Board of Directors

Special Meeting No. BOD-03-21 (Hearing)

Friday, March 26, 2021

9:30 a.m.

Agenda (as amended)

Meeting Location:

To be held virtually by Zoom
Minutes and agendas are available at www.LSRCA.on.ca

I. Acknowledgement of Indigenous Territory

II. Declarations of Pecuniary Interest and Conflicts of Interest

III. Approval of Agenda

Pages 1 - 2

Recommended: That the content of the Agenda for the March 26, 2021 Special Meeting of the Board of Directors be approved as amended to include an excerpt of Section 28.0.1 of the *Conservation Authorities Act* (Item IVa).

IV. Hearing under Section 28.0.1(7) of the Conservation Authorities Act

a) Excerpt of Section 28.0.1

Pages 3 - 8

An excerpt of Section 28.0.1 of the *Conservation Authorities Act* is attached for reference.

Recommended: That the excerpt of Section 28.0.1 of the *Conservation Authorities Act* be received for information.

b) Hearing Guidelines

Pages 9 - 24

The Hearing Guidelines are attached for reference.

Recommended: That the Hearing Guidelines be received for information.

c) Staff Report No. 12-21-BOD regarding an Application for Permit under O. Reg 179/06 and Pursuant to Subsection 28.0.1. of the *Conservation Authorities Act* for 2639025 Ontario Inc. Oro Station Automotive Innovation Park

Pages 25 - 149

Whereas the Lake Simcoe Region Conservation Authority (the Authority) cannot refuse to grant permission for development, in accordance with Section 28.0.1 of the *Conservation Authorities Act*; and

Whereas the Authority's Board of Directors and staff, using a science-based approach to decision making and the Authority's Watershed Development Guidelines, would ordinarily require confirmation of no negative impact and mitigation and compensation for any impacts to the features through detailed studies and monitoring as part of the permit process; and

Whereas the only authorized power that the Authority's Board of Directors has at their discretion is the ability to add conditions to the permission to mitigate impacts to the control of flooding, erosion, pollution, and the conservation of land, and interference with the wetland or watercourse; and

Whereas the applicant has raised concerns with potential conditions that may be placed on their application and requested a hearing before the Board of Directors, which is taking place on March 26, 2021.

Recommended that Staff Report No. 12-21-BOD regarding Permission under O. Reg 179/06, Pursuant to Subsection 28.0.1 of the Conservation Authorities Act (Ministerial Zoning Order) 2639025 Ontario Inc. Oro Station Automotive Innovation Park be received; and

Further that the conditions to the permission as outlined in this report, which will form the core elements of the agreement between the proponent and the Authority be approved; and

Further that the Authority's Chief Administrative Officer be authorized to execute the agreement as required by the *Conservation Authorities Act*.

d) Oro Station Automotive Innovation Park Presentation

Pages 150 - 169

Recommended that the presentation by Geoffrey Campbell of OroStation DevCo regarding the proposed Oro Station Automotive Innovation Park be received for information.

V. Adjournment

Conservation Authorities Act, R.S.O. 1990, CHAPTER C.27

EXCERPT OF SECTION 28.0.1

Permission for development, zoning order

28.0.1 (1) This section applies to any application submitted to an authority under a regulation made under subsection 28 (1) for permission to carry out all or part of a development project in the authority's area of jurisdiction if,

(a) a zoning order has been made by the Minister of Municipal Affairs and Housing under section 47 of the *Planning Act* authorizing the development project under that Act;

(b) the lands in the authority's area of jurisdiction on which the development project is to be carried out are not located in the Greenbelt Area designated under section 2 of the *Greenbelt Act, 2005*; and

(c) such other requirements as may be prescribed are satisfied. 2020, c. 36, Sched. 6, s. 15 (1).

Definition

(2) In this section,

"development project" means a development project that includes any development as defined in subsection 28 (25) or any other act or activity that would be prohibited under this Act and the regulations unless permission to carry out the activity is granted by the affected authority. 2020, c. 36, Sched. 6, s. 15 (1).

Permission to be granted

(3) Subject to the regulations made under subsection (35), an authority that receives an application for permission to carry out all or part of a development project in the authority's area of jurisdiction shall grant the permission if all of the requirements in clauses (1) (a), (b) and (c) are satisfied. 2020, c. 36, Sched. 6, s. 15 (1).

Same

(4) For greater certainty, an authority shall not refuse to grant permission for a development project under subsection (3) despite,

(a) anything in section 28 or in a regulation made under section 28; and

(b) anything in subsection 3 (5) of the *Planning Act*. 2020, c. 36, Sched. 6, s. 15 (1).

Conditions prescribed by regulations

(5) A permission granted under this section is subject to such conditions as may be prescribed. 2020, c. 36, Sched. 6, s. 15 (1).

Conditions specified by authority

(6) Subject to subsection (7), an authority may attach conditions to the permission, including conditions to mitigate,

(a) any effects the development project is likely to have on the control of flooding, erosion, dynamic beaches or pollution or the conservation of land;

(b) any conditions or circumstances created by the development project that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property; or

(c) any other matters that may be prescribed by regulation. 2020, c. 36, Sched. 6, s. 15 (1).

Hearing

(7) An authority shall not attach conditions to a permission unless the applicant for the permission has been given an opportunity to be heard by the authority. 2020, c. 36, Sched. 6, s. 15 (1).

Reasons for conditions

(8) If, after holding a hearing, an authority grants the permission subject to conditions, the authority shall give the holder of the permission written reasons for deciding to attach the conditions. 2020, c. 36, Sched. 6, s. 15 (1).

Request for Minister's review

(9) The holder of a permission who objects to the conditions proposed in the reasons given under subsection (8) may, within 15 days of the reasons being given, submit a request to the Minister for the Minister to review the proposed conditions, subject to the regulations. 2020, c. 36, Sched. 6, s. 15 (1).

Minister's review

(10) Within 30 days after receiving a request under subsection (9), the Minister shall reply to the request and indicate in writing to the holder of the permission and the authority whether or not the Minister intends to conduct a review of the authority's decision. Failure on the part of the Minister to reply to a request within the 30-day period is deemed to be an indication that the Minister does not intend to review the authority's decision. 2020, c. 36, Sched. 6, s. 15 (1).

Same

(11) If a reply given under subsection (10) indicates that the Minister intends to conduct a review, the Minister may in the reply require the holder of the permission and the authority to provide the Minister with such information as the Minister considers necessary to conduct the review. 2020, c. 36, Sched. 6, s. 15 (1).

Information

(12) The holder of the permission and the authority shall submit to the Minister such information as was specified in the reply given under subsection (10) within the time period specified in the reply. 2020, c. 36, Sched. 6, s. 15 (1).

Publication of notice of review

(13) The Minister shall publish on the Environmental Registry notice of the Minister's intention to review a decision made by an authority and shall do so within 30 days of giving a reply to that effect under subsection (10). 2020, c. 36, Sched. 6, s. 15 (1).

No hearing required

(14) The Minister is not required to hold a hearing while conducting a review of an authority's decision. 2020, c. 36, Sched. 6, s. 15 (1).

Conferring with persons, etc.

(15) Before making a decision with respect to a review, the Minister may confer with any person or body that the Minister considers may have an interest in the review. 2020, c. 36, Sched. 6, s. 15 (1).

Minister's decision

(16) After conducting a review of an authority's decision, the Minister may confirm or vary the conditions that the authority proposes to attach to a permission granted under this section, including removing conditions or requiring that such additional conditions be attached to the permission as the Minister considers appropriate. 2020, c. 36, Sched. 6, s. 15 (1).

Same

(17) In making a decision under subsection (16), the Minister shall consider,

(a) effects the development project is likely to have on the control of flooding, erosion, dynamic beaches or pollution or the conservation of land;

(b) conditions or circumstances created by the development project that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property; or

(c) any other matters as may be prescribed by the regulations. 2020, c. 36, Sched. 6, s. 15 (1).

Decision final

(18) A decision made by the Minister under subsection (16) is final. 2020, c. 36, Sched. 6, s. 15 (1).

Appeal

(19) The holder of a permission who objects to the conditions proposed by an authority in the reasons given under subsection (8) may, within 90 days of the reasons being issued, appeal to the Local Planning Appeal Tribunal to review the conditions if,

(a) the holder of the permission has not submitted a request to the Minister to review the conditions under subsection (9); or

(b) the holder of the permission has submitted a request to the Minister to review the conditions under subsection (9) and,

(i) 30 days have elapsed following the day the holder of the permission submitted the request and the Minister did not make a reply in accordance with subsection (10), or

(ii) the Minister made a reply in accordance with subsection (10) indicating that the Minister refused to conduct the review. 2020, c. 36, Sched. 6, s. 15 (1).

Same

(20) If the Minister indicates in a reply given under subsection (10) that the Minister intends to review an authority's decision and the Minister fails to make a decision within 90 days of giving the reply, the holder of the permission may, within the next 30 days, appeal the conditions proposed by the authority directly to the Local Planning Appeal Tribunal. 2020, c. 36, Sched. 6, s. 15 (1).

Notice of appeal

(21) Notice of an appeal under subsection (19) or (20) shall be sent to the Local Planning Appeal Tribunal and to the authority by registered mail. 2020, c. 36, Sched. 6, s. 15 (1).

Hearing by Tribunal

(22) The Local Planning Appeal Tribunal shall fix a date for a hearing of an appeal under subsection (19) or (20), give notice to all interested parties and give all necessary direction for the hearing. 2020, c. 36, Sched. 6, s. 15 (1).

Powers of the Tribunal

(23) The Local Planning Appeal Tribunal has authority to hear evidence and to confirm, vary, remove or add to the conditions attached to the permission as the Tribunal considers appropriate. 2020, c. 36, Sched. 6, s. 15 (1).

Agreement

(24) An authority that grants permission for a development project under this section shall enter into an agreement with respect to the development project with the holder of the permission and the authority and holder of the permission may agree to add a municipality or such other person or entity as they consider appropriate as parties to the agreement. 2020, c. 36, Sched. 6, s. 15 (1).

Content of agreement

(25) An agreement under subsection (24) shall set out actions or requirements that the holder of the permission must complete or satisfy in order to compensate for ecological impacts and any other impacts that may result from the development project. 2020, c. 36, Sched. 6, s. 15 (1).

Limitation on development

(26) No person shall begin a development project until an agreement required under subsection (24) has been entered into. 2020, c. 36, Sched. 6, s. 15 (1).

Period of validity of permission and extension

(27) A permission granted by an authority under this section may be granted for a period of time determined in accordance with the rules that apply to permissions granted by authority under a regulation made under subsection 28 (1) and may be extended in accordance with the rules for extending permission set out in those same regulations. 2020, c. 36, Sched. 6, s. 15 (1).

Offence

(28) A person is guilty of an offence if the person contravenes,

(a) a condition of a permission granted under this section; or

(b) subsection (26). 2020, c. 36, Sched. 6, s. 15 (1).

Penalty

(29) A person who commits an offence under subsection (28) is liable on conviction,

(a) in the case of an individual,

(i) to a fine of not more than $50,000 or to a term of imprisonment of not more than three months, or to both, and

(ii) to an additional fine of not more than $10,000 for each day or part of a day on which the offence occurs or continues; and

(b) in the case of a corporation,

(i) to a fine of not more than $1,000,000, and

(ii) to an additional fine of not more than $200,000 for each day or part of a day on which the offence occurs or continues. 2020, c. 36, Sched. 6, s. 15 (1).

Monetary benefit

(30) Despite the maximum fines set out in clauses (29) (a) and (b), a court that convicts a person of an offence under subsection (28) may increase the fine it imposes on the person by an amount equal to the amount of the monetary benefit that was acquired by the person, or that accrued to the person, as a result of the commission of the offence. 2020, c. 36, Sched. 6, s. 15 (1).

Rehabilitation orders

(31) In addition to any penalty under subsection (29) or any other remedy or penalty provided by law, the court, upon convicting a person of an offence under subsection (28), may order the convicted person to,

(a) remove, at the convicted person's expense, any development within such reasonable time as the court orders; and

(b) take such actions as the court directs, within the time the court may specify, to repair or rehabilitate the damage that results from or is in any way connected to the commission of the offence. 2020, c. 36, Sched. 6, s. 15 (1).

Non-compliance with order

(32) If a person does not comply with an order under subsection (31), the authority that issued the permission under this section may arrange for any removal, repair or rehabilitation that was required in the order. 2020, c. 36, Sched. 6, s. 15 (1).

Liability for certain costs

(33) The person to whom an order is made under subsection (31) is liable for the cost of any removal, repair or rehabilitation arranged by an authority under subsection (32), and the amount is recoverable by the authority by action in a court of competent jurisdiction. 2020, c. 36, Sched. 6, s. 15 (1).

Conflict

(34) If the conditions in a permission granted under this section conflict with the terms of a zoning order made under section 47 of the *Planning Act*, the terms of the zoning order shall prevail. 2020, c. 36, Sched. 6, s. 15 (1).

Regulations, Minister

(35) The Minister may make regulations,

(a) prescribing requirements for the purposes of clause (1) (c);

(b) governing permissions granted under this section including,

(i) requiring that the permission be granted within a specified time period after the application is submitted to the authority,

(ii) prescribing conditions for the purposes of subsection (5), and

(iii) prescribing matters for the purposes of clause (6) (c);

(c) prescribing matters for the purposes of clause (17) (c);

(d) governing agreements required under subsection (24) including,

(i) prescribing the content of the agreements, and

(ii) specifying the time within which agreements are to be concluded and signed;

(e) exempting lands or development projects from this section or from a part of this section or the regulations made under this section, including from the requirement to enter into an agreement under subsection (24) or from including any provision of an agreement that is prescribed by a regulation under clause (d);

(f) respecting anything that is necessary or advisable for the effective implementation or enforcement of this section. 2020, c. 36, Sched. 6, s. 15 (1).

Regulations, Lieutenant-Governor in Council

(36) The Lieutenant-Governor in Council may make regulations governing Minister's reviews requested under subsection (9) and appeals under subsections (19) and (20) and specifying circumstances in which a review may not be requested or an appeal may not be made. 2020, c. 36, Sched. 6, s. 15 (1).

General or particular

(37) A regulation made under subsection (35) or (36) may be general or particular in its application. 2020, c. 36, Sched. 6, s. 15 (1).

Transition

(38) This section applies to an application for permission to carry out a development project that was submitted to an authority before the day this section came into force if the conditions described in clauses (1) (a), (b) and (c) have been satisfied as of that day. 2020, c. 36, Sched. 6, s. 15 (1).

SECTION 28 (3) CONSERVATION AUTHORITIES ACT

HEARING GUIDELINES

October 2005, Amended 2018 re. MLT, Amended 2020 re. Electronic Hearings

Ministry of Natural Resources and Forestry

SECTION 28 (3) CONSERVATION AUTHORITIES ACT

HEARING GUIDELINES

October 2005, Amended 2018 and 2020

Summary of Revisions

Revision No.	Date	Comments	Approval Authority
0	October, 2005	Guidelines prepared as an update to the October 1992 hearing guidelines.	Ministry of Natural Resources and Forestry Conservation Ontario council
1	May, 2018	Housekeeping amendments made reflecting changes to appeal process as a result of the *Building Better Communities and Conserving Watersheds Act*, 2017 and subsequent Order in Council.	Conservation Ontario Staff
2	September, 2020	Amendments made to incorporate the use of electronic hearings.	Conservation Ontario Council

September 14, 2020

Re: Interim Update to the SECTION 28 (3) CONSERVATION AUTHORITIES ACT HEARING GUIDELINES

The corona virus disease (COVID-19) was declared a pandemic by the World Health Organization on March 11, 2020. During the Provincial state of emergency as a result of the COVID-19 virus, the Provincial government enacted Order in Council 73/20 under s. 7.1 of the *Emergency Management and Civil Protection Act.* While that order was enacted, Provincial limitation periods and procedural time periods were under suspension between March 16, 2020 and September 14th.

With the suspension on limitation periods being revoked as of September 14th and the need for continued social distancing, conservation authorities require alternate means to provide hearings under Section 28 of the *Conservation Authorities Act.* The purpose of this interim update to the Section 28 Hearing Guidelines is to incorporate the use of electronic hearings. The update to the Hearing Guidelines is complementary to an update to the "Conservation Authority Best Management Practices (BMPs) and Administrative By-Law Model" to incorporate electronic Board meetings.

As a reminder, the decision by the Provincial government to enact Order in Council 73/20 under s. 7.1 of the *Emergency Management and Civil Protection Act* will impact the scheduling of CA Hearings under Section 28 as well as the requirement for an applicant to file an appeal with the Mining and Lands Tribunal within 30 days. For any hearings that took place between March 16th and September 14th, 2020 the person who has been refused permission or who objects to conditions imposed on a permission will have 30 days after September 14th to file an appeal to the Mining and Lands Tribunal. For those CAs who have postponed hearings during the emergency period, they should be scheduled as soon as practical, keeping in mind that Administrative By-Laws and Hearing Guidelines may need to be amended to incorporate electronic meetings.

Amendments have been made throughout this document to incorporate electronic hearings. Conservation authorities are advised to review their internal Hearing Procedures to incorporate this update.

Sincerely,

Leslie Rich

Leslie Rich
Policy and Planning Liaison Conservation
Ontario

May 2018

Re: Interim Update to the SECTION 28 (3) CONSERVATION AUTHORITIES ACT HEARING GUIDELINES

Subsection 28(15) of the *Conservation Authorities Act* provides that a person who has been refused permission or who objects to conditions imposed on a permission may, within 30 days of receiving the reasons may appeal to the Minister of Natural Resources and Forestry. Further to the passage of the *Building Better Communities and Conserving Watersheds Act,* 2017 effective April 3, 2018 this appeal has been assigned to the Mining and Lands Tribunal through Order in Council 332/2018. The Mining and Lands Tribunal is now a part of the Environment and Land Tribunal Cluster (ELTO) of the Ministry of the Attorney General.

By law, the appeal made under subsection 28(15) should be filed directly with the Mining and Lands Tribunal. A copy of the appeal letter to the Minister of Natural Resources and Forestry is unnecessary and can be treated as optional. Conservation authorities should notify appellants that they must file their appeals with the Tribunal within 30 days of their receipt of notice. An appeal may be invalidated if it is not filed with the proper office within that time period. The appellants should also be instructed to copy the conservation authority in their appeal letter.

Further to this updated information, an amendment has been made to **Appendix D "Notice of Decision – Model"** to incorporate the revised contact information for the appeal. Conservation authorities are advised to review their internal Hearing Procedures to incorporate this update. It is anticipated that this "Interim Update to the Section 28(3) Conservation Authorities Act Hearing Guidelines" will provide guidance to conservation authorities related to Section 28 hearings until such time as a new Section 28 regulation is created by the province.

Sincerely,

Leslie Rich
Policy and Planning Liaison Conservation
Ontario

Contents

1.0 PURPOSE OF HEARING GUIDELINES

The purpose of the Hearing Guidelines is to reflect the changes to the 1998 *Conservation Authorities Act*. The Act requires that the applicant be party to a hearing by the local Conservation Authority Board, or Executive Committee (sitting as a Hearing Board) as the case may be, for an application to be refused or approved with contentious conditions. Further, a permit may be refused if in the opinion of the Authority the proposal adversely affects the control of flooding, pollution or conservation of land, and additional erosion and dynamic beaches. The Hearing Board is empowered by law to make a decision, governed by the *Statutory Powers Procedures Act*. It is the purpose of the Hearing Board to evaluate the information presented at the hearing by both the Conservation Authority staff and the applicant and to decide whether the application will be approved with or without conditions or refused.

These guidelines have been prepared as an update to the October 1992 hearing guidelines and are intended to provide a step-by-step process to conducting hearings required under Section 28 (12), (13), (14) of the *Conservation Authorities Act*. Similar to the 1992 guidelines, it is hoped that the guidelines will promote the necessary consistency across the Province and ensure that hearings meet the legal requirements of the *Statutory Powers Procedures Act* without being unduly legalistic or intimidating to the participants.

2.0 PREHEARING PROCEDURES

2.1 Apprehension of Bias

In considering the application, the Hearing Board is acting as a decision-making tribunal. The tribunal is to act fairly. Under general principles of administrative law relating to the duty of fairness, the tribunal is obliged not only to avoid any bias but also to avoid the appearance or apprehension of bias. The following are three examples of steps to be taken to avoid apprehension of bias where it is likely to arise.

(a) No member of the Authority taking part in the hearing should be involved, either through participation in committee or intervention on behalf of the applicant or other interested parties with the matter, prior to the hearing. Otherwise, there is a danger of an apprehension of bias which could jeopardize the hearing.

(b) If material relating to the merits of an application that is the subject of a hearing is distributed to Board members before the hearing, the material shall be distributed to the applicant at the same time. The applicant may be afforded an opportunity to distribute similar pre-hearing material. These materials can be distributed electronically.

(c) In instances where the Authority (or Executive Committee) requires a hearing to help it reach a determination as to whether to give permission with or without conditions or refuse a permit application, a final decision shall not be made until such time as a hearing is held.

The applicant will be given an opportunity to attend the hearing before a decision is made; however, the applicant does not have to be present for a decision to be made.

Individual Conservation Authorities shall develop a document outlining their own practices and procedures relating to the review and reporting of Section 28 applications, including the role of staff, the applicant and the Authority or Executive Committee as well as, the procedures for the hearing itself. Such policy and procedures manual shall be available to the members of the public upon request and on the Authority's website. These procedures shall have regard for the above information and should be approved by the Conservation Authority Board of Directors.

2.2 Application

The right to a hearing is required where staff is recommending refusal of an application or where there is some indication that the Authority or Executive Committee may not follow staff's recommendation to approve a permit or the applicant objects to the conditions of approval. The applicant is entitled to reasonable notice of the hearing pursuant to the *Statutory Powers Procedures Act*.

2.3 Notice of Hearing

The Notice of Hearing shall be sent to the applicant within sufficient time to allow the applicant to prepare for the hearing. To ensure that reasonable notice is given, it is recommended that prior to sending the Notice of Hearing, the applicant be consulted to determine an agreeable date and time based on the local Conservation Authority's regular meeting schedule.

The Notice of Hearing must contain the following:

(a) Reference to the applicable legislation under which the hearing is to be held (i.e., the *Conservation Authorities Act*).

(b) The time, place and the purpose of the hearing. OR for Electronic Hearings:

The time, purpose of the hearing, and details about the manner in which the hearing will be held.

Note: for electronic hearings, the Notice must also contain a statement that the applicant should notify the Authority if they believe holding the hearing electronically is likely to cause them significant prejudice. The Authority shall assume the applicant has no objection to the electronic hearing if no such notification is received.

(c) Particulars to identify the applicant, property and the nature of the application which are the subject of the hearing.

Note: If the applicant is not the landowner but the prospective owner, the applicant must have written authorization from the registered landowner.

(d) The reasons for the proposed refusal or conditions of approval shall be specifically stated. This should contain sufficient detail to enable the applicant to understand the issues so he or she can be adequately prepared for the hearing.

It is sufficient to reference in the Notice of Hearing that the recommendation for refusal or conditions of approval is based on the reasons outlined in previous correspondence or a hearing report that will follow.

(e) A statement notifying the applicant that the hearing may proceed in the applicant's a bsence and that the applicant will not be entitled to any further notice of the proceedings.

Except in extreme circumstances, it is recommended that the hearing not proceed in the absence of the applicant.

(f) Reminder that the applicant is entitled to be represented at the hearing by counsel, if desired.

It is recommended that the Notice of Hearing be directed to the applicant and/or landowner by registered mail. Please refer to **Appendix A** for an example Notice of Hearing.

2.4 Presubmission of Reports

If it is the practice of the local Conservation Authority to submit reports to the Board members in advance of the hearing (i.e., inclusion on an Authority/Executive Committee agenda), the applicant shall be provided with the same opportunity. The applicant shall be given two weeks to prepare a report once the reasons for the staff recommendations have been received. Subsequently, this may affect the timing and scheduling of the staff hearing reports.

2.5 Hearing Information

Prior to the hearing, the applicant shall be advised of the local Conservation Authority's hearing procedures upon request.

3.0 HEARING

3.1 Public Hearing

Pursuant to the *Statutory Powers Procedure Act*, hearings, including electronic hearings, are required to be held in public. For electronic hearings, public attendance should be synchronous with the hearing. The exception is in very rare cases where public interest in public hearings is outweighed by the fact that intimate financial, personal or other matters would be disclosed at hearings.

3.2 Hearing Participants

The *Conservation Authorities Act* does not provide for third party status at the local hearing. While others may be advised of the local hearing, any information that they provide should be incorporated within the presentation of information by, or on behalf of, the applicant or Authority staff.

3.3 Attendance of Hearing Board Members

In accordance with case law relating to the conduct of hearings, those members of the Authority who will decide whether to grant or refuse the application must be present during the full course of the hearing. If it is necessary for a member to leave, the hearing must be adjourned and resumed when either the member returns or if the hearing proceeds, even in the event of an adjournment, only those members who were present after the member left can sit to the conclusion of the hearing.

3.4 Adjournments

The Board may adjourn a hearing on its own motion or that of the applicant or Authority staff where it is satisfied that an adjournment is necessary for an adequate hearing to be held.

Any adjournments form part of the hearing record.

3.5 Orders and Directions

The Authority is entitled to make orders or directions to maintain order and prevent the abuse of its hearing processes. A hearing procedures example has been included as **Appendix B**.

3.6 Information Presented at Hearings

(a) The *Statutory Powers Procedure Act* requires that a witness be informed of his right to object pursuant to the *Canada Evidence Act*. The *Canada Evidence Act* indicates that a witness shall be excused from answering questions on the basis that the answer may be incriminating. Further, answers provided during the hearing are not admissible against the witness in any criminal trial or proceeding. This information should be provided to the applicant as part of the Notice of Hearing.

(b) It is the decision of the hearing members as to whether information is presented under oath or affirmation. It is not a legal requirement. The applicant must be informed of the above, prior to or at the start of the hearing.

(c) The Board may authorize receiving a copy rather than the original document. However, the Board can request certified copies of the document if required.

(d) Privileged information, such as solicitor/client correspondence, cannot be heard. Information that is not directly within the knowledge of the speaker (hearsay), if relevant to the issues of the hearing, can be heard.

(e) The Board may take into account matters of common knowledge such as geographic or historic facts, times measures, weights, etc or generally recognized scientific or technical facts, information or opinions within its specialized knowledge without hearing specific information to establish their truth.

3.7 Conduct of Hearing

3.7.1 Record of Attending Hearing Board Members

A record shall be made of the members of the Hearing Board.

3.7.2 Opening Remarks

The Chairperson shall convene the hearing with opening remarks which generally; identify the applicant, the nature of the application, and the property location; outline the hearing procedures; and advise on requirements of the *Canada Evidence Act*. Please reference **Appendix C** for the Opening Remarks model. In an electronic hearing, all the parties and the members of the Hearing Board must be able to clearly hear one another and any witnesses throughout the hearing.

3.7.3 Presentation of Authority Staff Information

Staff of the Authority presents the reasons supporting the recommendation for the refusal or conditions of approval of the application. Any reports, documents or plans that form part of the presentation shall be properly indexed and received.

Staff of the Authority should not submit new information at the hearing as the applicant will not have had time to review and provide a professional opinion to the Hearing Board.

Consideration should be given to the designation of one staff member or legal counsel who coordinates the presentation of information on behalf of Authority staff and who asks questions on behalf of Authority staff.

3.7.4 Presentation of Applicant Information

The applicant has the opportunity to present information at the conclusion of the Authority staff presentation. Any reports, documents or plans which form part of the submission should be properly indexed and received.

The applicant shall present information as it applies to the permit application in question. For instance, does the requested activity affect the control of flooding, erosion, dynamic beach or conservation of land or pollution? The hearing does not address the merits of the activity or appropriateness of such a use in terms of planning.

- The applicant may be represented by legal counsel or agent, if desired
- The applicant may present information to the Board and/or have invited advisors to present information to the Board
- The applicant(s) presentation may include technical witnesses, such as an engineer, ecologist, hydrogeologist etc.

The applicant should not submit new information at the hearing as the Staff of the Authority will not have had time to review and provide a professional opinion to the Hearing Board.

3.7.5 Questions

Members of the Hearing Board may direct questions to each speaker as the information is being heard. The applicant and /or agent can make any comments or questions on the staff report.

Pursuant to the *Statutory Powers Procedure Act*, the Board can limit questioning where it is satisfied that there has been full and fair disclosure of the facts presented. Please note that the courts have been particularly sensitive to the issue of limiting questions and there is a tendency to allow limiting of questions only where it has clearly gone beyond reasonable or proper bounds.

3.7.6 Deliberation

After all the information is presented, the Board may adjourn the hearing and retire in private to confer. The Board may reconvene on the same date or at some later date to advise of the Board's decision. The Board members shall not discuss the hearing with others prior to the decision of the Board being finalized.

4.0 DECISION

The applicant must receive written notice of the decision. The applicant shall be informed of the right to appeal the decision within 30 days upon receipt of the written decision to the Mining and Lands Tribunal.

It is important that the hearing participants have a clear understanding of why the application was refused or approved. The Board shall itemize and record information of particular significance which led to their decision.

4.1 Notice of Decision

The decision notice should include the following information:

(a) The identification of the applicant, property and the nature of the application that was the subject of the hearing.

(b) The decision to refuse or approve the application. A copy of the Hearing Board resolution should be attached.

It is recommended that the written Notice of Decision be forwarded to the applicant by registered mail. A sample Notice of Decision and cover letter has been included as **Appendix D**.

4.2 Adoption

A resolution advising of the Board's decision and particulars of the decision should be adopted.

5.0 RECORD

The Authority shall compile a record of the hearing. In the event of an appeal, a copy of the record should be forwarded to the Mining and Lands Tribunal. The record must include the following:

(a) The application for the permit.

(b) The Notice of Hearing.

(c) Any orders made by the Board (e.g., for adjournments).

(d) All information received by the Board.

(e) The minutes of the meeting made at the hearing.

(f) The decision and reasons for decisions of the Board.

(g) The Notice of Decision sent to the applicant.

Appendix A

NOTICE OF HEARING

IN THE MATTER OF

The Conservation Authorities Act,

R.S.O. 1990, Chapter 27

AND IN THE MATTER OF an application by

FOR THE PERMISSION OF THE CONSERVATION AUTHORITY

Pursuant to Regulations made under Section 28, Subsection 12 of the said Act

TAKE NOTICE THAT a Hearing before the Executive Committee of the Conservation Authority will be held under Section 28, Subsection 12 of the *Conservation Authorities Act* at the offices of the said Authority (ADDRESS), at the hour of **, on the day of , 2020**, [for electronic hearings, include details about the manner in which the hearing will be held] with respect to the application by (**NAME**) to permit development within an area regulated by the Authority in order to ensure no adverse effect on (**the control of flooding, erosion, dynamic beaches or pollution or conservation of land./alter or interfere with a watercourse, shoreline or wetland**) on Lot , Plan/Lot , Concession , (**Street**) in the City of , Regional Municipality of , River Watershed.

TAKE NOTICE THAT you are invited to make a delegation and submit supporting written material to the Executive Committee for the meeting of (**meeting number**). If you intend to appear [For electronic hearings: or if you believe that holding the hearing electronically is likely to cause significant prejudice], please contact (**name**). Written material will be required by (**date**), to enable the Committee members to review the material prior to the meeting.

TAKE NOTICE THAT this hearing is governed by the provisions of the *Statutory Powers Procedure Act*. Under the Act, a witness is automatically afforded a protection that is similar to the protection of the *Ontario Evidence Act*. This means that the evidence that a witness gives may not be used in subsequent civil proceedings or in prosecutions against the witness under a Provincial Statute. It does not relieve the witness of the obligation of this oath since matters of perjury are not affected by the automatic affording of the protection. The significance is that the legislation is Provincial and cannot affect Federal matters. If a witness requires the protection of the *Canada Evidence Act* that protection must be obtained in the usual manner. The Ontario Statute requires the tribunal to draw this matter to the attention of the witness, as this tribunal has no knowledge of the effect of any evidence that a witness may give.

AND FURTHER TAKE NOTICE that if you do not attend at this Hearing, the Executive Committee of the Conservation Authority may proceed in your absence, and you will not be entitled to any further notice in the proceedings.

DATED the_____day of ,_____202X

The Executive Committee of the Conservation Authority

Per:

Chief Administrative Officer/Secretary-Treasurer

Appendix B

HEARING PROCEDURES

1. Motion to sit as Hearing Board.
2. Roll Call followed by the Chairperson's opening remarks. For electronic hearings, the Chairperson shall ensure that all parties and the Hearing Board are able to clearly hear one another and any witnesses throughout the hearing.
3. Staff will introduce to the Hearing Board the applicant/owner, his/her agent and others wishing to speak.
4. Staff will indicate the nature and location of the subject application and the conclusions.
5. Staff will present the staff report included in the Authority/Executive Committee agenda.
6. The applicant and/or their agent will present their material
7. Staff and/or the conservation authority's agent may question the applicant and/or their agent if reasonably required for a full and fair disclosure of matters presented at the Hearing.[1]
8. The applicant and/or their agent may question the conservation authority staff and/or their agent if reasonably required for full and fair disclosure of matters presented at the Hearing.[2]
9. The Hearing Board will question, if necessary, both the staff and the applicant/agent.
10. The Hearing Board will move into camera. For electronic meetings, the Hearing Board will separate from other participants for deliberation.
11. Members of the Hearing Board will move and second a motion.
12. A motion will be carried which will culminate in the decision.
13. The Hearing Board will move out of camera.
14. The Chairperson or Acting Chairperson will advise the owner/applicant of the Hearing.

[1] As per the Statutory Powers Procedure Act a tribunal may reasonably limit further examination or cross-examination of a witness where it is satisfied that the examination or cross-examination has been sufficient to disclose fully and fairly all matters relevant to the issues in the proceeding.

[2] As per the Statutory Powers Procedure Act a tribunal may reasonably limit further examination or cross-examination of a witness where it is satisfied that the examination or cross-examination has been sufficient to disclose fully and fairly all matters relevant to the issues in the proceeding.

Board Decision

15. If decision is "to refuse", the Chairperson or Acting Chairperson shall notify the owner/applicant of his/her right to appeal the decision to the Mining and Lands Tribunal within 30 days of receipt of the reasons for the decision.
16. Motion to move out of Hearing Board and sit as Executive Committee.

Appendix C

CHAIRPERSON'S REMARKS WHEN DEALING WITH HEARINGS WITH RESPECT TO ONTARIO REGULATION ____/06

We are now going to conduct a hearing under section 28 of the *Conservation Authorities Act* in respect of an application by_____: for permission to:_____

The Authority has adopted regulations under section 28 of the *Conservation Authorities Act* which requires the permission of the Authority for development within an area regulated by the Authority in order to ensure no adverse effect on (the control of flooding, erosion, dynamic beaches or pollution or conservation of land) or to permit alteration to a shoreline or watercourse or interference with a wetland.

The Staff has reviewed this proposed work and prepared a staff report, a copy of which has been given to the applicant and the Board. The applicant was invited to file material in response to the staff report, a copy of which has also been provided to the Board.

Under Section 28 (12) of the *Conservation Authorities Act*, the person requesting permission has the right to a hearing before the Authority/Executive Committee.

In holding this hearing, the Authority Board/Executive Committee is to determine whether or not a permit is to be issued, with or without conditions. In doing so, we can only consider the application in the form that is before us, the staff report, such evidence as may be given and the submissions to be made on behalf of the applicant. Only Information disclosed prior to the hearing is to be presented at the hearing.

The proceedings will be conducted according to the *Statutory Powers Procedure Act*. Under Section 5 of the *Canada Evidence Act*, a witness may refuse to answer any question on the ground that the answer may tend to incriminate the person or may tend to establish his/her liability to a civil proceeding at the instance of the Crown or of any person.

The procedure in general shall be informal without the evidence before it being given under oath or affirmation unless decided by the hearing members.

If the applicant has any questions to ask of the Hearing Board or of the Authority representative, they must be directed to the Chairperson of the board.

Appendix D

(Date)
BY REGISTERED MAIL
(name) (address)

Dear:

RE: NOTICE OF DECISION
Hearing Pursuant to Section 28(12) of the *Conservation Authorities Act* Proposed Residential Development
Lot , Plan ; ?? Drive City of (Application #)

In accordance with the requirements of the *Conservation A uthorities Act*, the (***name***) Conservation Authority provides the following Notice of Decision:

On (***meeting date and number***), the Hearing Board/Authority/Executive Committee refused/approved your application/approved your application with conditions. A copy the Boards/Committee's resolution # has been attached for your records. Please note that this decision is based on the following reasons: (***the proposed development/alteration to a watercourse or shoreline adversely affects the control of flooding, erosion, dynamic beaches or pollution or interference with a wetland or conservation of land***).

In accordance with Section 28 (15) of the *Conservation Authorities Act*, an applicant who has been refused permission or who objects to conditions imposed on a permission may, within 30 days of receiving the reasons under subsection (14), appeal to the Minister who may refuse the permission; or grant permission, with or without conditions. Through Order in Council 332/2018 the responsibility for hearing the appeal has been transferred to the Mining and Lands Tribunal. For your information, should you wish to exercise your right to appeal the decision, a letter by you or your agent/counsel setting out your appeal must be sent within 30 days of receiving this decision addressed to:

Mining and Lands Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario M5G 1E5

A carbon copy of this letter should also be sent to this conservation authority. Should you require any further information, please do not hesitate to contact (***staff contact***) or the undersigned.

Yours truly,

Chief Administrative Officer/Secretary Treasurer
Enclosure

Staff Report

To: Board of Directors

From: Rob Baldwin, Chief Administrative Officer

Date: March 19, 2021

Subject:

Application for Permit under O. Reg 179/06 and Pursuant to Subsection 28.0.1 of the *Conservation Authorities Act* (Ministerial Zoning Order) 2639025 Ontario Inc. Oro Station Automotive Innovation Park.

Recommendation:

Whereas the Lake Simcoe Region Conservation Authority (the Authority) cannot refuse to grant permission for development, in accordance with Section 28.0.1 of the *Conservation Authorities Act*; and

Whereas the Authority's Board of Directors and staff, using a science-based approach to decision making and the Authority's Watershed Development Guidelines, would ordinarily require confirmation of no negative impact and mitigation and compensation for any impacts to the features through detailed studies and monitoring as part of the permit process; and

Whereas the only authorized power that the Authority's Board of Directors has at their discretion is the ability to add conditions to the permission to mitigate impacts to the control of flooding, erosion, pollution, and the conservation of land, and interference with the wetland or watercourse; and

Whereas the applicant has raised concerns with potential conditions that may be placed on their application and requested a hearing before the Board of Directors, which is taking place on March 26, 2021.

Recommended that Staff Report No. 12-21-BOD regarding Permission under O. Reg 179/06, Pursuant to Subsection 28.0.1 of the Conservation Authorities Act (Ministerial Zoning Order) 2639025 Ontario Inc. Oro Station Automotive Innovation Park be received; and

Further that the conditions to the permission as outlined in this report, which will form the core elements of the agreement between the proponent and the Authority be approved; and

Further that the Authority's Chief Administrative Officer be authorized to execute the agreement as required by the *Conservation Authorities Act*.

Purpose of this Staff Report:

The purpose of this Staff Report No. 12-21-BOD is to seek the Board of Directors' approval of conditions allowing for the issuance of permission pursuant to Section 28.0.1 of the *Conservation Authorities Act* to 2639025 Ontario Inc. Auto Innovation Park to undertake vegetation removal and grubbing, and to remove a part of a wetland feature, to facilitate the development of a track (circuit), construction of buildings and development of associated stormwater management and sewage treatment facilities and the required placement of fill and grading at the subject site located at 225 and 401 Line 7 North, Township of Oro-Medonte, County of Simcoe.

Background:

Board Members Sitting as the Hearing Tribunal:

In considering the application, the Hearing Board is acting as a decision-making tribunal. The tribunal is to act fairly. Under general principles of the administrative law relating to the duty of fairness, the tribunal is obliged not only to avoid any bias but also to avoid the appearance or apprehension of bias.

In holding this Hearing, the Hearing Board is to determine what conditions, if any, to impose as conditions to the permission. In doing so, the Hearing Board may only consider the permit application submitted by the applicant, the staff report, the applicant's report, the submissions to be made on behalf of the applicant and on behalf of Authority staff, and such evidence as may be given.

Permit Application and Property Description:

2639025 Ontario Inc. has applied for permission under O. Reg. 179/06 and Section 28.0.1 of the *Conservation Authorities Act* for vegetation removal, grading, track (circuit) construction, construction of buildings (pit pavilion building), construction of servicing infrastructure including a wastewater treatment plant, and storm water facilities.

The subject property is a total area of approximately 86 ha (212 acres) and is located on the east side of Line 7 North, immediately opposite the existing Lake Simcoe Regional Airport. It is bounded by existing agricultural fields to the north, a mix of agricultural fields, natural and plantation forest to the east, and a natural forest and treed swamp to the south.

The property includes key natural heritage features and key hydrologic features including wetland and other areas where development could interfere with the hydrologic function of the wetland and a watercourse. Upon completion of the development, most of the 86-ha site will be developed. The site will be serviced by well water and a wastewater treatment plant. Stormwater will be managed by two ponds.

Minister's Zoning Order (MZO):

A Minister's Zoning Order (MZO) was issued on November 1, 2019, as Ontario Regulation 362/19, for lands including the lands subject to the permit application. The MZO permits specific land uses within the specified area on the property as shown in Appendix 1 (Minister's Zoning Order).

Mandatory Permits for Ministerial Zoning Order Development Projects:

Section 28.0.1 of the amended *Conservation Authorities Act* applies to development projects within the Authority's jurisdiction which have been authorized by a Minister's Zoning Order under the *Planning Act* and are outside of the Greenbelt Area.

The provisions of this new section of the *Act* are summarized as follows:

- The Authority can not refuse to issue a permission for a development project if authorized by a Ministers Zoning Order.
- The Authority may impose conditions to the permit, including conditions to mitigate:
  - any effects the development project is likely to have on the control of flooding, erosion, dynamic beaches, pollution or the conservation of land;
  - any conditions or circumstances created by the development project that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property; or
  - any other matters that may be prescribed by regulation.
- An applicant has the right to a Hearing before the Authority (Board) if there is an objection to the permit conditions being imposed by the Authority.
- If the applicant still objects to conditions following a decision of the Hearing, the applicant has the option to either request a Minister's review (Minister of the Ministry of Natural Resources and Forestry (MNRF)) or appeal to the Local Planning Appeal Tribunal (LPAT).
- All MZO-related CA permits must have an agreement with the permittee (can include other parties, e.g., municipalities, on consent of applicant).
- The agreement shall set out actions that the holder of the permission must complete or satisfy to compensate for ecological impacts (where applicable) and any other impacts that may result from the development project.
- The agreement must be executed before work commences on the site; some enforcement provisions through court proceedings are in effect for MZO permits.

In summary, the Authority must issue a permit for development projects on lands subject to an MZO, outside of the Greenbelt, but have the ability to apply conditions to the approval and must enter into an agreement with the landowner/applicant.

Prior to Bill 229, the Authority had greater control, subject to appeal to the Mining and Lands Tribunal, over whether to issue a permit or not regardless of whether there was an MZO issued under the *Planning Act*.

Issues:

The properties are partially regulated by the Authority under Ontario Regulation 179/06 pursuant to the *Conservation Authorities Act* for wetlands and other areas where development could interfere with the hydrologic function of a wetland, including those areas within 30 metres of wetlands which have not been identified as Provincially Significant. The properties are also partially regulated for a watercourse and associated erosion hazard areas. The regulated features are shown on a map included as Appendix 2. The watercourse and associated erosion hazard area are at the norther edge of the property and are not within the proposed development envelope. The overall development envelope is shown in Appendix 3.

The following provides a chronology of applications made under the *Planning Act* and *Conservation Authorities Act* with respect to the subject proposed development:

- January 6, 2021 – Draft Plan Approval, under the *Planning Act*, was granted by the Township of Oro-Medonte. The purpose of the application for Draft Plan Approval was to place the lands within four (4) separate blocks to facilitate the anticipated phasing of the overall project on a block-by-block basis. This also allows the Applicant to set up separate condominium structures over the respective blocks as needed by future tenants and demands.
- February 5, 2021 – The Township of Oro-Medonte circulated Application 2020-SPA-26 (Application for Site Plan Approval under s.41 of the *Planning Act*) to the Authority for review and comment. The Applicant is seeking Site Plan Approval for Phase 1 of the overall development (this includes the proposed development being considered for Phases 1 and 2 of the Permit).
- At this time, the proposal for Phase 1 of the development (illustrated in Appendix 4) has not received Site Plan Approval under the *Planning Act* and the associated Subdivision and Site Plan agreements have not been executed.
- February 9, 2021 - The Authority received a permit application for the proposed development.
- February 25, 2021 - Staff requested more information for a complete application.

- March 11, 2021 - Staff received confirmation of the scope of work for the development as well as a request to attend a Hearing before the Board regarding the application.

The application has been reviewed by the Authority's Planning and Development staff including Engineering, Hydrogeology and Natural Heritage. The current permit application is to allow for the removal of 6.23 hectares of wetland and 6.1 hectares of woodland and their associated vegetation protection zones. As outlined in the Environmental Impact Study prepared by Beacon Environmental (January 2021) provided in Appendix 5, "losses of habitat (significant woodlands, other woodlands, potential significant wildlife habitat and wetlands) and negative effects on the remaining adjacent habitat will occur as a result of the proposed development". While we understand the negative impacts associated with the removals, the Authority has not received enough information from the applicant at this time to confirm that the impacts of the proposed development on the hydrologic functions of the wetlands will be appropriately mitigated for.

At this time the submission as received does not demonstrate that retained features will continue to function in the post development scenario. In addition, mitigation and compensation have not been proposed for the features being removed. As such, staff have requested through the permit conditions that the applicant demonstrate the following:

- That connectivity between retained features and adjacent features be maintained to allow the movement of flora and fauna.
- That monitoring information be provided to demonstrate that pre-development hydrologic inputs (surface and groundwater) to the central and north wetlands will be maintained.
- That mitigation measures are put into place in an effort to maintain the ecological function of the retained features.
- To ensure that there is no contravention to other relevant legislation.
- That through the execution of the Agreement, feature removal is compensated for through one of the two options provided in the provided Ecological Offsetting Strategy Calculation (Appendix 6).

It is important to note that the Applicant's permit submission did not address the Authority's requirements related to Storm Water Management and Hydrogeology, nor did it address the Designated Policies of the Lake Simcoe Protection Plan.

The applicant has indicated that the timelines associated with legislated *Migratory Birds Convention Act* for vegetation removal have created a restrictive timeline for this project. Given the expedited request for the permit issuance, staff have proposed that the permit be issued in two phases to allow tree and vegetation clearing to begin.

Phase 1

Phase 1 will be valid upon the execution of the Agreement under Section 28.0.1 of the *Conservation Authorities Act* and includes tree and vegetation removal and grubbing.

Phase 2

Phase 2 will be valid upon the execution of the Subdivision Agreement and Site Plan Agreement to the satisfaction of the Lake Simcoe Region Conservation Authority and includes storm water facilities, fill placement and grading, and the construction of buildings.

Draft Permit Conditions

In accordance with Section 28.0.1, Authority staff have proposed the conditions outlined below to help mitigate the impacts of the development on flooding, erosion, conservation of land, pollution and interference to the wetland or watercourse associated with the proposed development. As noted above, in an effort to assist the Applicant with meeting the tight timelines associated with the *Migratory Birds Convention Act* to allow vegetation removal, the permit is being considered in two phases. The Phase 1 conditions below are specific to Phase 1 of the permit (as well as the General Conditions). Phase 2 of the permit is largely tied to Site Plan Approval and the associated review of technical information which has not yet been provided to the Authority for review.

General Conditions:

See Appendix 7

Phase 1 Specific Conditions:

1. **That prior to the execution of the Agreement the Permit Holder shall provide a conformity report to the satisfaction of the Authority, demonstrating how this development is consistent with the relevant Designated Policies of the Lake Simcoe Protection Plan (LSPP).**

   The General Regulation under the Lake *Simcoe Protection Act* lists the *Conservation Authorities Act* as a “prescribed instrument”. The *Lake Simcoe Protection Act* requires that all decisions made related to a “prescribed instrument” conform with the applicable designated policies of the Lake Simcoe Protection Plan and have regard for the other applicable policies.

2. **The Permit Holder shall ensure that the wetland removal is supervised on site by a qualified ecologist for the purpose of ensuring all relevant environmental legislation, approved plans and Authority’s conditions are adhered to, and that weekly monitoring reports, including ESC monitoring reports, are submitted to the Authority’s Regulations staff.**

   This condition is to ensure that if any issues arise during construction, the work can be modified to ensure all other conditions of the Authority’s approval are complied with.

3. **That the Permit Holder shall undertake a transplantation and relocation plan to the satisfaction of the Authority for regionally, locally and Lake Simcoe Region rare and uncommon species/communities identified by the ecologist on the property as timing of works allows, and that a final report prepared by an ecologist be submitted to the Authority's Regulations Staff certifying that this condition has been fulfilled.**

   To maintain ecological function and preserve biodiversity in the Lake Simcoe Watershed, plant species considered rare to the area should be protected in place where they grow naturally. When this is not possible, transplantation is completed in an attempt to satisfy the conservation of land test and to avoid losing rare species from an area entirely.

4. **That prior to execution of the Agreement, the Permit Holder shall provide an ecological compensation plan to the satisfaction of the Authority to address and mitigate anticipated impacts and feature losses, in accordance with the Authority's Ecological Offsetting Policy. This can be achieved through either of the following options:**

   Option 1:

   - **That the Permit Holder will develop and implement a feature replacement ecological offsetting plan approved by the Authority. This plan must be implemented within two (2) years of the Agreement date.**

   Option 2:

   - **That prior to the execution of the Agreement the Permit Holder will provide the ecological offsetting cash value, this is estimated at $3,641,996.98 as shown on the attached calculation form (Appendix 6). Please note that the exact boundaries of ecological boundaries need to be confirmed through the provision of the GIS shape files from the proponent's environmental impact study, prepared by Beacon Environmental dated January 2021.**

   Option 1, outlined above, is the preferred option. This would require the applicant to restore features on the landscape in accordance with the Ecological Offsetting Policy. Should it not be feasible for the applicant to achieve Option 1, Option 2 may be considered where a cash-in-lieu payment would be required. The cash value noted above was determined based on the cost for the Authority to recreate features elsewhere in the watershed on the applicant's behalf. If the applicant is able to replace some, but not all features, a combination of Option 1 and Option 2 may also be considered.

   The proposed loss of 6.1 ha of woodland and 6.3 ha of wetland communities is counterproductive to the Lake Simcoe Protection Plan target of *achieving 40% high quality natural vegetative cover in the watershed*. The Authority's Ecological Offsetting Policy was developed, in part, to support meeting this target. It also supports the conservation of land

within the watershed. The policy requires that the ecological value of the features lost be compensated for with an appropriate net ecological gain.

5. **That prior to any vegetation removal or tree clearing, the Permit Holder provides recommendations to the satisfaction of the Authority for how connectivity from the central feature to adjacent features will be maintained during and post-construction.**

   The proposed development will result in an area of aquatic, swamp and marsh wetland, upland forest and thicket communities ("central feature") being fragmented and isolated from adjacent and surrounding natural areas. Maintaining connectivity to and from the central features will be critical to their continued ecological function and to demonstrate that there will be no interference with the retained wetlands.

6. **That prior to the execution of the Agreement the Permit Holder shall development and implement a program to the satisfaction of the Authority for monitoring the post to pre-development hydrological conditions to the wetland for a period of five (5) years.**

   This condition is required to allow the Applicant to demonstrate through monitoring if there will be any impact to the ecological function of the retained wetland feature and similar to above, to demonstrate no interference with the maintained wetlands.

7. **That prior to any tree or vegetation clearing on site, the Permit Holder shall provide confirmation from Environment and Climate Change Canada that the proposed development would not contravene the *Migratory Birds Convention Act*.**

   This condition is required to confirm that all other applicable legislation is being met. A total of 59 species of breeding birds were recorded on the property by the applicant's consultant in 2020. A heron rookery (communal nesting area) with at least 6 active nests was recorded off the property by the applicant in 2019. The Federal *Migratory Birds Convention Act* was established for the protection of migratory birds, their eggs, and their nests. Environment and Climate Change Canada is responsible for implementing the policies and regulations under this Act.

8. **That prior to any tree or vegetation clearing or development on site, the Permit Holder shall provide a copy of any permit required under the *Endangered Species Act* from the Ministry of Environment, Conservation and Parks for the works, or shall provide confirmation from the Ministry that no such permit is necessary.**

   Four species listed as Endangered in Ontario were confirmed by the applicant as present on the subject property in 2020. These include butternut (tree), little brown myotis, northern myotis and tri-coloured bat (bats). A fifth endangered species, Jefferson salamander, was noted with potential to be present on the property. The Provincial *Endangered Species Act* was established for the protection of species at risk and their habitats. The Ministry of

Environment, Conservation and Parks is responsible for implementing the policies and regulations under this Act. Prior to any site alteration, the Authority requires confirmation that the proposed works will be in compliance with applicable legislation.

Impact on Authority Finances:

Staff costs to date have not been fully determined but will far exceed the amount collected from the permit fee. The Authority's legal costs for preparing and executing an agreement as required under S.28.0.1 will be the responsibility of the proponent.

Summary and Recommendations:

The proposed development is within an area regulated by the Lake Simcoe Region Conservation Authority for wetlands. The wetland features were determined by a consultant retained by the applicant. Any development or interference within/to a wetland requires permission in accordance with Ontario Regulation 179/06 pursuant to the *Conservation Authorities Act*.

Under Section 28.0.1 of the amended *Conservation Authorities Act*, the Authority can not refuse permission for this proposal. However, the Authority can mitigate impacts through conditions.

The Authority's Watershed Development Guidelines generally prohibit development within wetlands unless the following can be demonstrated:

- There is a demonstrated need for the development and no reasonable alternative location exists outside of the wetland.
- The control of flooding, erosion pollution or the conservation of land will not be affected.
- The interference of the natural features and hydrologic and ecological functions of the wetlands have been determined to be acceptable through the appropriate studies.
- A mitigation plan is prepared to the satisfaction of the Authority to compensate for the loss of wetland features and functions.

Based on staff's review of the application, the information to support the requirements of issuing the approval have not been met at this time. Specifically, the monitoring of the existing function of the features and compensation and mitigation are required.

Given the requirements of Section 28.0.1 of the *Conservation Authorities Act*, the Authority is required to grant permission for the development.

It is therefore **Recommended** that Staff Report No. 12-21-BOD regarding Permission under O. Reg 179/06, Pursuant to Subsection 28.0.1 of the Conservation Authorities Act (Ministerial Zoning Order) 2639025 Ontario Inc. Oro Station Automotive Innovation Park be received; and Further that the conditions to the permission as outlined in this report, which will form the core elements of the agreement between the proponent and the Authority be approved; and

Further that the Authority's Chief Administrative Officer be authorized to execute the agreement as required by the Conservation Authorities Act.

Signed by:

Rob Baldwin

Chief Administrative Officer

Attachments:

1. Minister's Zoning Order (O. Reg 362/19) dated November 1, 2019
2. Authority Regulated Mapping (225 and 401 Line 7 N, Township of Oro-Medonte
3. Overall Development Envelope
4. Phase 1 Site Plan
5. Beacon Environment Report dated January 2021
6. Ecological Offsetting Strategy Calculation Form
7. General conditions

ONTARIO REGULATION

made under the

PLANNING ACT

ZONING ORDER – TOWNSHIP OF ORO-MEDONTE, COUNTY OF SIMCOE

Definitions

1. In this Order,

"accessory" means a use, building or structure that is normally incidental or subordinate to a principal use, building or structure located on the same lot, including but not limited to,

(a) administrative offices,

(b) coffee shops and restaurants,

(c) a storage garage,

(d) conference space,

(e) retail shops, and

(f) outdoor storage;

"automotive museum" means premises used for the exhibition, collection and preservation of automotive-related objects of cultural, historical or scientific interest for educational purposes;

"automotive research and development facility" means premises used for the research, development, designing, study, testing and engineering of automotive products and technologies and includes a motorsports racetrack;

"automotive training and education facility" means premises used as a teaching facility in which students are given instruction in automotive-related studies;

"Zoning By-law" means Township of Oro-Medonte Zoning By-law 97-95, as amended.

Application

2. (1) This Order applies to lands in the Township of Oro-Medonte in the County of Simcoe, in the Province of Ontario, being the lands outlined in red on a map numbered 233 and filed at the Toronto office of the Ministry of Municipal Affairs and Housing located at 777 Bay Street.

(2) For the purposes of this Order, the lands described in subsection (1) shall be considered to be a single lot.

Permitted uses

3. (1) Every use of land and every erection, location or use of any building or structure is prohibited on the lands described in subsection 2 (1), except for,

(a) an automotive research and development facility;

(b) an automotive training and education facility;

(c) an automotive museum;

(d) accessory uses, buildings and structures;

(e) the uses permitted in the Economic Development Zone in Table A3 of the Zoning By-law; and

(f) the uses permitted in section 7.239 of the Zoning By-law.

(2) Every use of land and every erection, location or use of any building or structure is prohibited on the lands shown as the Environmental Protection Area on the map referred to in subsection 2 (1), except for,

(a) the protection, maintenance, enhancement and restoration of ecosystem forms and functions; and

(b) drainage, flood and erosion control.

Zoning requirements

4. (1) The zoning requirements for the lands described in subsection 2 (1) are the zoning requirements set out in section 7.239 of the Zoning By-law and for the Economic Development Zone in Table B3 of the Zoning By-law.

(2) Subject to subsection (3), if any building or structure is used for more than one purpose, the building or structure shall comply with the provisions of the Zoning By-law relating to each use.

(3) Section 5.10 of the Zoning By-law does not apply to the lands described in subsection 2 (1).

Terms of use

5. (1) Every use of land and every erection, location or use of any building or structure shall be in accordance with this Order.

(2) Nothing in this Order prevents the use of any land, building or structure for any use prohibited by this Order if the land, building or structure is lawfully so used on the day this Order comes into force.

(3) Nothing in this Order prevents the reconstruction of any building or structure that is damaged or destroyed by causes beyond the control of the owner if the dimensions of the original building or structure are not increased or its original use altered.

(4) Nothing in this Order prevents the strengthening or restoration to a safe condition of any building or structure.

Commencement

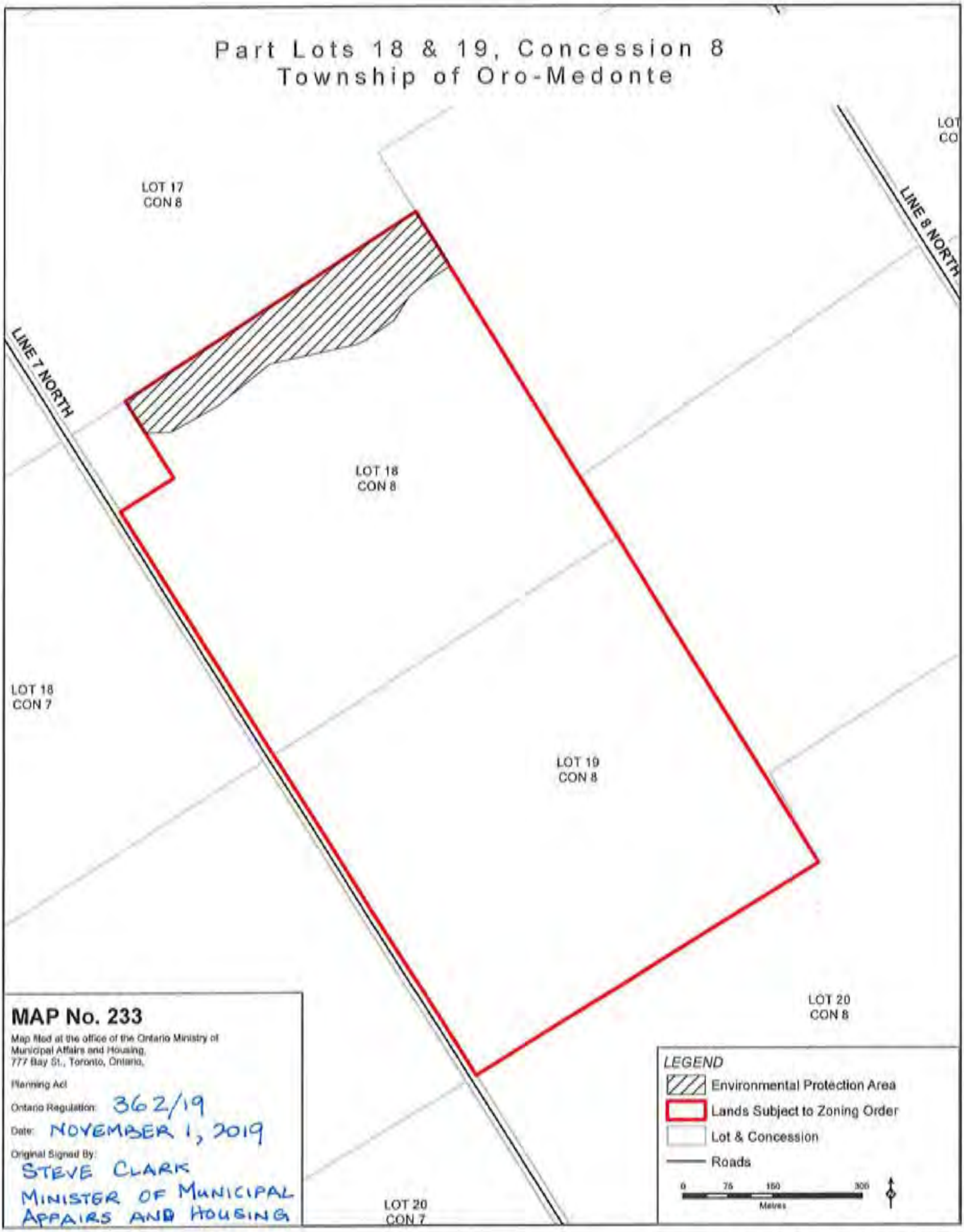
6. This Regulation comes into force on the day it is filed.

Made by:

Signature (in blue ink)

Minister of Municipal Affairs and Housing

Date made: Oct 31/2019



225 & 401 Line 7 N
Township of Oro-Medonte

Features

- LSRCA Watershed Boundary
- LSPP Watershed Boundary
- Cross Sections - Planning
- Meanderbelt
- Meanderbelt Setback
- Floodplain
  - Floodplain
  - Spill
- Floodplain Setback
- Regulated Wetland
  - PSW
  - Non PSW
- Wetland With Adjacent Lands
- MNRF Evaluated Wetland
  - PSW
  - Other Evaluated
- MNRF Unevaluated Wetland
- Assessment Parcel
- Lot and Concession
- Road Labels
- Watercourse
- Lake Simcoe
- Roads
  - Hwy 400 Series
  - Highway, Arterials

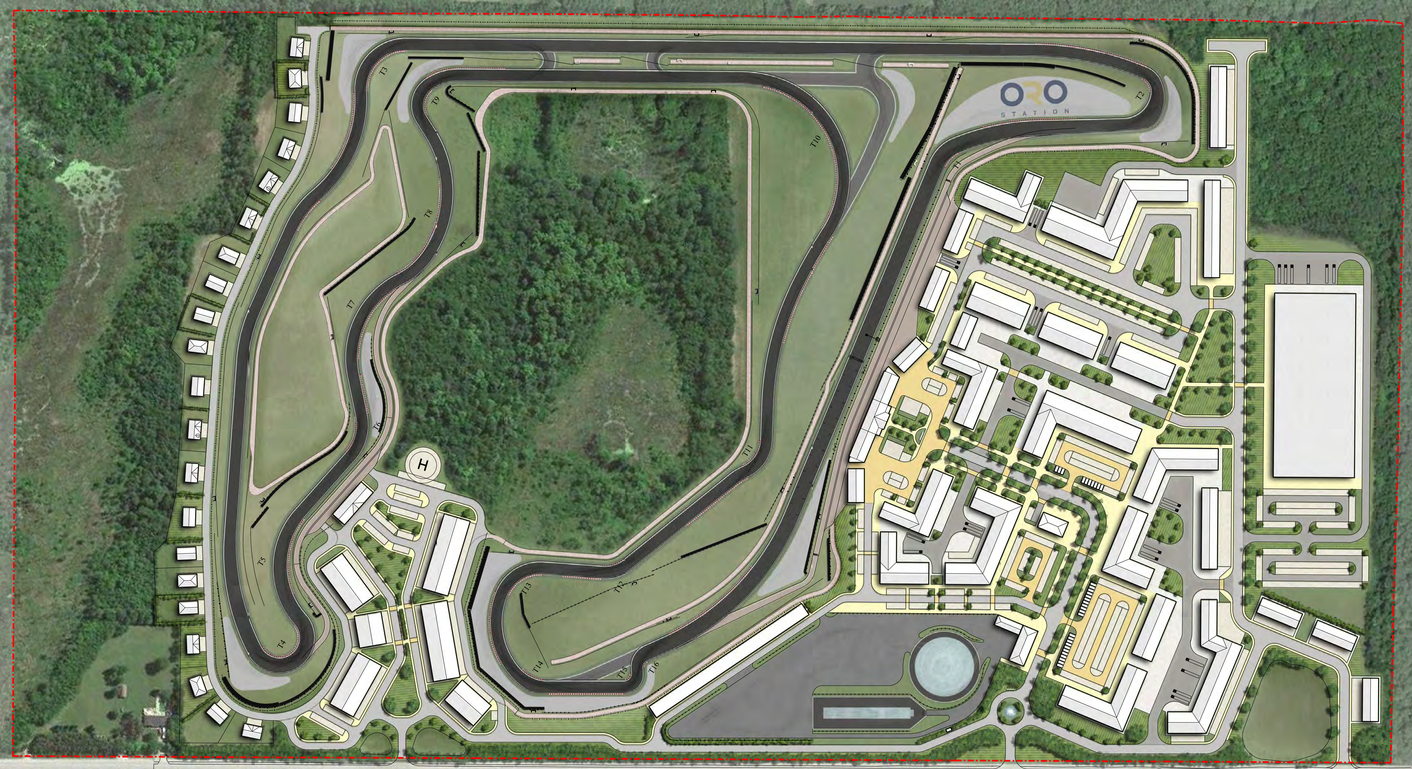
Mapped By: AB

Printed On: 3/18/2021

Scale: 1: 6,491

WGS_1984_Web_Mercator_Auxiliary_Sphere

330 0 165 330 Meters



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3. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.

Revision Details	By / Check	Date	Suffix

Purpose of Issue: Schematic Design

Client: Oro Station Dev Co

Project Title: Oro Station

Drawing Title: Full Site Plan

Designed	Drawn	Checked	Approved	Date
GN	GN	BW	BW	13/05/20

Project No.	Suitability
L060	For information only

Scale @ A1	Zone
1:2000	

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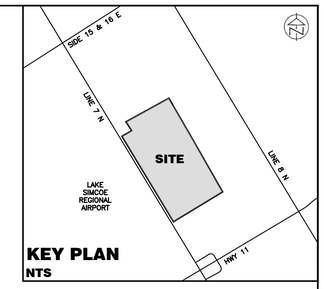
Driven.

Drawing Number	Rev.
L060-3-ORO-1001	B



KEY PLAN
NTS

PHASE 1 LIMIT OF DISTURBANCE
900x2,400mm CONC. CULVERT CROSSING
PHASE 1 LIMIT OF DISTURBANCE
LEACHING BED #1 AREA
ENHANCED SWALE
SEWAGE TREATMENT PLANT #1
LEACHING BED #1 AREA
STORMWATER MANAGEMENT DRY POND #2
TEMPORARY DRAINAGE DITCH
900x2,400mm CONC. CULVERT CROSSING
FUTURE STORMWATER MANAGEMENT DRY POND #3
PHASE 1 LIMIT OF DISTURBANCE
TEMPORARY DRAINAGE DITCH
PHASE 1 LIMIT OF DISTURBANCE
RE-GRADE LINE 7 NORTH ROADSIDE DITCH
LINE 7 NORTH
LAKE SIMCOE REGIONAL AIRPORT NORTH ENTRANCE
TEMPORARY DRAINAGE DITCH
PROPOSED WELL LOCATION & WATER TREATMENT PLANT
PHASE 1 LIMIT OF DISTURBANCE
PIT PAVILION BUILDING
TEMPORARY GRANULAR PARKING LOT
PHASE 1 LIMIT OF DISTURBANCE
TEMPORARY GRANULAR MAINTENANCE/CONSTRUCTION ACCESS
TEMPORARY DRAINAGE DITCH
FUTURE SEWAGE TREATMENT PLANT #2
TEMPORARY GRANULAR DRIVEWAY
TEMPORARY DRAINAGE DITCH
STORMWATER MANAGEMENT DRY POND #1
TBM #1
SITE ACCESS – ASPHALT APRON
TEMPORARY CONSTRUCTION/ MAINTENANCE ACCESS
LAKE SIMCOE REGIONAL AIRPORT SOUTH ENTRANCE

DRAWING REFERENCES

LEGAL SURVEY INFORMATION SHOWN ON THIS PLAN PREPARED BY RUDY MAK SURVEYING LTD. OLS, COMPLETED JUNE 26, 2013.

TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN BASED ON FIELD SURVEY COMPLETED BY BY RUDY MAK SURVEYING LTD. OLS, DATED MAY 7, 2012.

BENCHMARKS

TBM#1 ELEV. 289.15 m
TOP OF S.I.B. AT THE NORTH SIDE OF LINE 7 NORTH.

No.	REVISION DESCRIPTION	DATE
1.	FIRST ENGINEERING SUBMISSION	DEC. 18/20

ENGINEER STAMP

LICENSED PROFESSIONAL ENGINEER
N.A. MILLINGTON
100190121
Dec. 18/20
PROVINCE OF ONTARIO

ORO STATION - PHASE 1
OROSTATION DEVCO INC.
TOWNSHIP OF ORO-MEDONTE

PHASING PLAN

TATHAM ENGINEERING

DESIGN: LC	FILE: 419363-1	DWG: **PH-1**
DRAWN: LC	DATE: OCTOBER 2020	
CHECK: NM	SCALE: 1:2,000	

Drawing Name: 419363-PH01.dwg, Plotted: Dec 22, 2020

GUIDING SOLUTIONS IN THE
NATURAL ENVIRONMENT

Scoped Environmental Impact Study
Natural Heritage Features and Functions
Oro Station Automotive Park
Township of Oro-Medonte, County of Simcoe

Prepared For:

OroStation DevCo Inc.

Prepared By:

Beacon Environmental

Date: *Project:*

January 2021 **220306**

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Appendices

Appendix A. Plant List
Appendix B. Butternut Health Assessment and DNA Reports
Appendix C. Salamander Egg Mass Survey
Appendix D. Township of Oro-Medonte Official Plan Natural Features Schedule B

1. Introduction

Beacon Environmental Limited (Beacon) has been retained by OroStation DevCo Inc. to undertake an Environmental Impact Study (EIS) regarding a site plan application for the proposed Oro Station Automotive Park located at 255 and 401 7th Line North within the Township of Oro-Medonte (herein referred to as the subject property).

The subject property is a total area of approximately 86 ha (212 acres) and is located on the east side of 7th Line North immediately opposite the existing Lake Simcoe Regional Airport (**Figure 1**). It is bounded by existing agricultural fields to the north, a mix of agricultural fields, natural and plantation forest to the east and a natural forest and treed swamp to the south. The need for undertaking an EIS in support of the development of the subject lands is to address potential impacts to adjacent natural heritage features as identified in the Official Plans of Simcoe County and the Township of Oro Medonte. In addition, the watercourse and wetlands that occur on and adjacent to the subject property are regulated by the Lake Simcoe Region Conservation Authority (LSRCA).

The objectives of this EIS are to:

1. Identify natural features and impacts upon them; and
2. Identify feasible design and construction mitigation measures and or compensation to minimize net impacts to existing ecological features and functions.

This EIS was completed using a review of background documents, including:

- *Environmental Assessment for the Proposed Oro-Medonte Automotive Innovation Park* (2020) by Cotyledon Environmental Consulting;
- *Scoped Environmental Impact Statement, Lake Simcoe Aeropark* (2013) by Beacon Environmental Limited (accessed through the Lake Simcoe Conservation Authority); and
- *Lake Simcoe Industrial Aeropark Environmental Impact Study and Management Plan draft* (2009) by R.J. Burnside and Associates Limited.

In addition, field investigations were undertaken in the late spring and summer of 2020. These field investigations included determination of the boundaries of natural heritage features and investigations into the potential presence of regulated species under the provincial *Endangered Species Act* (ESA) on the subject property. These data were used in an analysis of natural heritage functions and features and confirmed against the existing policy framework.

2. Policy Framework

2.1 Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) (MMAH 2020) should be considered and applied as one related document. Policy 2.1 of the PPS provides direction to regional and local municipalities regarding planning policies specifically for the protection and management of natural heritage features and resources. The PPS defines seven natural heritage features and provides planning policies for each.

The *Natural Heritage Reference Manual* (OMNR 2010) is a technical document used to help assess the natural heritage features listed below:

a) Significant wetlands;
b) Significant woodlands;
c) Significant valleylands;
d) Significant wildlife habitat.
e) Significant Areas of Natural and Scientific Interest (ANSIs);
f) Habitat of endangered species and threatened species; and
g) Fish habitat.

Each of these features is afforded varying levels of protection subject to guidelines, and in some cases, regulations. Of these features, significant wetlands can be designated either by the Ministry of Natural Resources and Forestry (MNRF) and/or the municipality. Habitat of endangered or threatened species is approved by the Ministry of the Environment, Conservation and Parks (MECP) if a species is identified on a property through site specific investigation or through existing information. Fish habitat is governed by Fisheries and Oceans Canada (DFO). The identification and regulation of the remaining features is the responsibility of the municipality or other planning authority.

2.2 Ontario *Endangered Species Act*

Species at Risk (SAR) in Ontario include those taxa that are listed as endangered, threatened or special concern at the provincial level. The *Endangered Species Act* – ESA (2007) regulates the habitat of those species that are endangered or threatened. Protection of special concern species is addressed through the category of SWH found in the Provincial Policy Statement, and the supporting provincial guidelines.

The ESA provides legal protection to the habitats of endangered or threatened species where habitat has been confirmed on a site. Subsection 17(1) of the Act allows the Minster to issue a permit authorizing a person to engage in an activity that would otherwise be prohibited (under subsection 9(1) or 10(1) of the Act) provided the applicable legislative requirements of subsection 17(2) are satisfied.

Subsection 9(1) states that:

> *No person shall,*
> (a) *Kill, harm, harass, capture or take a living member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species;*
> (b) *Possess, transport, collect, buy, sell, lease, trade or offer to buy, sell, lease or trade,*
> *(i) A living or dead member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species,*
> *(ii) Any part of a living or dead member of a species referred to in subclause (i),*
> *(iii) Anything derived from a living or dead member of a species referred to in subclause (i); or*
> (c) *Sell, lease, trade or offer to sell, lease or trade anything that the person represents to be a thing described in subclause (b) (i), (ii) or (iii).*

Site Location	Figure 1
Oro Station Automotive Park	
BEACON ENVIRONMENTAL	Project: 220306 Last Revised: October 2020
Client: OroStation DevCo Inc.	Prepared by: BD Checked by:
N 1:16,000	Inset Map: 1:95,000

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Subsection 10(1)(a) of the Act states that:

> *No person shall damage or destroy the habitat of a species that is listed on the Species at Risk in Ontario list as an endangered or threatened species.*

Several species protected under the ESA have been identified through this study.

2.3 Growth Plan for the Greater Golden Horseshoe (2017)

Under the policies of the Growth Plan for the Greater Golden Horseshoe, 2017, ("Growth Plan"), the subject property is within the Lake Simcoe Regional Airport Economic Employment District. A Ministerial Zoning Order (MZO) was issued on November 1, 2019, which allows the following permitted uses:

1. Every use of land and every erection, location and use of any building or structure is prohibited on the lands … except for:
    a) An automotive research and development facility;
    b) An automotive training and education facility;
    c) An automotive museum;
    d) Accessory uses, buildings and structures;
    e) The uses permitted in the Economic Development Zone in Table A3 of the Zoning By-law; and
    f) The uses permitted in section 7.239 of the Zoning By-law;
2. Every use of land and every erection, location or use of any building or structure is prohibited on the lands shown as the Environmental Protection Area…, except for:
    a) The protection, maintenance, enhancement and restoration of ecosystem forms and functions; and
    b) Drainage, flood and erosion control.

2.4 Lake Simcoe Protection Plan (2009)

The *Lake Simcoe Protection Act*, which was passed in December 2008, provides a legislative framework for protecting the Lake Simcoe watershed. Among other items, the *Act* includes the requirement for a Protection Plan with legally binding policies.

The Lake Simcoe Protection Plan (2009) has separate requirements depending on whether the proposed development is located within an existing settlement area or outside an existing settlement area. For greater certainty, where lands are incorporated into a settlement area after the effective date of the Plan, an application for development or site alteration within those lands is subject to the policies in Chapter 6, excluding policies 6.32 to 6.34 which refer specifically to lands in existing settlement areas.

The subject property is located within an existing settlement area (area designated for development) and is therefore subject to the following policies under the Act.

> *4.8-DP An application for major development shall be accompanied by a stormwater management plan that demonstrates:*
>
> *a. consistency with stormwater management master plans prepared under policy 4.5, when completed;*

b. consistency with subwatershed evaluations prepared under policy 8.3 and water budgets prepared under policy 5.2, when completed;
c. an integrated treatment train approach will be used to minimize stormwater management flows and reliance on end-of-pipe controls through measures including source controls, lot-level controls and conveyance techniques, such as grass swales;
d. through an evaluation of anticipated changes in the water balance between pre-development and post-development, how such changes shall be minimized; and
e. through an evaluation of anticipated changes in phosphorus loadings between pre-development and post-development, how the loadings shall be minimized.

6.32-DP Policies 6.32 - 6.34 apply to existing settlement areas and areas of Lake Simcoe adjacent to these lands, including the littoral zone, and these areas are not subject to policies 6.1 – 6.3, 6.5, 6.11 and policies 6.20 - 6.29.

6.33-DP An application for development or site alteration shall, where applicable:
a. increase or improve fish habitat in streams, lakes and wetlands, and any adjacent riparian areas;
b. include landscaping and habitat restoration that increase the ability of native plants and animals to use valleylands or riparian areas as wildlife habitat and movement corridors; and
c. seek to avoid, minimize and/or mitigate impacts associated with the quality and quantity of urban run-off into receiving streams, lakes and wetlands.

6.34-DP Where, through an application for development or site alteration, a buffer is required to be established as a result of the application of the PPS, the buffer shall be composed of and maintained as natural self-sustaining vegetation.

2.5 County of Simcoe Official Plan Consolidation (2008)

As noted above with respect to land use the lands are identified as a special development area to support the airport. However, Schedule 5.1 Land Use also shows portions of the Simcoe County Greenlands on lands adjacent to the proposed development area. The objective of this system is to conserve the natural character, form and function of the Greenland System throughout the County of Simcoe. The Greenlands System, as mapped in Figure 5.1 is approximate and can be revised subject to an EIS.

Development and/or site alteration that is permitted in the Greenlands Designation may take place where, as determined by an EIS, it would not have a negative impact upon the natural features and ecological functions of the following:

- Significant woodlands;
- Significant wildlife habitat;
- Significant valley lands;
- Fish habitat;
- Areas of Natural and Scientific Interest;

- Environmentally Sensitive Areas;
- Major lake, river, and creek systems;
- Sensitive surface water features, sensitive groundwater features and their related hydrologic functions; and
- Steep slopes.

Development and/or site alteration is not permitted within provincially significant wetlands and the habitat of threatened or endangered species. New uses proposed adjacent to these areas are not permitted unless it can be demonstrated that they do not negatively impact the natural features and associated ecological functions.

The following policy provides details on the identification of significant woodlands:

> *3.8.14 Local municipal official plans may contain policies and mapping that detail the criteria for determining significant woodlands in accordance with the definition of significant woodlands as defined by this Plan. Significant woodlands can also be determined through an Environmental Impact Statement.*
>
> *Outside of a settlement area where a woodlot is determined not to be ecologically or economically important, its potential importance shall be determined by a minimum patch established in the local municipal official plan. In determining the minimum patch size in local municipal Official Plans, the following size criteria established by the Ontario Ministry of Natural Resources and Forestry will be used unless appropriate justification is provided to use different criteria:*
>
> - *where woodland cover is less than 5% of the land cover in the local municipality, woodlands 2 ha in size or larger should be considered significant;*
> - *where woodland cover is 5-15% of the land cover in the local municipality, woodlands 4 ha in size or larger should be considered significant;*
> - *where woodland cover is 16-30% of the land cover in the local municipality, woodlands 20 ha in size or larger should be considered significant; and*
> - *where woodland cover is 31-60% of the land cover in the local municipality, woodlands 50 ha in size or larger should be considered significant.*

Section 3.8.20 states that if it is determined that a property does not contain any natural heritage features and areas on the subject or adjacent lands which could be impacted by the proposed development and that the lands are not required as a linkage, or providing an ecological function to the natural heritage system, no EIS would be required. There are identified Greenlands designated areas adjacent to the subject property to the north, east and south.

Should the findings of an EIS indicate that a development proposal would have a negative impact on the natural features or associated ecological functions for which the lands were identified, the application will not be supported or approved.

Section 3.8.12 states that local municipal official plans shall contain policies and mapping that implement the County's Greenlands and natural heritage policies.

2.6 Township of Oro-Medonte Official Plan (Office Consolidation 2020)

Prior to the province designating the subject lands to be within the Lake Simcoe Airport Economic Employment District, the Township of Oro Medonte Official Plan designated the subject property for industrial use on *Schedule A - Land Use* of the Official Plan. The northernmost parcel was designated for agricultural uses. *Schedule B - Natural Features* show Significant Woodlands and Environmental Protection areas on and adjacent to the subject lands. There is also a watercourse on the northern portion of the subject property.

Although significant woodlands are mapped in *Schedule B*, "significant" in terms of woodlands is defined in the OP as:

> *Ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system. Criteria for determining significance may be recommended by the Province, but municipal approaches that achieve the same objective may also be used.*

The Oro-Medonte Official Plan identifies Environmental Protection Areas within the Township, with the intention of protecting environmentally sensitive areas from incompatible land use activities and uses that would have a negative impact on significant natural features and functions.

Under Section B2, Environmental Protection One (EP1) designation includes all wetlands, provincially significant ANSIs, significant wildlife habitat, habitat of threatened and endangered species and any other areas that have been determined to be significant as a result of a development review process.

Section B2.4 states that all lands within 120 m of the boundary of a wetland, within 50 m of an ANSI, within 50 m of the habitat of vulnerable, threatened or endangered species and within 50 m of the boundary of significant wildlife habitat within the Environmental Protection One designation are considered to be adjacent lands.

Under Section B3, Environmental Protection Two (EP2) areas include woodlands, regionally significant ANSIs, other wildlife habitat areas and fish spawning and nursery areas. New development on these lands is discouraged by the Plan. The development of any use in EP2 that requires an official plan amendment, or a zoning by-law amendment shall also be subject to the preparation of an Environmental Impact Study (EIS) and Management Plan (MP).

Section B3.4, proposed development within 50 m of a significant woodland, 120 m from a wetland, 50 m of any significant wildlife area and 30 m of any fish spawning and nursery area that requires an amendment to the Zoning By-law or to the Official Plan shall also be subject to the findings of an EIS and a MP. The EIS and MP must demonstrate that development can occur without having a negative impact on the significant natural features and ecological functions of the area.

Development is not permitted on these adjacent lands unless an EIS and a management plan are completed and approved by Council. Development setbacks from these features shall be determined through an EIS.

All of the rivers and streams in the Township, as shown on the Official Plan Schedules are considered to be environmentally significant. The intent of the plan is to protect all rivers and streams from incompatible development to minimize the impacts of such development on their function. As such, no development is permitted below the top-of-bank of any river or stream or within 30 m of the top-of-bank.

A reduction in the 30 m setback shall not require an OPA but rather will require a zoning by-law amendment or a minor variance subject to the comments of the appropriate agencies.

2.7 Lake Simcoe Region Conservation Authority Regulations and Guidelines

The LSRCA regulates hazard lands including watercourses, valleylands, shorelines, and wetlands, including lands adjacent to these features.

With respect to wetlands, the regulated area extends to 120 m of a Provincially Significant Wetland and 30 m of all other wetlands. With respect to flood plain and valleylands, the regulation extends 15 m from the greater level of constraint.

Subject to conformity with the applicable Official Plan, and completion of appropriate studies and completion of the Conservation Authority permit process, development may be permitted within the regulated area. Application for development and interference in regulated areas requires the issuance of a permit from the LSRCA. Obtaining a permit generally requires an Environmental Impact Study (EIS). Once requested studies have been completed there may be a requirement for features to be maintained and/or for protective buffers to be placed on features or hazard lands within the study area.

The LSRCA regulation mapping identifies much of the property as being regulated. The LSRCA's mapping is an estimate of the regulated areas and must be confirmed through field investigations. This regulated area is not a 'buffer', but a line that triggers the need for an EIS to satisfy LSRCA policy and regulation should development be proposed within the regulated area.

3. Methodology

3.1 Background Review

Background information pertaining to the natural and physical setting of the subject property and environs was gathered and reviewed at the outset of the project. These information sources included:

- Simcoe County Interactive Mapping (e.g., evaluated wetlands, forest cover, fisheries data);
- Ministry of Natural Resources and Forestry's Make A Map: Natural Heritage Areas website;
- Ontario Reptile and Amphibian Atlas (Ontario Nature 2019); and
- Ontario Breeding Bird Atlas (OBBA) data for 2000-2005.

Other sources of information, such as aerial photography and topographic maps, were also consulted prior to commencing field assessments.

The following previous reports were also reviewed for the subject property:

- *Lake Simcoe Industrial Aeropark Environmental Impact Study and Management Plan*, prepared by R.J. Burnside (2009);
- *Scoped Environmental Impact Statement - Natural Heritage Features and Functions, Lake Simcoe Aeropark*, prepared by Beacon Environmental Limited (2013); and

- *Environmental Assessment for the Proposed Oro-Medonte Automotive Innovation Park,* prepared by Cotyledon Environmental Consulting (2020).

The 2013 Beacon report was previously submitted to the LSRCA. The report was made available through a Freedom of Information (FOI) request and the data cited in this report, confirmed and/or updated in the field by Beacon staff in 2020.

Based on the background review of the sources, the following species listed as Species at Risk in Ontario, have been recorded or are likely to occur on the subject property:

- Barn Swallow (*Hirundo rustica*) – threatened;
- Bobolink (*Dolichonyx oryzivorus*) – threatened;
- Eastern Meadowlark (*Sturnella magna*) – threatened;
- Eastern Wood-Peewee (*Contopus virens*) – special concern;
- Wood Thrush (*Hylocichla mustelina*) – special concern;
- Monarch Butterfly (*Danaus plexippus*) – special concern;
- Butternut (*Juglans cinerea*) – endangered;
- Snapping Turtle (*Chelydra serpentina*) – special concern;
- Little Brown Myotis (*Myotis lucifugus*) – endangered;
- Northern Myotis (*Myotis septentrionalis*) –endangered;
- Tri-coloured Bat (*Pipistrellus subflavus*) – endangered; and
- Unisexual Ambystoma (Jefferson Salamander dependent population) (*Ambystoma laterale-(2) jeffersonianum*) – endangered.

3.2 Field Investigations

Field investigations were undertaken to inventory the flora and fauna of the site, assess physical terrain characteristics, provide an assessment of the ecological features and functions within the study area and confirm the extent of wetlands and other natural features. Field investigations were undertaken on the following dates in 2020:

Vegetation Communities and Flora	June 30, July 29, August 13
Wetland Boundary Mapping	July 29
Bat Acoustic Monitoring	June 30 to July 17
Breeding Bird Survey	June 22, 29 and July 6
Evening Whip-poor-will Survey	July 4

Fish Habitat Assessment

In 2012, Beacon Environmental undertook a fish habitat assessment in the watercourses located along the northern limit of the property and centrally on the property. No fish sampling was undertaken at that time as fish sampling of the central watercourse was conducted in 2008 by R.J. Burnside. In 2012 a visual assessment of the fish habitat was completed by Beacon staff to provide a better understanding of the aquatic resources on the site. The presence of these features was confirmed in 2020; no additional assessment of fish habitat was considered necessary.

Vegetation Communities and Flora

Vegetation communities were mapped and described following the Ecological Land Classification (ELC) System for Southern Ontario (Lee *et al*. 1998). Vegetation community boundaries were first delineated on field maps through the interpretation of recent aerial photographs.

The vegetation community polygons determined through aerial photos were more precisely defined and identified to ELC Vegetation Type or Ecosite or other description. ELC communities were based on dominant species cover, community structure, slope position, soils, level of disturbance, presence of indicator species, and other notable features.

Botanical surveys were completed by traversing the site and visiting each vegetation community type. Local plant rarity status was based on the compilation list for the Lake Simcoe Watershed (LSEMS 2003) and Simcoe County (Riley *et al*. 1989). Provincial status for flora was based on data base of the Ministry of Natural Resources Natural Heritage Information Centre (NHIC 2018).

Field investigations included an assessment of the ecological features and functions of the subject property, including opportunistic observations for wildlife. Lands adjacent to the boundaries of the subject property were assessed by visually survey while walking the lands boundaries and through interpretation or aerial photography.

The wetland boundary in the northern portion of the subject property was determined by two Beacon ecologists using the Ontario Wetland Evaluation System methodology (i.e., greater than 50% wetland plants). The location of the wetland boundary was recorded using a pole-mounted Survey-grade GPS/GNSS units by Eos (Arrow 200) with approximately 1 to 3 m accuracy.

Amphibian Breeding Survey

Breeding surveys for frogs and toads were completed in 2012 by Beacon following Environment Canada's Marsh Monitoring Program protocol (Gartshore *et al*. 2004). Species, calling locations and approximate numbers of calling individuals were recorded and mapped. The survey method provides an indication of amphibian abundance during the breeding season. Visual inspections of all ponds within the subject property were undertaken in 2012 to detect the presence, or absence, of salamander egg masses. These daytime surveys were undertaken on April 15 and May 20, 2012. Given that there has been no site alteration since 2012 and the habitats were confirmed to still be present in 2020, no additional amphibian surveys were conducted in 2020.

Breeding Bird Survey

Three early morning breeding bird surveys were conducted for the subject property in the mornings of June 22, 29 and July 6, 2020 with start times of 7:40, 7:00, and 6:15 am. respectively, the temperatures were within 5^{o} C of normal, it was not raining, nor excessively windy. The breeding bird community was surveyed using a roving type survey, in which all parts of the subject property were walked to within 50 m and all birds heard or observed and showing some inclination toward breeding were recorded as breeding species. All birds heard and seen were recorded in the location observed on an aerial photograph of the site.

In addition to the early morning surveys, two crepuscular (dusk or dawn) surveys were undertaken on July 4 and 6, 2020 to determine if Eastern Whip-poor-Will (*Antrostomus vociferus*) was present, as this species is protected under the ESA. The first survey occurred after sunset (9:25 pm – 11.30 pm) and was timed according to peak activity periods for Whip-poor-will following the 2020 lunar cycle. The second survey was a pre-dawn survey and commenced at 4:00 am. Surveys were conducted following protocols provided by the MNRF (2016) and a Canadian Nightjar Survey Protocol (Knight 2017) and were conducted during ideal conditions (moon > 50% illuminated, low noise, temperatures between 15 and 25°C, no precipitation, wind less than 5.4 m/sec, moon above the horizon and not obscured by clouds). Both surveys involved stopping at six survey stations (**Figure 2A** and **2B**) and listening for the species' distinct vocalization for at least ten minutes. Survey stations were located where both open and forested habitat occurred in close proximity and to obtain good coverage of the subject property. Note that only two surveys were conducted because the ecological communities on the subject property were considered to have only a low likelihood of providing breeding habitat for Eastern Whip-poor-will.

Bat Acoustic Monitoring

Potential roosting habitat for endangered bat species was identified and acoustic monitoring was undertaken during the roosting period in 2020. Twenty monitoring stations were established within the subject property. Monitoring locations are shown on **Figures 3A** and **3B** and are numbered based on the monitoring equipment identification number rather than sequentially from 1 through 20. The monitoring locations were selected based on ELC community and proximity to areas of potential disturbance. Equipment was deployed following the Ministry of Natural Resources and Forestry (MNRF) *Survey Protocol for Species at Risk Bats within Treed Habitats* (MNRF 2017) with a density of approximately once detector per hectare of targeted habitat to provide near simultaneous coverage during the monitoring period. Detectors were placed in proximity to candidate roost trees (e.g. trees that support roost characteristics). At each station, a SM40BAT passive monitor, equipped with a SMM-U2 ultrasonic, omni-directional, microphone was installed. Microphones were deployed at least 2.5 m above the ground and were oriented to optimize echolocation detections.

Each monitor was programmed to record during triggered events each night for a period of six hours beginning half an hour prior to sunset. An appropriate gain setting to maximize the signal to noise ratio of the input signals was used based on the SMM-U1 or SMM-U2 microphone, the surrounding habitat and proximity to potential roost trees. The units were programmed to record in full spectrum with a 256 kHz sample rate. The high pass filter was set to 16 kHz to eliminate low frequency noise but to still capture the lowest frequency bat calls. The trigger level was set to +18SNR with a 0.5 second minimum call duration trigger. All files were recorded as full spectrum in .WAV format.

Recordings from the twenty detectors were analyzed using KaleidoscopePro software. A combination of auto-identification and manual analysis was applied to call files to make species determinations. All unclassified files (No ID Files) were manually reviewed for call frequency to determine if unclassified calls fell within the 40 kHz Myotis species and Tri-coloured Bat echolocation range. If the call did not fall within the approximate 40 kHz range, it was not analyzed further as it is likely not an endangered species of bat. A subset of auto identified non-endangered bat call files were reviewed to determine species presences, this was undertaken for each detector to confirm occurrence in each monitoring area. Furthermore, a random selection of noise files was reviewed to ensure that the filters functioned correctly.

Existing Conditions - North

Figure 2A

Oro Station Automotive Park

Legend

- Subject Property
- Ecological Community
- Wetland Boundary
- Evaluated Wetland - Not Provincially Significant (MNRF)
- Permanent Watercourse (OHN; MNRF)
- Whip-poor-will Survey Locations
- Amphibian Survey Locations (2012)
- Butternut Trees
- Carex muehlenbergii var. enervis
- Carex cryptolepis
- New York Fern (Approximate Location)
- Bat Detector - Little Brown Myotis Recorded
- Bat Detector - Northern Myotis Recorded
- Bat Detector - Tri-coloured Bat Recorded

Code	Wetland Communities
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAS2	Mineral Shallow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS3-1	Cattail Organic Shallow Marsh
SWD2-2	Green Ash Mineral Deciduous Swamp
SWT2-5	Red-osier Mineral Thicket Swamp
	Aquatic Communities
SAF1	Floating-leaved Shallow Aquatic
	Forest Communities
FOC4-1	Fresh - Moist White Cedar Coniferous Forest
FOD6-1	Fresh - Moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh - Moist Sugar Maple - Hardwood Deciduous Forest
FOD7-2	Fresh - Moist Ash Lowland Deciduous Forest
FOM7-1	Fresh - Moist White Cedar - Sugar Maple Mixed Forest
FOM7-2	Fresh - Moist White Cedar - Hardwood Mixed Forest
	Cultural Communities
CUM1	Mineral Cultural Meadow
CUT1	Mineral Cultural Thicket
	Other Communities
AG	Agricultural Crop
ANT	Anthropogenic
HE	Hedgerow

BEACON ENVIRONMENTAL

Project: 220306

Last Revised: October 2020

Client: OroStation DevCo Inc.

Prepared by: BD

Checked by:

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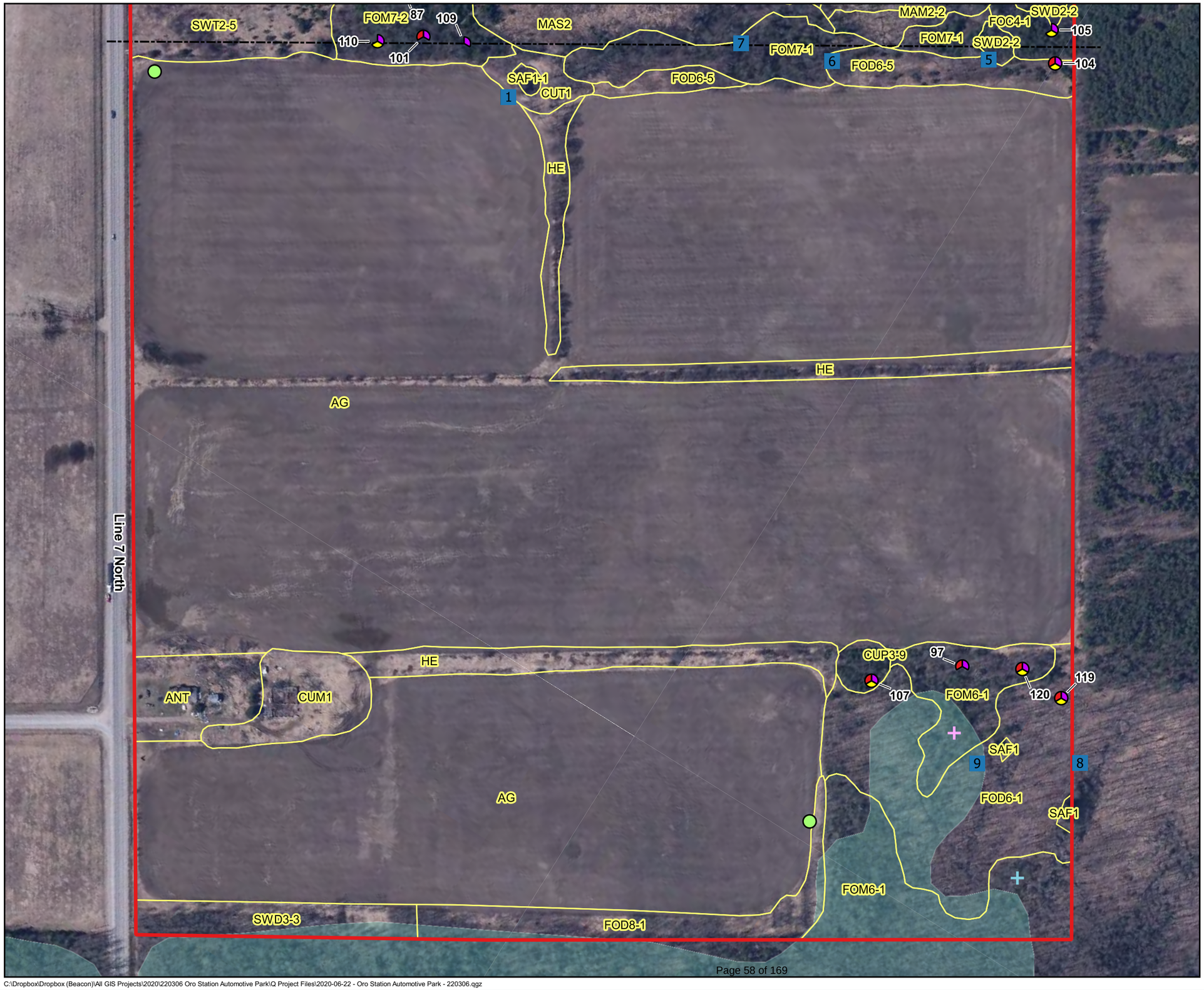

Existing Conditions - South

Figure 2B

Oro Station Automotive Park

Legend

- Subject Property
- Ecological Community
- Evaluated Wetland - Not Provincially Significant (MNRF)
- Whip-poor-will Survey Locations
- Amphibian Survey Locations
- New York Fern (Approximate Location)
- Woodland Horsetail (Approximate Location)
- Bat Detector - Little Brown Myotis Recorded
- Bat Detector - Northern Myotis Recorded
- Bat Detector - Tri-coloured Bat Recorded

Code	Wetland Communities
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAS2	Mineral Shallow Marsh
MAS3-1	Cattail Organic Shallow Marsh
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp
SWT2-5	Red-osier Mineral Thicket Swamp
	Aquatic Communities
SAF1	Floating-leaved Shallow Aquatic
	Forest Communities
FOC4-1	Fresh - Moist White Cedar Coniferous Forest
FOD6-1	Fresh - Moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh - Moist Sugar Maple - Hardwood Deciduous Forest
FOD8-1	Fresh - Moist Aspen Deciduous Forest
FOM6-1	Fresh - Moist Sugar Maple - Hemlock Mixed Forest
FOM7-1	Fresh - Moist White Cedar - Sugar Maple Mixed Forest
FOM7-2	Fresh - Moist White Cedar - Hardwood Mixed Forest
	Cultural Communities
CUM1	Mineral Cultural Meadow
CUP3-9	Norway Spruce - European Larch Coniferous Plantation
CUT1	Mineral Cultural Thicket
	Other Communities
AG	Agricultural Crop
ANT	Anthropogenic
HE	Hedgerow

BEACON ENVIRONMENTAL

Project: 220306
Last Revised: October 2020

Client: OroStation DevCo Inc.

Prepared by: BD
Checked by:

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Proposed Development - North

Figure 3A

Oro Station Automotive Park

Legend

- Subject Property
- Ecological Community
- Wetland Boundary
- Evaluated Wetland - Not Provincially Significant (MNRF)
- Permanent Watercourse (OHN; MNRF)
- Butternut Trees
- Proposed Development
- Approximate Limit of Grading
- Vegetation Communities to be Removed
- Vegetation Protection Zones to be Preserved
- Vegetation Protection Zones to be Removed

Code	Wetland Communities
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAS2	Mineral Shallow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS3-1	Cattail Organic Shallow Marsh
SWD2-2	Green Ash Mineral Deciduous Swamp
SWT2-5	Red-osier Mineral Thicket Swamp
Code	**Aquatic Communities**
SAF1	Floating-leaved Shallow Aquatic
Code	**Forest Communities**
FOC4-1	Fresh - Moist White Cedar Coniferous Forest
FOD6-1	Fresh - Moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh - Moist Sugar Maple - Hardwood Deciduous Forest
FOD7-2	Fresh - Moist Ash Lowland Deciduous Forest
FOM7-1	Fresh - Moist White Cedar - Sugar Maple Mixed Forest
FOM7-2	Fresh - Moist White Cedar - Hardwood Mixed Forest
Code	**Other Communities**
AG	Agricultural Crop
ANT	Anthropogenic
HE	Hedgerow
Code	**Cultural Communities**
CUM1	Mineral Cultural Meadow
CUT1	Mineral Cultural Thicket

BEACON ENVIRONMENTAL

Project: 220306
Last Revised: December 2020

Client: OroStation DevCo Inc.

Prepared by: RA
Checked by: GP

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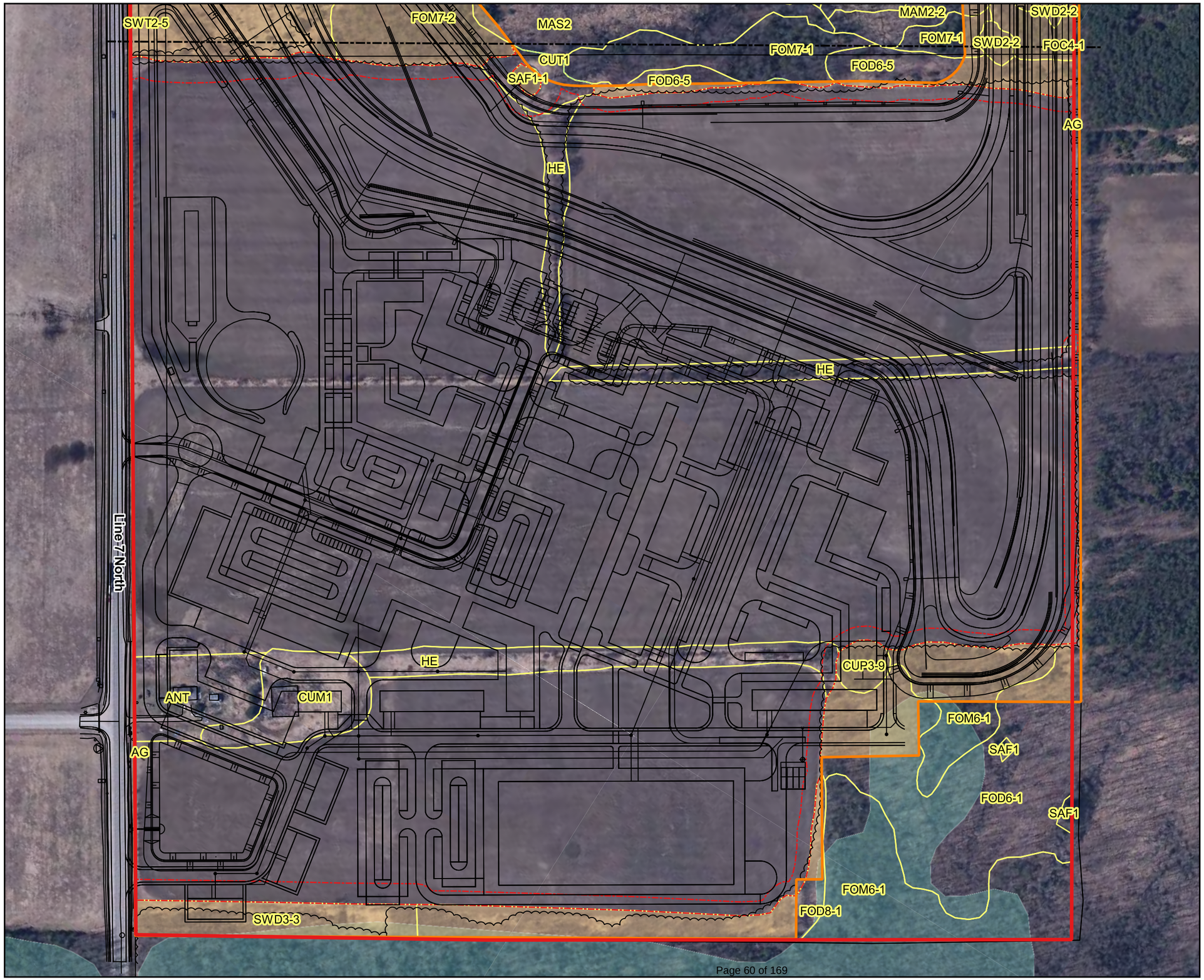
Proposed Development - South

Figure 3B

Oro Station Automotive Park



Legend

- Subject Property
- Ecological Community
- Evaluated Wetland - Not Provincially Significant (MNRF)
- Proposed Development
- Approximate Limit of Grading
- Vegetation Communities to be Removed
- Vegetation Protection Zones to be Preserved
- Vegetation Protection Zones to be Removed

Code	Wetland Communities
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAS2	Mineral Shallow Marsh
MAS3-1	Cattail Organic Shallow Marsh
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp
SWT2-5	Red-osier Mineral Thicket Swamp
	Aquatic Communities
SAF1	Floating-leaved Shallow Aquatic
	Forest Communities
FOC4-1	Fresh - Moist White Cedar Coniferous Forest
FOD6-1	Fresh - Moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh - Moist Sugar Maple - Hardwood Deciduous Forest
FOD8-1	Fresh - Moist Aspen Deciduous Forest
FOM6-1	Fresh - Moist Sugar Maple - Hemlock Mixed Forest
FOM7-1	Fresh - Moist White Cedar - Sugar Maple Mixed Forest
FOM7-2	Fresh - Moist White Cedar - Hardwood Mixed Forest
	Cultural Communities
CUM1	Mineral Cultural Meadow
CUP3-9	Norway Spruce - European Larch Coniferous Plantation
CUT1	Mineral Cultural Thicket
	Other Communities
AG	Agricultural Crop
ANT	Anthropogenic
HE	Hedgerow

BEACON ENVIRONMENTAL

Project: 220306
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Other Wildlife

Incidental observations of wildlife species, including mammals and reptiles were made during field investigations based on direct observations, calls, tracks, scat, nests or other evidence of presence.

4. Existing Conditions

4.1 Vegetation

Ecological Land Classification designations (Lee *et al*. 1998) for the subject property are described below and illustrated in **Figure 2A** and **Figure 2B**. Much of the subject property consists of existing agricultural fields. There are natural areas near the northern boundary, central area and along the southern boundary. These areas have had some minor incursion of clearing for agricultural use but have been regenerating for some years or have always been forests or wetlands but have had some level of cultural influences such as selective logging.

Wetland communities in the northern portion are associated with the floodplain of a watercourse which flows from west to east through the subject lands. Much of the wetland area has been affected by beaver activity and is represented by old beaver ponds.

The central portion consists of upland forest, various wetland types and smaller areas of regenerating forest which was likely subjected to historic farming and grazing activity. Drainage is slow and poor but flows in a westerly direction.

Along the southern boundary there is moist deciduous and mixed forest and, beyond the property boundary to the south, a swamp that forms part of the extensive Shellswell Creek Wetland Complex.

The following is a description of the 18 vegetation communities that occur within the subject property.

Wetland Communities

Green Ash Mineral Deciduous Swamp (SWD2-2)

This wetland community occurs in several areas of the central natural area and along the fringes of the large shallow marsh in the northern natural area. The community has a canopy that is dominated by Green Ash (*Fraxinus pennsylvanica*), with some Swamp Maple (*Acer* x *freemanii*), Red Maple (*A. rubrum*), White Elm (*Ulmus americana*), Yellow Birch (*Betula alleghaniensis*), Trembling Aspen (*Populus tremuloides*) and Black Ash (*F. nigra*) (**Photograph 1**). The shrub layer is dominated by saplings of Green Ash and Red-osier Dogwood (*Cornus sericea*). The ground flora cover is variable, depending on canopy cover, from sparse to well developed. Species include Sensitive Fern (*Onoclea sensibilis*), Reed Canary Grass (*Phalaris arundinacea*), Spotted Jewelweed (*Impatiens capensis*), Spotted Joe-pye Weed (*Eutrochium maculatum*) and False Nettle (*Boehmeria cylindrica*).

Swamp Maple Deciduous Swamp (SWD3-3)

This community is located in the southwestern edge of the subject property, and extending beyond the property boundary to the south, this community's mature forest canopy consists of Swamp Maple (*Acer x freemanii*), Green Ash, Balsam Poplar (*Populus balsamifera*) and Trembling Aspen.

Red-osier Mineral Thicket Swamp (SWT2-5)

This community occurs in two location within the western portion of the central natural area. They are characterized by scattered Red-osier Dogwood with some Meadow Willow (*Salix petiolaris*), Pussy Willow (*S. discolor*) and Bebb's Willow (*S. bebbiana*), and saplings of Green Ash, Eastern White Cedar (*Thuja occidentalis*), Trembling Aspen and White Elm (**Photograph 2**). The herbaceous layer is dense and continuous with Reed Canary Grass, Purple Loosestrife (*Lythrum salicaria*), Fox Sedge (*Carex vulpinoidea*), Spotted Joe-pye Weed, Rough-stemmed Goldenrod (*Solidago rugosa*), and Panicled Aster (*Symphyotrichum lanceolatum*).

Reed Canary Grass Mineral Meadow Marsh (MAM2-2)

This meadow marsh community is found in eastern and western portions of the central natural area. Reed Canary Grass (*Phalaris arundinacea*) represents the dominant vegetation (**Photograph 3**)**.** Other species include scattered willow shrubs, a few Narrow-leaved Cattail and Broadleaf Cattail (*Typha angustifolia*, *T. latifolia*), Field Horsetail (*Equisetum arvense*), Purple Loosestrife and Purple-stemmed Aster (*Symphyotrichum puniceum*). Although wetlands today, these areas were likely formerly farmed.

Mineral Shallow Marsh (MAS2)

This marsh community is found in the northern natural area and in the central portion of the central natural area. The northern community is associated with flooding from a beaver pond complex downstream in the northeast corner of the subject property. The community experiences fluctuating water levels depending on the time of year and beaver activity. The community supports a number of grasses including Reed Canary Grass, Rice Cutgrass (*Leersia oryzoides*), Fowl Manna Grass (*Glyceria striata*), Fowl Bluegrass (*Poa palustris*), Porcupine Sedges (*Carex hystericina*), Fringed Sedge (*C. crinita*) and scattered areas of cattail (**Photograph 4**). Forb species include Spotted Joe-pye-weed, Boneset (*Eupatorium perfoliatum*), and Spotted Jewelweed. In beaver flooded areas, standing dead trees are scattered throughout the community.

Cattail Mineral Shallow Marsh (MAS2-1)

This marsh community is found in the western portion of the central natural area and is dominated almost entirely by Narrow-leaved and Broad-leaved Cattails with some Reed Canary Grass (**Photograph 5**).

Photograph 1. Green Ash Mineral Swamp (July 29, 2020)

Photograph 2. Red-osier Mineral Thicket Swamp (July 29, 2020)

Photograph 3. Reed Canary Grass Mineral Meadow Marsh (July 29, 2020)

Photograph 4. Mineral Shallow Marsh (2012)

Photograph 5. Cattail Mineral Shallow Marsh (July 29, 2020)

Cattail Organic Shallow Marsh (MAS3-1)

This wetland community is located in the eastern portion of the central natural area and is dominated by Broad-leaved Cattail with some Reed Canary Grass, scattered Heart-leaved Willow (*Salix eriocephala*) and lesser amounts of Soft-stemmed Bulrush (*Schoenoplectus tabernaemontani*), Bulbous Water-hemlock (*Cicuta bulbifera*), Water Horsetail (*Equisetum fluviatile*), and Purple-stemmed Aster (**Photograph 6**).

Floating-leaved Shallow Aquatic (SAF1)

Open shallow water communities occur in several areas of the subject property. In the northern natural area, this community is a result of flooding from beaver dams while one in the central portion is a dug pond (**Photograph 7**). The larger, open shallow aquatic areas are often dominated by duckweed (*Lemna minor*). The edges of the ponds support specie such as cattails, Reed Canary Grass, Lakebank Sedge (*Carex lacustris*), Devil's Beggarticks (*Bidens frondosa*), Soft Rush (*Juncus effuses*) and Northern Water-plantian (*Alisma triviale*).

An ephemeral/semi-permanent pond which supports open water marsh habitat is also found in a hardwood forest located in the southeast corner of the property (**Photograph 8**). The pond supports a dense growth of duckweed, scattered aquatic sedges and Red-osier Dogwood along the pond margins.

Photograph 6. Cattail Organic Shallow Marsh (July 29, 2020)

Photograph 7. Shallow Aquatic Community (Dug Pond) in Central Natural Area (July 29, 2020)

Photograph 8. Shallow Aquatic Community (Pond 8) in Southeast Corner of Subject Property (Spring 2012)

Forested Communities

Fresh – Moist White Cedar Coniferous Forest (FOC4-1)

Located in the eastern portion of the central natural area, this community is characterized by a closed canopy dominated by Eastern White Cedar with the occasional Trembling Aspen and White Elm. The understory is very sparse due to the closed, coniferous canopy but includes scattered individuals of Spinulose Wood Fern (*Dryopteris carthusiana*) and Graceful Sedge (*Carex gracillima*).

Fresh – Moist Sugar Maple – Hemlock Mixed Forest (FOM6-1)

This forested community is in the southeastern corner of the subject property and consists of a closed canopy of mature Sugar Maple, Eastern Hemlock (*Tsuga canadensis*), Green Ash, White Birch (*Betula papyrifera*), White Elm and American Basswood (*Tilia americana*).

Fresh – Moist White Cedar – Sugar Maple Mixed Forest (FOM7-1)

Located within the central natural area, this small community is a mid-aged forest dominated by Sugar Maple (*Acer saccharum*) and Eastern White Cedar, with some American Basswood, Trembling Aspen and Eastern White Pine (*Pinus strobus*).

Fresh – Moist White Cedar – Hardwood Mixed Forest (FOM7-2)

This community is located in the central natural area and consists of a mature forest canopy of Eastern White Cedar, Sugar Maple, American Beech, Green Ash, American Basswood, Trembling Aspen and White Birch. The understory has moderate cover and includes Spinulose Wood Fern and Poison Ivy (*Toxicodendron radicans* var*. rydbergii*).

Fresh – Moist Sugar Maple – Lowland Ash Deciduous Forest (FOD6-1)

This community is found in both the northern natural area and the southeastern corner of the subject property. It is characterized by a closed canopy of mixed aged Sugar Maple with some Green Ash, American Basswood, White Ash (*Fraxinus americana*), Trembling Aspen and smaller amounts of White Birch and White Elm (**Photograph 9**). The shrub species include Chokecherry (*Prunus virginiana*), Poison Ivy and scattered Beaked Hazelnut (*Corylus cornuta*). Herbaceous species are moderate in extent and include Blue Cohosh (*Caulophyllum thalictroides*) and White Trillium (*Trillium grandiflorum*). There are also low, moist areas that support Sensitive Fern, Christmas Fern (*Polystichum acrostichoides*), Bladder Sedge (*Carex intumescens*) and Plantain-leaved Sedge (*C. plantaginea*).

Fresh – Moist Sugar Maple – Hardwood Deciduous Forest (FOD6-5)

This early-mature forest community is in the central part of the central natural area. It is characterized by mature Sugar Maple, White Ash, American Basswood, American Beech, and Red Oak with some White Birch, Eastern Hemlock, Black Cherry and Eastern White Pine. Shrub species include Chokecherry and saplings of Sugar Maple and other canopy tree species. This forest appears to have had some selection or high-grade logging in the past and likely was subjected to cattle gazing. This community also occurs as an immature forest located along the southern edge of the central natural area that used to be part of the adjacent farm field but has been allowed to regenerate.

Fresh – Moist Ash Lowland Deciduous Forest (FOD7-2)

This community is found in two locations in the northeastern portion of the central natural area. Both are immature, early successional forests consisting mainly of Green Ash with some Trembling Aspen and Sugar Maple (**Photograph 10**). As these areas were formally agricultural fields, in some areas, the ground cover consists of mostly grasses such as Smooth Brome (*Bromus inermis*) and Orchard Grass (*Dactylis glomerata*).

Fresh – Moist Poplar Deciduous Forest (FOD8-1)

This area is located along the southern edge of the subject property and is made up of mid-aged Trembling Aspen, Balsam Poplar with some Green Ash (**Photograph 11**). The shrubs include Red Raspberry (*Rubus ideaus*) and Blackberry (*Rubus alleghaniensis*).

Photograph 9. Mixed Age Sugar Maple – Lowland Ash (July 29, 2020)

Photograph 10. Green Ash Lowland Deciduous Forest (July 29, 2020)

Photograph 11. Fresh – Moist Poplar Deciduous Forest (Aug. 29, 2012)

Cultural Communities

Mineral Cultural Meadow (CUM 1)

This community occurs along the 7th Line and is associated with the farmstead. The areas represent a mix of abandoned farm fields and locations where fill has been placed on the property **(Photograph 12**). The vegetation community is dominated by common old field species that include scattered saplings of Manitoba Maple (*Acer negundo*) and Green Ash, Canada Goldenrod (*Solidago canadensis*), clovers (*Melilotus albus*, *Trifolium pratense*, *Medicago lupulina*), Cow Vetch (*Vicia cracca*), Queen Anne's Lace (*Daucus carota*), Chicory (*Cichorium intybus*) and Bird's-foot Trefoil (*Lotus corniculatus*). Grasses are represented by a mix of species including *Poa compressa*, *P. pratensis*, *Phleum pretense*, *Dactylis glomerata*, and *Bromus inermis*.

Photograph 12. Mineral Cultural Meadow (July 23, 2012)

Hedgerows (HE)

Numerous hedgerows border and separate agricultural fields on the subject property. These linear treed features contain a variety of species, mostly Sugar Maple, Manitoba Maple, White Ash, American Basswood, Black Walnut (*Juglans nigra*) and some Butternut (*J. cinerea*). Shrubs include Chokecherry, Common Buckthorn, Tartarian Honeysuckle (*Lonicera tatarica*) and Wild Red Raspberry. A number of the features are vegetated rock piles that historically separated the farmed fields. The ground cover includes a mix of old field forbs and grasses that occur within the site.

4.1.1 Summary

No provincially rare vegetation communities as identified the by MNRF Natural Heritage Information Centre occur within the subject lands. In addition, no locally rare communities or assemblages of flora were noted. Within the study area, all vegetation communities have been influenced to a greater or lesser extent by human activity. Many of the vegetation communities are culturally-modified and represent various stages of natural regeneration of areas that were historically farmed.

4.2 Flora

A floristic inventory of the subject lands was undertaken in June, July and August 2020. A total of 206 species were documented for the study area in 2020 **(Appendix A).** Of the species documented, 59 (29%) are non-native species. This relatively high percentage of non-native plants is indicative of areas that have historically been altered by agricultural practices.

The species composition is typical for a landscape that supports a mix of mature forest, immature, regenerating forests, meadow and marsh habitats. However, high quality flora communities are absent. For example, forest stands on the property support low quality forest ephemeral plant communities. This is mostly likely a result of historic livestock grazing and logging. Similarly, the swamps and marshes support relatively low plant diversity as the vegetation communities are comprised of typical or common wetland plant species. This low wetland plant diversity can be attributed to historical clearing of the lands and more recently the influence of the alternating absence and presence of beaver activity.

4.2.1 Rarity

All species are common to Ontario except for two; Butternut is ranked “S2?”, meaning it is possibly at high risk of extirpation, and Black Ash is ranked “S3” meaning it is at moderate risk of extirpation.

Butternut is also designated as endangered under the *Endangered Species Act* due to dramatic declines in their numbers as a result of a canker infection that eventually kills the tree. Seventeen Butternut trees were documented on the property, mostly in hedgerows in the northern portion of the subject property (**Figure 2A**). A Butternut Health Assessment (BHA) was conducted on these trees and based on this assessment five of the 17 trees are Category 2 (**Photograph 13** and **14**). Leaf samples were collected from the five Category 2 trees and sent to Precision Biomonitoring for DNA analysis to determine if these trees are pure Butternut or if hybridity would be detected. All five samples were negative for hybridity and are therefore regulated under the *ESA.* Results of the DNA test and a BHA Report are included in **Appendix B.**

Photograph 13. Example of a Retainable (Category 2) Butternut (#18) (July 29, 2020)

Photograph 14. Example of a Non-Retainable (Category 1) Butternut (#9) (July 29, 2020)

Black Ash was assessed as threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in 2018. Provincially, Black Ash is currently listed as Not At Risk by the Committee on the Status of Species at Risk in Ontario (COSSARO). This species occurs in swamp units on the subject property.

In 2012, Beacon documented the following:

> *For the study area, four species of vascular plants are considered rare within the Lake Simcoe Watershed, New York Fern (*Thelypteris noveboracensis*), Short-beaked Sedge (*Carex brevior*), Downy Willow Herb (*Epilobium strictum*) and Flat-top White Aster (*Doellingeria umbellata *var.* umbellata*). New York Fern is located in the mixed forest located in the southeast corner of the property and a hardwood forest in the northeast corner of the property. Flat-top White Aster and Short-beaked Sedge are found in the forest lands along the central watercourse and Hawkestone tributary near the eastern limits of the property. Downy Willow Herb is associated with wetter pockets of a cultural thicket community located north of the central watercourse and forest edge along the southern boundary of the property*.

None of the above four species recorded in 2012 were observed in 2020. However, one further species documented in 2020 is considered rare in the Lake Simcoe watershed: Northeastern Sedge (*C. cryptolepis*) (S4). In addition, Nerveless Muhlenberg's Sedge (*Carex muehlenbergii* var. *enervis*) (S1/S2) was observed in 2020 and is considered provincially rare. Both species were found in the eastern portion of the central natural area (**Figure 2A**).

4.3 Birds

A total of 59 species of breeding birds were recorded on the subject property during the 2020 survey season (**Table 1**). This relatively high number is reflective of the habitat diversity within the subject property as described in the preceding sections. Deciduous and coniferous woodlands, swamps, thicket and open meadow and marsh communities are all present, in addition to large open agricultural areas. Avian observations were generally distributed throughout the subject property, with most observations concentrated within the wooded areas and wetlands.

Many of the breeding records were common species regularly found in rural areas including the four most abundant species in descending order: Red-winged Blackbird (*Agelaius phoeniceus*), Song Sparrow (*Melodia melodpiza*), American Robin (*Turdus migratorius*) and Red-eyed Vireo (*Vireo olivaceus*). Greater than ten breeding pairs or territories were recorded for each of these species. Approximately 35 Red-winged Blackbird males were noted displaying breeding behaviour, though these birds are polygamous and do not form monogamous breeding pairs. Other species recorded in high abundance (greater than five individuals) were noted and included Chipping Sparrow (*Spizella passerina*), European Starling (*Sturnus vulgaris*), American Goldfinch (*Spinus tristis*), House Wren (*Troglodytes aedon*) and Killdeer (*Charadrius vociferus*) among others.

A number of species predominantly nesting in woodlands were recorded and included Northern Flicker (*Colaptes auratus*), Red-tailed Hawk (*Buteo jamaicensis*), White-breasted Nuthatch (*Sitta carolinensis*), Great-horned Owl (*Bubo virginianus*), Chestnut-sided Warbler (*Setophaga pensylvanica*), Ovenbird (*Seiurus aurocapillus*), Rose Breasted Grosbeak (*Pheucticus ludovicianus*) and Great Crested Flycatcher (*Myiarchus crinitus*). More specifically, species associated with moist or treed swamp were also present within these noted communities and included bird species such as the Veery (*Catharus fuscescens*) and Northern Waterthrush (*Parkesia noveboracensis*).

The subject property contains wetland units including marsh, swamp, open water and moist thicket communities. A number of bird species typically breeding within or associated with these wetland units were recorded and included Wood Duck (*Aix sponsa*), Wilsons Snipe (*Gallinago delicata*), Swamp Sparrow (*Melospiza georgiana*), Common Yellowthroat (*Geothlyphis trichas*), Yellow Warbler (*Setophaga petechia*), Green Heron (*Butorides virescens*) and Willow Flycatcher (*Empidonax traillii*), in addition to the already noted Red-winged Blackbird which was the most abundant species observed throughout these surveys.

The open country areas supported species including Killdeer, Vesper Sparrow (*Pooecetes gramineus*) and Savannah Sparrow (*Passerculus sandwichensis*).

Area-sensitive birds are those that require larger tracts of suitable habitat in which to breed or are those that have a higher breeding success in larger areas of suitable habitat. Nine such species were recorded and eight of these are considered forest-sensitive species requiring woodland habitat in which to breed successfully. There were: Hairy Woodpecker (*Dryobates villosus*), Pileated Woodpecker (*Dryobates pileatus*), Least Flycatcher (*Empidonax minimus*), White-breasted Nuthatch, Veery, Black-and-white Warbler (*Mniotilta varia*), American Redstart and Ovenbird. The remaining area-sensitive species was the Savannah Sparrow. This is a grassland-sensitive species that often requires large areas of open habitat in which to breed however remains a common breeder in a wide variety of such open habitats, including old-field and agricultural edge habitat. Seven singing males of this species were present.

No species ranked as S1 through S3 (Critically Imperiled through Vulnerable) by the province were present during the 2020 survey season. Two species noted under the ESA were present. Both the

Wood Thrush (*Hylocichla mustelina*) and Eastern Wood-pewee are listed as Special Concern under this legislation, a designation which does not receive protection through the ESA. The Wood Thrush is however listed as threatened federally by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The territories of these birds were encountered within units of deciduous woodland.

All species are common to Ontario, southern Ontario and the Lake Simcoe Watershed. The species composition is typical for a landscape that supports a mix of mature forest, shrub lands and meadow and marsh habitats. Three species of birds, Bobolink, Eastern Meadowlark and Barn Swallow occur in the local area and are listed as threatened under the ESA. Breeding on the site by these species was not documented during the 2012 breeding season nor in 2020. Inspection of the house and barn structures on the property yielded no mud cup nests of Barn Swallow, indicating that the species has not recently nested on the subject property.

Two crepuscular (dusk or dawn) surveys for Eastern Whip-poor-Will revealed no calls or observations for this species on or adjacent to the subject property.

Table 1. Breeding Birds2020

Common Name	Scientific Name	Species Status				
		Ontario	*Species at Risk in Ontario*	*Ecoregion 6E*	*Lake Simcoe Watershed*	*Area Sensitive*
Green Heron	*Butorides virescens*	S4		C	C	
Wood Duck	*Aix sponsa*	S5		C	C	
Killdeer	*Charadrius vociferus*	S5		C	C	
Wilson's Snipe	*Gallinago delicata*	S5		C	C	
Red-tailed Hawk	*Buteo jamaciemsis*	S5		C	C	
American Kestrel	*Falco sparverius*	S5		C	C	
Wild Turkey	*Meleagris gallopavo*	S4		C	C	
American Woodcock	*Scolopax minor*	S5		C	C	
Mourning Dove	*Zenaida macroura*	S5		C	C	
Black-billed Cuckoo	*Coccyzus erythropthalmus*	S5		C	C	
Great Horned Owl	*Bubo virginianus*	S4		C	C	
Northern Flicker	*Colaptes auratus*	S5		C	C	
Pileated Woodpecker	*Dryocopus pileatus*	S5		C	C	Y
Hairy Woodpecker	*Picoides villosus*	S5		C	C	Y
Downy Woodpecker	*Picoides pubescens*	S5		C	C	
Eastern Wood-pewee	*Contopus virens*	S4	SC	C	C	
Alder Flycatcher	*Empidonax alnorum*	S5		C	C	
Willow Flycatcher	*Empidonax traillii*	S5		C	C	
Eastern Phoebe	*Sayornis phoebe*	S5		C	C	
Great Crested Flycatcher	*Myiarchus crinitus*	S5		C	C	
Least Flycatcher	*Empidonax minimus*	S5		C	C	Y
Eastern Kingbird	*Tyrannus tyrannus*	S5		C	C	
Red-eyed Vireo	*Vireo olivaceus*	S5		C	C	
Warbling Vireo	*Vireo gilvus*	S5		C	C	
Tree Swallow	*Tachycineta bicolor*	S5		C	C	
Blue Jay	*Cyanocitta cristata*	S5		C	C	
American Crow	*Corvus brachyrhynchos*	S5		C	C	
Black-capped Chickadee	*Poecile atricapillus*	S5		C	C	
White-breasted Nuthatch	*Sitta carolinensis*	S5		C	C	Y
House Wren	*Troglodytes aedon*	S5		C	C	
American Robin	*Turdus migratorius*	S5		C	C	
Gray Catbird	*Dumetella carolinensis*	S5		C	C	
Brown Thrasher	*Toxostoma rufum*	S5		C	C	
Cedar Waxwing	*Bombycilla cedrorum*	S5		C	C	
European Starling	*Sturnus vulgaris*	SE		C	C	
Veery	*Catharus fuscescens*	S5		C	C	Y
Wood Thrush	*Hylocichla mustelina*	S5	SC	C	C	
Yellow Warbler	*Dendroica petechia*	S5		C	C	
Chestnut-sided Warbler	*Setophaga pensylvanica*	S5		C	C	
Black-and-White Warbler	*Mniotilta varia*	S5		C	C	Y
Mourning Warbler	*Geothlypis philadelphia*	S4		C	C	
Common Yellowthroat	*Geothlyphis trichas*	S5		C	C	
American Redstart	*Setophaga ruticilla*	S5		C	C	Y
Northern Waterthrush	*Seiurus noveboracensis*	S5		C	C	

Common Name	Scientific Name	Species Status				
		Ontario	*Species at Risk in Ontario*	*Ecoregion 6E*	*Lake Simcoe Watershed*	*Area Sensitive*
Ovenbird	*Seiurus aurocapillus*	S4		C	C	Y
Northern Cardinal	*Cardinalis cardinalis*	S5		C	C	
Indigo Bunting	*Passerina cyanea*	S5		C	C	
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	S5		C	C	
Indigo Bunting	*Passerina cyanea*	S5		C	C	
Swamp Sparrow	*Melospiza georgiana*	S5		C	C	
Chipping Sparrow	*Spizella passerina*	S5		C	C	
Vesper Sparrow	*Pooecetes gramineus*	S4		C	C	
Savannah Sparrow	*Passerculus sandwichensis*	S4		C	C	Y
Song Sparrow	*Melospiza melodia*	S5		C	C	
Red-winged Blackbird	*Agelaius phoeniceus*	S5		C	C	
Common Grackle	*Quiscalus quiscula*	S5		C	C	
Brown-headed Cowbird	*Molothrus ater*	S4		C	C	
Baltimore Oriole	*Icterus galbula*	S4		C	C	
American Goldfinch	*Cardeulis tristis*	S5		C	C	
House Sparrow	*Passer domesticus*	SE		C	C	

Key to Status

COSEWIC National	END	Endangered	Considered to be a nationally endangered or threatened species by the Committee on the Status of Endangered Wildlife in Canada.
	THR	Threatened	
	SC	Special Concern	A wildlife species identified by the COSEWIC that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
COSSARO Provincial	END	Endangered	Considered to be an Endangered or Threatened species by MNR Committee on the Status of Species at Risk in Ontario for the purposes of the *Endangered Species Act*
	THR	Threatened	
	SC	Special Concern	A wildlife species identified by COSSRARO that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
Natural Heritage Information Centre Provincial S-Ranking (MNR)	S1	Extremely Rare	Usually 5 or fewer occurrences in the province or very few remaining individuals; especially vulnerable to extirpation.
	S2	Very Rare	Usually between 5 and 20 occurrences in the province or many individuals in fewer occurrences; often susceptible to extirpation.
	S3	Rare to Uncommon	Usually between 20 and 100 occurrences in the province; may have few occurrences but with a large number of individuals in some populations. Most species with an S3 are assigned to the watch list, unless they have a relatively high global rank.
	S4	Common	Apparently secure in Ontario, usually with more than 100 occurrences in the province.
	S5	Very Common	Demonstrably secure in Ontario.
	SE	Exotic	Not native to Ontario.
Regional County	C	Common	Common breeding bird in Ecoregion 6E or Simcoe County
	R	Rare	Rare breeding bird in Ecoregion 6E or Simcoe County

4.4 Amphibian and Reptiles

Beacon was retained and commenced work after the 2020 breeding amphibian call survey season. The following data was collected by Beacon in 2012.

Field surveys in 2012 identified the occurrence of seven (7) species of amphibian and three (3) species of reptile (**Table 2**). All species are common to southern Ontario and the Lake Simcoe Watershed.

Table 2. Amphibian and Reptile Species for Study Area

Common Name	Scientific Name
Amphibians	
Blue-spotted Salamander	*Ambystoma laterale*
American Toad	*Anaxyrus americanus*
Spring Peeper	*Pseudacris crucifer*
Wood Frog	*Rana sylvatica*
Northern Leopard Frog	*Rana pipiens*
Green Frog	*Lithobates clamitans*
Gray Treefrog	*Hyla versicolor*
Reptiles	
Red-bellied Snake	*Storeria occipitomaculata*
Common Garter Snake	*Thamnophis sirtalis*
Midland Painted Turtle	*Chrysemys picta marginata*

For the study, nine areas were surveyed in 2012 for breeding activity by amphibians (**Figure 2A** and **2B).** The results of the survey are presented in **Table 3.** For the central area, seven areas were documented to support breeding by frogs and American Toad. Most of the breeding locations were represented by small ephemeral pools in forested areas or swamps and supported low numbers of Spring Peeper, Wood Frog and American Toad. The pond located at the beaver dam supported the largest area of standing water and had four species breeding, including the more aquatic Leopard Frog and Green Frog.

For the tributary to Hawkstone Creek along the northern limit of the property, a large pond associated the watercourse support large numbers of Spring Peepers, Leopard Frog and Green Frog. An ephemeral pond complex located in a hardwood forest stand next to the creek supported strong choruses of Spring Peeper and Wood Frog.

By far the most productive amphibian breeding pond was Pond 8, located in a mature hardwood forest in the south east corner of the property. The pond supported breeding by six frog species, including American Toad. Strong choruses of Spring Peeper, Wood Frog and Gray Treefrog, indicate that the pond is a primary breeding site.

There were observations in 2008 and 2012 of Midland Painted Turtle in the central natural area wetlands. None were incidentally observed during site investigations in 2020 although turtle surveys were not undertaken.

Table 3. Amphibian Breeding Survey Results (2012)

Survey Area	Amphibian Species and Chorus Code
1	Green Frog (2); Northern Leopard Frog (1); American Toad (1)
2	Spring Peeper (3); American Toad (1)
3	Spring Peeper (2); Wood Frog (2);
4	Spring Peeper (2); Wood Frog (2); American Toad (1)
5	Spring Peeper (2); Wood Frog (2); American Toad (1)
6	Spring Peeper (2); Green Frog (3); Northern Leopard Frog (2); American Toad (2)
7	Spring Peeper (2); Wood Frog (1);
8	Spring Peeper (3); Wood Frog (3); Green Frog (2); Northern Leopard Frog (2); American Toad (2); Gray Treefrog (3); Blue Spotted Salamander Egg Masses
9	Spring Peeper (2); Wood Frog (2); Gray Treefrog (2); Blue Spotted Salamander Egg Masses
10	Spring Peeper (3); Green Frog (3); Northern Leopard Frog (2); American Toad (1)
11	Spring Peeper (3); Wood Frog (3);
Chorus Code in brackets 1 Individual calls not overlapping, number of individuals calling can be easily counted 2 Individual calls are overlapping, however the number of individuals calling can be counted 3 Individual calls are overlapping, the number of individuals are too numerous to be counted	

4.4.1 Salamanders

Jefferson Salamander (*Ambystoma jeffersonianum*) is listed as an endangered species in Ontario under the ESA (2007) and federally under SARA. A record of Jefferson Salamander complex and Blue-spotted salamander (*Ambystoma laterale*) are known in the vicinity of the subject property. Past surveys have assumed that polyploids in the area of the subject property have a genetic makeup of 'LLJ', meaning two chromosomes of Blue-spotted Salamander and one of Jefferson Salamander. The polyploid populations are all females and are dependant on fertilization by males of either the Blue-spotted Salamander or the Jefferson Salamander. Genetic analysis of egg masses is typically necessary to determine the genotype. If the egg masses were fertilized by Jefferson Salamander, the resulting all-female populations of Unisexual Ambystoma (Jefferson Salamander dependent population) (*Ambystoma laterale-(2) jeffersonianum*) are also designated as an endangered species regulated under the ESA. If fertilized by Blue-spotted Salamander, the resulting population is not considered to be at risk and is not regulated under the ESA.

Beacon was retained by the landowners in late June 2020, which was outside the appropriate season to conduct salamander egg mass surveys. However, two previous surveys were conducted for the subject property and both found egg masses of the Jefferson complex.

In 2012, Beacon conducted daytime searches for salamander egg masses, and found that none of the ponds in the central area are breeding sites for salamanders. However, salamander egg masses were found in Ponds 8 and 9 in the forest block located in the southeast corner of the property. Pond 8 was found to be a highly productive breeding site for salamanders with well over 100 individual egg masses observed throughout the pond. Pond 9, which is much smaller in size (approximately 5 m X 5 m) supported fewer egg masses; 30 were counted. Based on the structure of individual egg masses, both Blue-spotted Salamander and the Jefferson/Blue-spotted hybrid breed in the pond, with the hybrid species being the most abundant. The presence of the hybrid species indicates that Jefferson historically occurred in the local area, and isolated populations may still be present.

In 2008, a salamander egg mass survey was conducted that had similar observations (**Appendix C**, Grey Owl Environmental Inc. 2008). They found that Pond 8 was the only location on the subject property where salamander egg masses were found. This included 203 egg masses, 186 of which appeared to be dead, three egg masses appeared partially dead, and 14 egg masses all appeared to be viable. Based on the morphological characteristics of the egg masses, and the long distance from the nearest known Jefferson Salamander population, it was determined that these egg masses were likely Blue-spotted Salamander polyploids. Again, genetic analysis of egg masses would be necessary to determine genotype.

4.5 Mammals

Based on field surveys in 2012 and 2020, the known range of mammal species in Ontario (Dobbyn 1994) and habitat availability documented by field investigations, **Table 4** presents the mammal species that occur or could reasonably be expected to occur in the study area. With the exception of bat species (see **Section 4.5.1** below), all species are common in southern Ontario and the Lake Simcoe Watershed. Three of the bat species observed are listed on the Schedules of the Provincial *Endangered Species Act (2007)*, or Federal Species at Risk Act (2003).

Table 4. Mammal Species for the Study Area

Common Name	Scientific Name
Common Shrew	*Sorex cinereus*
Water Shrew	*Sorex palustris*
Little Brown Myotis	*Myotis lucifugus*
Northern Myotis	*Myotis septentrionalis*
Big Brown Bat	*Eptesicus fuscus*
Silver-haired Bat	*Lasionycteris noctivagans*
Hoary Bat	*Lasiurus cinereus*
Eastern Red Bat	*Lasiurus borealis*
Tri-coloured Bat	*Pipistrellus subflavus*
Eastern Chipmunk*	*Tamias striatus*
Red Squirrel*	*Tamiasciurus hudsonicus*
Northern Flying Squirrel	*Glaucomys sabrinus*
Deer Mouse*	*Peromyscus maniculatus*
Meadow Vole*	*Microtus pennsylvanicus*
Meadow Jumping Mouse	*Zapus hudsonius*
Woodland Jumping Mouse*	*Napaeozapus insignis*
Porcupine*	*Erethizon dorsatum*
Coyote*	*Canis latrans*
Red Fox*	*Vulpes vulpes*
Black Bear	*Ursus americanus*
Raccoon*	*Procyon lotor*
Mink	*Mustela vison*
Striped Skunk	*Mephitis mephitis*
White-tailed Deer*	*Odocoileus virginianus*
**Species visually observed or identified by tracks and/or scat during field surveys in 2012*	

4.5.1 Bats

Bat activity was recorded nightly on all 20 detectors during the 2020 monitoring period with 15,460 identified bat call files documented. An additional 939 call files were recorded within the approximate 40KHz endangered bat species frequency range however these call files were unable to be identified to species due to file length or quality of the recording. A bat call file is a recording of up to 15 seconds of bat echolocation activity. Call files are recorded when the detector registers sound within the detection parameters. It should be noted that call files are not a direct measure of individual bats as one bat can record multiple files during a monitoring event.

A total of seven species were identified: Big Brown Bat (*Eptesicus fuscus*), Silver-haired Bat (*Lasionycteris noctivagans*), Hoary Bat (*Lasiurus cinereus*), Eastern Red Bat (*Lasiurus borealis*), Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tri-coloured Bat (*Pipistrellus subflavus*). Of these seven species, three are listed as endangered both provincially through the ESA and federally on Schedule 1 of the *Species at Risk Act* (SARA): Little Brown Myotis, Northern Myotis, and Tri-coloured Bat.

Table 5 below provides a summary of the species occurrence by detector and includes the treed ELC communities that the detectors were monitoring. Big Brown Bat, Silver-haired Bat and Hoary Bat were recorded on all detectors. Little Brown Myotis was recorded on 19 detectors, Eastern Red Bat on 18 detectors, Northern Myotis on 16 detectors and Tri-coloured Bat on 12 detectors

Table 5. Summary of Bat Species Occurrence by Detector Locations

Detector #	Treed ELC	Big Brown Bat	Silver-haired Bat	Hoary Bat	Eastern Red Bat	Little Brown Myotis	Northern Myotis	Tri-coloured Bat
87	FOM7-2/ SWD2-2	✓	✓	✓	✓	✓	✓	✓
97	FOM6-1	✓	✓	✓	✓	✓	✓	
100	FOD7-2	✓	✓	✓	✓	✓	✓	✓
101	FOM7-2	✓	✓	✓	✓	✓	✓	
104	FOD6-5/ FOC4-1/ SWD 2-2	✓	✓	✓	✓	✓	✓	✓
105	FOD6-5/ FOC4-1/ SWD 2-2	✓	✓	✓	✓	✓		✓
106	FOD6-1/ SWD2-2	✓	✓	✓	✓	✓	✓	
107	FOD6-1/ FOM6-1/ CUP3-9	✓	✓	✓	✓	✓	✓	✓
108	FOD7-2/ SWD2-2/ FOC4-1	✓	✓	✓	✓	✓	✓	✓
109	FOM7-2	✓	✓	✓	✓	✓		
110	FOM7-2	✓	✓	✓	✓	✓		✓
116	FOD6-1/ SWD2-2	✓	✓	✓		✓	✓	
117	FOD6-5	✓	✓	✓			✓	
119	FOD6-1	✓	✓	✓	✓	✓	✓	✓
120	FOD6-1/ FOM6-1	✓	✓	✓	✓	✓	✓	✓
121	FOD7-2/ FOD6-5	✓	✓	✓	✓	✓		✓
122	FOM7-2/ SWD2-2	✓	✓	✓	✓	✓	✓	✓
123	FOD6-5	✓	✓	✓	✓	✓	✓	
124	FOD6-5/ FOM7-1	✓	✓	✓	✓	✓	✓	✓
125	FOC4-1/ SWD2-2	✓	✓	✓	✓	✓	✓	

4.5.1.1 Endangered Bats

Three species of bats that are regulated under the ESA were recorded within the subject property during the 2020 acoustic monitoring. **Table 6** provides a summary of the total number of endangered bat calls recorded by species per detector and **Figure 2A** and **2B** shows the detector locations that corresponded with endangered bat occurrence. Although the total number of call files does not represent the number of individual bats, this metric can provide an indication of activity level. The occurrence of call files that coincide with the roost emergence period (20:30-22:59) can indicate the presence of a maternity roost.

Table 6. Summary of Endangered Bat Species Call Files Recorded Per Detector

Detector #	Little Brown Myotis	Northern Myotis	Tri-coloured Bat
87	57	6	2
97	45	10	--
100	116	1	11
101	56	7	
104	474	11	13
105	18	--	1
106	5	1	--
107	31	7	1
108	19	13	1
109	10	--	--
110	28	--	1
116	9	2	--
117	--	1	--
119	121	34	3
120	146	12	4
121	8	--	1
122	444	6	4
123	6	1	--
124	34	3	2
125	45	14	--

A total of 1,672 Little Brown Myotis call files were recorded on 19 detectors with nightly or near nightly occurrences on detectors 87, 97, 100, 101, 104, 105, 108, 110, 119, 120, 122, 124 and 125. The greatest number of Little Brown Myotis call files were recorded on detectors 104 and 122 with over 400 call files on each detector (**Table 7**). A summary of calls that coincide with the roost emergence period indicate that there was activity in the vicinity of 18 of the 19 detectors where Little Brown Myotis were recorded with the highest number of call files recorded during this period from detector 122. **Table 7** provides a summary of the number of the Little Brown Myotis call files that occurred within the roost emergence period.

Table 7. Little Brown Myotis Call Files that Coincide with Roost Emergence

Detector #	Calls within Roost Emergence Period	Total Calls
87	9	57
97	5	45
100	30	116
101	5	56
104	48	474

Detector #	Calls within Roost Emergence Period	Total Calls
105	4	18
106	1	5
107	5	31
108	5	19
109	3	10
110	9	28
116	2	9
119	10	121
120	8	146
121	3	8
122	258	444
124	8	34
125	16	45

Given the number, timing, and nightly occurrence during the monitoring period of Little Brown Myotis call files it is most likely that roosts could occur within the vicinity of detectors 100, 122 and 125 (**Figure 2A**). Within the vicinity of the remainder of the detectors where Little Brown Myotis calls were recorded the habitat likely provides foraging habitat that is utilized on regular basis and general flyover habitat.

Northern Myotis was identified in 129 call files (**Table 6**). This species was not recorded on a nightly or near nightly basis during the monitoring period and most calls files recorded occurred as a single call file per monitoring night. Review of the call timing for occurrence during roost emergence indicates that of the 129 Northern Myotis calls recorded, 95 occurred outside of the roost emergence period. It is likely that Northern Myotis is not roosting in the vicinity of the monitoring areas but could be using these areas as foraging and general flyover habitat.

Tri-coloured Bat was the least frequently recorded endangered bat species within the subject property with 39 call files recorded on twelve detectors (**Table 6**). The number of call files recorded per detector ranged from one to eleven and calls and typically occurred as a single file for the entire nightly monitoring period. Based on the low number of call files recorded it is likely that Tri-coloured Bat utilizes the monitoring areas on the subject property as general flyover habitat and limited foraging habitat.

The results of the acoustic monitoring and interpretation of habitat function will be confirmed with MECP to determine next steps that may be necessary with regards to ensuring compliance with the ESA.

4.6 Significant Wildlife Habitat

The Provincial Policy Statement under the *Planning Act* defines Significant Wildlife Habitat (SWH) as ecologically important in terms of features, functions, representation, or amount, and contributing to the quality and diversity of an identifiable geographic area or Natural Heritage System. The identification of significant wildlife habitat and/or criteria is the responsibility of the local or regional planning authority. Neither the Township of Oro-Medonte nor Simcoe County have specifically identified significant wildlife habitat on the schedules of the Official Plan, nor thresholds for the identification of SWH within their planning areas.

Following the Ministry of Natural Resources' Significant Wildlife Habitat Criteria Schedules For Ecoregion 6E (January, 2015), four general categories of significant wildlife habitat are identified, 1)

areas that support seasonal concentration of animals (i.e. migration stop over areas; deer yards), 2) rare and/or specialized habitat for wildlife (i.e. alvar, bogs, old growth forest), 3) habitat for species of conservation concern and 4) animal movement corridors. The identification of significant wildlife habitat under these categories is to be based on existing conditions found within the planning area.

An analysis was conducted, based on an assessment of existing conditions, and the MNR's SWH Criteria Schedules. It is important to point out that thresholds for these criteria (e.g., pairs per ha of suitable habitat) have not been established for this planning area, therefore the designation of SWH should be considered potential. The following is a summary of the areas within or adjacent to the subject property that may be considered SWH.

Table 8. Significant Wildlife Habitat by Type on the Subject Property

Type of Significant Wildlife Habitat	Species/Habitat
Seasonal Concentration of Animals	• Bat Maternity Colonies – Central forested area • Deer Wintering Area (Stratum II) – Woodland in southeast corner
Rare and/or Specialized Habitat for Wildlife	• Seeps or Springs – Woodland pools in southeast corner • Amphibian Breeding Habitat (Woodland) – Woodland pools in southeast corner AND wetlands in northeast corner • Amphibian Breeding Habitat (Wetlands) – Woodland pools in southeast corner
Habitat for Species of Conservation Concern	• Marsh Breeding Bird Habitat – Northern Wetland (Green Heron) • Special Concern Species - Two bird species of Special Concern in northeast corner, central woodland, and southeast woodland • Rare Plant Species – *Carex muehlenbergii var. enervis* (S1/S2) in eastern portion of central woodland

Landscape connectivity, including the concept of wildlife corridors, is recognized as an important part of natural heritage planning and is typically addressed though the identification of a Natural Heritage System within a planning area. The forested and wetland areas along the northern and southern limits of the subject lands connect to parts of the County of Simcoe's Greenlands system. Functionally, these forest and wetlands can be considered to support local east-west movements of local wildlife. No north-south movement corridor is supported by the subject lands or adjacent lands.

The forested/wetland areas in the central portion of the subject property are associated with an ephemeral watercourse. This area is isolated to the east by extensive active farmlands and to the west by the Lake Simcoe Regional Airport. Therefore, these areas do not support a regional or local east-west corridor function.

4.7 Significant Woodlands

Significant woodlands can be designated by lower or upper tier municipalities. The Township of Oro-Medonte has mapped significant woodlands and they are shown on the Township's Official Plan, Schedule B – Natural Features (**Appendix D**). The woodlands in the southeast corner form part of an identified significant woodland that extends beyond the length of the south property boundary and beyond the most southerly portion of the east boundary that is adjacent to the woodland on the subject property. Although the planted forest to the east of the subject property is not mapped as significant woodland by the Township of Oro-Medonte, based on the Township's definition of "significant", and criteria in the County of Simcoe's Official Plan, the planted forest to the east would be considered part of the significant woodlands.

4.8 Endangered or Threatened Species

Four species listed as endangered in Ontario were confirmed to be present on the subject property. Butternut was found in several hedgerows and forest edges in the northern portion (see Section 4.2.1). Based on a genetic analysis and Butternut Health Assessments conducted on these (**Appendix B**), five trees are regulated under ESA.

Three species of bats (Little Brown Myotis, Northern Myotis and Tri-coloured Bat) were detected in each of the three forested blocks on the subject property using 20 acoustic detectors (see Section 4.5.1.1). The results of the acoustic monitoring and interpretation of habitat function will be confirmed with MECP to determine next steps that may be necessary with regards to ensuring compliance with the ESA.

A fifth species listed as endangered in Ontario may be present on the subject property. In the southeastern woodland, salamander egg masses have been observed in one of the woodland pools in 2008 and in both woodland pools in 2012. These egg masses may be of the Unisexual Ambystoma (Jefferson Salamander dependent population) (*Ambystoma laterale-(2) jeffersonianum*). The development site plan avoids the pond but removes some of the suitable summer and winter habitat for salamanders. Consultations with MECP to determine next steps that may be necessary with regards to ensuring compliance with the ESA.

4.9 Significant Valleylands and Areas of Natural and Scientific Interest

No significant valleylands are present. The local landscape is relatively flat with no steep slopes associated with either of the watercourses. A review of municipal and provincial mapping found no ANSIs on or in the vicinity of the subject property.

4.10 Fish Habitat

Two watercourses are associated with the site, one which is a tributary to Hawkestone Creek which flows eastward through marsh and swamp wetland along the northern limit of the property and a second watercourse occurs in the central portion of the property.

The central watercourse appears to support an ephemeral water flow regime, with flows occurring from the March-April spring freshet through to early June. During the 2012 field surveys, flow was absent by May 31st. This lack of flow was confirmed during site visits in 2020. The system appears to be surface flow driven with no areas of ground water discharge noted within the corridor of the watercourse. The primary spring flow input occurs as sheet flows that are directed to the watercourse from adjacent lands located to the east of the property. From this point, the surface water flows westward in a wide band, filling small ephemeral pools and ponds. The westward flow is impaired at an old beaver dam, which creates a standing water pond. From the beaver dam, water flows through a short defined shallow channel, and then once again spreads out through an old beaver pond meadow. From this point, the surface water spreads out and continues as sheet flow through a wide Reed Canary Grass marsh to eventually discharge in a broad band to a ditch along the east Right-of-way of Line 7. Flow in the roadside ditch is southward to a forest swamp located to the south the of the subject property.

The tributary to Hawkestone Creek supports similar ephemeral or intermittent conditions. Based on 2012 conditions, the entire watercourse, including shallow ponds, was dried down completely by the end of July. Though 2012 was a dry year, the watercourse and associated wetlands represent a headwater area with a small catchment, and late summer dry down can be expected to occur annually. The watercourse flows eastward where it outflows from the property into a poorly defined channel. The confluence with Hawkestone Creek is 850 m downstream from the property boundary.

No fish sampling was undertaken for this study. Based on existing conditions in 2012 and confirmed in 2020, permanent fish habitat is very limited, with only Pond 6 associated with the central watercourse being capable of supporting a year-round fish population. The remainder of the wetland areas of the central watercourse and Hawkestone tributary were assessed to not represent permanent fish habitat. Previous minnow trap sampling of ponds associated with the central watercourse identified low numbers of three warm water species. These were: Central Mud Minnow (*Umbra limi*), Finescale Dace (*Phoxinus neogaeus*) and Brook Stickleback (*Culaea inconstans*) (Burnside 2009). Field surveys undertaken by Beacon in 2012 found that Central Mud Minnow and Brook Stickleback were present in Pond 6. No standing water was found in the Hawkestone Creek tributary after mid-July in 2012; therefore, this system does not support permanent fish populations.

Based on existing conditions the central watercourse and tributary to Hawkestone Creek are assessed to support a very low-quality warm water fishery. Hawkestone Creek is considered to only provide seasonal (April to June) fish habitat. Similarly, for the central watercourse, only Pond 6 is assessed to support fish, with the remainder of the system supporting only seasonal (April to June) habitat.

4.11 Summary of Natural Heritage Features and Functions

Based on the findings of this study and review of past studies and the Natural Heritage Schedules of the Township of Oro-Medonte and Simcoe County, **Table 9** provides a summary of the natural heritage features and functions that are associated with the subject property. Much of the lands are currently disturbed, inactive agriculture fields. The following natural heritage features are present on the subject property:

- Significant woodlands;
- Potential significant wildlife habitat;
- Unevaluated and non-provincially significant wetlands;
- Habitat for endangered or threatened species; and

- Fish habitat.

These and other habitat functions are summarized in the following table.

Table 9. Summary of Natural Heritage Features and Functions

Features	Function	Location
Significant woodlands	Habitat for flora and fauna	• Southeast corner and extending beyond property boundary
Significant wildlife habitat (potential)	Seasonal concentration of animals (bats, deer)	• Woodlands in central and southern portions of subject property
	Rare and/or specialized habitat for wildlife	• Seeps or springs in southeast woodland • Amphibian breeding habitat in northern wetland and southeastern woodland
	Habitat for species of conservation concern	• Marsh breeding bird habitat – northern wetland (Green Heron) • Special concern species - in northeast corner, central woodland, and southeast woodland • Rare plant species in east end of central woodland
Wetlands (non-provincially significant/unevaluated)	Amphibian breeding; Habitat for wetland associated flora and fauna	• Various ponds, marshes swamp communities in the northern, central and southeast
Habitat for endangered or threatened species	Endangered Butternut	• Northern half of property in hedgerows and forest edges
	Bats	• Woodland areas
	Potentially regulated hybrid salamanders	• Southeast corner forest and breeding pools
Fish habitat	Low quality warm water fisheries	• Intermittent tributary to Hawkestone Creek along northern property limits • Central ephemeral watercourse

5. Proposed Development

The subject property has a site specific Ministerial Zoning Order and is proposed to be developed as an automotive park that includes automotive research and development facilities, an automotive training and education facility, automotive museum and accessory uses, buildings and structures, including a 4 km circuit automotive test track (**Figures 3A** and **3B**).

The site will be developed in phases with Phase 1 consisting of the test track area, a pavilion, a wastewater treatment plant (WWTP), a water treatment plant (WTP), two stormwater management facilities (SWMF) and access roads. The remainder of the development will be in future phases and will eventually occupy most of the 85 ha property except for the wetland area in the north end, designated as Environmental Protection Area in the MZO, the middle portion of the central natural area, and most of the forest in the southeastern corner. The site will be serviced with well water and a treatment plant,

and stormwater will be managed with two ponds which will outlet to the drainage ditch along 7th Line North.

6. Effects Assessment

The proposed development is reviewed in the following subsections in the context of the existing natural heritage features. Potential or actual effects created by the proposed development are described.

6.1 Vegetation Removal

The proposed development will result in the loss of portions of 18 vegetation communities on the subject property. None of the vegetation communities proposed for removal are consider rare or uncommon in southern Ontario by the MNRF (NHIC 2020). Most of the woodlands and wetlands have been previously affected to greater or lesser degree by human activities such as clearing for agriculture, logging and likely, cattle grazing.

The proposed development results in removal of the following (area calculations are approximate):

- 6.23 ha of wetland communities;
- 6.1 ha of upland forest communities; and
- Removal of culturally-modified areas such as old-field cultural meadow, hedgerows, and agricultural fields.

Efforts have been made in the design and planning process to limit the proposed development to the existing disturbed agricultural areas wherever possible. However, some wetland and woodland areas are proposed for removal. Given these removals, it is recognized that vegetation protection zones (buffers) to natural areas are not feasible in many areas, such as along the edge of the woodlands located beyond the eastern property boundary. Losses include wetland and woodlands on the east and west ends and northern and southern peripheries of the central natural area with the middle area being preserved. In the eastern portion, there are two species of sedge that are species of conservation concern (regionally rare *Carex cryptolepis* and provincially rare *C. muehlenbergii var. enervis*) and are located within the area proposed for removal for construction of the motor circuit.

Some woodland edge on the periphery of the northern natural area is proposed for removal.

Some woodland removal is proposed along the edge of the southern property boundary which forms part of a significant woodland that extends beyond the property to the south and a small portion (~40 m) along the east boundary that is part of and abuts significant woodland. The total area of removal is approximately 2 ha and represents a small percentage (<1%) of the overall size of the contiguous woodland (>200 ha). The removal is not expected to affect the ecological functions of the woodland (i.e. interior habitat, linkage, water protection, woodland diversity). There are no uncommon characteristics in this area of the woodlands (i.e., rare or uncommon vegetation species or communities, no older woodland or larger trees). However, if the hybrid salamanders are of the protected type, the area within 300 m would be regulated under the ESA, as would any wetland, pond, or vernal pool within one kilometer. This is based the province's habitat regulation for Jefferson Salamander.

The removal of peripheral woodland areas in the north, southeast and along the eastern edge of the test track will create a new edge that may increase penetration of light, wind, noise and dust into the remaining woodland creating an additional area of negative effects within the retained portions that exceeds the physical losses.

6.2 Fish and Wildlife Habitat

The proposed development will result in:

- Loss of habitat for plants, mammals, amphibians, breeding birds and other wildlife;
- Loss of habitat for endangered and not at risk bat species;
- Potentially, loss of some forest habitat for endangered salamander species (to be confirmed); and
- Potential for roadkill on car test track.

Pond 6 in the central natural area, which supports low quality, warm water fish habitat is to be retained. Intermittent, seasonal flow through this system is proposed to be maintained via a culvert under the motor circuit roadway at the upstream of the system and downstream where it will outlet to the roadside ditch. No measurable negative effects are anticipated on fish and fish habitat once the development is completed.

As shown in **Table 9**, several types of potential Significant Wildlife Habitat (SWH) were identified on the subject property. The proposed development will result in the removal of portions of potential SWH in the central and southern woodland areas (seasonal concentration of animals – non-SAR bat species).

6.3 Endangered or Threatened Species

The proposed development will result in effects on species regulated under the ESA, as outlined in **Table 10**, below.

Table 10. Effect Assessment of Regulated Species

Species	Effect on Species
Butternut	Loss of five individual retainable trees Loss of some habitat for regeneration
Little Brown Myotis	Loss of roosting, foraging and fly-over habitat
Northern Myotis	Loss of foraging and fly-over habitat
Tri-coloured Bat	Loss of foraging and fly-over habitat
Hybrid Jefferson Salamander (hybrid type to be confirmed)	Loss of foraging and overwintering habitat.

A Butternut Mitigation Planting Plan has been registered with the MECP. Consultations with the MECP regarding the three species of endangered bats and the potential for the hybrid Jefferson Salamander is required prior to site works in order to ensure compliance with the requirements of the ESA.

6.4 Hydrology

The impervious area on the subject property is proposed to increase significantly compared to existing condition. A conceptual water balance was prepared by Cambium Inc. (2020) in which it is determined that the pre-development infiltration rate can be maintained using LID features such as permeable pavement and re-infiltrating roof runoff. We have assumed here that this balance will be met and that no changes to the water balance to natural features that will remain is anticipated.

A Stormwater Management Report for Phase 1 was prepared by Tatham Engineering (2020) that determined that the two stormwater management ponds proposed as part of Phase 1 will provide water quantity controls, while a treatment train approach is proposed to provide water quality, volume and phosphorous reduction controls. For future phases of the development, the stormwater management ponds will be retrofitted to accommodate the increase in impervious surfaces, a third stormwater management pond will be added, and other water quality and quantity controls implemented such as oil and grit separators, infiltration cells, permeable pavement, dry ponds and grassed swales. Based on these measures being implemented it is anticipated that no measurable negative effects will occur due to storm water management.

6.5 Construction Effects

During the construction phase temporary environmental effects may occur such as:

- Increased dust, noise, silt or sedimentation into adjacent natural areas; and
- Run-off of salt and other contaminants into surface and ground water.

During construction, machinery traffic (trucks, excavators, graders, etc.) may create excessive noise. Machinery and construction traffic, combined with disturbed and exposed soils, create air-born dust that may be deposited in adjacent wetlands or watercourses and on vegetation. These effects are minor and temporary as precipitation would wash away the dust. Silt and sediment may be mobilized when soils are disturbed and exposed and may flow into adjacent terrestrial and wetland habitats as well as watercourses. These effects have the potential to be significant in the short-term if not mitigated.

Uncontrolled run-off during high precipitation events and spring snow melt may result in contaminants such as road salt, oil and gas entering downstream surface waters or enter the ground water.

6.6 Summary of Potential Negative Effects

The potential negative effects of the proposed development are summarized in **Table 11** below.

Table 11. Summary of Potential Negative Effects (Pre-Mitigation)

Feature or Function	Summary of Effects
Vegetation communities	• Removal of 6.23 ha of wetland communities and 6.1 ha of upland forest communities • Loss of ha to breeding birds, maternal bat roosting habitat • Loss of two plant species of conservation concern • Edge effects on remaining natural areas (dust, noise, light, windthrow, invasive weeds)
Fish habitat	• Potential short-term construction effects of erosion and sedimentation, or other contaminants. No measurable negative post-construction effects
Wildlife habitat	• Loss of habitat for birds, bats, amphibians, mammals and some potential SWH in central and southern natural areas
Threatened or endangered species	• Loss of habitat for three endangered bat species • If hybrid Jefferson Salamander is confirmed, loss of overwintering and foraging habitat
Hydrology	• Loss of pervious areas and increase in stormwater run-off
Watercourses	• Potential for increase of inputs of salt, silt/sediment, oil, gas or other contaminants

7. Mitigation and Compensation

Buffers

The removal of wetland and woodland communities to accommodate the design of the proposed circuit automotive test track and other buildings will result in a lack of, or reduced buffers. Appropriate buffer widths from the edge of woodlands and wetlands can vary depending on the feature sensitivity, type of development or activity, topography and type and density of vegetation within the buffer area. Commonly, a buffer width of 10 m from the dripline of woodlands and 15 m from the edge of wetlands is recommended.

Along the northern limit of development, the proposed development limit allows a 15 m buffer from the wetland boundary for a little more than half the length of the limit of development. The limit of development is proposed to be at the edge of the woodland or slightly encroaching into the woodland, thus for almost the entire length of the limit, there is no, or very little buffer from the woodland edge.

In the central natural area, the proposed development will result in removal of woodland and/or wetland resulting in no buffer.

Similarly, the proposed southern limit of development will result in the removal of some edge forest resulting in no buffer.

Along a portion of the eastern property limit, that is currently cleared agricultural fields up to the property boundary, there is potential for a grassed buffer of approximately 8 m between the service road and the forested edge at the property line. The adjacent forest is a pine plantation.

To help mitigate some of the effects on the remaining adjacent woodlands and wetlands, an edge management plan should be prepared. This could include measures such as fencing to prevent wildlife from entering the property, planting trees and/or shrubs along the edges of the development to reduce wind and light penetration into adjacent forests and mulching and reseeding of disturbed areas along the edges to prevent the introduction and spread of non-native, invasive weeds.

Timing of Vegetation Removal

The federal *Migratory Birds Convention Act* (1994), along with the provincial *Fish and Wildlife Conservation Act* (1997), protects the nests, eggs and young of most bird species from harm or destruction. Environment Canada considers the nesting period of breeding birds in southern Ontario to be between early April and the end of August. This includes times at the beginning and end of the season when only a few species might be nesting. It is recommended that during the peak period of bird nesting (i.e. between mid-May and mid-July), no vegetation clearing or disturbance to nesting bird habitat should occur. In the 'shoulder' seasons of April 1 to May 15, and July 16 to August 31, vegetation clearing could occur, but only after an ecologist with appropriate avian knowledge has surveyed the area to confirm lack of nesting. It should be noted that most surveys during this period result in active nests being located. From September 1 through to March 31, vegetation clearing can occur without nest surveys, but the need to ensure nest protection still applies (i.e., if an active nest is known it must be protected).

Similarly, for bat species, to avoid adversely affecting any roosting bats, a timing restriction on any tree clearing activities is recommended. All tree removals should occur outside of the active roosting period for bats (i.e., no clearing should occur between April 1 and October 31) and this may also be required by MECP for ESA regulated species.

Erosion and Sedimentation Control (ESC)

To avoid and mitigate the potential for erosion and sedimentation into adjacent natural areas, watercourses and fish habitat, an ESC plan shall be prepared by a qualified professional and implemented prior to any site works. ESC measures should be regularly inspected and maintained in good working order throughout the construction period. Fencing should be removed upon completion of construction after exposed soils have been stabilized and revegetated.

ESA Regulated Species

The removal of the five endangered Butternut trees has been registered with the MECP (Confirmation ID: M-103-2384342607) and will require a minimum of 37 Butternut seedlings and 37 native companion trees. The Butternut Mitigation Planting plan will include 50 Butternut seedings and 50 native companion tree species to be planted in a suitable open area on an adjacent property also owned by the proponent and monitored for two years. Once the Butternut Mitigation Planting is completed, compliance with the ESA will have been achieved.

Regards bats, MECP must be consulted prior to the removal of any treed habitats (wetland or upland) to determine to what the Ministry requires to ensure compliance with the ESA.

Regards salamanders, MECP must be consulted prior to the removal of woodland in the southeast or wetland in the central area to determine what the Ministry requires to ensure compliance with the ESA.

Wildlife Mortality/Roadkill

The potential for wildlife collisions and roadkill on the circuit test track is a concern for both the impacts on wildlife (mammals, reptiles and amphibians) and human safety. To reduce the potential for wildlife mortality due to roadkill and collisions with larger mammals, it is recommended that wildlife exclusion fencing be installed along the perimeter of the site and the interior central natural area. This permanent fencing should be tall enough to exclude deer (2 m) and the lower sections be toed into the ground and be constructed with a mesh size to exclude snakes to a height of at least 0.6 m.

Rare Vegetation

The two species of sedge that are species of conservation concern (*Carex cryptolepis* and *C. muehlenbergii var. enervis*) are in the eastern portion of the central natural area and are within the area proposed for removal for construction of the motor circuit. It recommended that efforts be made to salvage individuals of these plants and transplanted to another area of similar and suitable habitat in the northern Environmental Protection Area. This should occur early in the 2021 growing season, as soon as these plants emerge, prior to vegetation clearing or site disturbance. Alternatively, the locations of these plants should be left intact and protected until the plants emerge and can be transplanted.

Hydrology

The proposed development will result in an increase in impervious surfaces and an increase in stormwater runoff. The development will incorporate a stormwater management plan including detention ponds, infiltration trenches and other LID techniques to increase water infiltration, reduce flows and attenuated contaminants including phosphorus reduction.

Ecological Offsetting for Loss of Woodlands and Wetlands

The LSRCA have a policy document to guide the preparation of site-specific ecological offsetting plans called, *Ecological Offsetting Policy* (revised 2019). The policy provides for the compensation of removal of wetlands and woodlands where:

- The development application is in conformity with applicable provincial, regional and local plans; and
- The mitigation hierarchy steps of avoiding, minimizing and mitigating effects have been followed and that compensation is the only viable option to address impacts to natural heritage features.

It is recommended that the proponent engage in a discussion with the municipality and LSRCA to determine an ecological offsetting strategy to address the removals and edge effects associated with no or reduced buffers to wetlands, woodlands, and potential significant wildlife habitat.

8. Net Effects

Losses of habitat (significant woodland, other woodlands, potential SWH, wetlands) and negative effects on remaining adjacent habitat will occur as a result of the proposed development. It is anticipated that this will be addressed through a compensation agreement with LSRCA and the municipality. The Butternut Mitigation Planting plan will ensure conformity with the requirements of the ESA.

Through pending consultations with the MECP, any adverse effects to endangered bat species and their habitat will be addressed to the satisfaction of the Ministry.

9. Natural Heritage Policy Conformity

9.1 Provincial Policy (2020)

The Provincial Policy Statement (2020) outlines the natural heritage feature types that are protected, and that development shall demonstrate no negative impacts. Each is addressed herein.

9.1.1 Significant Wetlands

There are no designated Provincially Significant Wetlands located within or adjacent to the subject property.

9.1.2 Significant Woodlands

The woodlands found in the southeast corner of the subject property and extending beyond the length of the south property boundary and beyond the most southerly portion of the east boundary that is adjacent to the southeast woodland on the subject property are identified and mapped as significant woodlands by the Township of Oro-Medonte (see **Appendix D**). However, the contiguous planted woodland adjacent to the eastern property boundary would also be considered part of the significant woodland, based on established criteria. The proposed development would result in the removal of a small area along the north edge of the woodlands in the southeast corner of the subject property.

9.1.3 Significant Valleylands

There are no significant valleylands within or adjacent to the subject property.

9.1.4 Significant Wildlife Habitat

An analysis was conducted for SWH using the Criteria For Significant Wildlife Habitat in Ecoregion 6E (2015) and found that, based on field investigations and background information, three categories of potential SWH are found within and adjacent to the subject property and were presented in **Table 8** of Section 4.6 of this report.

Some of the habitat that supports the seasonal concentration bats (not at risk species) within parts of the central and southern woodlands will be lost. However, some forested habitat will remain within the subject property and there are large areas of woodland that exist adjacent to and in the vicinity of the subject property.

The southern woodland forms part of the habitat that supports the seasonal concentration of deer; however only the periphery of this woodland is proposed for removal and most of the deer habitat is located beyond the property boundary; therefore it is concluded that the development will not affect this category of SWH.

There is Rare and/or Specialized Habitat for Wildlife in the form of seeps or springs in southeast woodland and amphibian breeding habitat in northern wetland and southeastern woodland. Both these SWH types are outside the proposed development limits and will not be measurably be affected.

There are three types of habitat for species of conservation concern. These are:

1. The northern wetland is breeding habitat for Green Heron (a marsh breeding bird) and is outside of the development limit and will not be negatively affected;
2. The northern, central and southern woodland support breeding birds that are listed as special concern in Ontario (Eastern Wood-Pewee and Wood Thrush). Almost all of the woodlands in north and south, and most of the woodlands in the central area will be retained. There will also be and timing restrictions on vegetation removal, thereby ensuring that this species and their habitat will not be affected; and
3. The eastern portion of the central natural area supports rare plant species. These two species of sedge can be transplanted to the northern natural area where there is suitable habitat. This salvage must occur during the growing season.

9.1.5 Significant Areas of Natural and Scientific Interest (ANSIs)

There are no Areas of Natural and Scientific Interest of provincial or local interest on or within 120 m of the subject property.

9.1.6 Habitat of Endangered Species or Threatened Species

The habitat of several species listed as endangered or threatened occur within the subject property and are described in Section 4.8 of this report. Consultations with the MECP will ensure compliance with the ESA and by extension the PPS regards Butternut, bats and salamanders.

9.1.7 Fish Habitat

There is low quality seasonal fish habitat within the subject property, as described in Section 4.10. The effects of the proposed development on fish habitat are described in Section 6.2. Through avoidance and mitigation measures, its is anticipated that there will be no measurable adverse effects on fish habitat.

9.2 Growth Plan for the Greater Golden Horseshoe (2017)

The proposed development is within the Lake Simcoe Regional Airport Economic Employment District identified in the Growth Plan and is within the permitted uses stipulated in the Ontario Ministerial Zoning Order (O. Reg. 362/19). No development is proposed within the identified Environmental Protection Area in the northern portion of the subject property.

9.3 Simcoe County Official Plan

This EIS has demonstrated that the proposed development, with the recommended mitigation measures, would not have a negative impact upon the natural features on or adjacent to the subject property, nor their ecological functions as identified in Simcoe County Official Plan.

9.4 Township of Oro-Medonte Official Plan

The Ministerial Zoning Order (O. Reg. 362/19) zones all of the subject property for the specific uses, except for the wetland area in the north end which is zoned Environmental Protection Area.

The Town's Official Plan requires the preparation of an Environmental Impact Study (EIS) and Management Plan (MP) for developments proposed within adjacent lands to certain natural features (woodlands, wetlands, etc.).

9.5 Lake Simcoe Protection Plan

The subject property and proposed development are within an existing settlement area and as such is subject to certain Designated Policies in the LSPP. To demonstrate compliance with Policy 4.8-DP a Stormwater Management Plan has been prepared by Tatham Engineering and is provided under separate cover (Tatham Engineering 2020).

To address policies 6.33-DP and 6.34-DP it is recommended that the proponent engage in ecological offsetting discussions with the municipality and LSRCA.

9.6 Lake Simcoe Conservation Authority Policies and Regulations

Though background studies and site investigations, the wetlands and watercourses that are regulated by the LSRCA on the subject property have been identified and described. This EIS outlines the efforts made to avoid and minimize impacts from the proposed development and makes recommendations for mitigating and for developing an ecological offsetting strategy. A permit from the LSRCA is required to allow the proposed development to proceed within the regulated areas of the subject property.

10. Summary

A background review, field investigations and consultation with the LSRCA were undertaken as part of this Environmental Impact Study. An analysis of features and functions was undertaken and summarized. This EIS has identified the extent of existing natural features on the subject property and identified potential impacts as a result of the proposed development. Mitigation measures have been identified including timing restrictions, an erosion and sedimentation control plan, a recommendation for a detailed edge management plan, and a recommendation to engage in ecological offsetting discussions.

Natural heritage features or functions within and adjacent to the subject property are associated with the wetlands and woodlands found in the north end, central area and southeastern corner, and where feasible, will be buffered and protected and where required, appropriate mitigation or offsetting is recommended.

Several regulated species under the ESA occur on the subject property. Consultations with the MECP must be undertaken to ensure compliance with the ESA.

Two plants of conservation significance were recorded on the subject property and are recommended for relocation. None of the vegetation communities on the subject property is considered provincially rare based on the NHIC status of vegetation communities for southern Ontario.

For the proposed development to result in no net negative impacts to woodlands, wetlands, and potential significant wildlife habitat an ecological offsetting strategy would be required.

It is our opinion that subject to an ecological offsetting strategy that addresses the losses of woodland and wetland habitat and associated indirect effects, and that satisfies the municipality and the LSRCA, the development plan as proposed, subject to approvals and permits as may be required as part of the operation, can proceed in a manner that is consistent with the relevant policies of the Provincial Policy Statement, the Growth Plan, the County of Simcoe Official Plan, the Township of Oro-Medonte Official Plan, the Lake Simcoe Protection Plan (2009), and the Lake Simcoe Region Conservation Authority Watershed Regulation and Policies.

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Appendix A

Plant List

Floral Inventory									
Scientific Name	Common Name	CC	CW	COSEWIC	SARO	SRank	Simcoe County (Riley 1989)	Lake Simcoe Watershed (LSEMS, 2003)	Nat Status
Abies balsamea	Balsam Fir	5	-3			S5			N
Acer negundo	Manitoba Maple	0	0			S5			N
Acer platanoides	Norway Maple	0	5			SE5			I
Acer rubrum	Red Maple	4	0			S5			N
Acer saccharum	Sugar Maple	4	3			S5			N
Acer x freemanii	(Acer rubrum X Acer saccharinum)	6	0			SNA			N
Achillea millefolium	Common Yarrow	0	3			SE5?			I
Agrimonia gryposepala	Hooked Agrimony	2	3			S5			N
Agrostis gigantea	Redtop	0	-3			SE5			I
Alisma triviale	Northern Water-plantain	1	-5			S5			N
Alliaria petiolata	Garlic Mustard	0	0			SE5			I
Ambrosia artemisiifolia	Common Ragweed	0	3			S5			N
Apocynum androsaemifolium	Spreading Dogbane	3	5			S5			N
Arctium minus	Common Burdock	0	3			SE5			I
Arisaema triphyllum	Jack-in-the-pulpit	5	-3			S5			N
Asclepias syriaca	Common Milkweed	0	5			S5			N
Athyrium filix-femina	Common Lady Fern	4	0			S5			N
Betula alleghaniensis	Yellow Birch	6	0			S5			N
Betula papyrifera	Paper Birch	2	3			S5			N
Bidens cernua	Nodding Beggarticks	2	-5			S5			N
Bidens frondosa	Devil's Beggarticks	3	-3			S5			N
Boehmeria cylindrica	Small-spike False Nettle	4	-5			S5			N
Bromus inermis	Smooth Brome	0	5			SE5			I
Calamagrostis canadensis	Bluejoint Reedgrass	4	-5			S5			N
Campanula rapunculoides	Creeping Bellflower	0	5			SE5			I
Capsella bursa-pastoris	Common Shepherd's Purse	0	3			SE5			I
Carex arctata	Drooping Woodland Sedge	5	5			S5			N
Carex bebbii	Bebb's Sedge	3	-5			S5			N
Carex brevior	Short-beaked Sedge	7	0			S4		R	N
Carex crinita	Fringed Sedge	6	-5			S5			N
Carex cryptolepis	Northeastern Sedge	7	-5			S4	R5	R	N
Carex gracillima	Graceful Sedge	4	3			S5			N
Carex hystericina	Porcupine Sedge	5	-5			S5			N

Scientific Name	Common Name	CC	CW	COSEWIC	SARO	SRank	Simcoe County (Riley 1989)	Lake Simcoe Watershed (LSEMS, 2003)	Nat Status
Carex intumescens	Bladder Sedge	6	-3			S5			N
Carex lacustris	Lake Sedge	5	-5			S5			N
Carex muehlenbergii var. enervis	Nerveless Muhlenberg's Sedge	7	5			S1S2			N
Carex plantaginea	Plantain-leaved Sedge	7	5			S5			N
Carex pseudocyperus	Cyperus-like Sedge	6	-5			S5			N
Carex retrorsa	Retrorse Sedge	5	-5			S5			N
Carex stipata	Awl-fruited Sedge	3	-5			S5			N
Carex vulpinoidea	Fox Sedge	3	-5			S5			N
Carpinus caroliniana	Blue-beech	6	0			S5			N
Caulophyllum thalictroides	Blue Cohosh	5	5			S5			N
Celastrus scandens	Climbing Bittersweet	3	3			S5			N
Centaurea stoebe	Spotted Knapweed	0	5			SE5			I
Cerastium arvense	Field Chickweed	8	3			S4			N
Chenopodium album	Common Lamb's-quarters	0	3			SE5			I
Cichorium intybus	Wild Chicory	0	3			SE5			I
Cicuta bulbifera	Bulbous Water-hemlock	5	-5			S5			N
Circaea canadensis ssp. canadensis	Canada Enchanter's Nightshade	2	3			S5			N
Cirsium arvense	Canada Thistle	0	3			SE5			I
Cirsium vulgare	Bull Thistle	0	3			SE5			I
Clematis virginiana	Virginia Clematis	3	0			S5			N
Clinopodium vulgare	Wild Basil	4	5			S5			N
Clintonia borealis	Yellow Clintonia	7	0			S5			N
Cornus alternifolia	Alternate-leaved Dogwood	6	3			S5			N
Cornus canadensis	Bunchberry	7	0			S5			N
Cornus sericea	Red-osier Dogwood	2	-3			S5			N
Corylus cornuta	Beaked Hazelnut	5	3			S5			N
Crataegus punctata	Dotted Hawthorn	4	5			S5			N
Dactylis glomerata	Orchard Grass	0	3			SE5			I
Daucus carota	Wild Carrot	0	5			SE5			I
Diervilla lonicera	Northern Bush-honeysuckle	5	5			S5			N
Doellingeria umbellata	Flat-top White Aster	6	-3			S5			N
Dryopteris carthusiana	Spinulose Wood Fern	5	-3			S5			N

Scientific Name	Common Name	CC	CW	COSEWIC	SARO	SRank	Simcoe County (Riley 1989)	Lake Simcoe Watershed (LSEMS, 2003)	Nat Status
Dryopteris cristata	Crested Wood Fern	7	-5			S5			N
Echium vulgare	Common Viper's Bugloss	0	5			SE5			I
Elaeagnus angustifolia	Russian Olive	0	3			SE3			I
Epilobium strictum	Downy Willowherb	9	-5			S4	R2	R	N
Epipactis helleborine	Broad-leaved Helleborine	0	3			SE5			I
Equisetum arvense	Field Horsetail	0	0			S5			N
Equisetum fluviatile	Water Horsetail	7	-5			S5			N
Erigeron canadensis	Canada Horseweed	0	3			S5			N
Erigeron strigosus	Rough Fleabane	4	3			S5			N
Eupatorium perfoliatum	Common Boneset	2	-3			S5			N
Eurybia macrophylla	Large-leaved Aster	5	5			S5			N
Euthamia graminifolia	Grass-leaved Goldenrod	2	0			S5			N
Eutrochium maculatum	Spotted Joe Pye Weed	3	-5			S5			N
Fagus grandifolia	American Beech	6	3			S4			N
Fragaria virginiana ssp. virginiana	Wild Strawberry	2	3			S5			N
Frangula alnus	Glossy Buckthorn	0	0			SE5			I
Fraxinus americana	White Ash	4	3			S4			N
Fraxinus nigra	Black Ash	7	-3	THR		S3			N
Fraxinus pennsylvanica	Red Ash	3	-3			S4			N
Galium aparine	Common Bedstraw	4	3			S5			N
Galium palustre	Common Marsh Bedstraw	5	-5			S5			N
Geranium robertianum	Herb-Robert	2	3			S5			N
Geum aleppicum	Yellow Avens	2	0			S5			N
Geum canadense	Canada Avens	3	0			S5			N
Glechoma hederacea	Ground-ivy	0	3			SE5			I
Glyceria striata	Fowl Mannagrass	3	-5			S5			N
Gymnocarpium dryopteris	Common Oak Fern	7	3			S5			N
Hackelia virginiana	Virginia Stickseed	5	3			S5			N
Hepatica acutiloba	Sharp-lobed Hepatica	8	5			S5			N
Hesperis matronalis	Dame's Rocket	0	3			SE5			I
Hieracium vulgatum	Common Hawkweed	0	5			SE2?			I
Hydrophyllum virginianum	Virginia Waterleaf	6	0			S5			N
Hypericum perforatum	Common St. John's-wort	0	5			SE5			I
Impatiens capensis	Spotted Jewelweed	4	-3			S5			N

Scientific Name	Common Name	CC	CW	COSEWIC	SARO	SRank	Simcoe County (Riley 1989)	Lake Simcoe Watershed (LSEMS, 2003)	Nat Status
Juglans cinerea	Butternut	6	3	END	END	S2?			N
Juglans nigra	Black Walnut	5	3			S4?	R1 (Nat)	R	N
Juncus effusus	Soft Rush	4	-5			S5			N
Juniperus communis	Common Juniper	4	3			S5			N
Juniperus virginiana	Eastern Red Cedar	4	3			S5			N
Lactuca biennis	Tall Blue Lettuce	6	0			S5			N
Leersia oryzoides	Rice Cutgrass	3	-5			S5			N
Lemna minor	Small Duckweed	5	-5			S5?			N
Leonurus cardiaca	Common Motherwort	0	5			SE5			I
Leucanthemum vulgare	Oxeye Daisy	0	5			SE5			I
Lonicera tatarica	Tatarian Honeysuckle	0	3			SE5			I
Lotus corniculatus	Garden Bird's-foot Trefoil	0	3			SE5			I
Lythrum salicaria	Purple Loosestrife	0	-5			SE5			I
Maianthemum canadense	Wild Lily-of-the-valley	5	3			S5			N
Medicago lupulina	Black Medick	0	3			SE5			I
Melilotus albus	White Sweet-clover	0	3			SE5			I
Mentha canadensis	Canada Mint	3	-3			S5			N
Onoclea sensibilis	Sensitive Fern	4	-3			S5			N
Phalaris arundinacea	Reed Canarygrass	0	-3			S5			N
Phleum pratense	Common Timothy	0	3			SE5			I
Picea glauca	White Spruce	6	3			S5			N
Pinus strobus	Eastern White Pine	4	3			S5			N
Pinus sylvestris	Scots Pine	0	3			SE5			I
Plantago lanceolata	English Plantain	0	3			SE5			I
Plantago major	Common Plantain	0	3			SE5			I
Poa compressa	Canada Bluegrass	0	3			SE5			I
Poa palustris	Fowl Bluegrass	5	-3			S5			N
Poa pratensis	Kentucky Bluegrass	0	3			S5			N
Polystichum acrostichoides	Christmas Fern	5	3			S5			N
Populus balsamifera	Balsam Poplar	4	-3			S5			N
Populus deltoides ssp. deltoides	Eastern Cottonwood	4	0			S5			N
Populus grandidentata	Large-toothed Aspen	5	3			S5			N
Populus tremuloides	Trembling Aspen	2	0			S5			N
Potentilla recta	Sulphur Cinquefoil	0	5			SE5			I
Prunella vulgaris	Common Self-heal	0	0			S5			N

Scientific Name	Common Name	CC	CW	COSEWIC	SARO	SRank	Simcoe County (Riley 1989)	Lake Simcoe Watershed (LSEMS, 2003)	Nat Status
Prunus serotina	Black Cherry	3	3			S5			N
Prunus virginiana	Chokecherry	2	3			S5			N
Pteridium aquilinum	Bracken Fern	2	3			S5			N
Pyrola elliptica	Shinleaf	5	5			S5			N
Quercus rubra	Northern Red Oak	6	3			S5			N
Ranunculus abortivus	Kidney-leaved Buttercup	2	0			S5			N
Ranunculus acris	Common Buttercup	0	0			SE5			I
Rhamnus cathartica	European Buckthorn	0	0			SE5			I
Rhus typhina	Staghorn Sumac	1	3			S5			N
Ribes americanum	American Black Currant	4	-3			S5			N
Ribes cynosbati	Eastern Prickly Gooseberry	4	3			S5			N
Robinia pseudoacacia	Black Locust	0	3			SE5			I
Rosa multiflora	Multiflora Rose	0	3			SE5			I
Rubus allegheniensis	Allegheny Blackberry	2	3			S5			N
Rubus idaeus ssp. strigosus	North American Red Raspberry	2	3			S5			N
Rubus occidentalis	Black Raspberry	2	5			S5			N
Rubus pubescens	Dwarf Raspberry	4	-3			S5			N
Rumex acetosella	Sheep Sorrel	0	3			SE5			I
Rumex crispus	Curled Dock	0	0			SE5			I
Salix alba	White Willow	0	-3			SE4			I
Salix bebbiana	Bebb's Willow	4	-3			S5			N
Salix discolor	Pussy Willow	3	-3			S5			N
Salix eriocephala	Cottony Willow	4	-3			S5			N
Salix petiolaris	Meadow Willow	3	-3			S5			N
Sambucus racemosa	Red Elderberry	5	3			S5			N
Schoenoplectus tabernaemontani	Soft-stemmed Bulrush	5	-5			S5			N
Scirpus atrovirens	Dark-green Bulrush	3	-5			S5			N
Scirpus cyperinus	Common Woolly Bulrush	4	-5			S5			N
Scirpus microcarpus	Red-tinged Bulrush	4	-5			S5			N
Silene vulgaris	Bladder Campion	0	5			SE5			I
Sium suave	Common Water-parsnip	4	-5			S5			N
Smilax herbacea	Herbaceous Carrionflower	5	0			S4?			N
Solanum dulcamara	Bittersweet Nightshade	0	0			SE5			I

Scientific Name	Common Name	CC	CW	COSEWIC	SARO	SRank	Simcoe County (Riley 1989)	Lake Simcoe Watershed (LSEMS, 2003)	Nat Status
Solidago canadensis	Canada Goldenrod	1	3			S5			N
Solidago rugosa	Rough-stemmed Goldenrod	4	0			S5			N
Sonchus arvensis	Field Sow-thistle	0	3			SE5			I
Sonchus oleraceus	Common Sow-thistle	0	3			SE5			I
Sorbus aucuparia	European Mountain-ash	0	5			SE4			I
Streptopus lanceolatus	Rose Twisted-stalk	7	3			S5			N
Symphyotrichum cordifolium	Heart-leaved Aster	5	5			S5			N
Symphyotrichum ericoides	White Heath Aster	4	3			S5			N
Symphyotrichum lanceolatum	Panicled Aster	3	-3			S5			N
Symphyotrichum lateriflorum	Calico Aster	3	0			S5			N
Symphyotrichum novae-angliae	New England Aster	2	-3			S5			N
Symphyotrichum puniceum	Purple-stemmed Aster	6	-5			S5			N
Syringa vulgaris	Common Lilac	0	5			SE5			I
Taraxacum officinale	Common Dandelion	0	3			SE5			I
Taxus canadensis	Canada Yew	7	3			S4			N
Thalictrum pubescens	Tall Meadow-rue	5	-3			S5			N
Thelypteris noveboracensis	New York Fern	7	0			S4S5		R	
Thuja occidentalis	Eastern White Cedar	4	-3			S5			N
Tilia americana	Basswood	4	3			S5			N
Toxicodendron radicans var. rydbergii	Western Poison Ivy	2	0			S5			N
Trifolium pratense	Red Clover	0	3			SE5			I
Trifolium repens	White Clover	0	3			SE5			I
Trillium erectum	Red Trillium	6	3			S5			N
Trillium grandiflorum	White Trillium	5	3			S5			N
Tsuga canadensis	Eastern Hemlock	7	3			S5			N
Tussilago farfara	Coltsfoot	0	3			SE5			I
Typha latifolia	Broad-leaved Cattail	1	-5			S5			N
Ulmus americana	White Elm	3	-3			S5			N
Ulmus pumila	Siberian Elm	0	3			SE3			I
Urtica dioica	Stinging Nettle	2	0			S5			N
Verbascum thapsus	Common Mullein	0	5			SE5			I
Verbena hastata	Blue Vervain	4	-3			S5			N
Verbena urticifolia	White Vervain	4	0			S5			N
Veronica officinalis	Common Speedwell	0	5			SE5			I

Scientific Name	Common Name	CC	CW	COSEWIC	SARO	SRank	Simcoe County (Riley 1989)	Lake Simcoe Watershed (LSEMS, 2003)	Nat Status
Viburnum opulus ssp. trilobum	Highbush Cranberry	5	-3			S5			N
Vicia cracca	Tufted Vetch	0	5			SE5			I
Vinca minor	Lesser Periwinkle	0	5			SE5			I

Appendix B

Butternut Health Assessment and DNA Reports

October 13, 2020 BEL 220306

Geoffrey Campbell
Managing Partner
OroStation DevCo Inc.
4370 St. John's Sideroad,
Stouffville, Ontario
L4A 2T7

Re: Butternut Health Assessment Report for Oro Station Automotive Park located at 225 and 401 7th Line North, Township of Oro-Medonte

Beacon Environmental Limited (Beacon) was retained to provide an Environmental Impact Study and *Endangered Species Act* Support for the proposed Oro Station Automotive Park.

During our field investigations, 17 Butternut trees were found, and a Butternut Health Assessment was performed on each tree.

Attached you will find the results of our Butternut Health Assessments, which are being provided to the Ontario Ministry of the Environment, Conservation and Parks for their review.

Should you have any questions or concerns, please do not hesitate to contact me at gpoisson@beaconenviro.com.

Prepared by:
Beacon Environmental

Geri Poisson, B.A. (Hons.), Dipl. Eco. Restoration, BHA 471
Terrestrial Ecologist, ISA Certified Arborist (ON-1288A)

Enclosures:
1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007.*
2. Butternut Health Assessor's Report.
3. Original data forms.
4. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis).

Enclosures:

1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Assessor's Report
3. Original data forms
4. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)

Ministry of Natural Resources and Forestry

Species At Risk
P.O. Box 7000, 300 Water Street
Peterborough ON K9J 8M5

Ministère des Richesses naturelles et des Forêts

Espèces en péril
C.P. 7000, 300, rue Water
Peterborough ON K9J 8M5

The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (ESA) from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: http://www.ontario.ca/environment-and-energy/butternut-trees-your-property.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local Ministry of Natural Resources and Forestry (MNRF) District Manager. Note that MNRF cannot accept photocopies or scanned electronic copies of the data forms.

Note regarding changes:

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNRF District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNRF may contact you for an opportunity to examine the trees. If MNRF chooses to examine the trees, a representative of MNRF will contact you using the information you supplied when you submitted the BHA Report.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the “Notice of Butternut Impact” form on the MNRF Registry **after the 30 day period has elapsed**.

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

Links:

Endangered Species Act, 2007:
http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):
http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

MNRF Office Locations:
https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices

Butternut Health Assessor's Report Number: 471202

Geri Poisson, BHA# 471
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OroStation DevCo Inc.
4370 St. John's Sideroad,
Stouffville, Ontario
L4A 2T7
gc@oakleigh.re

Site location: 401 7th Line North, Oro-Medonte

Date(s) of Butternut health assessment: July 29, 2020)
Date BHA Report prepared: October 2, 2020

Map datum used: ☒ NAD83 ☐ WGS84

Total number of trees assessed in this BHA Report: 17

The assessed trees were numbered on site using blue flagging ribbon and permanent marker. The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Note to BHAs: add/remove table rows as necessary

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category[1] *(1, 2, or 3[2])*	dbh[3] (cm)	Cultivated? *(Y/N)*	Proposed to be: *(enter one: unknown[4], killed, harmed or taken)*	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
1	17T 616219 4927601	1	5	N	Killed	Development

[1] The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.
[2] Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.
[3] dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)
[4] In this column, "unknown" indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Tree #	UTM coordinates	Category[1] *(1, 2, or 3[2])*	dbh[3] (cm)	Cultivated? *(Y/N)*	Proposed to be: *(enter one: unknown[4], killed, harmed or taken)*	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
2	17T 616174 4927679	2	1	N	Killed	Development
3	17T 616149 4927777	2	9	N	Killed	Development
4	17T 616115 4927755	2	7	N	Killed	Development
5	17T 616112 4927577	1	55	N	Killed	Development
6	17T 616106 4927538	1	36	N	Unknown	Development
7	17T 616101 4927525	1	30	N	Unknown	Tree is dead
8	17T 616006 4927559	1	29	N	Killed	Development
9	17T 616002 4927561	1	23	N	Killed	Development
10	17T 616999 4927569	1	29	N	Killed	Development
11	17T 615998 4927571	1	24	N	Killed	Development
12	17T 615989 4927585	1	28	N	Killed	Development
13	17T 615971 4927617	2	6	N	Killed	Development
14	17T 615950 4927650	1	30	N	Killed	Development
15	17T 615949 4927650	1	38	N	Killed	Development
16/ 17	17T 615884 4927490	1	27	N	Killed	Development
18	17T 615855 4927521	2	30	N	Killed	Development

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):

Table 3: Summary of Assessment Results

Result:	**Total #:**	**Important information for persons planning activities that may affect Butternut:**

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	12	• A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. • Category 1 trees may be killed, harmed or taken **after** the 30 day period that follows submission of this BHA Report to the MNRF District Manager, unless the results of an MNRF examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the *Endangered Species Act, 2007”*.
Category 2	5	• A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. • Activities that may kill, harm or take up to a **maximum of ten (10)** Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation. • Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm • Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.
Category 3	0	• A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered “archivable”. • Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. • Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.
Cultivated	0	• An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. • Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNRF district office. • The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	• Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

Butternut Health Assessor's Comments:

Five Category 2 trees were sampled and tested for hybridity. None was found. Tree #7 is a dead tree.

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies of the Excel data analysis spreadsheet.

Butternut Data Collection Form 1 - 2010 Edition

Surveyor ID or BHA #: 471

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy): 29 - 30 - 2020

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact
First: GERI Last: POISSON
Email: GPOISSON@BEACONENVIRO.COM
Telephone: (705) 828-1196 Telephone Other: (705) 999-4935 x 249

Property Owner (check if same as surveyor) ☐
First: Last:
or Company: OROSTATION DEVCO INC.
Email: GC@OAKLEIGH.RE
Telephone: ( ) - Telephone Other: ( ) - x

Property Owner's Mailing address
Address: 4370 ST. JOHN'S SIDEROAD
Postal Code: L4A2T7 Prov.: ON
City: STOUFFVILLE

Tree Location (if different from mailing address)
Address/(911#): 401 LINE 7 NORTH
Township: ORO-MEDONTE Lot: 18 Con: 8
City:

Directions: ~ 1 Km North of Hwy 11

☑ Yes ☐ No Can Share Location Information with other Butternut Recovery Organizations?
☑ Yes ☐ No Site visits OK? (prior arrangments will always be made for a site vist)

> (Greater than)
< (Less than)

Butternut Trees Tally by Diameter Class

(Do a dot tally in blank space, write total# in box for each)

Tree Condition	< 3 cm	3-15 cm	16-30cm	>30 cm
Vigorous: > 50% Live Crown Minor or no cankers	1	3	1	
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem	Ø	1	7	3
Dead			1	

Historically, do some trees produce seeds? ☑ Y ☐ N ☐ Unkown

Estimated area containing butternut for properties > 1 acre (0.4 hectares): 4 ☐ Acres ☑ Hectares

Mostly in hedgerows

Overall Property Description (area(s) containing Butternut)
☐ Rolling Upland ☐ Bottomland
☐ Valley Slope ☐ Variable
☒ Tableland ☐ Unknown

Vegetation Community/ies
☐ Open ☒ Fencerow
☐ Shrubland ☐ Roadside
☒ DeciduousForest ☐ Quary
☐ ConiferForest ☐ UrbanYard
☐ MixedForest ☐ UrbanPark

Other:

Soil Drainage
☒ Well Drained
☐ Moderately Drained
☐ Poorly Drained
☐ Unknown

Soil Depth
☒ > 1metre
☐ 30 - 99cm
☐ < 30cm
☐ Variable
☐ Unknown

Soil Texture
☐ Clay ☐ Sand
☐ Clay Loam ☐ Variable
☐ Loam ☐ Unknown
☑ Loamy Sand

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220306

Butternut Data Collection FORM 2 (2010 Edition) (PLEASE USE BLOCK LETTERS)

Shaded fields are mandatory for Butternut Health Assessments

Fill when Form 1 indicates canker is well established. The information opn Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Site Code(A,B,...Z, AA...):

Surveyor ID or BHA #: 471

Date (dd/mm/yyyy): 29-07-2020

Surveyor Last Name: POISSON

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Field	Tree 1	Tree 2	Tree 3	Tree 4	Tree 5
Tree #	1	2	3	4	5
Zone	17	17	17	17	17
Easting	616219	616174	616149	616115	616112
Northing	4927601	4927679	4927772	4927755	4927577
Crown Class	3	3	3	3	1
Live Crown %	65	100	100	100	80
Main Stem Length(m) Below crown	2	1	4	3	4
#Stems	1	1	1	1	1
DBH(cm)	5	1	9	7	55
Twig Dieback	☐	☐	☐	☐	☐
Branch Dieback	☐	☐	☐	☐	☐
Defoliation	☐	☐	☐	☐	☐
Discolouration	☐	☐	☐	☐	☐
Butternut Origin	☒ Natural	☒ Natural	☒ Natural	☒ Natural	☐ Natural ☐ Planted ☐ Unknown
Seed Signs	☒ None	☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None	☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None	☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None	☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None
#Epic-Live	-	-		-	
#Epic-Dead	-	-		-	
Bark Type				2	D
# Callused Wounds	-	-		-	8
Root #Open / #Sooty	- / -	- / -	- / -	- / -	- / 7
=<2m #Open / #Sooty	2 / 2	- / -	- / -	- / -	- / 11
>2m #Open / #Sooty	- / -	- / -	- / -	- / -	0 / 11
Metres from badly cankered tree (< 40 / > 40 / None Found)	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐
Competing Species	FRAX, ACESASA	ACESASA	ACESACA, TILAMER		
Notes	Grows at edge of hedgerow	Seedling ~60 cm tall	~~Hybrid?~~ No but no canker.	~~Hybrid?~~ NO, but no canker	Scars @ base

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220206

Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE BLOCK LETTERS)

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Fill when Form 1 indicates canker is well established. The information on Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

P2

Site Code(A,B,...Z, AA...) | Surveyor ID or BHA # 471

Surveyor Last Name: POISSON

Date (dd/mm/yyyy): 29-07-2020

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # 6

Zone 17 | Easting 616106 | Northing 4927538

Crown Class: 1 | Live Crown %: 30 | Main Stem Length(m) Below crown: 6

Twig Dieback ☐ | Branch Dieback ☒ | Defoliation ☒ | Discolouration ☐

#Stems: 1 | DBH(cm): 36

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live: 4		
#Epic-Dead: 7		
Bark Type: D	Root	1
# Callused Wounds: 3	=<2m	8
	>2m	12

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

most of trunk has died.

Tree # 8

Zone 17 | Easting 616006 | Northing 4927559

Crown Class: 1 | Live Crown %: 20 | Main Stem Length(m) Below crown: 6

Twig Dieback ☒ | Branch Dieback ☒ | Defoliation ☒ | Discolouration ☐

#Stems: 1 | DBH(cm): 29

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live: 6		
#Epic-Dead: 5	Root	3
Bark Type	=<2m	11
# Callused Wounds	>2m	13

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Second smaller stem dead.

Tree # 9

Zone 17 | Easting 616002 | Northing 4927561

Crown Class: 2 | Live Crown %: 60 | Main Stem Length(m) Below crown: 5

Twig Dieback ☒ | Branch Dieback ☒ | Defoliation ☐ | Discolouration ☐

#Stems: 1 | DBH(cm): 23

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live		
#Epic-Dead	Root	7
Bark Type	=<2m	12
# Callused Wounds	>2m	12

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Tree # 10

Zone 17 | Easting 615999 | Northing 4927569

Crown Class: 2 | Live Crown %: 80 | Main Stem Length(m) Below crown: 4

Twig Dieback ☒ | Branch Dieback ☒ | Defoliation ☐ | Discolouration ☐

#Stems: 1 | DBH(cm): 29

Butternut Origin: ☑ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live: 3		
#Epic-Dead: 2	Root	12
Bark Type: S	=<2m	6
# Callused Wounds: 2	>2m	4

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Tree # 11

Zone 17 | Easting 615998 | Northing 4927571

Crown Class: 2 | Live Crown %: 80 | Main Stem Length(m) Below crown: 6

Twig Dieback ☒ | Branch Dieback ☒ | Defoliation ☐ | Discolouration ☐

#Stems: 1 | DBH(cm): 24

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown:

	#Open	#Sooty
#Epic-Live: 3		
#Epic-Dead	Root	1 4
Bark Type: S	=<2m	11
# Callused Wounds	>2m	6

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

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220306

Butternut Data Collection FORM 2 (2010 Edition) (PLEASE USE BLOCK LETTERS)

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Fill when Form 1 indicates canker is well established. The information opn Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Site Code(A,B,...Z, AA...):
Surveyor ID or BHA #: 471
Date (dd/mm/yyyy): 29 - 07 - 2020
Surveyor Last Name: POISSON

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree #	Zone	Easting	Northing	Crown Class	Live Crown %	Main Stem Length(m) Below crown	#Stems	DBH(cm)	Twig Dieback	Branch Dieback	Defoliation	Discolouration	Butternut Origin	Seed Signs	#Epic-Live	#Epic-Dead	Bark Type	# Callused Wounds	Root #Open	Root #Sooty	<=2m #Open	<=2m #Sooty	>2m #Open	>2m #Sooty	Metres from badly cankered tree	Competing Species
12	17	615989	4927585	2	60	4	2	28	☒	☒	☐	☐			5	2			-	6	-	11	-	8		
13	17	615971	4927617	3	100	1	1	-6	☐	☐	☐	☐	Natural				S		-	-	-	-	-	-		
14	17	615950	4927650	2	80	6	1	30	☒	☒	☐	☐	Natural						-	4	-	8	-	7		
15	17	616949	4927650	1	80	5	1	38	☒	☒	☐	☐	Natural						-	6	-	13	-	8		
16	17	615884	4927490	2	80	2	2	27	☐	☐	☐	☐	Natural						-	13	1	20	-	5		

Notes:
- Tree 12: 19 + 21 cm dbh forked @ 30 cm (4) other dead stems $\sqrt{19^2+21^2} = 28$
- Tree 13: found @ 1m Nicks in bark from ... wildlife damage?
- Tree 14: lots of dead wood around root flare. Bark ... wire around tree
- Tree 15: lots of vine ... from trunk into crown
- Tree 16: Forked @ around (20cm + 18cm) = 27cm (BN17) lots of ... around root flare

Sunny @ ...

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7 2 1 5 2 6 0 1 5

Butternut Data Collection FORM 2 (2010 Edition) (PLEASE USE BLOCK LETTERS)

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Fill when Form 1 indicates canker is well established. The information on Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Site Code(A,B,...Z, AA...) | Surveyor ID or BHA # 471

Surveyor Last Name POISSON

Date (dd/mm/yyyy) 29 - 07 - 2020

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # 18 | **Zone** 17 | **Easting** 615855 | **Northing** 4927521

Crown Class: 1 | Live Crown %: 100 | Main Stem Length(m) Below crown: 1

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐ | #Stems: 1 | DBH(cm): 30

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☒ Seed Set ☐ None

Assess below live crown: #Epic-Live: 1 | #Epic-Dead: 1 | Bark Type: 5 | # Callused Wounds: 1

	#Open	#Sooty
Root	1	5
=<2m	1	5
>2m	1	1

Metres from badly cankered tree: ☐ < 40 ☒ > 40 ☐ None Found

Competing Species

No Beech suckers in crown, large, open grown, low live crown (centre of tree)

Tree # | **Zone** 17 | **Easting** | **Northing**

Crown Class | Live Crown % | Main Stem Length(m) Below crown | Seed Signs

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐ | #Stems | DBH(cm)

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown: #Epic-Live | #Epic-Dead | Bark Type | # Callused Wounds

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree # | **Zone** 17 | **Easting** | **Northing**

Crown Class | Live Crown % | Main Stem Length(m) Below crown | Seed Signs

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐ | #Stems | DBH(cm)

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown: #Epic-Live | #Epic-Dead | Bark Type | # Callused Wounds

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree # | **Zone** 17 | **Easting** | **Northing**

Crown Class | Live Crown % | Main Stem Length(m) Below crown | Seed Signs

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐ | #Stems | DBH(cm)

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown: #Epic-Live | #Epic-Dead | Bark Type | # Callused Wounds

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree # | **Zone** 17 | **Easting** | **Northing**

Crown Class | Live Crown % | Main Stem Length(m) Below crown | Seed Signs

Twig Dieback ☐ | Branch Dieback ☐ | Defoliation ☐ | Discolouration ☐ | #Stems | DBH(cm)

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown: #Epic-Live | #Epic-Dead | Bark Type | # Callused Wounds

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species

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BHA Tree Analysis (version: December 2013)

This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	1	Assessment Date(s)	29-Jul-20	Total # Butternut Trees in BHA Report	17
BHA ID #	471	BHA Name	Geri Poisson		
Landowner / Client Name			Oro Automotive Park (220306)		
Property Location			7th Line Oro-Medonte, Simcoe County		

input field data										automatic calculations from field data						Categories: 1: non-retainable, 2: retainable, 3: archivable				
			# bole cankers				# root flare (RF) cankers													
Tree #	Live Crown %	Tree dbh (cm)	sooty (S) (will be assigned 2.5 cm per canker)		open (O) (will be assigned 5 cm per canker)				<40 m from cankered tree? (Y or N)	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	LC% >/= 50 & BC% = 0	LC% >70 & BRC % <20	LC% >70 & BC % <20	Preliminary tree call	FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			S <2 m	S >2 m	O <2 m	O >2 m	RF S	RF O		Circ (cm)	BC (cm)	RC (cm)	BC%	RC%	BRC%					
1	100	5	2	0	2	0	0	0		15.7	15.0	0.0	**95.5**	**0.0**	**47.8**	1	1	1	**1**	**1**
2	100	1	0	0	0	0	0	0		3.14	0.0	0.0	**0.0**	**0.0**	**0.0**	2	2	2	**2**	**2**
3	100	9	0	0	0	0	0	0		28.26	0.0	0.0	**0.0**	**0.0**	**0.0**	2	2	2	**2**	**2**
4	100	7	0	0	0	0	0	0		21.98	0.0	0.0	**0.0**	**0.0**	**0.0**	2	2	2	**2**	**2**
5	80	55	11	11	0	1	7	0		172.7	60.0	17.5	**34.7**	**10.1**	**22.4**	1	1	1	**1**	**1**
6	30	36	8	12	1	1	1	0		113	60.0	2.5	**53.1**	**2.2**	**27.6**	1	1	1	**1**	**1**
7	0	30								94.2	0.0	0.0	**0.0**	**0.0**	**0.0**	1	1	1	**1**	**1**
8	20	29	11	13	0	1	3	0		91.06	65.0	7.5	**71.4**	**8.2**	**39.8**	1	1	1	**1**	**1**
9	60	23	12	12	0	0	7	0		72.22	60.0	17.5	**83.1**	**24.2**	**53.7**	1	1	1	**1**	**1**
10	80	29	6	4	0	0	12	0		91.06	25.0	30.0	**27.5**	**32.9**	**30.2**	1	1	1	**1**	**1**
11	80	24	11	6	0	0	4	1		75.36	42.5	15.0	**56.4**	**19.9**	**38.2**	1	1	1	**1**	**1**
12	60	28	11	8	0	0	6	0		87.92	47.5	15.0	**54.0**	**17.1**	**35.5**	1	1	1	**1**	**1**
13	100	6	0	0	0	0	0	0		18.84	0.0	0.0	**0.0**	**0.0**	**0.0**	2	2	2	**2**	**2**
14	80	30	8	7	0	0	4	0		94.2	37.5	10.0	**39.8**	**10.6**	**25.2**	1	1	1	**1**	**1**
15	80	38	13	8	0	0	6	0		119.3	52.5	15.0	**44.0**	**12.6**	**28.3**	1	1	1	**1**	**1**
16/17	80	27	20	5	1	0	13	1		84.78	67.5	37.5	**79.6**	**44.2**	**61.9**	1	1	1	**1**	**1**
18	100	30	5	0	1	0	5	1	n	94.2	17.5	17.5	**18.6**	**18.6**	**18.6**	1	2	2	**2**	**2**

Butternut Tree (*Juglans cinerea* L.) Hybrid Testing Report

Prepared By: Steve Crookes

September 8th, 2020

Background and Methodology

Six leaf samples of putative purely parental butternut tree (*Juglans cinerea* L.) were submitted by Beacon Environmental, Inc (two packages: one containing one leaf; the other, five leaf samples) to determine if there has been hybridization with other congeneric species. To test for hybridization, a series of microsatellite (or 'simple-sequence repeat' (SSR) markers) were selected to identify any alleles (variants of the same genetic locus) that are specific to black walnut (*Juglans nigra* L.) which would indicate possible hybridization with butternut.

Genomic DNA was extracted using a commercial kit and SSR PCR amplification was performed with fluorescently labelled primers (VIC dye). Amplicons were run on an ABI 3500 genetic analyzer to determine both amplicon (allele) number and size at each marker. This analysis allows for the genotyping of the samples at these four SSR markers, according to the size of the alleles, and to unambiguously identify any non-pure butternut alleles.

Results

A total of four SSR markers were analyzed from genomic DNA extracted from the six samples. The results of their genotyping are shown in Table 1.

Table 1: Results from genotyping using the four SSRs. Based on the SSR data, each sample is assessed for the possession of both butternut and non-butternut SSR alleles. The "Butternut Species" column reveals the presence of butternut-specific alleles, whereas "Hybrid" column indicates the presence of non-butternut alleles, and thus confers upon the sample the status of genetic hybrid if they are present.

Sample	Butternut Species	Hybrid	Comment
BN1	Yes	No	N/A
BN2	Yes	No	N/A
BN3	Yes	No	N/A
BN4	Yes	No	N/A
BN13	Yes	No	N/A
BN18	Yes	No	N/A

Conclusion

All samples were successfully genotyped at four SSR loci, revealing that each of the six samples did not possess any indication of belonging to a congeneric hybrid. Rather, the results are consistent with true-breeding butternut.

Appendix C

Salamander Egg Mass Survey

GRAY OWL ENVIRONMENTAL INC.
RR1, 1356 Lockie Road
Branchton, Ontario, Canada N0B1L0
Ph (519) 740-1303
Fx (519) 740-8869
Mobile (519) 240-3895
grayowlenvironmental@sympatico.ca

April 28, 2008

Tricia Radburn
R.J. Burnside & Associates Limited
292 Speedvale Avenue West, Unit 7
Guelph, Ontario
N1H 1C4

Dear Tricia:

Re: Lake Simcoe Business Park EIS

On April 24, 2008, Chris Pfohl of your office and I conducted fieldwork at the proposed Lake Simcoe Business Park site. The primary purposes of the visit were to search for salamander egg masses in the wetlands and to determine if the central wetland would be likely to attain provincially significant status if it were officially evaluated. In addition, a list of wildlife species observed during the day was compiled.

Fieldwork was conducted from 0915 to 1440. The weather during this time was sunny with temperatures ranging from 15 to 20°C and wind 1 to 2 on the Beaufort wind scale.

Amphibian Egg Mass Survey

Five on-site wetlands were checked for amphibian egg masses. This entailed wading through the wetlands looking for egg masses attached to underwater vegetation or floating on the water's surface. In addition to searching for egg masses, any other amphibians or reptiles that were observed or heard were recorded. A form was filled out for each wetland and these are attached. Photographs were taken of each wetland and a CD of the photos is enclosed. A GPS reading was taken at each wetland so that their location can be accurately mapped. The photographs were taken from the same point where the GPS reading was taken.

The primary reason for undertaking the survey was that polyploids of the Jefferson salamander complex had previously been reported from the general area. In that this is considerably north of the known range of the Jefferson salamander, the polyploids in this area have a genetic make-up of LLJ, meaning that they have two chromosomes of the blue-spotted salamander and one of the Jefferson salamander. Although this animal is not a true species, it was formerly known as the Tremblay's salamander and will be referred to as such in this report.

Pond LSBP-1

This pond was in the southern patch of natural habitat near the eastern property boundary. There was a small berm at the southern end of the pond suggesting that it may have been deepened at one time. The centre of the pond lacked vegetation indicating that it may maintain a small permanent pool of water. The presence of fairy shrimp, however, suggested that the pond was ephemeral.

Egg masses of two amphibian species were observed in this pond. Approximately 60 wood frog egg masses were found in one location near the northern end of the pond. A total of 203 egg masses of the Tremblay's salamander were counted in the pond. Of these, all of the eggs in 186 of the masses were dead, 3 egg masses had a mix of dead and apparently viable eggs, and 14 egg masses appeared to be viable. Small salamander larvae had hatched in a few of the 14 egg masses confirming that these eggs had been fertilized.

Typically genetic analyses are required to confirm the genotype of egg masses of salamanders within the Jefferson complex. Generally, the egg masses of the Jefferson salamander and its polyploid (LJJ, or silvery salamander) cannot be distinguished reliably in the field. The Tremblay's salamander lays egg masses that are small and globular in form that contain very few eggs, while the Jefferson and silvery salamanders lay egg masses that are more purse-shaped and tend to contain more egg masses. However, there is considerable variation in the size and shape of egg masses so that it is not possible to conclusively distinguish among egg masses laid by the Jefferson salamander and its polyploid and those of the Tremblay's salamander. The pure blue-spotted salamander usually lays its eggs singly or in pairs on leaves or other detritus on the pond substrate, so that its eggs are seldom seen. Rarely, it may lay its eggs in masses similar to those of the Tremblay's salamander.

The polyploid salamanders are essentially parasites. The population is comprised solely of females and is dependent upon males of either the pure Jefferson or blue-spotted salamanders to fertilize their eggs and perpetuate the population. Thus, a high proportion of polyploid egg masses are non-viable because the female was unsuccessful in finding a male spermatophore to fertilize the eggs. The presence of viable polyploid egg masses confirms that a male of one of the two pure species (Jefferson or blue-spotted salamanders) bred within the pond.

The proposed Lake Simcoe Business Park is considerably north of the known distribution of the Jefferson salamander. This, plus the shape, size, and number of eggs within the egg masses indicates that the salamanders that laid the eggs in Pond LSBP-1 were Tremblay's salamander with a genetic makeup of LLJ. The presence of viable egg masses also indicates that male blue-spotted salamanders (with a genetic makeup of LL) bred in this pond. Consequently, for the purposes of the EIS, this pond should be considered to support breeding blue-spotted and Tremblay's salamanders.

In addition to the two salamander species and wood frogs that were confirmed through the egg mass survey, 2 spring peepers were heard calling from the pond and 3 grey treefrogs were heard calling from the nearby uplands.

In summary, Pond LSBP-1 provides breeding habitat for blue-spotted salamander, Tremblay's salamander (or Jefferson complex polyploid with genetic makeup of LLJ), spring peeper, grey treefrog, and wood frog.

Pond LSBP-2

Pond LSBP-2 was located in the central wetland at the western end of the deciduous swamp community. This was a large wetland that consisted of a deeper pond that appeared to have been created by beavers and deepened by humans. This area was also grazed by cattle. Most of the wetland was open, shallow water in reed canary grass marsh.

The pond maintains permanent water as demonstrated by the presence of fish and green frog tadpoles.

No amphibian egg masses were found within this wetland. Numerous northern leopard frogs were seen and heard in this pond, 1 wood frog was seen, 6 or more spring peepers were heard, over 6 green frogs were seen, and there were also at least 6 Midland painted turtles in the pond.

The presence of fish in this wetland/pond complex makes it unsuitable breeding habitat for salamanders of the Jefferson salamander complex. The pond should be considered breeding habitat for spring peeper, northern leopard frog, green frog, and wood frog, and it also supports painted turtles.

Pond LSBP-3

Pond LSBP-3 was a small dugout pond located south of the central wetland area. One northern leopard frog egg mass was found within this pond. Several leopard frogs were observed and several adults and tadpoles of the green frog were seen. The presence of green frog tadpoles indicates that this is a permanent pool of water.

There was no evidence of breeding salamanders in this pond. It is relatively poor habitat for breeding for the Tremblay's and blue-spotted salamanders as there is no suitable adjacent upland habitat, the pond is in the open, and the pond supports permanent water.

This pond should be considered breeding habitat for the northern leopard frog and the green frog.

Pond LSBP-4

This pond was a beaver pond in the eastern portion of the central wetland. No amphibian egg masses were observed in this pond, although it was not completely covered by the survey. Small numbers of northern leopard frogs were heard calling in the pond and numerous green frog tadpoles were seen.

Fish were abundant in this pond, generally making it unsuitable for breeding salamanders of the Jefferson complex.

This pond should be considered breeding habitat for the northern leopard frog and the green frog.

Pond LSBP-5

This pond was a large cattail marsh in the northern wetland on the property. Approximately 60 northern leopard frog egg masses were seen in one group in this wetland. Several northern leopard frogs and spring peepers were heard calling and numerous green frog tadpoles were observed.

Fish were present in this wetland, making it unsuitable for breeding salamanders of the Jefferson complex.

This pond is breeding habitat for spring peeper, northern leopard frog, and green frog.

Summary of Amphibian Egg Mass Survey

All five on-site ponds or wetlands were examined for amphibian egg masses. Egg masses were found in three of the ponds, and amphibian breeding was confirmed in the other two by presence of tadpoles and also by calling males.

Only Pond LSBP-1 had habitat that was suitable for breeding for salamanders of the Jefferson complex. Presence of viable egg masses in this pond confirmed the presence of both the polyploid LLJ (Tremblay's salamander) and the pure blue-spotted salamander.

At 7 least amphibian species breed on the site. These include the blue-spotted salamander, Tremblay's salamander (LLJ), spring peeper, grey treefrog, northern leopard frog, wood frog, and green frog.

Probable Status of the Central Wetland

To determine if the central wetland was likely to attain status as a Provincially Significant Wetland, I did a desktop check of its features against the Ontario Wetland Evaluation System. This should not be considered an actual wetland evaluation.

Given the time of the year, it was not possible to complete some of the subcomponents of the evaluation system, especially those related to significant species. In addition, I did not spend the time trying to determine number of vegetation communities, interspersion, and some of the other parameters. I took a very conservative approach, particularly on the biological component. I awarded the maximum possible points for vegetation communities and interspersion, although it is highly unlikely that this wetland would attain anywhere near the maximum points.

The following is a summary of the points that I feel the wetland would attain on the evaluation system, recognizing that I have awarded maximum allowable points on some subcomponents even though it is likely that the wetland would be scored lower on an official evaluation.

Biological Component

growing degree days	22
wetland type	13
site type	2
no. of wetland types	13
vegetation communities	45
surrounding habitat	6
proximity	5
interspersion	30
open water type	14
size	34
Total	**184**

Social Component

wood products	3
wild rice	0
bait fish	12
bullfrogs	0
snapping turtle (assumed probably present)	1
furbearers (3 confirmed, another assumed)	12
recreation	8
distinctness	3
disturbance	4
education	0
facilities	0
research	0
proximity	12
ownership	4
size	8
aboriginal and cultural	0
Total	**67**

Hydrological Component

flood attenuation	100
water quality	39
nutrient trap	3
discharge	2
carbon sink	0
shoreline erosion	0
recharge	50
soil recharge potential	7
Total	**201**

Special Features Component

wetland rarity	50
endangered and threatened species	0

provincially significant animals	0
provincially significant plants	0
regionally significant species	0
locally significant species	0
colonial waterbirds	0
winter cover	0
waterfowl staging	10
waterfowl breeding	10
bird migration	0
fish habitat	15
fish migration and staging habitat	0
ecosystem age	2
Total	**97**

Total Score

Biological Component	184
Social Component	67
Hydrological Component	201
Special Features Component	97
Grand Total	**549**

For a wetland to be considered provincially significant, it must attain a total score of 600 points or 200 points on either the biological or special features components. Based on the desktop analysis that was completed, the central wetland would not be provincially significant.

There are two potential caveats to this. The first is that this work was done outside of the period when significant plant and wildlife species would occur if they were present. Thus, there is the potential that there are significant species present which would elevate the wetland's score on the special features component. The probability of significant species being present is considered very low, but this will be confirmed during the fieldwork conducted during the EIS. Much of the open portion of the wetland is grazed and dominated by reed canary grass, an invasive non-native cultivar that is also alleopathic and kills other plant species. Therefore, the likelihood of significant plant species occurring is remote. In addition, the on-site habitats and vegetation communities are very common and there are no specialized habitats present that are likely to support significant animal species. At best, there may be some locally significant species present (although even this is questionable given the disturbed nature of the site), but this would not be sufficient to raise the score on the special features component to 200 or to increase the overall score to 600. In addition, a proper wetland evaluation would undoubtedly result in a lower score on the biological component as maximum points were awarded in this exercise for wetland communities and interspersion.

The wetland might attain provincially significant status if it were complexed with other wetlands. Preliminary investigations indicate that this wetland is probably in a watershed of its own, and certainly in a different watershed than wetlands to the north. There is no inflow to the central wetland and drainage from it is to the west (see Photo 670) to the ditch along Line 7 N. However, the possibility of the central wetland being complexed with other wetlands to make it provincially significant cannot be ruled out.

In summary, it is my opinion that the central wetland would not be determined to be provincially significant if it were evaluated on its own under the Ontario Wetland Evaluation System. The possibility of it being complexed with other wetlands cannot be completely ruled out.

Wildlife Species Observed

A total of 36 wildlife species were observed on April 28, 2008 at the proposed Lake Simcoe Business Park. They included 2 butterfly, 7 amphibian, 1 reptile, 22 bird, and 4 mammal species. They are listed briefly below.

Butterflies: cabbage white and mourning cloak.

Amphibians: blue-spotted salamander (confirmed due to presence of viable Tremblay's salamander eggs), Tremblay's salamander, spring peeper, grey treefrog, northern leopard frog, wood frog, and green frog.

Reptiles: Midland painted turtle.

Birds: Canada Goose, Wood Duck, Mallard, Wild Turkey (tracks), Turkey Vulture (overhead), Sandhill Crane (overhead), Mourning Dove, Downy Woodpecker, Northern Flicker, Pileated Woodpecker, Blue Jay, American Crow, Tree Swallow, White-breasted Nuthatch, House Wren, Eastern Bluebird, American Robin, European Starling, Song Sparrow, Red-winged Blackbird, Common Grackle, American Goldfinch.

Mammals: beaver, raccoon, coyote (scats), and white-tailed deer (tracks and scats).

Please feel free to contact me if you have any questions.

Yours truly,
GRAY OWL ENVIRONMENTAL INC.

Al Sandilands

Al Sandilands
Senior Ecologist/Principal

GRAY OWL ENVIRONMENTAL INC.	Salamander Egg Survey Observation Form

Project Number 4067 Project Location: Lake Simcoe Business Park

Date: April 24, 2008 Field Personnel: A. Sandilands & C. Pfohl

Weather Conditions:	Temp:	Wind:	Cloud:	PPT:	PPT in last 24 hrs:
	15	1	0%	none	none

Site Information

Site ID: LSBP-1 *(name and locate on aerial photo)*

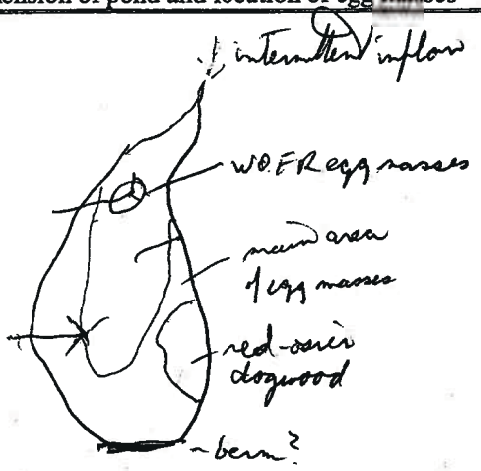
Pond UTM: Easting: 616803 Northing: 4927030 GPS Accuracy = ± 5.5m

Start time: 0946 End time: 1047 Duration of visit: 2hrs 1min x 2

Photos taken: ~~642, 648~~ 647-652

Water Body Description	
Average depth (cm)	60
Maximum depth (cm)	100
Average length (m) width (m)	25 20
Water temperature	
Water flow and speed	~~none~~ flow, but intermittent input from north
Substrate / soils	mostly mineral, but some organics in central part
Amount and type of litter / debris	~50% leaf cover in pond
Number of egg attachment sites	abundant reed canary grass, Carex, nightshade + red-osier
Fish likely present or observed?	absent
Emergent / wetland vegetation	~5% coverage by red-osier dogwood 10% coverage by duckweed
Edge vegetation	upland with Wood lilies
Dominant surrounding vegetation / community	mostly Aw-Ar-Po T in immediate vicinity
Percent canopy closure over pond	<1%
Percent in-pond shrub cover and species	10 ~~5~~% red-osier dogwood, bittersweet nightshade

Sketch of Pond
-Include dimension of pond and location of egg masses



OTHER NOTES:

- all egg masses very small, 1-2cm, globular and with few eggs (2-10 at most), most typical of inlet (Tremblay's)
- fairy shrimp present
- centre of pond probably maintains some water in summer based on lack of vegn, although presence of fairy shrimp suggests it is ephemeral

Egg Mass Observations		
Number of masses observed:		
Total number of **live** masses by probable species	Species	# Egg masses
	wood frog	60+
	Tremblay's salamander	14
	Tremblay's salamander	3 - partially dead
Total number of **dead** masses by probable species	Species	# Egg masses
	Tremblay's salamander	186
Direct salamander observations *(list species and number)*	none	
Other direct herp observations *(list species and number)*	2 calling spring peeper 3 calling gray treefrog	

GRAY OWL ENVIRONMENTAL INC.	Salamander Egg Survey Observation Form

Project Number 4067 Project Location: Lake Simcoe Brunnies Park

Date: April 24, 2008 Field Personnel: A. Sandilands & C. Pfohl

Weather Conditions:	Temp:	Wind:	Cloud:	PPT:	PPT in last 24 hrs:
	20	1	0	none	none

Site Information

Site ID: LSBP-2 *(name and locate on aerial photo)*

Pond UTM: Easting: 616111 Northing: 4927377 GPS Accuracy = ± 4.0

Start time: 450 End time: 1235 Duration of visit: 45 minutes *2

Photos taken: 654-657

Water Body Description	
Average depth (cm)	30
Maximum depth (cm)	80-100
Average length (m) width (m)	100 100
Water temperature	
Water flow and speed	no flow observed
Substrate / soils	predominantly mineral with small scattered pockets of organics
Amount and type of litter / debris	80% reed canary grass
Number of egg attachment sites	grass abundant but woody veg rare
Fish likely present or observed?	minnows present
Emergent / wetland vegetation	reed canary grass - 80% common cattail - <1%
Edge vegetation	reed canary grass
Dominant surrounding vegetation / community	reed canary grass meadow marsh - numerous large snags
Percent canopy closure over pond	0
Percent in-pond shrub cover and species	<1% red-osier dogwood

Sketch of Pond -Include dimension of pond and location of egg masses


OTHER NOTES:

- appears to be grazed
- pond appears to be constructed, but there may also have been beaver activity

Egg Mass Observations		
Number of masses observed:		
Total number of **live** masses by probable species	Species	# Egg masses
		0
Total number of **dead** masses by probable species	Species	# Egg masses
		0
Direct salamander observations *(list species and number)*	none	
Other direct herp observations *(list species and number)*	northern leopard frog - numerous seen & heard green frog - ~6+ seen Midland painted turtle ~6 in pond 6+ spring peepers calling 1 wood frog	

GRAY OWL ENVIRONMENTAL INC.	Salamander Egg Survey Observation Form

Project Number: 4067

Project Location: Lake Simcoe Business Park

Date: April 24, 2008

Field Personnel: G. Sandilands & C. Pfohl

Weather Conditions:	Temp:	Wind:	Cloud:	PPT:	PPT in last 24 hrs:
	20	1	0	none	none

Site Information

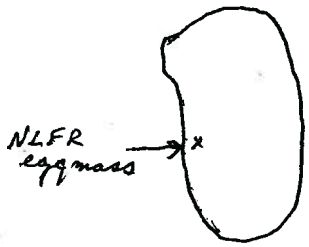
Site ID: LSBP-3 *(name and locate on aerial photo)*

Pond UTM: Easting: 616176 Northing: 492728[illegible] GPS Accuracy = ± [illegible]

Start time: 1245 End time: 1300 Duration of visit: [illegible]

Photos taken: 658-662

Water Body Description	
Average depth (cm)	[illegible]
Maximum depth (cm)	[illegible]
Average length (m) width (m)	[illegible]
Water temperature	
Water flow and speed	[illegible]
Substrate / soils	[illegible]
Amount and type of litter / debris	[illegible] stems [illegible] margin [illegible]%
Number of egg attachment sites	[illegible] stems, [illegible] broad
Fish likely present or observed?	[illegible] observed
Emergent / wetland vegetation	reed canary grass 10%; [illegible] 50%
Edge vegetation	reed canary grass
Dominant surrounding vegetation / community	deciduous swamp/meadow [illegible] [illegible]
Percent canopy closure over pond	0%
Percent in-pond shrub cover and species	1% pussy willow

Sketch of Pond -Include dimension of pond and location of egg masses	***OTHER NOTES:*** dugout pond
	

Egg Mass Observations		
Number of masses observed:		
Total number of **live** masses by probable species	Species	# Egg masses
	northern leopard frog	1
Total number of **dead** masses by probable species	Species	# Egg masses
		0
Direct salamander observations *(list species and number)*	none	
Other direct herp observations *(list species and number)*	several adult and larval green frogs several leopard frogs	

GRAY OWL ENVIRONMENTAL INC.	Salamander Egg Survey Observation Form

Project Number 4067 Project Location: Lake Simcoe Business Park

Date: April 24, 2008 Field Personnel: A. Sandilands & C. Pfohl

Weather Conditions:	Temp:	Wind:	Cloud:	PPT:	PPT in last 24 hrs:
	20	1	0	none	none

Site Information

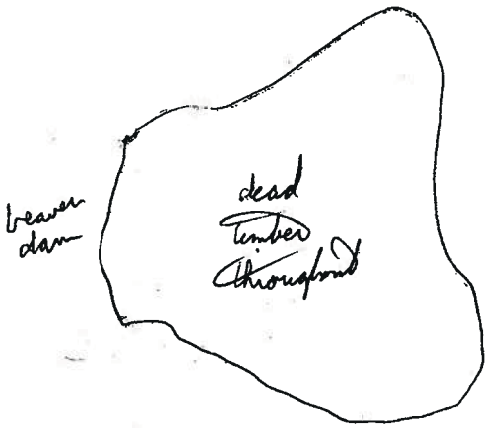
Site ID: LSBP-4 *(name and locate on aerial photo)*

Pond UTM: Easting: 616400 Northing: 4127553 GPS Accuracy = ± 4.5m

Start time: 1305 End time: 1335 Duration of visit: 30 min x 2

Photos taken: 663-665

Water Body Description	
Average depth (cm)	15 cm
Maximum depth (cm)	60-70 cm
Average length (m) width (m)	100 70
Water temperature	
Water flow and speed	none
Substrate / soils	deep organics (30-40cm) over mineral soils
Amount and type of litter / debris	mostly unconsolidated organics with some leaf litter
Number of egg attachment sites	rare, a few twigs and grasses
Fish likely present or observed?	minnows abundant
Emergent / wetland vegetation	reed canary grass at east end + on hummocks
Edge vegetation	mostly reed canary grass
Dominant surrounding vegetation / community	upland Cew to east, deciduous hardwoods to west
Percent canopy closure over pond	10%
Percent in-pond shrub cover and species	50% - dead cedar, Ms

Sketch of Pond -Include dimension of pond and location of egg masses	***OTHER NOTES:***
	

Egg Mass Observations		
Number of masses observed:		
Total number of **live** masses by probable species	Species	# Egg masses
		0
Total number of **dead** masses by probable species	Species	# Egg masses
		0
Direct salamander observations *(list species and number)*	none	
Other direct herp observations *(list species and number)*	numerous green frog tadpoles small number of leopard frogs calling	

GRAY OWL ENVIRONMENTAL INC.	Salamander Egg Survey Observation Form

Project Number 4067 Project Location: Lake Simcoe Business Park

Date: April 24, 2008 Field Personnel: A. Sandilands & C. Pfohl

Weather Conditions:	Temp:	Wind:	Cloud:	PPT:	PPT in last 24 hrs:
	20	1	0	none	none

Site Information

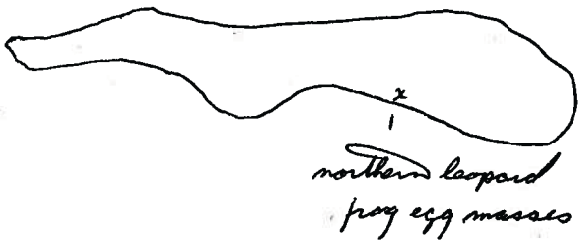
Site ID: LSBP-5 *(name and locate on aerial photo)*

Pond UTM: Easting: 616130 Northing: 4927808 GPS Accuracy = ± 4.4m.

Start time: 1350 End time: 1415 Duration of visit: 25 minutes x 2

Photos taken: 666-669

Water Body Description	
Average depth (cm)	30-40 cm
Maximum depth (cm)	80 cm
Average length (m) width (m)	600 m 100 m
Water temperature	
Water flow and speed	none
Substrate / soils	mineral
Amount and type of litter / debris	reed canary grass & cattail stems
Number of egg attachment sites	very few Twigs, mostly grass
Fish likely present or observed?	stickleBacks observed
Emergent / wetland vegetation	90% common cattail / reed canary grass
Edge vegetation	reed canary grass
Dominant surrounding vegetation / community	deciduous swamp to east, ag & upland deciduous to S., mixed swamp to west
Percent canopy closure over pond	0
Percent in-pond shrub cover and species	<1% white birch, snags

Sketch of Pond -Include dimension of pond and location of egg masses


OTHER NOTES:

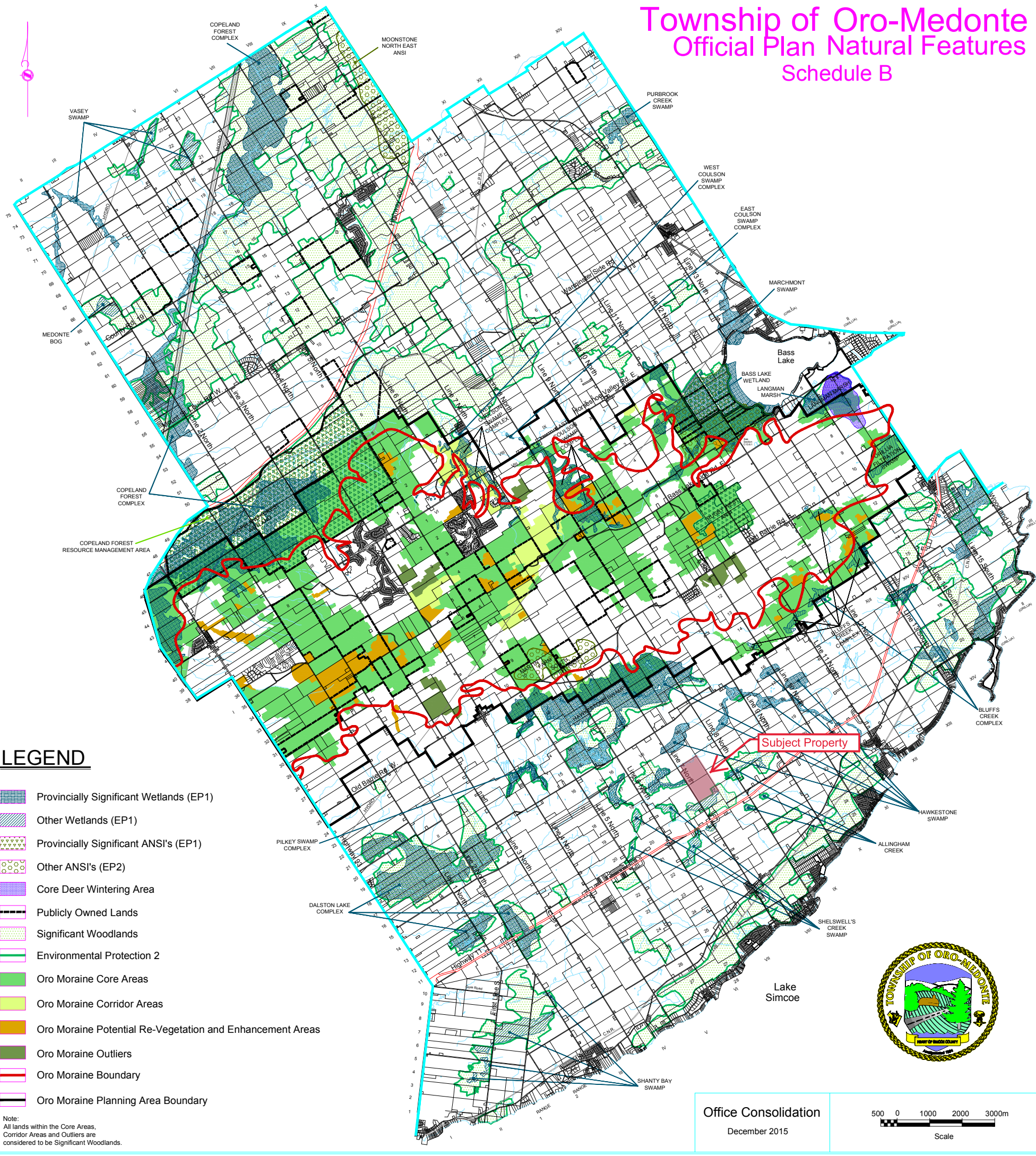
- the area indicated on the Vegetation Communities map as mixed swamp is now a cattail marsh and the deciduous swamp appears to be upland deciduous forest

Egg Mass Observations		
Number of masses observed:		
Total number of **live** masses by probable species	Species	# Egg masses
	northern leopard frog	60+
Total number of **dead** masses by probable species	Species	# Egg masses
		0
Direct salamander observations *(list species and number)*	none	
Other direct herp observations *(list species and number)*	numerous green frog tadpoles spring peepers calling leopard frog calling	

Appendix D

Township of Oro-Medonte Official Plan Natural Features Schedule B

Township of Oro-Medonte
Official Plan Natural Features
Schedule B



LEGEND

- Provincially Significant Wetlands (EP1)
- Other Wetlands (EP1)
- Provincially Significant ANSI's (EP1)
- Other ANSI's (EP2)
- Core Deer Wintering Area
- Publicly Owned Lands
- Significant Woodlands
- Environmental Protection 2
- Oro Moraine Core Areas
- Oro Moraine Corridor Areas
- Oro Moraine Potential Re-Vegetation and Enhancement Areas
- Oro Moraine Outliers
- Oro Moraine Boundary
- Oro Moraine Planning Area Boundary

Note:
All lands within the Core Areas,
Corridor Areas and Outliers are
considered to be Significant Woodlands.

Office Consolidation
December 2015

500 0 1000 2000 3000m
Scale

Ecological Offsetting Strategy Calculation Form

as per LSRCA Ecological Offsetting Policy, 2019

Property Address: 255 and 401 7th Line North, Oro-Medonte **Date:** March 15, 2021
Applicant: Oro Station DevCo Inc. **LSRCA File:** SD-132794-022719

Feature Type	Area of Feature Loss (ha)	Area of VPZ Loss (ha)
Wetland	6.23	2.56*
Woodland	6.10	6.48*
	12.33	**9.04**

** VPZ areas are approximate – to be confirmed by applicant based on a 30 m VPZ to woodland and wetland.*

Ecological Offsetting Option #1 preferred	**Ecological Offsetting Option #2**
Feature Replacement (Proponent Led)	**Cash-in-Lieu** (LSRCA Led Feature Replacement)
Feature replacement requirement: 3:1 for wetland and 1:1 for VPZ = (wetland area x 3) + (VPZ area x 1) = (6.23 ha x 3) + (2.56 ha x 1) = 21.25 ha of wetland replacement 2:1 for woodland and 1:1 for VPZ = (woodland area x 2) + (VPZ area x 1) = (6.10 ha x 2) + (6.48 ha x 1) = 18.68 ha of woodland replacement	**Feature creation cost:** 3:1 for wetland and 1:1 for VPZ Wetland replacement cost = $92,500.00/ha = [(wetland area x 3) + (VPZ area x 1)] x $92,500/ha = [(6.23 ha x 3) + (1.28 ha x 1)] x $92,500/ha = 21.25 ha x $92,500/ha = $1,965,625 2:1 for woodland and 1:1 for VPZ Woodland replacement cost = $48,500 = [(woodland area x 2) + (VPZ area x 1)] x $48,500/ha = [(6.10 ha x 2) + (6.48 ha x 1)] x $48,500/ha = 18.68 ha x $48,500/ha = $905,980
Ecosystem Service Value (ESV) payment requirement: Wetland ESV = $7,791/ha = (wetland area + VPZ area) x wetland ESV = (6.23 ha + 2.56 ha) x $7,791/ha = $68,482.89 Woodland ESV = $6,046/ha = (woodland area + VPZ area) x woodland ESV = (6.10 ha + 6.48 ha) x $6,046/ha =$76,058.68	**Ecosystem Service Value (ESV) cost:** Wetland ESV = $7,791/ha = (wetland area + VPZ area) x wetland ESV = (6.23 ha + 2.56 ha) x $7,791/ha = $68,482.89 Woodland ESV = $6,046/ha = (woodland area + VPZ area) x woodland ESV = (6.10 ha + 6.48 ha) x $6,046/ha = $76,058.68
	Land securement cost: 15% of (feature creation cost + ESV cost) = 0.15 x ($1,965,625+ $68,482.89 + $905,980 + $76,058.68) = $452,421.99

Ecological Offsetting Strategy Calculation Form

as per LSRCA Ecological Offsetting Policy, 2019

Property Address: 255 and 401 7th Line North, Oro-Medonte **Date:** March 15, 2021
Applicant: Oro Station DevCo Inc. **LSRCA File:** SD-132794-022719

		Administration fee **: 5% of (feature creation cost + ESV cost + land securement cost) = 0.05 x ($1,965,625+ $68,482.89 + $905,980 + $76,058.68 + $452,421.99) = $173,428.43 *** 5% admin fee applied – This is not in accordance with the Ecological Offsetting Policy, which requires a 15% admin fee.*
Total requirement:		**Total requirement:**
Replacement of **21.25 ha** of **wetland** and **18.68 ha** of **woodland**	Payment of **$144,541.57** for ESV	Payment of $2,871,605.00 for feature creation cost + $144,541.57 for ESV + $452,421.99 for land securement cost + $173,428.43 for administration fee **Total payment** = **$3,641,996.98**

General Conditions:

1. That an Agreement be entered into between the landowner and the Lake Simcoe Region Conservation Authority, consistent with Section 28.0.1 of the *Conservation Authorities Act*.

2. That all legal fees associated with the development and execution of any Agreement under Section 28.0.1 under the *Conservation Authorities Act* be paid fully by the proponent prior to the final execution of the Agreement.

3. That no development occurs within any regulated lands until the Agreement required under S.28.0.1 of the *Conservation Authorities Act*, is fully executed.

4. That the Permit Holder complies with all conditions of the Agreement.

5. All development subject to provincial, federal and municipal statutes, regulations and by-laws.

6. This permit does not confer upon you any right to occupy, develop or flood lands owned by other persons or agencies.

7. The Permit Holder must maintain and comply with the local drainage requirements of the municipality.

8. The Permit Holder shall strictly adhere to the approved Authority permit, plans, documents and conditions, to the satisfaction of the Authority. The Owner further acknowledges that all proposed revisions to the design of this project that impact the Authority's interests must be submitted for review and approval by the Authority prior to implementation of the redesigned works.

9. The Permit Holder shall notify the Authority's Regulation Staff 48 hours prior to the commencement of any of the works referred to in this permit and within 48 hours upon completion of the works.

10. The Permit Holder shall grant permission for the Authority's staff, agents, representatives, or other persons as may be reasonably required by the Authority, in its opinion, to enter the premises without notice at reasonable times, for the purpose of inspecting compliance with the approved works, and the Terms and Conditions of this permit, and to conduct all required discussions with the Owner, their agents, consultants or representatives with respect to the works.

11. The Permit Holder acknowledges that this permit is non-transferrable and is issued only to the current owner of the property. The Permit Holder further acknowledges that upon transfer of the

property into different ownership, this permit shall be terminated, and a new permit must be obtained from the Authority by the new owner. In the case of municipal or utility projects, where works may extend beyond lands owned or easements held by the municipality or utility provider, landowner authorization is required to the satisfaction of the Authority.

12. The Permit Holder shall ensure all excess fill (soil or otherwise) generated from the works will not be stockpiled and/or disposed of within any area regulated by LSRCA (on or off-site) pursuant to Ontario Regulation 179/06, as amended, without a permit from the Authority.

13. The Permit Holder shall install effective erosion and sediment control measures prior to the commencement of the approved works and maintain such measures in good working order throughout all phases of the works to the satisfaction of the Authority.

14. The Permit Holder shall repair any breaches of the erosion and sediment control measures within 48 hours of the breach to the satisfaction of the Authority.

15. That prior to any development occurring on the site a spills and refuelling plan be submitted to the satisfaction of the Authority.

16. That all areas of exposed soil be stabilized immediately following construction.

17. That effluent from de-watering pumps is to be directed to suitable sediment control that conforms to best management practices, located more than 15 metres away from the stream bank.

18. That no grading or placing of fill occur on the lot except what is required for the proposed works as shown on the attached site plan.

ORO STATION
AUTOMOTIVE INNOVATION PARK

CONCEPT

PROPOSAL TO: LSRCA

MARCH 21, 2021

CONTACT

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CONFIDENTIAL

INTRODUCTION

Oro Station is a multi-use facility that will join an automotive business park with testing facilities. The park will be home to premier engineering, education, supply, design and manufacturing businesses that will benefit from the track facility for testing, design, development, marketing, events, tourism etc. The business park will provide the opportunity for like-minded individuals and companies to foster a community centred around automotive innovation.

Ontario is the preeminent jurisdiction for automotive manufacturing in North America yet it does not have a business park facility centred around innovation and technological excellence in motorsport and transportation technology. The automotive sector was responsible for $64.4 billion worth of international exports in 2016, fully one third of the province's total, producing upwards of $201 million per day in automotive output. The Canadian automotive sector is undergoing a rapid evolution. Oro Station is the catalyst to the future of low-carbon transportation technologies in Ontario.

OSAIP

LOCATION

- **TOWNSHIP:** Oro-Medonte, Simcoe County, ON
- **PROXIMITY:** 90 minutes from downtown Toronto and 60 minutes from the heart of Muskoka and Collingwood
- **AIRPORT:** Located across the road from Lake Simcoe Regional Airport (LSRA) with international customs and 6,000 ft runway
- **POPULATION:** Within 1 hour of 7.2 million people – 20% of Canada's population. Southern Ontario is home to 35% of Canada's population.
- **ACCESS:** Located on Highway 11, 15 minutes north of the recently expanded Highway 400

OSAIP

LOCATION

Oro-Medonte presents a unique opportunity due to its central location within Southern Ontario and its access to tourism amenities within the area. As a result, Oro Station will be able to tailor their Experience Centres to include lifestyle activities. Oro-Medonte currently has an Average Annual Daily Traffic count of 45,100 on Highway 11 passing the site and AADT of 27,600 on Highway 400, north of Barrie.

- Accommodation
  - Horseshoe Resort – 142 Rooms
  - Carriage Ridge Resort – 190 Suites
  - Multiple Bed and Breakfast establishments
  - Camping
- Lakes/Waterways
  - 20 minutes south of Muskoka
  - Lake Simcoe
  - Lake Couchiching
  - Bass Lake
  - Trent-Severn Waterway
- Key Activities
  - Cycling (road, mountain and trail), Boating, Paddling, Skiing, Hiking/Walking, Golf
- Attractions
  - Burl's Creek Event Grounds (Boots and Hearts Festival, Wayhome and others)
  - Horseshoe Resort – Skiing, mountain biking, downhill biking, adventure park etc
  - Mt. St Louis Moonstone Ski Resort
  - Hardwood Ski and Bike (cross-country skiing and mountain biking)
  - Bass Lake Provincial Park
  - TreeTop Trekking
  - Heritage Estates Winery and Cidery (as well as multiple craft breweries)
  - Nordic Spa
  - Canoe/Kayaking on the Black River

Oro-Medonte Tourism – https://www.ontarioslakecountry.com/tourism-oro-medonte/

Regional Tourism Investment – https://www.ontarioslakecountry.com/invest/

Simcoe County Tourism – https://experience.simcoe.ca/

OSAIP

ONTARIO'S AUTOMOTIVE INDUSTRY

The Industry

- 2,382,208 vehicles were built in Ontario in 2014 (or 6,527 per day), the most of any state or provincial jurisdiction in North America.
- The Ontario industry produced vehicles and parts worth $73 billion in 2014, (or $201 million per day).
- Ontario's auto industry also comprises a highly-developed parts sector, including manufacturers' in-house engine and transmission plants, and over 600 independent parts facilities.

Jobs and the Economy

- The auto industry directly employs 101,000 people in Ontario, 85% of the Canadian total.
- Auto workers' paycheques contributed $6.1 billion to the Ontario economy in 2014 (or $17 million per day).
- Thousands more jobs are created to supply the auto industry: jobs in steel, plastics and other manufacturing and services. More jobs are created by the spending power of auto workers' paycheques.
- The major original equipment manufacturing operations in Ontario are estimated to stimulate 311,000 additional jobs throughout the economy.

Provincial Impact

- Ontario's auto industry accounted for $64.4 billion worth of international exports in 2016, fully one third of the province's total.
- Auto is by far Ontario's most important export industry, the value of auto exports is 30% higher than those from agriculture, food manufacturing, forestry, mining and primary metals combined.
- As a crucial source of high-technology investment and productivity growth, the industry boosts our economic performance. The benefits of the auto industry are felt throughout the province through supplier links, tax revenue and consumer spending.

OSAIP

LAKE SIMCOE REGIONAL AIRPORT

- **FACILITIES:** 6000ft runway presently undergoing expansion to 7000ft
- **EXPANSION:** Currently undergoing a $65mil airport investment and expansion.
- **HANGAR:** Space available for lease ranging from 10,000 to 30,000 square feet
- **SOAN:** Member of the Southern Ontario Airport Network with specific target of becoming primary private charter hub for the Greater Toronto Area as Pearson Airport reaches commercial capacity
- **CUSTOMS:** Commercial Port of Entry status fully serviced by the Canada Border Service Agency
- **TERMINAL:** New terminal building built in 2011

OSAIP

INNOVATION PARK

- **EMPLOYMENT:** 50 acres dedicated to automotive manufacturing with focus on research and development
- **AUTONOMOUS:** Vehicle testing in highway environment in all-season weather, with the ability to replicate highway speed and traffic on the motor circuit.
- **TECHNOLOGY:** SmartCity technology systems including lighting, Internet of Things, fibre optic infrastructure
- **MOTORSPORT:** Workshops for professional and customer race teams with access to the motor circuit allowing for immediate testing
- **ENERGY:** Solar/hydro generated power within the area provide attraction to electric vehicle design and development. Opportunity for alternative fuel testing and development including hydrogen.

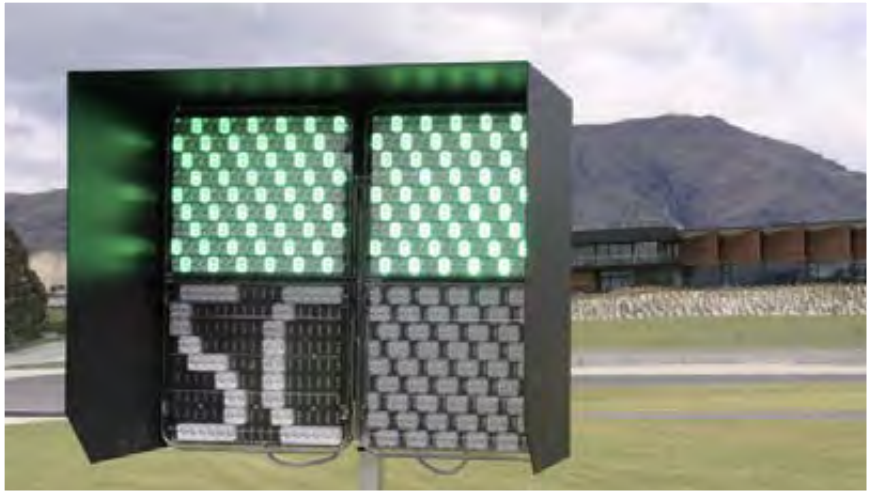
OSAIP

CONSTRUCTORS COURTYARD

- **MANUFACTURERS:** Experience centre buildings for global manufacturers. Experiential marketing opportunities are the future of vehicle sales, (Porsche has shown 18% increase in purchase price by clients who have attended a Porsche Experience)

- **COMMERCIAL:** Opportunities such as car museums, bespoke restoration and craftsman workshops

- **COMPARABLE:** Porsche Atlanta ($100mil) Porsche LA ($60mil), Jaguar Land Rover global experience centre program, BMW Performance School, Mercedes-AMG Driving Academy.



OSAIP

SMART TECHNOLOGY

- **INFRASTRUCTURE**
  - Electronic signal flags/ lighting
  - IoT network 5G Wifi and FTTx
  - Live telemetry transmission and collection
  - Video analysis/ vehicle tracking
  - Track limits detection technology (cameras, GPS and sensors)
  - EV charging ports
  - Autonomous vehicle research facilities
  - Street lighting systems
  - Renewable energy PV and wind turbine systems
  - Environmental monitoring incl. weather and sound
  - Cyber security

- **OPPORTUNITIES**
  - Vehicle-to-Infrastructure and Vehicle-to-Vehicle interface testing
  - Road heat capture/ storage/ conversion
  - Autonomous vehicle testing in highway environment
  - Autonomous snowplow/ agriculture and utility uses
  - EV battery research and development, reconditioning

OSAIP

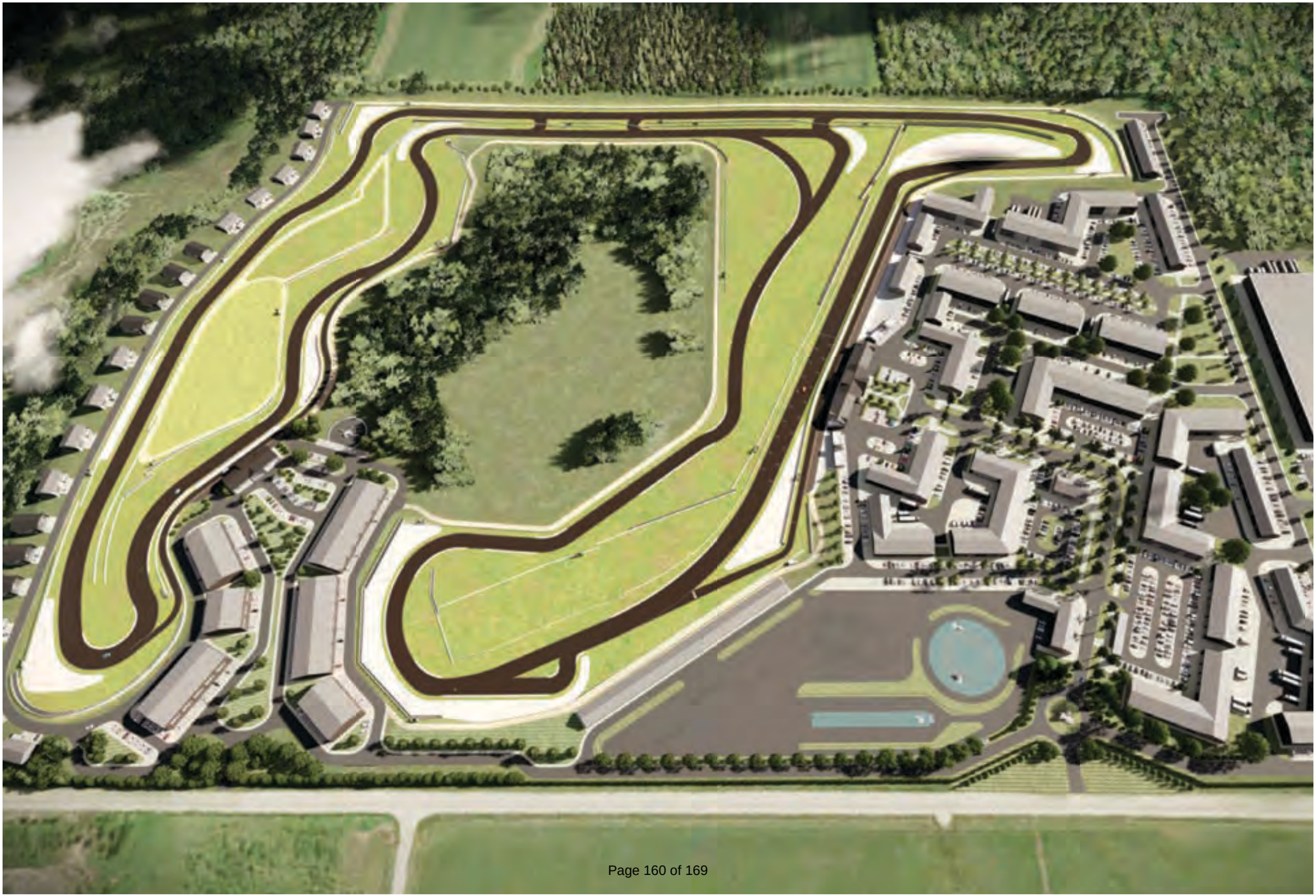
EDUCATION

Oro Station provides a unique opportunity to engage students in multiple faculties and career streams, creating a learning environment that will attract international attention in the automotive and technology industry.

- **Opportunities**
  - Hospitality, tourism and recreation
  - Automotive business and marketing
  - Research, engineering and innovation
  - Mechanic apprentice and skilled trade programs
  - Information technology systems

- **Automotive Career Sectors**
  - Alternative fuel
  - Autonomous vehicles and technology
  - Vintage vehicle restoration
  - Experiential marketing
  - Motorsport management
  - Motorsport operations and logistics
  - Transportation design and emerging technologies
  - Sponsorship and marketing in sport
  - Advanced component design and manufacturing

SITE PLAN



PARTNERSHIPS

Developer

Local real estate developer with experience in the community. Principal's past experience includes resort and hotel development in the Caribbean as well as ICI projects (Pearson Airport) .
www.oakleigh.re

Education

Through a signed partnership with Georgian College and their Automotive Business School, Oro Station is working to develop curriculum, education and training opportunities in emerging technology including collaboration on research and engineering labs.
https://www.georgiancollege.ca

Designer

Award winning international sports venue designers. Pushing the boundaries of creativity, design and use of technology, Driven International provide a fresh perspective on the design of sustainable sports, leisure, race track and driving venues.
http://driven-international.com

Racing Intelligence

Alitrax is responsible for the design and installation of the connected racing intelligence system at the Oro Station motor circuit. The camera, sensors and fibre optic infrastructure provide unique expansion opportunities for smart roadway technology and efficiency in operation.
https://alitrax.com/#1

Sponsorship/Operations Strategy

Kinrara is the management arm of the Duke of Richmond and Goodwood Estate in the UK. Home to the Goodwood Revival and Festival of Speed. Regarded as England's leading sporting estate, Goodwood is the pinnacle of motorsports.
https://www.goodwood.com

Earthworks

Dufferin Construction is a division of CRH, regarded as one of the global leaders in construction with 79,200 employees. Their team have commenced preliminary earthworks at Oro Station and will continue with the horizontal infrastructure of the circuit through 2022.
http://www.dufferinconstruction.com

Insurance Partner

Hagerty is the global leader in collector car insurance with offices in the USA, UK and Canada. Hagerty Drivers Club is the largest automotive enthusiast community. Linked through shared value and purpose, Hagerty will provide brand awareness, insurance products and access to large, captive automotive community. https://www.hagerty.com

OSAIP
IMAGERY

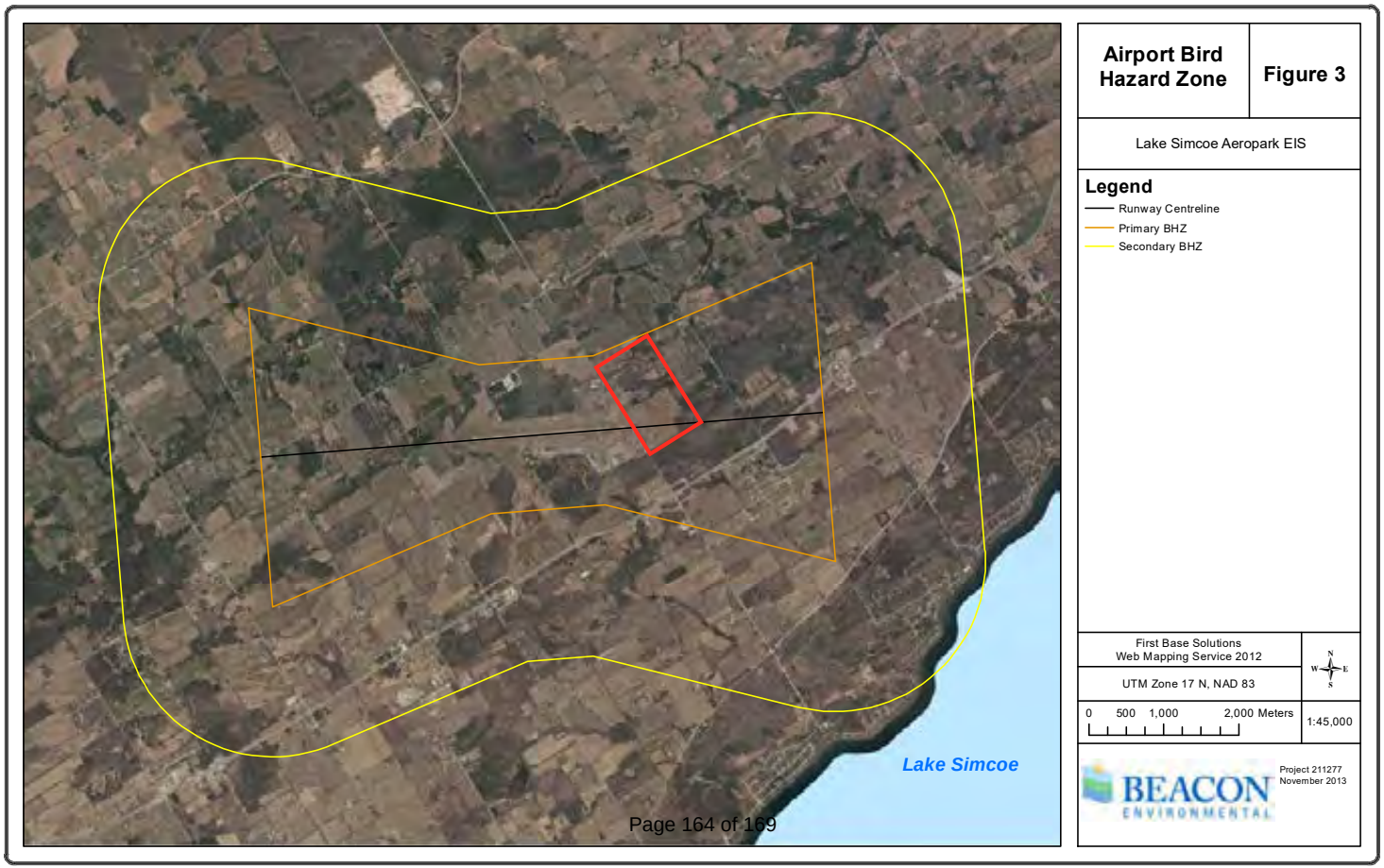
LSRAEED

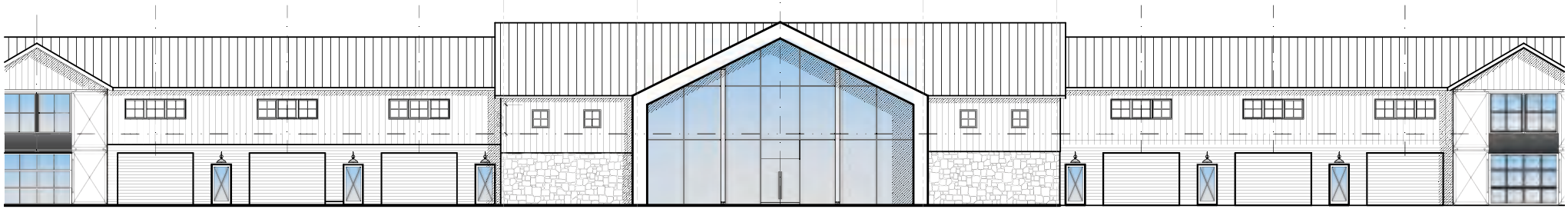
In 2012 the Provincial government designated 225 and 401 Line 7 North, Oro-Medonte as a strategic economic employment known as the Lake Simcoe Regional Economic Employment District with the Growth Plan.

- This district was to be planned and protected for locally significant employment uses.
- The uses were to be limited to aviation uses in support of the airport.
- In 2019 2639025 Ontario Inc. approached the local municipality with a vision for an advanced automotive facility. This represents sound planning as it co-locates complimentary uses within close proximity.
- Following unanimous votes from Oro-Medonte and Simcoe County councils, a request was issued to the Province by the Municipal and Regional governments to review the approved uses within the economic employment district and modify them through Ministerial Zoning Order. As the site was regulated by the Growth Plan, an MZO was the only tool available to modify the site specific uses.

PRIMARY BIRD HAZARD ZONE

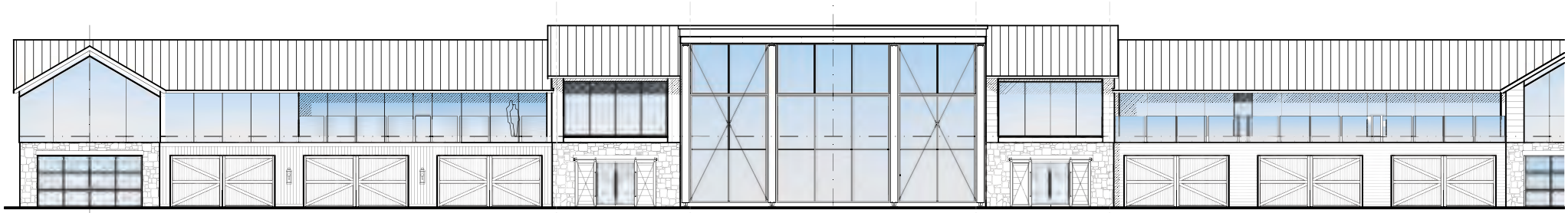
- As a result property's proximity to the Lake Simcoe Regional Airport, the property is entirely within the Primary Bird Hazard Zone of the runway approach. This is the area of highest risk for aviation accident risk due to bird strikes.
- Transport Canada's TP11500 Wildlife Control Procedures Manual identifies mitigation techniques with the Primary Hazard Zone including improving drainage to eliminate wetlands, reduce rodent populations in grassy areas and reduce available food supply. As LSRA proceeds with a $65mil expansion, the risk of aviation incidents will continue to increase, and was acknowledged by LSRCA in 2014.
- Oro Station provides a unique opportunity to maintain natural landscape vegetation while discouraging birds from entering the PHZ where the airport uses mitigation techniques and kill-orders to protect aviation traffic.





Front Elevation

Scale: 1/16"=1'-0" Date: 05.27.20



74X108" Glass sections

Rear/Trackside Elevation

Scale: 1/16"=1'-0" Date: 05.27.20

ORO STATION - PIT BUILDING

CAMPBELL DESIGN ASSOCIATES, INC. | 905.642.5525

NEXT STEPS

- **DESIGN:** The circuit has completed the schematic design phase in preparation for the circuit construction and has been submitted to FIA in France. Oro Station will be the third facility in the world to meet the FIA Sustainability Accreditation Preliminary buildings have begun architectural design drawings in preparation for Building Permit Submission.

- **NEGOTIATIONS:** OSAIP is engaged with several global manufacturers, prospective tenants, Bell Canada and other technology firms to discuss their individual requirements in order to incorporate their infrastructure and building footprint into the site plan. Georgian College and the Automotive Business School of Canada have now announced their partnership in the project.

- **PLANNING PROCESS:** On November 1st, 2019 the Province of Ontario issued a Minster's Zoning Order approving the project under the Planning Act. The project has now received Site Alteration Permits and Draft Plan of Subdivision approvals and Phase 1 Site Plan approval is underway.

ORO STATION

CONCEPT

PROPOSAL DATE:
FEBRUARY 26, 2021

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