

February 12, 2019

Ms. Geri Cale, Planner The Township of Adjala-Tosorontio 7855 Sideroad 30, R.R. #1 Alliston, Ontario L9R 1V1

Re: Addendum to a Previously Completed Natural Heritage Evaluation under the Oak Ridges Moraine Conservation Plan: Small Severed Lot on West Side of Concession Road 4, Just North of Highway 9, within Larger Property with Municipal Address of 10258 Highway 9, Township of Adjala-Tosorontio (Jonathan Auger); Our File 6018

Dear Ms. Cale:

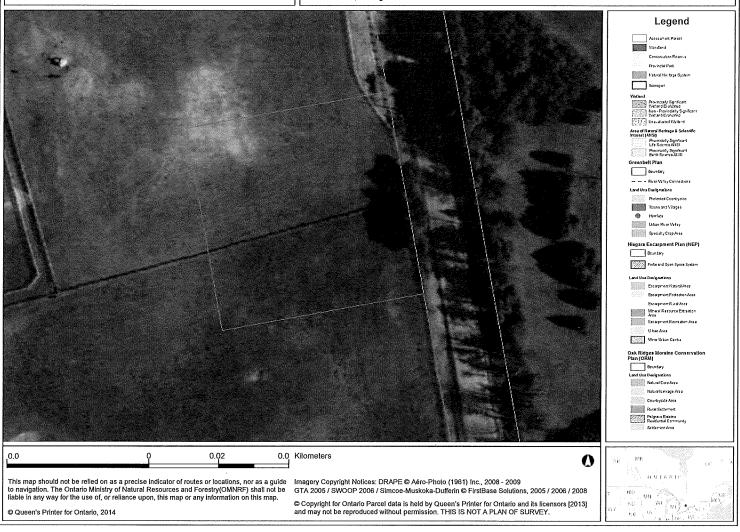
Michalski Nielsen Associates Limited is pleased to provide you with our Natural Heritage Evaluation Addendum for the above-noted property, to assess the conformity of building a house on this small, currently vacant lot with the Oak Ridges Moraine Conservation Plan (ORMCP).

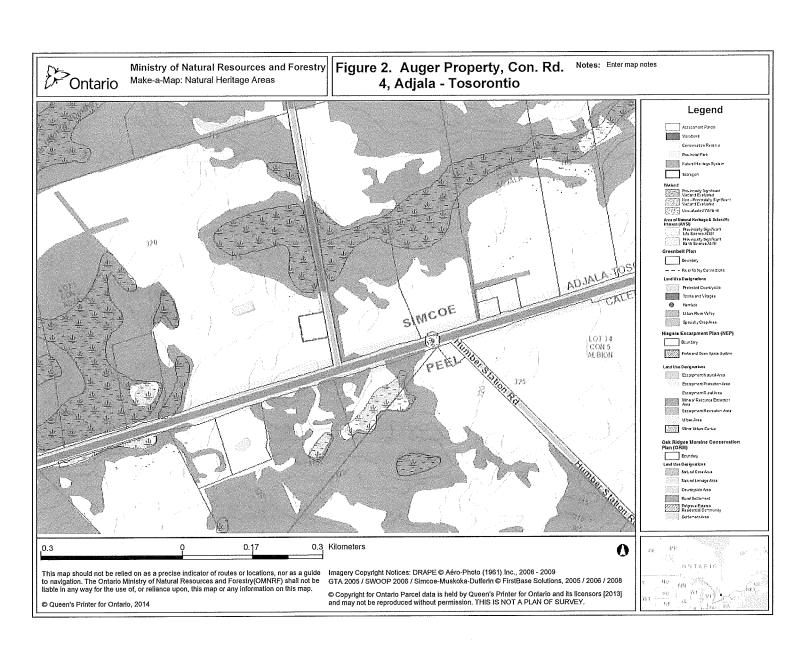
The property in question is shown on **Figures 1** and **2**. It is a small (approximately 1 acre) lot that was severed off a larger agricultural property several years ago, for the purposes of allowing for a home. That severance was supported by a comprehensive Natural Heritage Evaluation, completed by Krystawyn Environmental Consulting, in April 2005. Although that earlier study did not look at the specific details of what would be constructed, it did select a parcel without natural environment constraints, and recommended the approval of the severance on the basis that constructing a home on the lot would have appropriate regard for the natural heritage policies of the ORMCP. Although my office was not involved in that earlier severance application, we are very familiar with the larger property from which the subject lot was severed, having completed a Natural Heritage Evaluation for construction of an in-ground pool and patio in 2014, then an addendum report for two drive sheds/outbuildings in 2017. We undertook a site inspection as part of that earlier work, and also completed a detailed background review. Accordingly, with the information we have on file, and given the nature of the previously created lot on which a residence is being proposed (open agricultural lands, which have been maintained as active pasture), we have been able to prepare the present report as an Addendum, and did not need to undertake a site inspection in support of it.

Ontario

Make-a-Map: Natural Heritage Areas

Ministry of Natural Resources and Forestry | Figure 1. Auger Property, Con. Rd. Notes: Enter map notes 4, Adjala - Tosorontio





**Appendix A** includes plans for the new home. **Appendix B** provides additional background mapping for the subject lot and adjacent lands.

#### **General Site Characteristics**

As illustrated in **Figure 1**, the proposed home, and indeed all of the subject lot, are within an area of open field that has been maintained over the last many years as active horse pasture. This area has very gentle terrain.

# **Background Review**

To complete this Natural Heritage Evaluation to the parameters set out by the ORMCP Reg. 140/02 Part III, 23(1), the following information was collected and reviewed for the site.

Information Source	Data Description
County of Simcoe GIS Mapping (2018)	Evaluated and unevaluated wetlands,
	watercourses, woodlands, greenlands, ANSIs,
	wellhead protection areas.
County of Simcoe Official Plan (2007) including	Environmental protection and ORM key natural
the Council resolution (January 22, 2013)	heritage features schedules.
Adjala-Tosorontio OP (2000) and Amendment	OP amendment No. 3 ORM, ORM Zoning By-
No. 3 to the Official Plan under the	law 03-56, Land use, Wetlands, Streams, and
ORMCP(2006)	wellhead protection areas, ANSIs, and ORM key
	natural heritage features schedules.
Oak Ridges Moraine Conservation Plan	ORM Conservation Plan policy, land use
Regulation 140/02 (2002)	designation mapping.
Ministry of Natural Resources and Forestry	Rare species occurrences, plant communities,
(MNRF) "Make a Make" online, website	wetlands, and natural areas information.
information and County of Simcoe SAR scoping	
tool (V1, 2012)	
Toronto Region Conservation Authority (TRCA)	Conservation Authority Regulation Limits.
Online Mapping	

A review of the Adjala-Tosorontio Official Plan, By-law 03-56 / 03-57, associated schedules, and the additional materials listed above (**Appendix B**) identified the following for the property:

• land use designation – the property lies within the of boundaries of the **Oak Ridges Moraine**Natural Core Area (County of Simcoe Schedule 5.3.2, Adjala-Tosorontio OP Schedule E-2);

- the property is zoned as **Oak Ridges Moraine Natural Core Area (ORM N)** (Adjala-Tosorontio, bylaw 03-56 Schedule A-1). This has important planning implications under the ORMCP, which describes Natural Core Area lands as follows:
  - (1) The purpose of Natural Core Areas is to maintain and, where possible, improve or restore the ecological integrity of the Plan Area by,
    - a. maintaining and, where possible, improving or restoring the health, diversity, size and connectivity of key natural heritage features, hydrologically sensitive features and the related ecological functions;
    - b. maintaining and, where possible, improving or restoring the health, diversity, size and connectivity of key natural heritage features, hydrologically sensitive features and the related ecological functions;
    - c. maintaining the quantity and quality of groundwater and surface water;
    - d. maintaining groundwater recharge;
    - e. maintaining natural stream form and flow characteristics; and
    - f. protecting landform features. O. Reg. 140/02, s. 11 (1).
- all of the subject lot is within an Oak Ridges Moraine Landform Conservation Area 2 area, (County of Simcoe Schedule 5.3.2.2, Adjala-Tosorontio Schedule E-7). According to MNRF, "Landform conservation is the protection and wise use of the land base including its form, soils and associated biophysical processes. It is an approach that encourages planning, design and construction practices which: minimize disruption to natural form and related ecological processes; and enhance protection of biophysical features in a natural state and keep a greater portion of a site in an open-space character" (MNRF Technical Paper 4 Final Draft –February, 2004);
- while there are no **significant woodlands**, **wetlands** or **watercourses** within the property in question, these features are present in adjacent lands (i.e., within 120 m of this lot and proposed development activities);
- although present mapping information from MNRF does not indicate the presence of a provincially significant ANSI in proximity of the subject lot, earlier mapping suggests the presence of a portion of an ANSI within adjacent lands;
- no portion of the severed lot is within the **Toronto Region Conservation Authority's (TRCA's)**Regulated Areas under Ontario Regulation 166/06.

Development or site alteration proposed within the minimum area of influence that relates to a Key Natural Heritage Feature or a Hydrologically Sensitive Feature requires the preparation of a Natural Heritage Evaluation and/or a Hydrological Evaluation.

Lands within and adjacent to the subject property contain identified Key Natural Heritage Feature and Hydrologically Sensitive Features. The presence of such features triggers a need for examination of their boundaries in relation to the proposed works, and on the compatibility of site changes under the Minimum Area of Influence and Minimum Vegetation Protection Zone, as defined in the ORMCP. These features are discussed further below.

# Key Natural Heritage and Hydrologically Sensitive Features

Key Natural Heritage and Hydrologically Sensitive Features are described in the paragraphs following.

#### 1. Wetlands

There is an unevaluated wetland on the adjacent lands to the north, this being a treed swamp which forms part of the headwater of a watercourse. This wetland is located a minimum 50 m from the lot in question, and a minimum approximately 70 m from the proposed home. There are additional wetland areas to the south and west, all located more than 120 m away. There are no concerns that development on the subject lot will negatively impact on wetlands, although he presence of such features within the area does highlight the importance of proper attention to construction best management practices during construction.

### 2. Significant Portions of the Habitat of Endangered, Rare and Threatened Species

The MNRF "Make Natural Heritage Area Map" tool (<a href="https://www.ontario.ca/environment-and-energy/make-natural-heritage-area-map">heritage-area-map</a>) was used to identify Species at Risk records for the general vicinity of the subject property. It should be noted that the MNRF database has limitations as it relies on individuals to report species. Therefore, the MNRF website (Species at Risk in Ontario List) as well as the Simcoe County SAR Scoping tool (V1) were also used to review habitat potential for Species of Conservation Concern and those having protection under the *Endangered Species Act* (2007).

Bobolink and meadowlark, two grassland nesting birds, have been identified as occurring in the broader area. These two species are the most relevant to this proposal. Bobolink and meadowlark nest, on the ground, within open grassland areas, such as hayfields. While they could also take advantage of grasslands which are occasionally pastured, they would not be expected within small horse pastures, as the nests would likely be trampled by horses. These birds are in decline largely because of changes in agricultural practices, with a cut of hay earlier in the summer destroying nests which may still have eggs or fledglings in them. There are provisions under the *Endangered Species Act* which recognize that small-scale losses of potential habitat are often necessary, and which allow for limited habitat losses outside of a permitting process. There are no concerns in the present instance that the removal of one acre of lands actively used as horse pasture will negatively impact on the habitat of bobolink and meadowlark.

In addition to the records for bobolink and meadowlark, there is a record for northern map turtle, a Special Concern species (not protected under the *Endangered Species Act*). This species inhabits rivers and the nearshore of lakes, features not found on, or within 120 m of, the subject lot. There is a further restricted record (species unknown), located over a kilometre away and dating back to 2001; that record is not considered relevant to the present assessment.

#### 3. Fish Habitat

The treed swamp area originating a minimum 50 m north of the subject lot serves as the headwater of a small watercourse to the east. The origins of a defined watercourse providing potential fish habitat would not appear to originate within 120 m of proposed development activities, and there are no concerns that development of this lot will otherwise negatively impact on fish habitat.

#### 4. Areas of Natural and Scientific Interest

The MNRF mapping database for this area does not identify any provincially significant ANSIs within or adjacent to the subject property. However, mapping undertaken by our office in 2014, which is included in **Appendix B**, did identify portions of the Humber Headwater's ANSI, which we then understood was provincially significant, to the north. The boundary of that ANSI corresponds to the limits of wetland (i.e., a minimum 50 m north of the lot in question, and 70 m north of proposed home construction). It may be that this ANSI was simply a regional ANSI or candidate provincial ANSI, and not one that was designated as provincially significant, at the time of our earlier work. Regardless, as previously noted there are no concerns that the construction of a home on this lot will negatively impact on wetland resources to the north, so by the same token there are no concerns that it will negatively impact on what had been previously identified in our work as the Humber Headwater's ANSI.

## 5. Significant Valleylands

There is no specific layer for Significant Valleylands available on the Simcoe GIS on-line interface. There are no valleylands within 120 m of the subject lot.

## 6. Significant Woodland

The area containing treed swamp to the north is identified as significant woodland. The woodland extends beyond the boundary of identified wetland, as close as 32 m from the subject lot. It is a minimum of 50 m from the area of proposed home construction. There are no concerns that construction of the proposed home will negatively impact on this woodland area.

There is a discontinuous single row of trees adjacent to Concession Road 4, fronting the subject lot. These trees are not part of a woodland. I note that the proposed driveway location has been located in a manner that protects these trees, thus maintaining their aesthetic and screening values.

There is a more robust hedgerow on the opposite side of Concession Road 4, which widens into a small wooded area adjacent to the northeast corner of the lot in question. These trees are located a minimum approximately 20 m from any areas of proposed site work in relation to the proposed driveway into the subject lot. They do not appear to have been identified as being part of a significant woodland, and their tenuous connection to areas of woodland to the north is such that they would likely not qualify as significant woodland if more closed examined. Regardless, they are on the opposite side of a travelled roadway and there are no concerns that development of a home on the subject lot, including a driveway entrance into that home, will have any negative impact on them.

## 7. Significant Wildlife Habitat

There was no information available through the background review which identified significant wildlife habitat. We have not identified any potential Significant Wildlife habitat within 120 m of the subject lot, although it is possible that wetland areas located a minimum 50 m to the north have attributes for which they may so qualify; there are no concerns that such wetlands will be negatively impacted by the development of this lot.

## 8. Sand Barrens, Savannahs and Tallgrass Prairies

There are no known sand barrens, savannahs or tallgrass prairies within 120 m of the subject lot.

#### 9. Kettle Lakes

There are no kettle lakes within 120 m of the subject lot.

### 10. Permanent and Intermittent Streams

The treed swamp to the north gives rise to intermittent drainage, forming part of the headwater of an eventual creek. Any such headwater areas are located a minimum 50 m north of the subject lot and 70 m north of the proposed home, with no concerns that they would be negatively impacted by this proposed development.

## 11. Seepage Areas and Springs

While the wetland to the north may contain some seepage areas, it is located a minimum 50 m north of the subject lot and 70 m north of the proposed home, with no concerns any potential seepage areas within it would be negatively impacted by this proposed development.

#### **Comments on Landform Conservation**

The subject property is within a Landform Conservation Area 2 zone, which is the less restrictive of the two Landform Conservation Area zones on the Oak Ridges Moraine. Attention to landform conservation is required. As earlier noted, the ORMCP and associated technical guidelines encourage planning, design and construction practices which minimize disruption to natural form and related ecological processes, enhance the protection of biophysical features and which keep a large proportion of a site in an open space character. In accordance with Section 30(6) of the ORMCP:

An application for development or site alteration with respect to land in a landform conservation area (Category 2) shall identify planning, design and construction practices that will keep disturbance to landform character to a minimum, including,

- (a) maintaining significant landform features such as steep slopes, kames, kettles, ravines and ridges in their natural undisturbed form;
- (b) limiting the portion of the net developable area of the site that is disturbed to not more than 50 per cent of the total area of the site; and
- (c) limiting the portion of the net developable area of the site that has impervious surfaces to not more than 20 per cent of the total area of the site.

The subject lot does not contain any landform features, therefore subsection (a) is not relevant. In this regard it has quite gentle topography, ranging between 318 metres above sea level (masl) and 313 masl (5 m total elevation change), with the lowest topography resulting from there being a slightly depressed area within the property, quite the opposite of what one would consider a landform feature.

Subsection (b) is an issue, not because a large home is being proposed (it is only 2,600 square feet), but because the size of the lot is as small as it is, at 0.36 ha, and because minor regrading is necessary to ensure positive drainage. The latter issue is exacerbated by there being a dip within the centre of the property. Regrading requirements, as shown on the site plan included in **Appendix A**, do not involve more than 2 m of recontouring, and will have no impact on landform. However, this minor recontouring will extend across 90% of this very small property, well in excess of the policy guidance of 50%. In our opinion, this still meets the spirit of this specific policy subsection of the ORMCP when one considers that this was a severance off of a rural lot and no future severances off of that original lot are permitted. The original lot was approximately 39 ha in size and the aggregate amount of disturbance in support of both existing and proposed land uses is less than 3%, well within the policy guidance.

With respect to subsection (c), the total proposed building coverage is 11.2%. However, when one adds in the additional proposed impervious surface areas of a pool, patio and driveway, this increases the extent of impervious surfaces to approximately 23% of the total area of the lot, marginally above the policy guidance of 20%. In our opinion, this also meets the spirit of this specific policy subsection of the ORMCP, as it is not a consequence of large scale development but rather the very small size of this severed lot. Again, if

one considers the original lot from which that lot was severed, the aggregate amount of impervious surface in support of both existing and proposed land uses is less than 1%, also well within the policy guidance.

Looked at another way, had the original severance been 0.7 ha rather than 0.38 ha, both of these policy requirements of the ORMCP would be met on development of this lot. But that simply would have resulted in a larger acreage of lands taken out of rural use, which is contrary to the intent of the landform conservation policies. Accordingly, Michalski Nielsen Associates Limited is of the opinion that the spirit of the ORMCP policy direction regarding landform conservation is being fully addressed. Moreover, there are no concerns that landform will be impacted by this development.

## **Summary and Conclusions**

A Natural Heritage Evaluation was completed for the property to determine the presence of any Key Natural Heritage Features and Hydrologically Sensitive Features on or adjacent to the subject property, and to determine if the proposed construction of a home, associated driveway, well, sewage disposal system and amenity area could interfere with the ecological form and function of any such features. There are no concerns that it will. Adjacent woodland and wetland features, including areas potentially supporting headwater drainage features and seeps, will not be impacted. The habitat of protected Species at Risk will not be impacted. Landform will not be impacted.

### Recommendations

In the opinion of Michalski Nielsen Associates Limited, the proposed new home has appropriate regard for the natural heritage policies of the ORMCP. The proposed site alterations will not impact or alter the form or function of the identified Key Natural Heritage Features occurring on site or within adjacent lands. It should not place groundwater at risk, nor will it affect the landform. Accordingly, we recommend that the Township of Adjala-Tosorontio allow the application to proceed, subject to the following recommendations:

- sediment fence be properly installed around the downgradient perimeter of all
  intended earthworks prior to any such work. This must include the northern
  perimeter of the development area, which has some proximity to adjacent woodland
  and wetland. this sediment fence must be regularly inspected and maintained in good
  working order until such time as all disturbed areas have been properly graded out
  and stabilized with vegetation. Any areas which are being graded to convey runoff
  away from the property must be stabilized as quickly as possible with seed or sod;
- while earthworks on this site are expected to be quite minimal, other standard construction best management practices, such as good earth stockpile management, should be employed on an as-required basis; and

• roof runoff from the new home be routed to soak away pits lined with gravel, to promote groundwater recharge.

Yours truly,

MICHALSKI NIELSEN ASSOCIATES LIMITED

Per:

Gord Nielsen, M.Sc.

Ecologist President

## References

## Adjala-Tosorontio.

- 2000. Official plan OP Adopted November 2, 1998. Approved with modifications by the County of Simcoe October 28, 1999 Incorporating OMB Decisions. Consolidated to November, 2000. On-line <a href="http://www.townshipadjtos.on.ca/MunicipalServices/Departments">http://www.townshipadjtos.on.ca/MunicipalServices/Departments</a>
  /TownshipofAdjala-TosorontioOfficialPlan/index.htm
- 2003. Zoning By-law No. 03-56 and No. 03-57. Adopted by Council on October 20, 2003. Approved with modifications by Minister of Municipal Affairs and Housing on August 30, 2007. Prepared by Rudy & Associates Ltd.

#### County of Simcoe.

- 2018. County of Simcoe GIS Advanced Map. Web. 05-25-2012. http://maps.simcoe.ca
- 2012. Species at Risk Scoping Tool. Version 1.
- 2007. The County of Simcoe Official Plan. Including Council resolution to the updated official plan (January 22, 2013).

#### Google Earth.

2018. Google Earth (Version 6.2.2.6613) [Software]. Available from http://www.earth.google.com

## Ministry of Natural Resources.

2000. Significant Wildlife Habitat Technical Guide, and Draft 2012 Update for Eco Region 6E.

#### Natural Heritage Information Centre.

2018. Biodiversity Explorer. Ministry of Natural Resources Ontario. Web. GIS data last updated on 2013-10-28. http://www.mnr.gov.on.ca/en/Business/NHIC/2ColumnSubPage/STDU\_138222.html

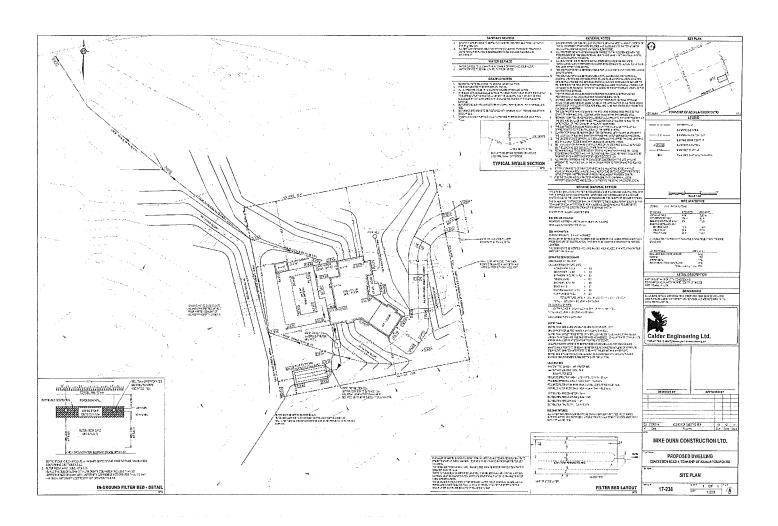
# Nottawasaga Valley Conservation Authority.

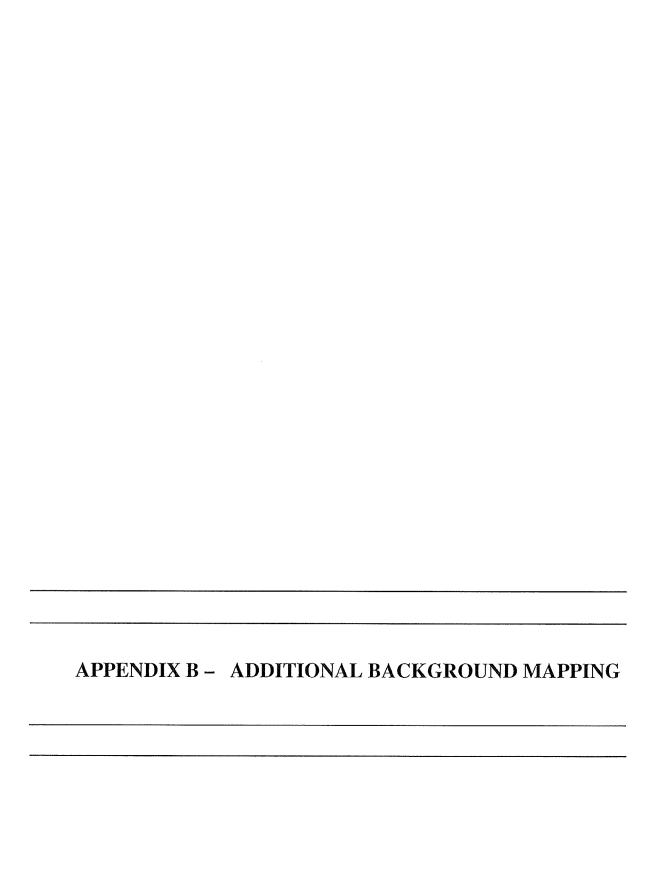
2018. On-line mapping tool.

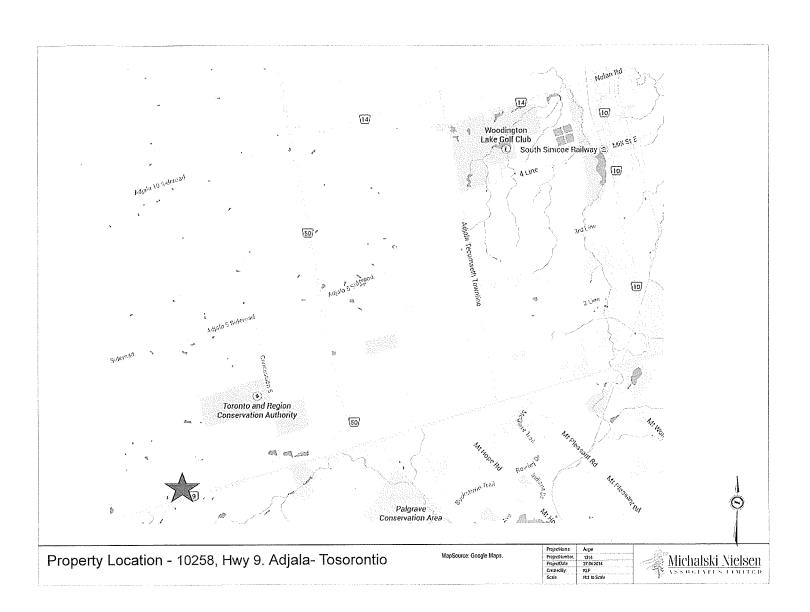
# Oak Ridges Moraine Conservation Plan.

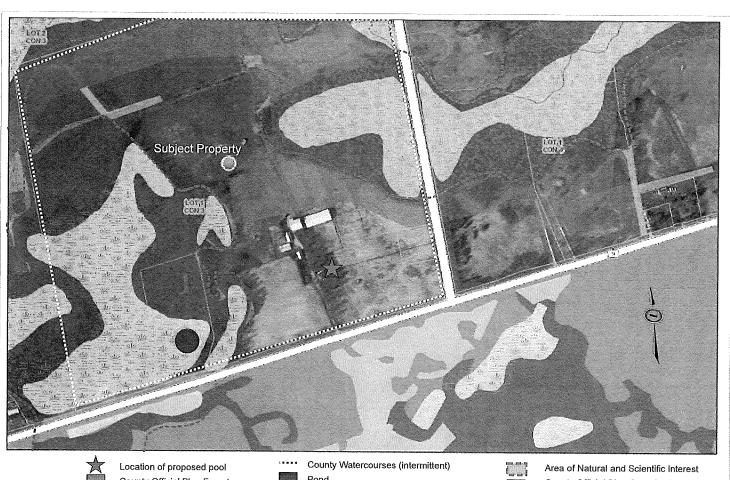
- 2002. Oak Ridges Moraine Conservation Plan. Ministry of Municipal Affairs and Housing.
- 2002. Technical Paper 1 Identification of Key Natural Heritage Features.

APPENDIX A –	PLANS FOR PROPOSED HOME









County Official Plan Forests County Official Plan Plantation



County Official Plan Greenlands

Property Location - 10258, Hwy 9. Adjala- Tosorontio

MapSource; Google Maps.

County Official Plan Unevaluated Wetlands

\*\* Not all features shown, locations are shown for graphical purposes only, refer

<u>Michalski Nielsen</u>

