



June 6, 2022

February 16, 2022

OEC 17-043

Loopstra Nixon
Woodbine Place
135 Queens Plate Drive, Suite 600
Toronto, ON M9W 6V7

Attention: Brendan Ruddick

**Re: Bolton North Landowners Group Inc. Appeal of ROPA 30- Region of Peel
Agricultural Impact Assessment for Hybrid Option 1/2**

Dear Mr. Ruddick:

The letter report is in response to the request to undertake an agricultural assessment of Hybrid Option 1/2. The analysis is based on the soils and Canada Land Inventory (CLI) data base on the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) AgMaps data base, field survey and interpretation field conditions using aerial photography.

METHODOLOGY

In reviewing the OMAFRA AgMap soil capability for agriculture data base it was apparent the mapping did not accurately reflect the agricultural lands. OMAFRA defines Class 1 agricultural land as level to nearly level, well to imperfectly drained and have good nutrient and water holding capacity. They can be managed and cropped without difficulty. Review of the OMAFRA Class 1 lands identified in all the development options showed the majority of the fields had undulating topography with drainage swales and evidence of standing water indicating poor drainage. Therefore, I reported the AgMap data but also revised the soil capability areas based on the field characteristics. Lands designated Class 2 soil capability for agriculture had very gentle slopes with limited drainage swales and evidence of poor drainage. Lands defined as Class 3 had undulating topography and a predominance of drainage swales and areas with poor drainage evident by standing water and or crop damage from inundation in the fields. Cultivated lands in common field crops (e.g., corn, soybeans, winter wheat dominate all the study areas. Cultivation of common field crops indicated Class 1-3 soil capability for crop production. Class 4 lands are marginal for common field crops and are generally used for hay, these lands are not present in the study area to any significant amount.

All the agricultural areas were calculated using the AgMap area measurement function. The limit of the tillable lands was calculated using the land parcel layer overlain the aerial photograph. The soil capability for agriculture areas were calculated based on the characteristics of the individual field. Existing rural residential dwellings and large farmsteads were eliminated from the agricultural land calculation.

The Minimum Distance Separation (MDS) was calculated using the OMAFRA MDS model in the AgriSuite – Ontario Agricultural Planning Tool Suite. The potential housing area of any structurally sound barns was calculated from the area measurement function in the AgMap data base. Structurally sound barns were determined through a windshield field survey. None of the farmers in the study area were contacted.

Land use information was gathered from published information sources, including the Town of Caledon Official Plan, AgMap parcel fabric and submissions prepared as part of the land use analysis undertaken by other consultants to assess the different development options.

The application of the aforementioned analysis for the Hybrid 1/2 Option provided the basis for the potential impact assessment on agricultural land and agricultural land use.

HYBRID OPTION 1/2

Study Area Characteristics

A field survey of the Hybrid Option 1/2 lands identified the lands are predominately cash cropped in corn, soybeans and winter wheat. The majority of the cultivated agricultural land in the study area have undulating topography resulting in area of poor drainage at the base of slopes and drainage features where the slopes intersect that create excess moisture issues for crop growth. This characteristic is evident in the aerial photography of the study area shown in Figure 1. These drainage features show up as colour variations in the aerial photo.

Based on the AgMaps data base the cultivated soils are predominately well drained King Clay Loam. This a small area of well drained Pontypool Sandy Loam and imperfectly drained Monaghan Clay Loam. The AgMap data base defines the King Clay Loam as Class 1, except in areas with significant topography limitations and the Pontypool and Monaghan soils are defined as Class 1.

The study area lacks any active livestock operation. Structurally sound but unoccupied barns in the area have been converted to a non-agricultural use or are to be removed by non-agricultural owners.

The study area is bisected by two major transportation routes, Regional Road 50 and the Emil Kolb Parkway. Traffic volumes on this transportation routes represent potential safety hazards for the

movement of farm equipment through the study area given the majority of the agricultural lands abut Regional Road 50.

Soil Capability for Crop Production

The soil capability for crop production was determined using the current AgMap data and field survey to assess the topographic limitations to cultivation. The total area of actively cultivated land was calculated using the AgMap area measurement function. Soil capability was then determined on a field basis using the AgMap soil mapping, Canada Land Inventory designations and the predominance of topographic constraints and drainage issues as shown by ponded water or untilled areas within undulating topography.

The OMAFRA AgMaps data shows the study area as Class 1. OMAFRA guides state that Class 1 agricultural lands have no significant limitations to crop production and are defined a level to nearly level, well to imperfectly drained. The majority of the lands in the study area are sloped with drainage swales that convey water to low areas with ponded areas in the fields or off-site. This topographic and drainage limitation eliminates the lands from being considered Class 1 making them Class 2 or 3 depending on the degree of slope in the fields and the presence of ponded water. Class 1-3 are considered prime agricultural lands.

The area of tillable agricultural land is approximately 161 ha of cultivated agricultural land. Using the field characteristics such as slope, drainage, evidence of standing water and crop damage due to poor drainage the soil capability classification was revised to better reflect the field condition. Based on this analysis it was determined Class 1 represents approximately 21ha (13%), Class 2 represents approximately 80ha (50%) and Class 3 represents approximately 59ha (37%).

Minimum Distance Separation

There are no active livestock operations with the study area and no structurally sound barns that are owned by farmers, therefore there is no loss of potential livestock operations. There is one existing livestock operation in proximity to the study area on Regional Road 50, approximately 180m north of the northern limit of Hybrid Option 1/2. Under the OMAFRA Minimum Distance Separation (MDS) Guideline criteria #12 states that a reduced MDS I setback may be permitted where there are four or more residences closer to the subject livestock operation. There are six residences closer to the livestock facility than the development limit therefore a reduced setback would be appropriate. Another option is for the Town to put policies in the Secondary Plan to support the reduced setback. A MDS calculation for the livestock facility was undertaken for settlement area expansion. The setback from the existing livestock barn was 445m and the setback from the manure storage was 556m. The encroachment of the development limit for the manure facilities would be approximately 376m.

Land Use

Approximately 21% of the Hybrid Option 1/2 land areas in non-agricultural land uses. The Bolton North Hill Landowners Group currently own approximately 95.4 ha or 58% of the cultivated agricultural land, 50% of which is located along the Regional Road 50 transportation corridor. Given that 58% of the lands are owned by development interests there is no expectation any of these lands will return to farmer ownership because the price of the land would be too high to be economical for the agricultural industry.

There are no active farm buildings within the study area that will be impacted. All the farm buildings are either to be removed by non-farm owners or have already be converted to non-agricultural uses. This means the impact to farmer owned lands in the study area will be limited to a zoning or land use designation changes from rural/agricultural to development land without impacting their existing farmsteads. Their field operations can continue until such time as they choose to sell or develop the lands in accordance with the proposed new approved urban land use.

The construction of the Emil Kolb Parkway through prime agricultural land to provide a bypass of Bolton currently connects the study area with the existing employment lands via Coleraine Drive. This parkway provides a direct transportation link from the study area and Regional Road 50 to the employment lands without impacting downtown Bolton. This transportation network would have the potential effect of directing more traffic through the study area creating a greater potential for conflict between agricultural equipment movement and vehicular traffic on Regional Road 50. Farm equipment currently accessing and exiting this area must use Regional Road 50 before accessing the rural concession road network where traffic is significantly reduced.

CONCLUSIONS

In reviewing the development options, it is evident that the level of agricultural activity associated with the individual farms has been reduced with the elimination of the livestock operations within the Option 1/2 area.

Given the Option 1/2 area lacks any form of active intensive livestock operation consideration for MDS impact is not a significant factor. One dairy operation is in proximity to the development limits for Hybrid Option 1/2 however it has over four rural residential properties closer than the proposed development limits that would already potentially limit expansion of the facilities.

The table below provides the areas of agricultural land for the development option and the estimated soil capability class.

Planning Option	Area of Agricultural Land (ha)	Class 1 (ha)	Class 2 (ha)	Class 3 (ha)
Hybrid Option 1/2	161	21	80	59

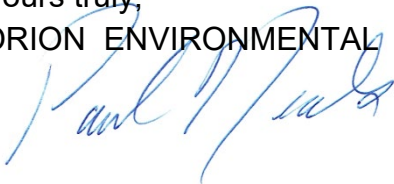
Hybrid Option 1/2 is located in an area of agricultural land that is surrounded by agricultural lands fragmented by natural heritage features, rural residential development and small irregular farm fields as you transition into the Oak Ridges Moraine. The agricultural areas with the greatest potential for maintaining agriculture in the long term are those with larger continuous high soil capability agricultural areas with larger fields. Large fields within continuous agricultural areas make farm machinery operations more cost effective because more time is spent working the fields than moving equipment to small holdings. Farmland within rural areas enables farmers to utilize the existing network of rural concession roads minimizing potential conflicts with higher urban traffic volumes.

In my opinion the Hybrid Option 1/2 will have minimal impact on agricultural land base in the area and should be the preferred option from an agricultural land use perspective because it represents a smaller more isolated agricultural area that is already impacted by urban infrastructure and regional traffic.

If you have any questions or require further information, please do not hesitate to call.

Yours truly,

ORION ENVIRONMENTAL SOLUTIONS, INC.



Paul Neals, B.Sc. Agr., P.Ag.
Principal

PCN:

Attach:

REFERENCES

Bousefields Inc., Bolton Residential Expansion Submission, 2016.

Colville Consulting Inc., Technical Memorandum: Bolton Residential Expansion Study Agricultural Impact Assessment Part A. July 2014.

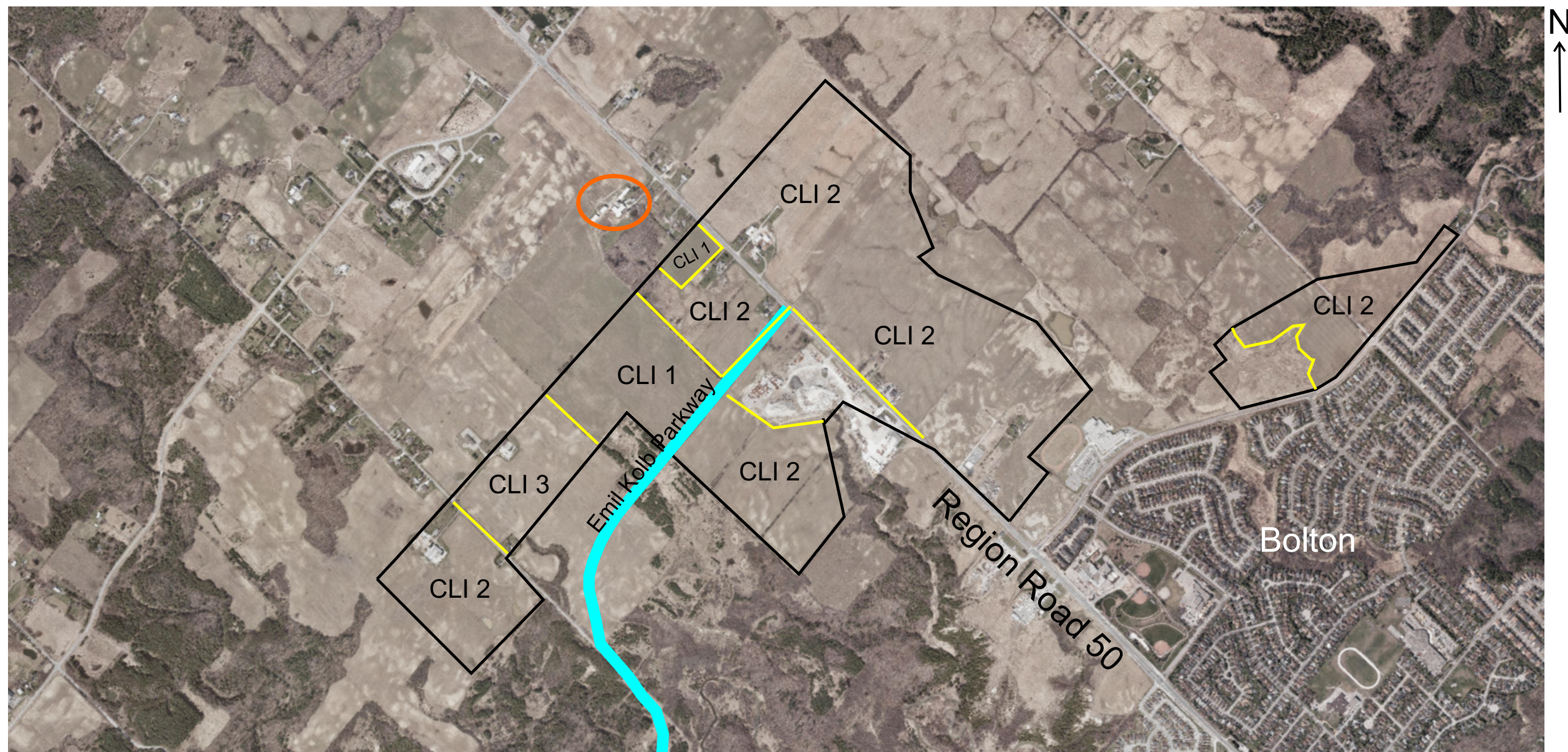
Colville Consulting Inc., Bolton Residential Expansion Study: Agricultural Impact Assessment Part B, June 2014.

Ministry of Agriculture, Food and Rural Affairs. AgMaps, 2017.

Ministry of Agriculture, Food and Rural Affairs. Minimum Distance Separation Implementation Guidelines, Publication 707. 2006.

MHBC Planning Urban Design & Landscape Architecture, Region of Peel & Town of Caledon, Land Evaluation & Area Review (LEAR), Technical Study, July 2016.

Town of Caledon Official Plan, November 2015.



LEGEND

 Hybrid Option 1/2 Property Limit

 Livestock Operation

CLI1 - Class 1 Soil Capability

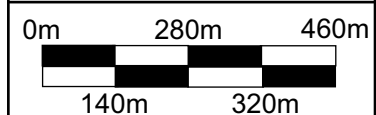
CLI 2 - Class 2 Soil Capability

CLI 3 - Class 3 Soil Capability

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Bolton North Landowners
Group Inc.

Hybrid Option 1/2

Figure 1

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