Class	**Soil Productivity Index**
1	1.0
2	0.8
3	0.64
4	0.49
5	0.33
6	0.17
7	0.02

A parcels or polygons HPI or Soil Productivity Index is calculated as follows:

Soil Productivity Index =
(percent occurrence of class 1 lands x 1.0) + (percent occurrence of class 2 lands x 0.8) + (percent occurrence of class 3 lands x 0.64) + (percent occurrence of class 4 lands x 0.49) + (percent occurrence of class 5 lands x 0.33) + (percent occurrence of class 6 lands x 0.17) + (percent occurrence of class 7 lands x 0.02)

Once a Soil Productivity Index value is calculated for the parcel or polygon, the value can be related back to a CLI Equivalent. The following table (Table 3) illustrates the range of values which can be directly correlated to the equivalent CLI class.

Table 3 Soil Productivity Index Range and Equivalent CLI

Soil Productivity Index Range	
Equivalent CLI Class	**Soil Productivity Range**
1	0.90 - 1.00
2	0.73 - 0.89
3	0.58 – 0.72
4	0.43 – 0.57
5	0.28 – 0.42
6	0.10 – 0.27
7	0.00 – 0.09

With respect to the Study Area Lands, an HPI calculation was completed. The HPI value and subsequent CLI class are provided in Table 4.

Table 4 Soil (Hoffman) Productivity Rating and Equivalent CLI Class

	Soil (Hoffman) Productivity Rating	Corresponding CLI Class
Total Site Area	0.55	4
Preliminary Limit of Extraction	0.58	3

The calculated Soil Productivity Rating for the Total Site Area was 0.55 or a CLI class 4 equivalent.

The calculated Soil Productivity Rating for the Preliminary Extraction Area was 0.58 or a CLI class 3 equivalent.

4.0 SUMMARY AND CONCLUSIONS

DBH Soil Services Inc. was retained to complete a Soil Survey and Canada Land Inventory (CLI) classification assessment for an area identified as:

4275 Concession 7
Township of Puslinch
County of Wellington

The Study Area lands comprise approximately 32.2 ha (79.6 acres) of which much of the lands are used for agricultural crop production (common field crop). The non-cropped lands included wooded areas that are located in fence rows, a large woodland area to the northeast, and the lands associated with the farmstead along Concession Road 7.

The farmstead area included a bank barn with extension, a residential unit, and a few sheds. No livestock was observed on the property during the onsite soil survey.

The results of the Soil Survey assessment include the following:

- The Study Area is located approximately 350 m south of Highway 401, 2.5 km south of the settlement of Aberfoyle, and 500 m west of the settlement of Morriston.

  The Study Area is roughly bounded: on the west by Concession Road 7, on the north by a rural residential unit, agricultural lands, and woodland areas; on the east by woodland areas; on the south by agricultural lands, woodlands, and rural residential units.

- A large portion of the Study Area lands was used for the production of common field crops.

- The remaining portions of the Study Area lands were comprised of woodlands.

- A few small, ponded areas, and seasonally ponded areas were noted on the Study Area.

- A large woodland area was observed in the eastern extent of the Study Area.

- Stone piles (cobble and boulder size) were noted along portions of the woodlots, fence rows, and along the property boundaries.

- No irrigation equipment or irrigation systems were observed on the Study Area

- There are no registered artificial tile drains associated with this property.

- The Total Site Area comprised approximately 53.4 percent CLI class 1 – 3 soils, with CLI class 2 of approximately 17.1 percent, and CLI class 3 of approximately 36.3 percent.

The remaining mineral soils (CLI class 4 – 7) comprise approximately 45.0 percent of the Study Area. Not rated (disturbed soil areas) comprised approximately 1.6 percent.

- The Preliminary Extraction Area comprised approximately 60.5 percent CLI class 1 – 3 soils, with CLI class 2 of approximately 21.5 percent, and CLI class 3 of approximately 39.0 percent. The remaining mineral soils (CLI class 4 – 7) comprise approximately 39.0 percent of the Study Area. Not rated (disturbed soil areas) comprised approximately 0.5 percent.

- The calculated Soil Productivity Rating for the Total Site Area was 0.55 or a CLI class 4 equivalent.

- The calculated Soil Productivity Rating for the Preliminary Extraction Area was 0.58 or a CLI class 3 equivalent.

5.0 REFERENCES

The following data sources were used to carry out the detailed Soil Survey and CLI assessment for this study:

- 1:10000 scale Ministry of Natural Resources (MNR) Aerial Photography, 1978,
- 1:10000 scale Ontario Base Map (1983) Ministry of Natural Resources:
    - 10 17 5450 47950

  1:50000 scale NTS Map No 40 P/8. 1984. Ministry of Energy Mines and Resources, Canada,
- 1:50000 scale NTS Map No 40 P/8. Canada Land Inventory (CLI) Capability Mapping,
- Agricultural Information Atlas (online resource, Ontario Ministry of Natural Resources),
- *Agronomy Guide for Field Crops (Publication 811). (2017).* Ontario Ministry of Agriculture, Food and Rural Affairs,
- ARDA Report No. 4, *The Assessment of Soil Productivity for Agriculture,*
- *Canadian System of Soil Classification (CSSC) (Agriculture Canada, 1998)* and the *Field Manual for Describing Soils in Ontario (Ontario Centre for Soil Resource Evaluation, 1993)*.
- *Classifying Prime and Marginal Agricultural Soils and Landscapes:* Guidelines for Application of the Canada Land Inventory in Ontario. OMAFA. Online, 2023,
- County of Wellington online mapping, (https://sgis.wellington.ca/Maps/index.html?viewer=WellingtonCountyExternal),
- *Draft Agricultural Impact Assessment (AIA) Guidance Document (March 2018),*
- *Google Earth Pro Imagery,*
- Grand River Conservation Authority (GRCA) website (https://maps.grandriver.ca/web-gis/public/?theme=MYP&bbox=539184,4790579,566563,4805220),
- *Greenbelt Plan* (2022),
- *Growth Plan for the Greater Golden Horseshoe (2020),*
- *Guide to Agricultural Land Use*, Ontario Ministry of Agriculture, Food and Rural Affairs, March 1995,
- *Guidelines for Detailed Soil Surveys for Agricultural Land Use Planning (OMAFA, 2022 online),*
- Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas (Publication 851), Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFA), 2016,
- Online Soils data for the Province of Ontario (Land Information Ontario (LIO), 2023,
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFA) Factsheet – Crop Heat Units for Corn and Other Warm Season Crops in Ontario, 1993,
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFA) AgMaps online mapping, (http://www.gisapplication.lrc.gov.on.ca/AIA/Index.html?viewer=AIA.AIA&locale=en-US),
- Ontario Ministry of Agriculture and Food - Land Use Systems Mapping,
- Ontario Ministry of Agriculture and Food - Artificial Drainage System Mapping,
- *Provincial Policy Statement, 2020,*
- *Soil Mapping System for Canada:* (https://sis.agr.gc.ca/cansis/publications/manuals/1981-smsc/index.html),
- *Soil Survey Handbook:* (https://sis.agr.gc.ca/cansis/publications/manuals/1987-9/index.html),
- *Soil Survey of Wellington County (Report No. 35 of the Ontario Soil Survey, Hoffman, D.W, B.C. Matthews and R.E. Wicklund,1963)*

- *The Physiography of Southern Ontario 3rd Edition, Ontario Geological Survey Special Volume 2, Ministry of Natural Resources, 1984,*
- Windshield and field surveys by DBH Soil Services staff, December 4, 2023.

APPENDIX A

OMAFA ***Guidelines for Detailed Soil Surveys for Agricultural Land Use Planning***

APPENDIX B

Grand River Conservation Authority Contour Mapping

Guidelines for detailed soil surveys in Ontario

Learn about the guidelines for conducting soil surveys for the assessment of agricultural crop capability and suitability. This technical information is for municipalities, landowners and consultants in Ontario.

On this page

Introduction

More detailed, property specific soil surveys are sometimes needed when a land use change (for example, an official plan amendment) is being considered. The *Planning Act, 1990* establishes that decision makers, such as municipalities and the Ontario Land Tribunal, must be consistent with the Provincial Planning Statement. This Statement provides direction on the protection of prime agricultural areas and establishes policy criteria to be considered when non-agricultural uses are being contemplated in Ontario's prime agricultural areas.

It is important to differentiate between prime agricultural areas and prime agricultural land.

Prime agricultural area are areas where prime agricultural lands predominate. This includes areas of prime agricultural lands and associated Canada Land Inventory Class 4 through 7 lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas may be identified by a planning authority based on provincial guidance or informed by mapping obtained from the Ministry of Agriculture, Food and Agribusiness and the Ministry of Rural Affairs.

Prime agricultural land means specialty crop areas and/or Canada Land Inventory Class 1, 2 and 3 lands, as amended from time to time, in this order of priority for protection.

Guidelines

The guidelines provide direction for land resource consultants and their clients undertaking detailed soil surveys for the assessment of agricultural crop capability and suitability. Detailed soil surveys can also be used in precision agriculture, land management decisions and developing an understanding of field and landscape characteristics. For these guidelines, a detailed soil survey is one compiled at a working map scale of 1:10,000 or greater. They are also a set of basic requirements to ensure that planners, landowners and consultants have the necessary detailed agricultural land resource information presented and reported in a standard form to make planning decisions or to advocate for changes to planning decisions.

The need for detailed soil information for some local decisions often arises from concerns with:

- the accuracy of the published soil information mapping, classification and agricultural interpretations
- situations where the published information is too general for decisions about a specific area

Published soil information refers foremost to the Soil Survey Complex database and secondly to the county and municipal soil reports and maps. Electronic copies of the soil survey reports (and maps) for Ontario are available free online from Agriculture and Agri-Food Canada and paper copies can be ordered through Publications Ontario.

Soil survey components

The components of a soil survey are as follows:

1. Complete the soil survey according to generally accepted soil survey procedures and base it on an adequate density and distribution of soil profile and landscape inspections. A general guideline is one ground inspection per 2 cm^2 on the final map (Mapping Systems Working Group, 1981). At a scale of 1:10,000, this is one inspection per 2 hectares. Include inspection locations and data with the soil map and report. The manual, Characterizing sites, soils and substrates in Ontario[1] provides guidelines for classifying soils and the landscapes in which they occur.
2. Correlate soils of the subject area with the soils classified in the published soil survey map and report for that county or municipality.
3. Interpret agricultural capability for common field crops (corn, soybeans, small grains, forages) using soil capability for agriculture in Ontario. Land and soils which are classified as prime agricultural land (CLI classes 1 to 3) have necessary capital improvements in place or it is physically feasible for the landowner/manager/farmer to make the necessary improvements. If it is not feasible to make improvements that would enable mechanized row cropping, the land may be considered as less than prime (CLI class 4 or 5).
4. The question of feasibility often arises about land with wetness limitations for which more drainage improvement is required for productivity to be optimized. Each case must be considered individually. Agricultural drainage system mapping information (constructed drains, tile drainage and/or controlled drainage) for the subject area is a necessary reference to help argue and answer the question of drainage improvement feasibility and is available in the Agricultural Information Atlas.
5. If the subject area lies within or adjacent to a larger area of specialty crop production, then evaluate its soil suitability for specialty crops. Specialty crops refer to fruit, vegetable and other crops grown commercially in Ontario, and which cannot be grouped with the general common field crop types listed above. Specialty crop areas are where specialty crops are predominantly grown such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops and crops from agriculturally developed organic soil (Provincial Planning Statement).

Additional publications and guidelines

More recent soil survey reports (Brant, Elgin, Haldimand-Norfolk, Middlesex, and Niagara) include ratings of soil suitability for some specialty crops. The ratings published in these reports may also guide the interpretation of reasonably correlated soils in adjacent counties whose soil reports contain no such specialty crop interpretations.

The publication, A compilation of soil, water and climatic requirements for selected horticultural crops in

southern Ontario[2] outlines general landscape and moisture needs for more than 40 different tree fruit, small fruit and vegetable crops. It comprises many of the soil principles used to arrive at the soil suitability ratings given in soil survey publications cited in (a).

Irrigation and/or artificial drainage are often necessary, depending on the site and crop. Consider climatic regions as the longer the frost-free period and the greater the heat units available, the greater the range and productivity of crops the land tends to support.

Soils which are interpreted to be prime (Class 1-3) for the common field crop types of corn, soybeans, small grains and forages have viable suitability for a range of specialty crops. This is most true of sandy and loamy soils. Clayey soils are suitable for a lesser range of specialty crops but may be well suited for some crops.

Qualifications

Hire an experienced pedologist for any survey work being done to ensure that all of the components for the detailed soil survey are properly completed.

Contact us

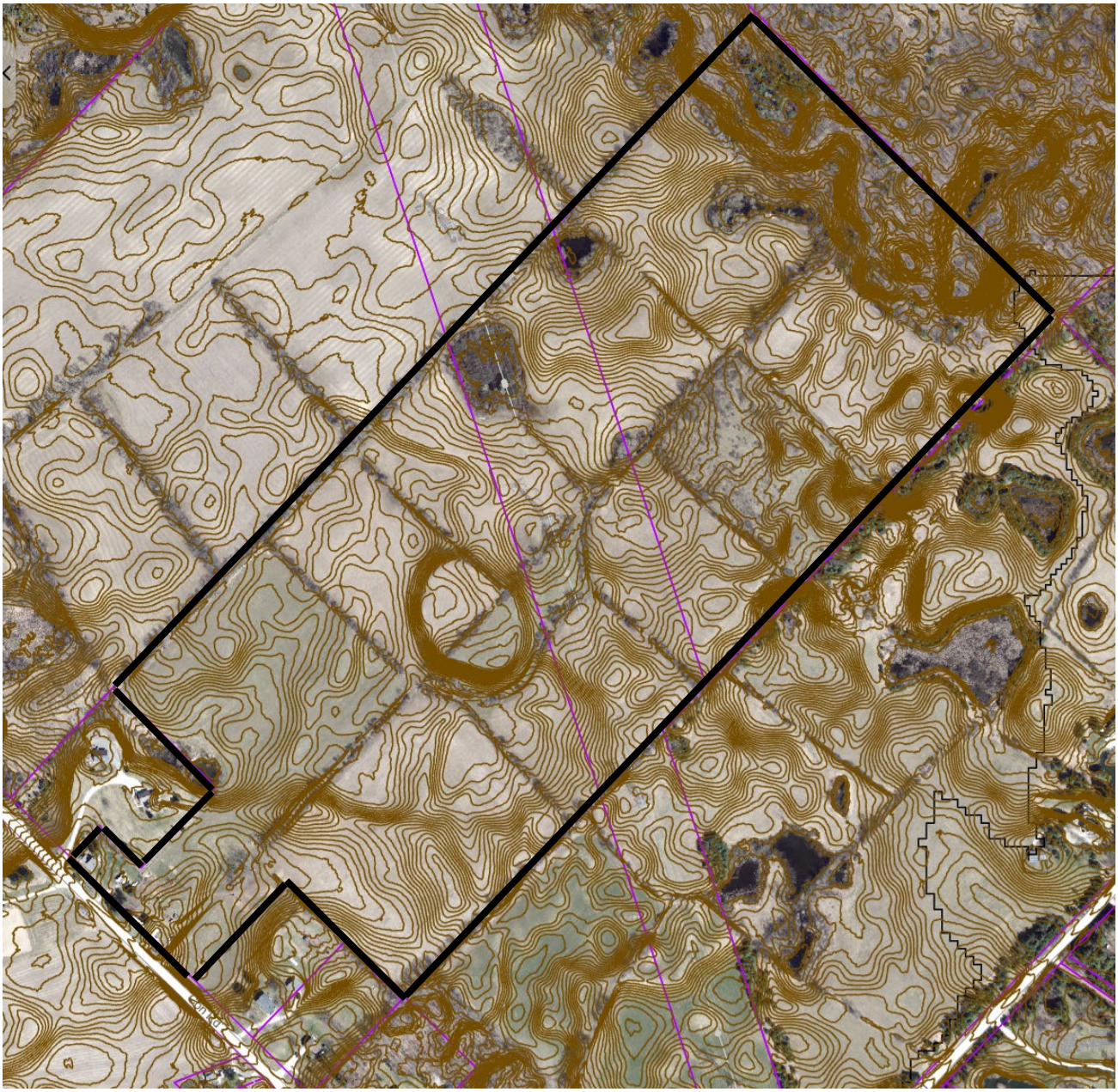
For more information on the Ontario soil survey work:

- call toll-free: 1-877-424-1300
- email: ontariosoilsurvey@ontario.ca

Resources

Soil Classification Working Group. 1998. The Canadian System of Soil Classification; 3rd edition. Agriculture and Agri-Food Canada Publication 1646, 187 pp.

Mapping Systems Working Group. 1981. A Soil Mapping System for Canada: Revised. Land Resource


Carr Rd

APPENDIX C

Soil Inspection Data

Soil Inspection Site Number	Horizon	Depth of Horizon (cm)	Soil Texture	Drainage Class	Soil Series
1	Ap Ae Bt	0 – 22 22 – 26 26 - 45*	L L/SL CL/L	Well	Dumfries Loam
2	Ap Btk	0 – 20 20 - 26*	L L/SL	Well	Dumfries Loam
3	Ap Btk	0 – 24 24 - 34*	L L/SL	Well	Dumfries Loam
4	Ap Ae Bt	0 – 22 22 – 26 26 - 34*	L L CL/L	Well	Dumfries Loam
5	Ap Ae Bt	0 – 25 25 – 30 30 - 40*	L L CL/L	Well	Dumfries Loam
6	Ap Btk	0 – 23 23 - 36*	L L/SL	Well	Dumfries Loam
7	Ap Ae Bt	0 – 23 23 – 30 30 - 41*	L L CL/L	Well	Dumfries Loam
8	Ap Ae Bt	0 – 24 24 – 31 31 - 44*	L L CL/L	Well	Dumfries Loam
9	Ap Btk	0 – 22 22 - 38*	L L/SL	Well	Dumfries Loam
10	Ap Btk	0 – 25 25 - 37*	L L/SL	Well	Dumfries Loam
11	Ap Btk	0 – 24 24 - 42*	L L/SL	Well	Dumfries Loam
12	Ap Btk	0 – 21 21 - 38*	L L/SL	Well	Dumfries Loam
13	Ah Ae Bt	0 – 22 22 – 26 26 - 34*	L L CL/L	Well	Dumfries Loam
14	Ah Ae Bt	0 – 20 20 – 25 25 - 37*	L L CL/L	Well	Dumfries Loam
15	Ah Ae Bt	0 – 21 21 – 29 29 - 44*	L L/SL CL/L	Well	Dumfries Loam
16	Ah Ae Bt	0 – 24 24 – 31 31 - 39*	L L/SL CL/L	Well	Dumfries Loam
17	Ap Ae Bt	0 – 22 22 – 30 30 - 35*	L L CL/L	Well	Dumfries Loam

Soil Inspection Site Number	Horizon	Depth of Horizon (cm)	Soil Texture	Drainage Class	Soil Series
18	Ap Ae Bt	0 – 24 24 – 29 29 - 37*	L L CL/L	Well	Dumfries Loam
19	Apk Btk	0 – 20 20 – 37*	L L/SL	Well	Dumfries Loam
20	Ap Ae Bt	0 – 25 25 – 33 33 - 44*	L L/SL CL/L	Well	Dumfries Loam
21	Ahk Btk	0 – 21 21 – 36*	L L/SL	Well	Dumfries Loam
22	Ahk Btk	0 – 22 22 – 38*	L L/SL	Well	Dumfries Loam
23	Ap Ae Bt	0 – 24 24 – 31 31 - 38*	L L CL/L	Well	Dumfries Loam
24	Ah Ae Bt	0 – 18 18 – 23 23 - 35*	L L CL/L	Well	Dumfries Loam
25	Ah Ae Bt	0 – 22 22 – 27 27 - 34*	L L CL/L	Well	Dumfries Loam
26	Ah Ae Bt	0 – 19 19 – 25 25 - 37*	L L CL/L	Well	Dumfries Loam
27	Ap Ae Btk	0 – 20 20 – 26 26 - 38*	L L/SL CL/L	Well	Dumfries Loam
28	Ap Ae Bt	0 – 22 22 – 28 28 - 34*	L L CL/L	Well	Dumfries Loam
29	Ap Ae Btk	0 – 21 21 – 30 30 - 36*	L L CL/L	Well	Dumfries Loam
30	Ap Ae Bt	0 – 23 23 – 29 29 - 40*	L L CL/L	Well	Dumfries Loam
31	Ap Ae Bt	0 – 22 22 – 27 27 - 38*	L L CL/L	Well	Dumfries Loam
32	Ap Ae Bt	0 – 24 24 – 30 30 - 39*	L L CL/L	Well	Dumfries Loam
33	Ah Btgj Bg	0 – 25 25 – 36 36 - 45*	L L CL/L	Poor	Lily Loam

Soil Inspection Site Number	Horizon	Depth of Horizon (cm)	Soil Texture	Drainage Class	Soil Series
34	Ap Ae Bt	0 – 21 21 – 28 28 - 41*	L L CL/L	Well	Dumfries Loam
35	Ap Ae Bt	0 – 22 22 – 28 28 - 40*	L L CL/L	Well	Dumfries Loam
36	Ap Ae Bt	0 – 24 24 – 30 30 - 40*	L L CL/L	Well	Dumfries Loam
37	Ap Ae Bt	0 – 21 21 – 27 27 - 39*	L L CL/L	Well	Dumfries Loam
38	Ap Ae Bt	0 – 22 22 – 27 27 - 34*	L L CL/L	Well	Dumfries Loam
39	Ap Ae Bt	0 – 25 25 – 32 32 - 40*	L L CL/L	Well	Dumfries Loam
40	Ap Ae Bt	0 – 22 22 – 30 30 - 35*	L L CL/L	Well	Dumfries Loam
41	Ap Ae Btk	0 – 23 23 – 34 34 - 44*	L L CL/L	Well	Dumfries Loam
42	Ap Ae Btk	0 – 21 21 – 26 26 - 41*	L L CL/L	Well	Dumfries Loam
43	Apk Btk	0 – 21 21 - 38*	L L/CL	Well	Dumfries Loam
44	Ap Ae Bt	0 – 24 24 – 29 29 - 37*	L L CL/L	Well	Dumfries Loam
45	Ap Ae Bt	0 – 22 22 – 30 30 - 42*	L L CL/L	Well	Dumfries Loam
46	Ap Ae Bt	0 – 24 24 – 32 32 - 42*	L L CL/L	Well	Dumfries Loam
47	Ap Ae Bt	0 – 26 26 – 36 36 - 41*	L L CL/L	Well	Dumfries Loam
48	Ap Ae Bt	0 – 20 20 – 27 27 - 35*	L L CL/L	Well	Dumfries Loam

Soil Inspection Site Number	Horizon	Depth of Horizon (cm)	Soil Texture	Drainage Class	Soil Series
49	Ap Ae Bt	0 – 24 24 – 31 31 - 42*	L L CL/L	Well	Dumfries Loam
50	Ap Ae Bt	0 – 22 22 – 29 29 - 46*	L L CL/L	Well	Dumfries Loam

Notes: L = Loam; SL = Sandy Loam, LS = Loamy Sand, fSL = fine Sandy Loam, fS = fine Sand, S = Sand; gSL = gravelly Sandy Loam; vgSL = very gravelly Sandy Loam, SiL = Silt Loam, gSCL = gravelly Sandy Clay Loam.

A horizon = topsoil. B horizon = subsoil. C horizon = parent material.

* = refusal (stone, tree root, etc).

APPENDIX D

Curriculum Vitae

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DAVID B. HODGSON, B.Sc., P. Ag.
PRESIDENT – Senior Pedologist/Agrologist

EDUCATION

- B.Sc. (Agriculture), 1983-1987; University of Guelph, Major in Soil Science
- Agricultural Engineering, 1982-1983; University of Guelph.
- Materials Science Technology, 1981-1982; Northern Alberta Institute of Technology (NAIT), Edmonton, Alberta.

AREAS OF PROFESSIONAL EXPERIENCE

2000 to Present — **Senior Pedologist/President. DBH Soil Services Inc., Kitchener, Ontario.**
Mr. Hodgson provides expertise in the investigation, assessment and resource evaluation of agricultural operations/facilities and soil materials. Dave is directly responsible for the field and office operations of DBH Soil Services and for providing advanced problem-solving skills as required on an individual client/project basis. Dave is skilled at assessing soil and agricultural resources, determining potential impacts and is responsible for providing the analysis of and recommendations for the remediation of impacts to soil/agricultural/environmental systems in both rural and urban environments.

1992 to 2000 — **Pedologist/Project Scientist. Ecologistics Limited, Waterloo, Ontario.**
As pedologist (soil scientist), Mr. Hodgson provided expertise in the morphological, chemical and physical characterization of insitu soils. As such, Mr. Hodgson was involved in a variety of environmental assessment, waste management, agricultural research and site/route selection studies.
Dave was directly responsible for compiling, analysis and management of the environmental resource information. Dave is skilled at evaluating the resource information utilizing Geographic Information System (GIS) applications.

Dave was also involved in the firm's Environmental Audit and Remediation Division in the capacity of: asbestos identification; an inspector for the remediation of a pesticide contaminated site; and an investigator for Phase I and Phase II Audits.

SELECT PROJECT EXPERIENCE

Municipal Comprehensive Review and Mapping Studies (MCR)

- Town of New Tecumseth Municipal AIA and MDS1 review, 2024 - 2025
- Bruce County Official Plan Review, Agriculture, 2022 – 2023.
- Simcoe County Official Plan Review, Agriculture, 2020 - ongoing.
- City of Vaughan Official Plan Review, Agriculture, 2020 - 2021
- Northumberland County, Agriculture, 2020 - ongoing.
- Halton Region, PSA Mapping, Agriculture, 2022
- Halton Region Official Plan Review, Agriculture, 2019 - 2022.

Environmental Assessment Studies

- Agricultural Component of the Highway 401 Widening Milton to Wellington County Boundary, 2023 – ongoing.
- Agricultural Component of the Highway 6 Widening Hamilton 2022 – 2024.
- Agricultural Component of the Bradford Bypass (Highway 400 to 404 link) 2021 – 2024.
- Agricultural Component of the Green for Life (GFL) Environmental, Moose Creek, Eastern Ontario Waste

Handling Facility (EOWHF) Expansion, 2020 – 2023.
- Agricultural Component of the Greater Toronto Area West (GTAW) Highway 413 Corridor Assessment, 2019 – ongoing.
- Peer Review of the Walker Environmental Group (WEG) Inc. Southwestern Landfill Proposal, Ingersoll, 2013 – 2021.
- Agricultural Component for the High-Speed Rail Kitchener to London –Terms of Reference, 2018,
- Agricultural Component of the Mount Nemo Heritage District Conservation Study – City of Burlington, 2014 – 2015.
- Agricultural Component of the Greater Toronto Area West (GTAW) Highway Corridor Assessment – Phase 2, 2014 – 2016.
- Peer Review of the Agricultural Component of the Walker Group Landfill – Ingersoll, 2013 – 2015.
- Agricultural Component of the Highway 407 East Extension Design and Build Phase, 2012 – 2013.
- Agricultural Component of the Beechwood Road Environmental Centre (Landfill/Recycling) – Napanee, 2012 – 2013.
- Agricultural Component of the Clean Harbors Hazardous Waste Landfill Lambton County 2009 – 2015.
- Agricultural Component of the Highway 401 widening Cambridge to Halton Region 2009 – 2012.
- Agricultural Component of the Upper York Sanitary Sewer Study, York Region, 2009 – 2013.
- Agricultural Component of the Greater Toronto Area West Corridor Environmental Assessment Study 2007 – 2013 (Phase 1).
- Agricultural Component of the Niagara to GTA Planning and Environmental Assessment Study, 2007 – 2013.
- Agricultural Component of the Highway 401 widening, Chatham, 2006 - 2007.
- Agricultural Component of the Trafalgar Road study, Halton Region, 2005.
- Agricultural Component of the Highway 404 Extension North, 2004.
- Agricultural Component of the Highway 404 – 400 Bradford Bypass, 2004.
- Agricultural Component of the Highway 407 East Extension, 2002 – 2010.

Agricultural Impact Assessment (AIA)/Minimum Distance Separation Studies
- Scotts Canada, Talbot Road AIA, 2025.
- Eden Mills Settlement Area Boundary Expansion AIA, 2025.
- Tremble Pit Grey County AIA, 2025.
- Cedar Flats Wind Project AIA, 2025.
- Bower Hill Wind Project AIA, 2025.
- Temiskaming Shores Wind Project AIA, 2025.
- Atura Power Gas Generating Stations (four) AIA's, 2025.
- Agerton AIA Update, 2025.
- Dorchester Settlement Area Boundary Expansion AIA, 2025.
- Beatty Line Settlement Area Boundary Expansion AIA, 2025.
- Cambridge South AIA, (including MDS1), 2024.
- AECOM Peel Sewer AIA, 2024.
- Port Hope North Settlement Area Boundary Expansion AIA, (including MDS1) 2024
- Fergus Oaks, Fergus Settlement Area Boundary Expansion AIA (including MDS1), 2024.
- Jordan Settlement Area Boundary Expansion AIA (including MDS1), 2024.
- Town of New Tecumseth AIA Assistance, 2024
- Whistle Bare Road, North Dumfries Minimum Distance Separation (MDS1 Assessment), 2024.
- Balsam Road, Pickering Minimum Distances Separation (MDS1) Assessment, 2024.
- Port Hope West Urban Boundary Expansion Scoped AIA (including MDS1), 2023.
- Port Hope East Urban Boundary Expansion Scoped AIA (including MDS1), 2023.
- Town of King Battery Energy Storage System (BESS) AIA, 2023.
- City of London Emergency Services AIA (including MDS1), 2023.
- Caledonia Secondary Plan Scoped AIA (including MDS), 2023.
- Inglewood Municipal Well AIA, 2023.

- Orangeville Battery Energy Storage System (BESS) AIA, 2023.
- County Road 109 Realignment AIA, 2023.
- Thornbury Acres AIA (including MDS1), 2022 – 2023.
- Highway 6 Widening Hamilton AIA, 2022 – 2024.
- Whistle Bare Aggregate Pit AIA, 2022.
- Middletown Road Vacuum Truck Services AIA (including MDS1), 2022.
- Claremont, Durham Region Minimum Distance Separation (MDS1), 2022.
- Grand Valley Settlement Area Boundary Expansion 2022 - 2024.
- Hagersville Minimum Distance Separation (MDS1), 2022.
- East River Road Minimum Distance Separation (MDS1), County of Brant, 2022.
- Brampton Brick Norval Quarry AIA, 2022 – 2024.
- Northfield Drive Minimum Distance Separation (MDS1), Waterloo Region, 2021
- Bradford Bypass Highway 400- 404 Link AIA, 2021 – 2024.
- Wilfrid Laurier Milton Campus AIA (including MDS1), 2021 – 2023.
- Town of Lincoln Road Realignment AIA, 2021 – 2023.
- Britannia Secondary Plan, AIA (including MDS1), Milton, 2021 – 2023.
- Reesor Road Minimum Distance Separation (MDS1), Markham, 2021.
- Maclean School Road Minimum Distance Separation (MDS1), County of Brant, 2021.
- Petersburgh Sand Pit AIA, 2021 – 2022.
- Milton CRH Quarry Expansion AIA, 2020 – 2022.
- Grimsby, Specialty Crop Area Redesignation AIA, 2020 - 2022.
- Halton Hills, Premier Gateway Phase 2 Employment Lands Secondary Plan, AIA (including MDS1), 2020 - 2021.
- Milton Education Village Secondary Plan AIA (including MDS1), 2020 - 2021.
- Woodstock, Pattullo Avenue Realignment AIA, 2020 - 2021.
- Smithville, West Lincoln Master Community Plan AIA (including MDS1), AECOM, 2019 – 2022.
- Kirby Road AIA, HDR, Vaughan, 2019 – 2021.
- Elfrida Lands, City of Hamilton, AIA Update, WSP, 2019 – 2021.
- Dorsay Development – Durham Region High Level Agricultural Assessment, 2019.
- Stoney Creek Landfill AIA Update – GHD, 2019.
- Town of Wilmot, Aggregate Pit Study (Hallman Pit) AIA, 2018 - 2019.
- Courtice Area Southeast Secondary Plan (Clarington) AIA (including MDS1), 2019,
- Town of Halton Hills, Minimum Distance Separation (MDS 1), August 2018,
- Cedar Creek Pit/Alps Pit (North Dumfries) AIA, 2018 – 2021,
- Belle Aire Road (Simcoe County) AIA (including MDS1), 2019,
- Vinemount Quarry Extension (Niagara) AIA, December 2017.
- Grimsby – AIA Opinion, November 2017.
- City of Hamilton, Urban Core Developments – Agricultural Capability Assessment, February 2017.
- Township of North Dumfries – Minimum Distance Separation (MDS 1), February 2017.
- Township of Erin, County of Wellington – Minimum Distance Separation 1(MDS1 Study), 2016.
- Halton Hills Employment Area Secondary Plan, Halton, 2015 - 2016.
- Peer Review of AIA, Oro-Medonte Township, 2015.
- Greenwood Construction Aggregate Pit AIA, Mono Township, 2014 - 2015.
- Innisfil Mapleview Developments, Town of Innisfil – Minimum Distance Separation (MDS 1), 2014.
- Loyalist Township – Minimum Distance Separation (MDS 1 & 2), 2014.
- Rivera Fine Homes, Caledon – Minimum Distance Separation (MDS 1), 2014.
- Town of Milton PanAm Velodrome – Minimum Distance Separation (MDS) 2012 – 2013.

Soil Surveys/Soil Evaluations

- Soil Assessment and Sampling, Trussler Road Kitchener, 2024.
- Soil Survey and Canada Land Inventory Evaluation, Mount Hope, 2024.

- Soil Survey and Canada Land Inventory Evaluation, Peterborough, 2024.
- Soil Survey and Canada Land Inventory Evaluation, Essex, 2024.
- Mississippi Mills Soil Survey Peer Reviews (4 parcels), 2024.
- Ontario Stone, Sand & Gravel Association Case Study Rehabilitated Pits, 2023 – ongoing.
- Soil Survey and Canada Land Inventory Evaluation, Neubauer Pit, 2023.
- Soil Survey and Canada Land Inventory Evaluation, David Pit, 2023.
- Soil Survey and Canada Land Inventory Evaluation, Pinehurst Road, 2023.
- Soil Survey and Canada Land Inventory Evaluation, Paris Plains Church Road Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, Mulmur Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, Port Colborne Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, Pike Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, New Dundee Road Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, Gehl Farm, 2022
- Soil Sampling, City of Kitchener, 2021 – 2022.
- Soybean Cyst Nematode Soil Sampling, Enbridge, 2021.
- Soil Survey and Canada Land Inventory Evaluation, Max Becker Enterprises, City of Kitchener, 2021
- Soil Survey and Canada Land Inventory Evaluation, Max Beck Enterprises, City of Kitchener, 2021 – 2022.
- Soil Survey and Canada Land Inventory Evaluation, Burlington, Nelson Quarry, 2020-2021.
- City of Kitchener, City Wide Soil Studies, 2020-ongoing.
- Soil Survey, Fallowfield Drive, City of Kitchener Development Manual Study, 2020 - ongoing.
- Soil Survey, Williamsburg Estates, City of Kitchener Development Manual Study, 2020 - 2021.
- Soil Survey, South Estates, City of Kitchener Development Manual Study, 2020 - 2021.
- Soil Survey and Canada Land Inventory Evaluation, Burlington, Nelson Quarry, 2019.
- Soil Survey and Canada Land Inventory Evaluation, Maryhill Pit, 2019.
- Soil Survey and Canada Land Inventory Evaluation, Glen Morris Pit, Lafarge Canada, 2018,
- Soil Survey and Canada Land Inventory Evaluation, Brantford Pit Extension, Lafarge Canada, 2018,
- Soil Survey and Canada Land Inventory Evaluation, Pinkney Pit Extension, Lafarge Canada, May 2018,
- Soil evaluation and opinion, King-Vaughan Road, March 2018,

Land Evaluation and Area Review Studies (LEAR)

- Land Evaluation and Area Review (LEAR) presentation for Lanark County Council, 2024.
- Land Evaluation and Area Review (LEAR) Town of Amaranth, 2023 – ongoing.
- Mapping Audit Bruce County. Assessment of Prime and Non-Prime Agricultural Lands, 2022.
- Mapping Audit Northumberland County. Comparison of Regional and Provincial Prime Agricultural Area Mapping – 2021 - ongoing.
- Mapping Audit Simcoe County. Comparison of Regional and Provincial Prime Agricultural Area Mapping – 2021 - ongoing.
- Mapping Audit Halton Region. Comparison of Regional and Provincial Prime Agricultural Area Mapping – 2019 - 2022.
- Land Evaluation and Area Review (LEAR) – Soils Component, in Association with AgPlan Ltd, Kanata/Munster. December 2017 – July 2018.
- Land Evaluation and Area Review (LEAR) – Soils Component, Prince Edward County, 2016 – 2017.
- Land Evaluation and Area Review (LEAR) – Soils Component, Peel Region, 2013 - 2014.
- Land Evaluation and Area Review (LEAR), Minto Communities, Ottawa, 2012 – 2013.
- GIS and LE component of Land Evaluation and Area Review (LEAR), York Region 2008 – 2009.
- Land Evaluation and Area Review (LEAR), Mattamy Homes, City of Ottawa – Orleans, 2008 – 2009.
- GIS for Manitoba Environmental Goods and Services (EG&S) Study. 2007 – 2008.
- GIS and LE component of Land Evaluation and Area Review (LEAR), Halton Region 2007 - 2008.
- GIS and LE component of Land Evaluation and Area Review (LEAR), City of Hamilton, 2003 – 2005.

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Expert Witness

- Ontario Land Tribunal (OLT) Hearing/mediation, Thornbury Estates, 2025.
- Ontario Land Tribunal (OLT) Hearing, Haldimand County, 2024.
- Ontario Land Tribunal (OLT) Hearing preparation, Burlington Quarry, 2024.
- Ontario Land Tribunal (OLT) Hearing preparation, Cemetery Lands Bradford, 2024.
- Local Planning Appeal Tribunal (LPAT) Hearing, Greenwood Aggregates Limited, Violet Hill Pit Application, 2020.
- Ontario Municipal Board (OMB) Hearing, Burl's Creek Event Grounds 2018-2019.
- Town of Mono Council Meeting, Greenwood Aggregates Violet Hill Pit, January 2018.
- Ontario Municipal Board (OMB) Hearing, Burl's Creek Event Grounds, Simcoe County, 2015 – 2016.
- Ontario Municipal Board (OMB) Hearing, Town of Woolwich, Gravel Pit, 2012 – 2013.
- Ontario Municipal Board (OMB) Hearing, Mattamy Homes – City of Ottawa, 2011 – 2012.
- Ontario Municipal Board (OMB) Hearing, Town of Colgan, Simcoe County, 2010.
- Presentation to Planning Staff on behalf of Mr. MacLaren, City of Ottawa, 2005.
- Ontario Municipal Board (OMB) Hearing, Flamborough Severance, 2002.
- Preparation for an Ontario Municipal Board Hearing, Flamborough Golf Course, 2001.
- Ontario Municipal Board (OMB) Hearing, Stratford RV Resort and Campground – Wetland Delineation Assessment, 2000.
- Ontario Municipal Board (OMB) Hearing, Watcha Farms, Grey County, Agricultural Impact Assessment – Land Use Zoning Change, 1999-2000.
- Ontario Municipal Board (OMB) Hearing, Town of St. Vincent Agricultural Impact Assessment – Land Use Zoning Change, 1999 – 2000.
- Halton Agricultural Advisory Committee (HAAC), Halton Joint Venture Golf Course Proposal - Agricultural Impact Assessment for Zoning Change, 1999-2000
- Halton Agricultural Advisory Committee (HAAC), Sixteen Mile Creek Golf Course Proposal – Agricultural Impact Assessment for Zoning Change, 1999.
- Ontario Municipal Board (OMB) Hearing, Town of Flamborough, Environs Agricultural Impact Assessment for Zoning Change – Golf Course Proposal, 1999.
- Ontario Municipal Board (OMB) Hearing, Stratford RV Resort and Campground – Agricultural Impact Assessment, 1998.

Monitoring Studies

- Ontario Stone, Sand, and Gravel Association (OSSGA) Rehabilitation Study, 2023 – ongoing.
- Enbridge Soil Sampling for Soybean Cyst Nematode, various sites Lambton County, 2022
- Union Gas/Enbridge Gas 20" Gas Pipeline Construction Monitoring – Kingsville – 2019 - 2020.
- Union Gas/Enbridge Gas – Gas Pipeline Construction Monitoring for Tree Clearing. Kingsville Project. February/March 2019.
- CAEPLA – Union Gas 36" Gas Pipeline Construction Monitoring and Post Construction Clean Up – Agricultural Monitoring Panhandle Project. 2017 – 2018.
- CAEPLA – Union Gas 36" Gas Pipeline Construction Clearing Panhandle Project (Dawn Station to Dover Station) – Agricultural Monitoring, 2017 (Feb-March).
- City of Kitchener, Soil Sampling and data set analysis, 2017 – On-going.
- GAPLO – Union Gas 48" Gas Pipeline (Hamilton Station to Milton) Construction Soil and Agricultural Monitoring, 2016 – 2017.
- GAPLO – Union Gas 48" Gas Pipeline (Hamilton –Milton) Clearing – Agricultural Monitoring, 2016.

Publications

D.E. Stephenson and D.B. Hodgson, 1996. Root Zone Moisture Gradients Adjacent to a Cedar Swamp in Southern Ontario. In Malamoottil, G., B.G. Warner and E.A. McBean., *Wetlands Environmental Gradients, Boundaries, and Buffers*, Wetlands Research Centre, University of Waterloo. Pp. 298.

B

Appendix B: Draft Wellington County Official Plan Amendment and Schedule

AMENDMENT NUMBER ___

TO THE OFFICIAL PLAN FOR THE

COUNTY OF WELLINGTON

Applicant: CBM Aggregates, a Division of St. Marys Cement Inc. (Canada)
Proposed Safarik Pit
Part of Lot 29, Concession 7
Township of Puslinch

County File No. OP-2025-XXX

AMENDMENT NUMBER ___
TO THE
COUNTY OF WELLINGTON OFFICIAL PLAN

INDEX

PART A – THE PREAMBLE

PURPOSE

The purpose of this proposed amendment is to:

1. Amend Schedule B7 of the Official Plan (the land use schedule for the Township of Puslinch) to allow for an aggregate extraction operation by adding the Mineral Aggregate Area Overlay to the subject lands.
2. Amend Schedule D of the Official Plan (Mineral Aggregate Resource Overlay) to add the subject lands to the Sand and Gravel Resources of Primary and Secondary Significance Boundary.

These amendments represent map changes only.

LOCATION

The subject lands are located at 4275 Concession Road 7, legally described as Part of Lot 29, Concession 7 in the Township of Puslinch.

In conjunction with a licence application under the Aggregate Resources Act, this application proposed to licence 27.6 ha (68.2 acres) of land of which 21.3 ha (52.6 acres) are proposed for extraction.

BASIS

The County Official Plan provides for the establishment of a new aggregate extraction operation subject to consideration of the potential impacts of such land uses on the natural environment, surrounding land uses, and the agricultural operations.

The proposed extraction area contains approximately 5 million tonnes of high-quality sand and gravel resources. Resources will be extracted both above and below the water table.

The maximum annual tonnage limit is proposed to be 1,000,000 tonnes. There will be no aggregate processing on the subject lands as extracted resources will be transported by truck north to the McNally Pit operation for processing and shipment. The existing haul route and main entrance, of the McNally Pit, onto Concession Road 7 will remain the same.

The subject lands are within the Secondary Agricultural, Core Greenlands and Greenlands designation of the County of Wellington Official Plan. The features related to the Core Greenlands designations of the site are identified as unevaluated wetlands which are located outside of the extraction area. The Greenlands designation is related

to a hedgerow that has been identified as a non-significant woodland through field verification.

New mineral aggregate operations shall only be established through amendment to Mineral Aggregate Area shown on Schedule 'B' of the Official Plan. To permit a new extraction operation, an Official Plan Amendment is required to include the proposed pit lands within the Mineral Aggregate Area.

The Mineral Aggregate Resource Overlay on Schedule 'D' of the Official Plan generally identifies areas of high potential for mineral aggregate extraction. These lands have been identified based on geological information in the Ministry of Energy and Mines Aggregate Resources Inventory Paper (ARIP No. 162) or are areas licenced for a pit or quarry. The amendment also includes a map change to include the proposed licence area within the Schedule D overlay (approximately 27.6 ha / 68.2 ac).

OTHER APPROVALS

An application for a Class A licence under the Aggregate Resources Act has been submitted to the Ministry of Natural Resources. An application for a Zoning By-law Amendment to permit the pit has also been submitted to the Township of Puslinch.

SUPPORTING INFORMATION

In support of the proposed amendment to the Official Plan, CBM Aggregates has prepared a hydrogeological assessment, archaeological assessment, cultural heritage assessment, heritage impact assessment, natural environment assessment, traffic impact study, noise assessment, dust best management practices plan and planning justification report.

PART B – THE AMENDMENT

All of this part of the document entitled **Part B – The Amendment**, consisting of the following text and maps constitute Amendment No.___ to the County of Wellington Official Plan.

DETAILS OF THE AMENDMENT

The Official Plan of the County of Wellington is hereby amended as follows:

1. **THAT** Schedule B7 (Puslinch) be amended by changing the designation on portions of Part of Lot 29, Concession 7, in the Township of Puslinch by adding the Mineral Aggregate Area to the subject lands as illustrated on the attached Schedule "A" of this Amendment.
2. **THAT** Schedule D (Mineral Aggregate Resource Overlay) be amended by adding Mineral Aggregate Resource Overlay on Part of Lot 29, Concession 7, in the Township of Puslinch by revising the Sand and Gravel Resources of Primary and Secondary Significance Boundary as it relates to the subject lands as illustrated on the attached Schedule "B" of this Amendment.

AMENDMENT NUMBER ___
TO THE
COUNTY OF WELLINGTON OFFICIAL PLAN

Schedule "A"

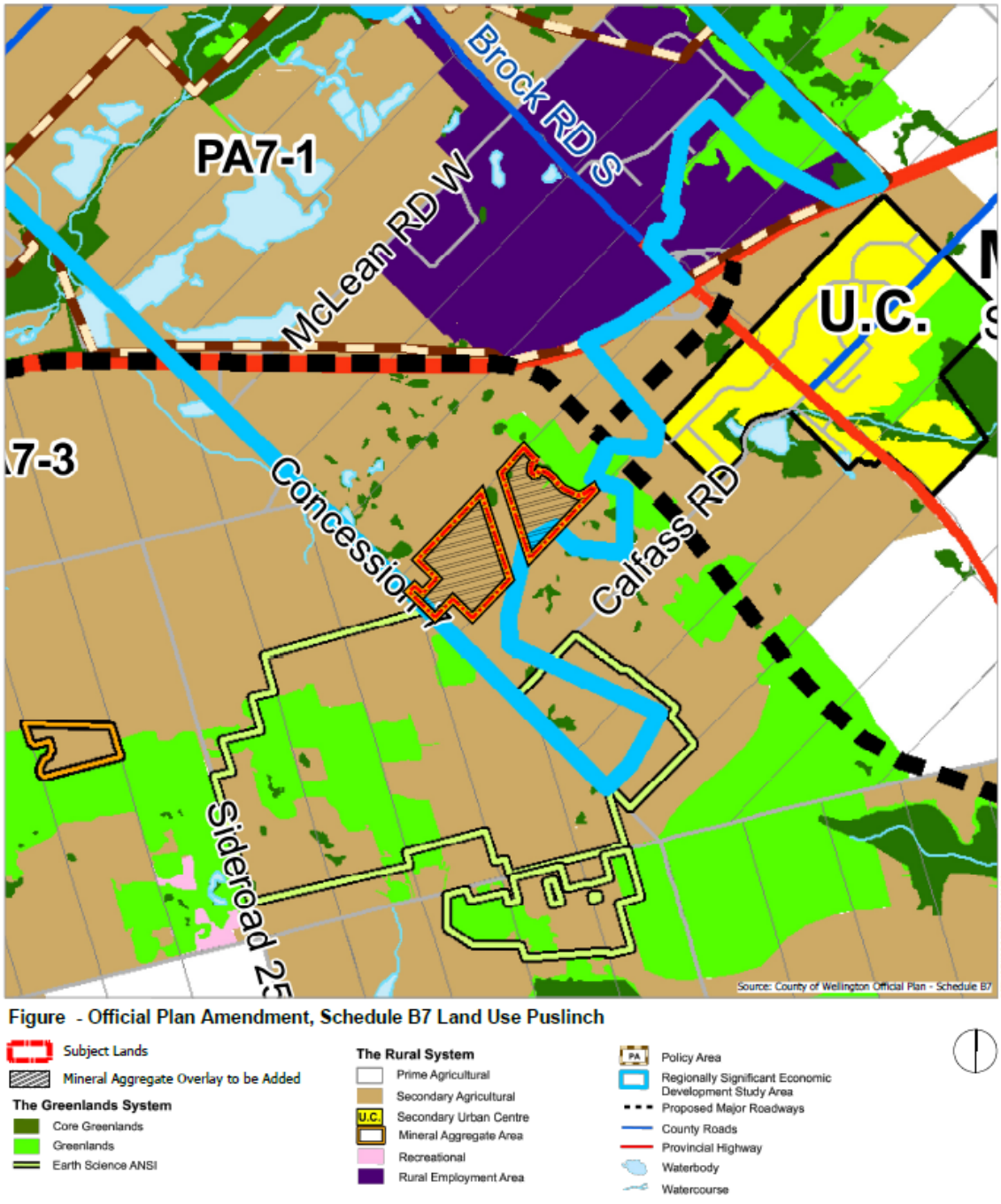

Figure - Official Plan Amendment, Schedule B7 Land Use Puslinch

Amendment to Schedule B7 (Puslinch)

AMENDMENT NUMBER ___
TO THE
COUNTY OF WELLINGTON OFFICIAL PLAN

Schedule "B"

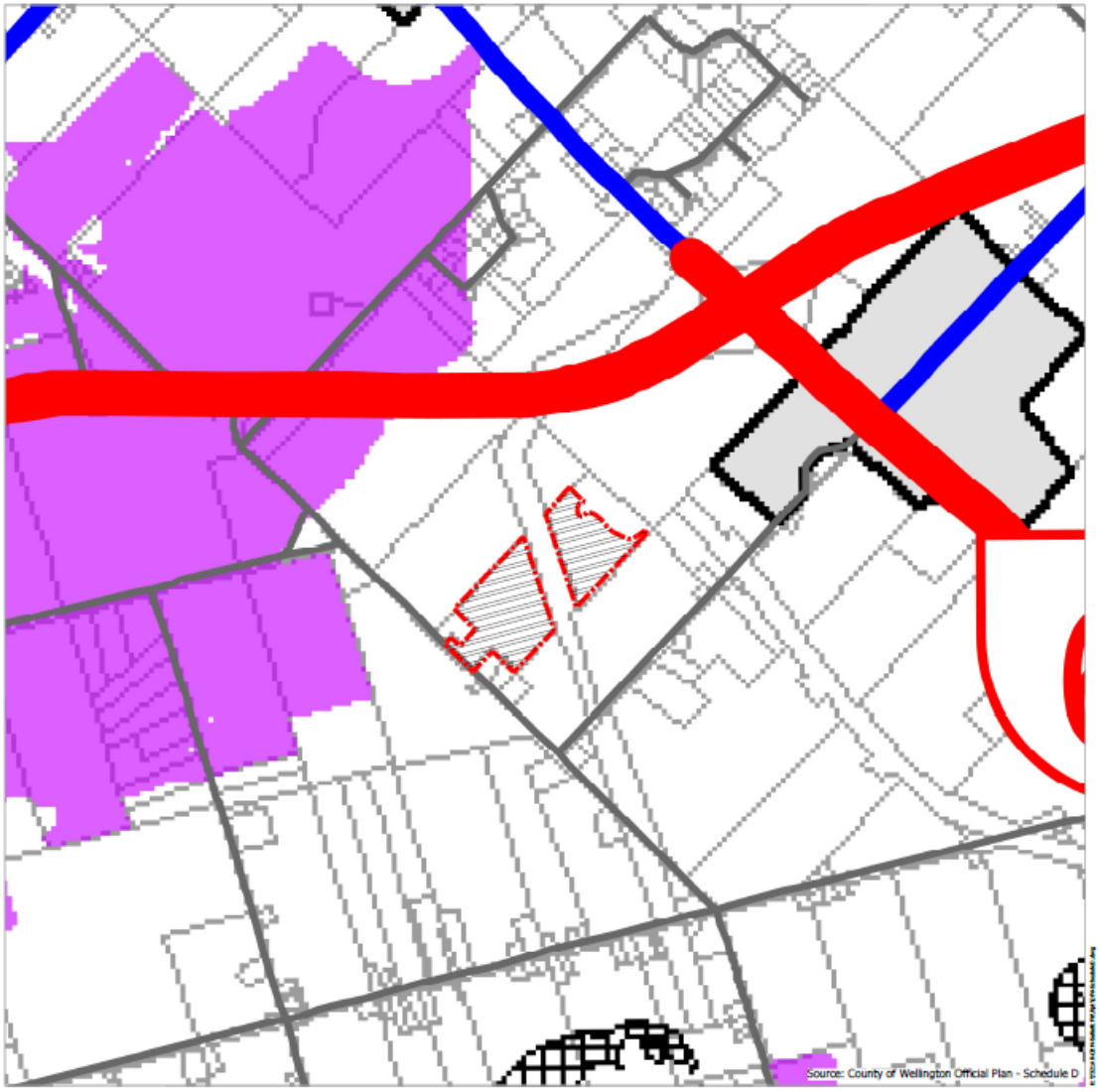

Figure - Official Plan Amendment, Schedule D Mineral Aggregate Resource Overlay

Subject Lands
Sand and Gravel Resources of Primary and Secondary Significance
Selected Bedrock Resource Areas
Area to be added to the Sand and Gravel Resources of Primary and Secondary Significance

Amendment to Schedule D

C

Appendix C: Draft Puslinch Zoning By-law Amendment and Schedule

THE CORPORATION OF THE TOWNSHIP OF PUSLINCH

BY-LAW NUMBER 2025-###

A BY-LAW TO AMEND BY-LAW NUMBER 023/18, AS AMENDED, BEING THE ZONING BY-LAW OF THE TOWNSHIP OF PUSLINCH

WHEREAS, the Council of the Corporation of the Township of Puslinch deem it appropriate and in the public interest to amend By-Law Number 023/18 pursuant to Section 34 of the Planning Act, R.S.O. 1990 as amended;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF PUSLINCH ENACTS AS FOLLOWS:

1. THAT Schedule "A" of the By-law 023/18 is hereby amended by Part of Lot 29, Concession 7 within the Township of Puslinch, 4275 Concession Road 7, from Agricultural (A) Zone to the Extractive Industrial (EX) Zone as shown on Schedule "A" of this By-law.
2. THAT Schedule "A" of the By-law 023/18 is hereby amended by Part of Lot 29, Concession 7 within the Township of Puslinch, 4275 Concession Road 7, to remove the Environmental Protection (EP) Overlay as shown on Schedule "A" of this By-law.
3. If By-law Number 023/18 has come into full force and effect as it relates to the above-noted lands, this By-law shall become effective from the date of passage by Council and come into force in accordance with the requirements of the Planning Act, R.S.O. 1990 as amended.

READ A FIRST AND SECOND TIME THIS_____OF_____, 2025.

_____ _____

MAYOR CLERK

READ A THIRD TIME AND PASSED THIS_____OF_____, 2025.

_____ _____

MAYOR CLERK

THE CORPORATION OF THE TOWNSHIP OF PUSLINCH

BY-LAW NUMBER 2025-###

Schedule "A"

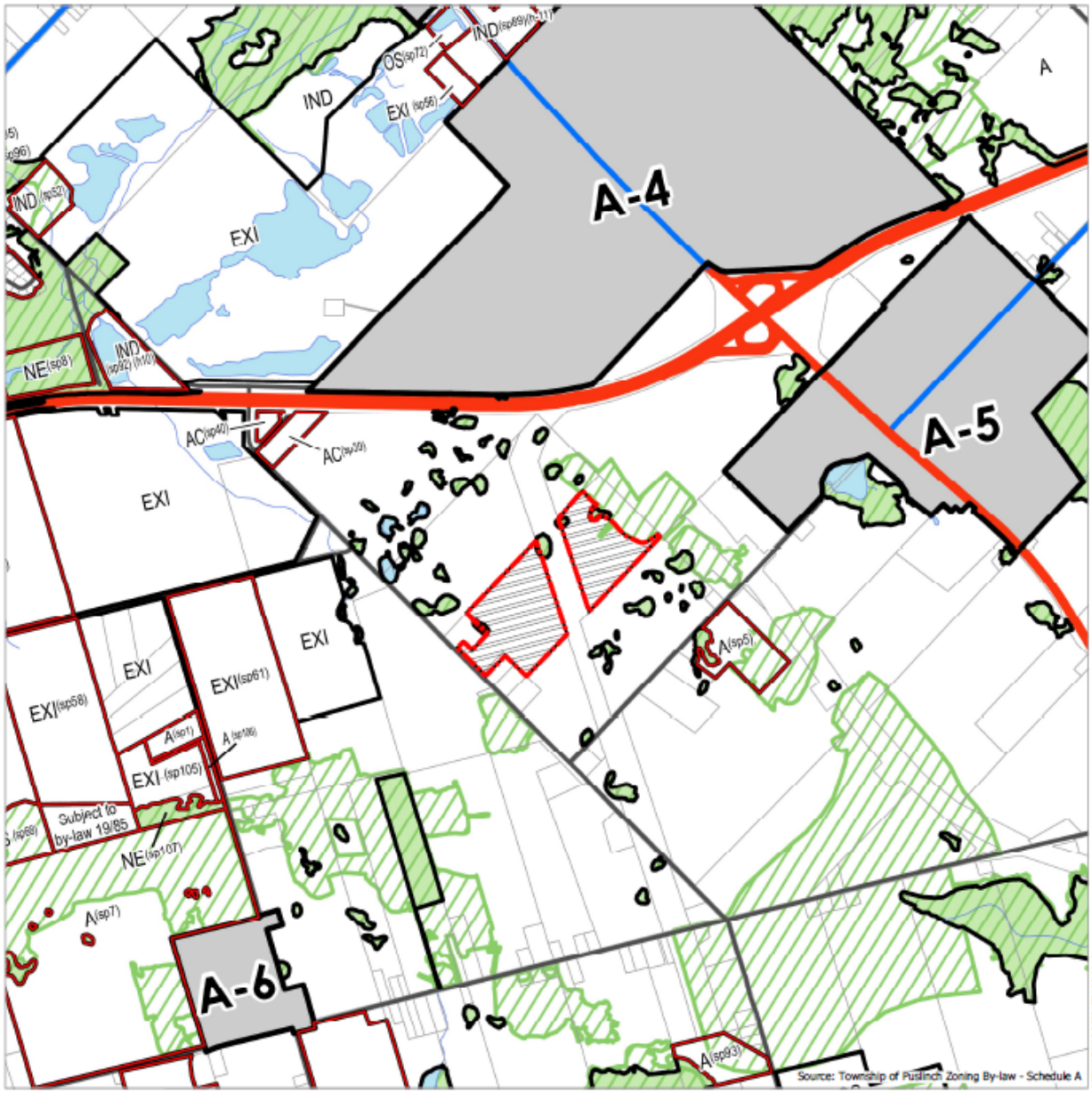

Figure - Zoning By-law Amendment, Schedule A

Subject Lands

Area to be rezoned from Agricultural (A) to Extractive Industrial (EXI) Zone

- Site Specific Exemption
- Zoning Limits
- Environmental Protection
- Natural Environment

Zone Descriptions

A	Agricultural
AC	Agricultural Commercial
EXI	Extractive Industrial
IND	Industrial
NE	Natural Environment
OS	Open Space

This is Schedule "A" to By-law No. 2025-###

Passed this_____of_____, 2025.

_____

MAYOR

_____

CLERK

D

Appendix D: Curriculum Vitae of Report Authors

Education

University of Waterloo
Bachelor of Environmental Studies
Honours Planning (Co-op)
2008

Professional Associations

Full Member, Canadian Institute of Planners (CIP)

Full Member, Ontario Professional Planners Institute (OPPI)

Member, Pragma Council (University of Waterloo)

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MHBC | PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Neal DeRuyter

BES, MCIP, RPP

Neal DeRuyter, a Partner with MHBC, joined the firm in 2009 after graduating from the University of Waterloo in the Honours Planning Co-op program. Mr. DeRuyter has worked as a Planner in the private and public sectors with experience in aggregate resource, development and municipal planning.

Mr. DeRuyter has processed and managed several development applications including zoning by-law amendments, official plan amendments, and licence and site plan applications under the Aggregate Resources Act. He is certified by the Ministry of Natural Resources & Forestry to prepare site plans under the Aggregate Resources Act. He is a Registered Professional Planner and is a member of the Canadian Institute of Planners and Ontario Professional Planners Institute. He has provided expert evidence before the Ontario Municipal Board, Local Planning Appeal Tribunal and Ontario Land Tribunal.

He has participated and authored several research studies and articles related to aggregate resource management. Mr. DeRuyter has presented on several occasions for various events at the School of Planning at the University of Waterloo. Mr. DeRuyter is a member of the Pragma Council at the University of Waterloo.

Professional History

Partner, MacNaughton Hermsen Britton Clarkson Planning Limited (2017 – Present)

Associate, MacNaughton Hermsen Britton Clarkson Planning Limited (2013 – 2017)

Planner, MacNaughton Hermsen Britton Clarkson Planning Limited (2009 – 2013)

Publications

- 'Future Aggregate Availability and Alternatives Analysis, State of the Aggregate Resource in Ontario Study, 2009' (MNR)
- 'The Future of Ontario's Close to Market Aggregate Supply: The 2015 Provincial Plan Review' (OSSGA, 2015)
- Agricultural Impact Assessment and Rehabilitation Plan Guidelines for Aggregate Extraction, 2016 (OMAFRA)

Selected Project Experience

- Research, preparation and coordination of reports / applications under the Planning Act, Niagara Escarpment Planning and Development Act and Aggregate Resources Act.
- Project management services for development applications.
- Conduct notification and consultation processes under the Aggregate Resources Act. including consultations with Indigenous Communities.
- Due diligence and property overview reports for prospective aggregate sites.
- Aggregate Resources Act site plan amendments.
- Planning assessment for commercial, residential, agricultural and industrial developments.
- Planning assessment for proposed urban use requests in Niagara Escarpment Plan through 2015-2017 Review.
- Research and preparation of reports / evidence for hearings before the Ontario Municipal Board / Local Planning Appeal Tribunal/Ontario Land Tribunal.
- Planning research and assessment for expropriation matters on behalf of public and private sector clients.

Selected Project Examples

- Bell Sand Farms Grose Pit Extension, Perth County
- Blueland McCormick Pit, Town of Caledon
- Brock University, Niagara Escarpment Plan Lands, City of St. Catharines
- Cambridge Aggregates Inc. Edworthy West Pit, Township of North Dumfries
- CBM Ayr Pit, Township of North Dumfries
- CBM Brantford Pit, County of Brant
- CBM Bromberg Pit, Township of North Dumfries
- CBM Dorchester Pit, Municipality of Thames Centre
- CBM Eramosa Pit Extension, Township of Centre Wellington
- CBM Aberfoyle South Pit Expansion, Township of Puslinch
- CBM Lanci Pit Expansion, Township of Puslinch
- Caledon Sand & Gravel, Town of Caledon
- Capital Paving Shantz Station Pit, Township of Woolwich
- City of Iqaluit Pit and Quarry Operations Plans
- City of Kingston, Barriefield Affordable Housing Feasibility Study
- Erie Sand & Gravel MOS Pit, Municipality of Leamington
- Fidelity Construction Colborne Pit, Township of Cramahe
- Gallo Contracting Industrial Use, Township of Puslinch
- Halton Crushed Stone Erin Pit Extension, Town of Erin
- J-AAR Materials Ltd. Bardoel Pit, Township of Southwest Oxford
- James Dick Construction Ltd. Adjala Pit Extension, Township of Adjala-Tosorontio
- James Dick Construction Ltd. Erin Pit Extension, Town of Caledon
- James Dick Construction Ltd. Gamebridge Quarry, Township of Ramara
- James Dick Construction Ltd. Reid Road Quarry, Town of Milton
- Kaneff Properties, Royal Niagara Golf Club, City of St. Catharines
- KPM Brantford Plant Expansion, Brant County
- Lafarge Canada Inc. Brantford Pit Expansion, County of Brant
- Lafarge Canada Inc. Hagersville Quarry, County of Haldimand
- Lafarge Canada Inc. Navan Quarry Extension, City of Ottawa
- Lafarge Canada Inc. Talbot Pit, City of London
- Lafarge Canada Inc. West Paris Pit, County of Brant
- Lillycrop Highway 6 Expropriation, Township of Puslinch
- Limehouse Clay Products Ltd. Georgetown Quarry, Town of Halton Hills
- Miller Aggregates Paris Plains Pit, Brant County
- Ministry of Agriculture, Food and Rural Affairs, Agricultural Impact Assessment and Rehabilitation Plan Guidelines for Aggregate Extraction (2016)
- Ministry of Natural Resources and Forestry, State of the Aggregate Resources in Ontario Study (2009)
- Ministry of Transportation, Highway 410 Expropriation, Town of Caledon
- North York Sand & Gravel Manvers Pit, City of Kawartha Lakes

- Nunavut Association of Municipalities Aggregate Resource Management Plans
- Ontario Stone, Sand & Gravel Association, Municipal Official Plan Reviews in Ontario
- Ontario Trap Rock Quarry, Town of Bruce Mines
- Queenston Quarry Reclamation Company Redevelopment, Town of Niagara-on-the-Lake
- Ramada Beacon Hotel, Town of Lincoln
- R.W. Tomlinson Ltd. Brechin Quarry, City of Kawartha Lakes
- R.W. Tomlinson Ltd. Brickyards Quarry, City of Ottawa
- R.W. Tomlinson Ltd. East Oxford Pit, Municipality of North Grenville
- R.W. Tomlinson Ltd. Environmental Services, Joyceville Environmental Centre, City of Kingston
- R.W. Tomlinson Ltd. Kemptville Quarry, Municipality of North Grenville
- R.W. Tomlinson Ltd. Moodie Quarry Expansion, City of Ottawa
- R.W. Tomlinson Ltd. Moore Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Napanee Asphalt Plant, Town of Greater Napanee
- R.W. Tomlinson Ltd. Reids Mills Pit, City of Ottawa
- R.W. Tomlinson Ltd. Stittsville Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Storyland Pit, Renfrew County
- R.W. Tomlinson Ltd. Ready-Mix Site Plan Approval, City of Ottawa
- Sunrock Canada Burnt River Quarry, City of Kawartha Lakes
- Sunrock Canada Hockley Pit, Town of Uxbridge
- Tackaberry Construction, Woods Quarry Expansion, Elizabethtown-Kitley Township
- Thomas Cavanagh Construction West Carleton Quarry Extension, City of Ottawa
- Thomas Cavanagh Construction Arnott Pit, Lanark County
- Thomas Cavanagh Construction Highland Line Pit, Lanark County
- Thomas Cavanagh Construction Goulbourn Quarry, City of Ottawa
- Thomas Cavanagh Construction Pembroke Quarry, Renfrew County
- Township of Guelph-Eramosa, Review of Tri-City Spencer Pit
- Township of West Lincoln, Preliminary Bedrock Resource Assessment in Smithville
- Walker Aggregates Inc. Amherstburg Quarry and McGregor Quarry, Town of Amherstburg
- Waterford Sand & Gravel Law Quarry Extension, Township of Wainfleet
- Wm. J. Gies Construction Stockyards Lands, Township of Woolwich

Presentations

- "2024 Planning and Policies Update"- Ontario Stone Sand and Gravel Association, 2024 AGM
- "Planners Forum" - Ontario Stone Sand & Gravel Association 2023 AGM
- "Bill 23 and Provincial Planning Changes" – Ontario Stone Sand & Gravel Association 2023
- "Ontario Land Use Planning Update" – Ontario Stone Sand & Gravel Association 2022 AGM
- "Public Engagement in the Time of Covid-19" – Ontario Stone Sand & Gravel Association 2021 AGM
- "Aggregate Information Session & Tour" – OPPI Southwest District 2018
- "Coordinated Plan Review" – Ontario Stone Sand & Gravel Association 2018 AGM
- "Planning as a Profession" – Faculty of Environment Open House at the University of Waterloo, March 2013
- "Rehabilitation of Licensed Pits and Quarries" – Canadian Association of Certified Planning Technicians Professional Development Conference, October 21, 2011
- Professional Practice, Public and Private Administration (PLAN 403), University of Waterloo, January 2010

Articles

- "Planning for a sustainable community" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 1, Issue 2, 2011
- "The closer the better" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 2, Issue 2, 2012
- "Diminishing supply" - Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 3, Issue 1, 2013
- "Shipping aggregate from further afield" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 3, Issue 2, 2013
- "The feasibility of alternative transportation options" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 4, Issue 1, 2014
- "Keeping residents safe and dry" – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 4, Issue 2, 2014

Education

University of Waterloo
Bachelor of Environmental Studies,
Honours of Urban and Regional Planning
2024

Professional Associations

Candidate Member, Ontario Professional Planners Institute (OPPI)

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Yara Elmahdy

BES, Candidate RPP

Yara joined MHBC in June of 2024 after receiving her Bachelor of Environmental Studies Honors Co-op Planning (BES) with specializations in Environmental Planning and Management; and Land Development Planning from the University of Waterloo. Yara has worked for regional and township planning departments for the review of aggregate and development applications.

Yara provides a variety of land use planning consulting services to private sector clients including project coordination and management, due diligence, policy research and review and assistance in Aggregate Resources Act Licence Applications and a variety of planning approvals (Official Plan and Zoning By-law Amendments, Plans of Subdivision and Condominium, Site Plan Approvals, Consents and Minor Variances).

Yara is a candidate member of the Canadian Institute of Planners.

Professional History

Planner, MacNaughton Hermsen Britton Clarkson Planning Limited

(2024 – Present)

Community Planning Intern, Region of Halton

(2022 – 2023)

Planning Administrative Support, Township of Ramara

(2022)

Professional Experience

Experience in all facets of development applications including applications for minor variance, severance, Plan of Subdivision, Plan of Condominium, Site Plan approval, Zoning By-law and Official Plan Amendment.

Project Management

- Coordination of technical requirements with sub-consultants.
- Minor Variance, Severance, Site Plan, Official Plan and Zoning By-law amendment approvals.

Aggregate / Industrial

- Preparation of due-diligence reports identifying the detailed requirements for the approval of residential, commercial and Industrial developments in municipalities across Ontario.
- Property investigations and planning assessments for due diligence reviews for mineral aggregate and concrete and asphalt plant projects
- Research, preparation and co-ordination of reports / applications under the *Planning Act* (Zoning By-law Amendment, Official Plan Amendment) and the *Aggregate Resources Act* (licence and site plan amendment applications).

Residential / Mixed-Use / Commercial

- Various Consent and Minor Variance Applications across south and central Ontario
- Preparation of planning assessments and due diligence reviews to identify development potential of properties for a range of clients

Other

- Presentation and representation at public meetings, committees and municipal Council on behalf of clients.
- Extensive research of land use policy and regulation and prepare planning justification reports in support of development applications.

Education

University of Waterloo
Doctorate- School of Planning
(ongoing)

University of Guelph
Master of Science in Rural Planning & Development
2000

University of Waterloo
Bachelor of Environmental Studies
Honours Environment & Resource Studies
1988

Professional Associations

Registered Professional Planner

Full Member, Ontario Professional Planners Institute (OPPI)

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MHBC | PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Vince Deschamps

M.Sc, MCIP, RPP

Vince Deschamps is an Associate with MHBC specilizing in aggregate resouce, natural heritage and rural land use planning.

Mr. Deschamps has over 30 years of professional experience across a broad range of sectors in Canada and internationally, with a deep interest in Indigenous land use planning systems, resource conservation and biodiversity assessment. Vince is at the forefront of Natural Capital and Ecosystem Service Assessment (NCESA), as a scientific discipline as well as a means to anticipate and plan for the effects of climate change. The NCESA approach is based upon the complex inter-relationships between ecological, socio-economic and cultural values of landscapes and communities, and this is reflected in Mr. Deschamps' research interests and professional practice as a land use planner.

Within the extraction industry, Mr. Deschamps has provided support in assessing the impacts of aggregate and mining activities on biodiversity both domestically across Ontario, Quebec and Labrador, as well as internationally in Indonesia and Romania. The biodiversity component of these projects comprised a variety of tasks, including the review of ecological baseline studies, the development and coordination of extensive ecological field investigations, the management of expert staff and sub-consultants, data analysis, developing management options, report preparation, client management and agency consultation.

Mr. Deschamps is a Registered Professional Planner and a citizen of the Métis Nation of Ontario.

Professional History

Associate, MacNaughton Hermsen Britton Clarkson Planning Limited

(2020-Present)

Director of Sustainability, Moneta Gold Inc.

(2021-2023)

Senior Land Use Planner, Gwich'in Land Use Planning Board

(2020-2022)

Midwestern Ontario Program Director, Nature Conservancy of Canada.

(2017-2019)

Senior Planning Ecologist, Beacon Environmental

(2016-2017)

Senior Environmental Planner, Stantec Consulting Ltd

(2011-2016)

Senior Environmental Planner, AECOM

(2009-2011)

Senior Environmental Planner, ERM Canada Corp

(2007-2009)

Senior Environmental Planner (RJ Burnside & Associates Ltd)

(2005-2007)

Senior Project Manager (ESG International Inc/Stantec Consulting Ltd)

(2001-2005)

Selected Aggregate Resources Project Experience

- Tri City Lands Ltd., Spencer Pit – Natural Environment Level 1 & 2 Report
- Walker Industries, Upper's Lane Quarry – field investigations in support of a Natural Environment Level 1 & 2 Report
- Jennison Construction Ltd, Clinton Pit – Natural Environment Level 1 & 2 Report and expert witness testimony at OMB
- Waterford Sand and Gravel Ltd., Dunnville Quarry Expansion – Natural Environment Level 1 and 2 Report
- Township of East Garafraxa Gravel Pit Expansion – Natural Environmental Level 1 & 2 Report
- PT Holcim Indonesia, Semen Dwima Agung Cement Operation – IFC (World Bank) Biodiversity Evaluation

Selected Mining Project Experience

- Moneta Gold Inc. – Director of Sustainability
- Greenstone Gold Mines, Hard Rock Mine – EIA Terrestrial Disciple Lead
- Eramet/Weda Bay Nickel – ESHIA Terrestrial Biodiversity Team Leader
- Iron Ore Company of Canada – Compatibility Assessment Team Lead
- PT Freeport Indonesia – External Environmental Audit Biodiversity Lead
- Newmont Mining, Martabe Project – Biodiversity Management and Impact Assessment Lead
- Rosia Montana Gold Corporation, Rosia Montana Project – EIA Biodiversity Lead

Selected Indigenous & Land Use Planning Experience

- Gwich'in Land Use Plan Comprehensive Review
- Attawapiskat First Nation Community Based Land Use Plan
- Pays Plat First Nation Land Assessment & Selection
- Animbiigoo Zaagi'igan Anishinaabek First Nation Land Assessment and Selection
- Sand Point First Nation Land Use Plan
- Comprehensive Review & Overhaul of Barbados Groundwater Protection Zoning Policy & System

Selected Land Development Planning Experience

Rehabilitation of the Gore Road from King Street to Patterson Sideroad Municipal Class Environmental Assessment (Schedule B)

- Kincardine Avenue Municipal Service Extension Municipal Class Environmental Assessment (Schedule B)
- Municipal Class EA (Schedule C) for the East Luther Grand Valley Water Pollution Control Plant
- Oak Ridges Moraine Conservation Plan Conformity Report for the Colgan Water Supply Municipal Class EA (Schedule B)
- Bonaire Highlands Scoped Environmental Impact Study
- Veterans Way Lands Environmental Impact Study
- Aberfoyle Creek Estates Phase III Environmental Impact Statement
- Giant's Tomb Subdivision Environmental Impact Statement Review
- Pickering - Kingston Road Environmental Report
- Gamble Road, Lot 5 Environmental Impact Statement
- Hilltop Community, Ayr Environmental Impact Statement
- Churchville Planning & Heritage Study (Natural Heritage Component)
- Humber College Institute of Technology and Advanced Learning, Orangeville Campus, Environmental Management Plan

Part B: Terrestrial and Aquatic Resources

- Trelane Natural Heritage Study

Selected Renewable Energy Project Experience

- Sydenham Wind Energy Centre, Townships of Brooke-Alvinston and Dawn-Euphemia, ON
- Suncor Energy Adelaide Wind Power Project, Municipality of Adelaide-Metcalfe, ON
- Suncor Energy Cedar Point Wind Power Project, Town of Plympton-Wyoming and the Municipality of Lambton Shores, ON
- Bow Lake Wind Farm, Townships of Smilsky and Peever, ON
- Environmental Permitting for Bluewater, Goshen and Jericho Wind Energy Centres, NextEra Energy Canada, Huron and Lambton Counties, ON

Selected Natural Capital & Resource Economics Project Experience

- Valuing Natural Capital in the Lake Simcoe Watershed
- Ecosystem Service Values and Great Lakes Shoreline Ecosystems
- Northwest Brampton Urban Boundary Review, Shale Resources Review
- The Nature Conservancy-Indonesia Program – Carbon/Mangrove Rehabilitation Feasibility Study
- The Nature Conservancy-Indonesia Program – Value of Water Resources in Berau Regency, East Kalimantan
- The Nature Conservancy-Indonesia Program – Value of Water Resources in Lore Lindu National Park, Central Sulawesi
- Leuser Management Unit and CIDA Awards for Canadians –Evaluation of Community Forests as a Buffer Zone Initiative

Publications

• Contributor to the Natural Capital Lab, and wrote a series of blogs on the Eco-sociocultual Values of Natural Capital (http://naturalcapitallab.com/blog/)

• Co-presented "Natural Capital Assessment: The Practitioner's Dilemma – Why Hasn't It Caught On In Ontario" at AD Latornell Symposium, Aliston Ontario, November 2014.

• Co-authored "Trends in Forest Ownership, Forest Resources Tenure and Institutional Arrangement: Are they Contributing to Better Forest Management and Poverty Reduction? Case Studies from Indonesia." Prepared for the FAO Regional Workshop in Bangkok, Thailand, October 2005.

• "Biodiversity and Social Benefits in Community-Based Forest Management: The Leuser Ecosystem, Indonesia". Ecological Integrity and Protected Areas, 2001: Proceedings of the Parks Research Forum of Ontario (PRFO) Annual General Meeting, pp. 201-208, 2001.