Environmental Impact Study – 123 Regional Highway 47, Uxbridge, Durham Region, Ontario



2024-03-20

Prepared for: Urbanway Development Management

Cambium Reference: 17666-001

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1.0 Introduction

Cambium Inc. (Cambium) was retained by Urbanway Development Management to conduct an Environmental Impact Study at 123 Regional Highway 47, in Uxbridge Township, Durham Region, Ontario (Figure 1). The proposed development includes a 14-lot industrial subdivision on municipal water and private septic. Cambium understands that there is an approved Ontario Land Tribunal (OLT; formerly known as Local Planning Appeal Tribunal (LPAT) and Ontario Municipal Board (OMB)) decision supporting the development of industrial lands (Appendix A),. Given the geographic extent of the proposed development, the entire property will be considered the Site for this report.

The following Environmental Impact Study (EIS; the Study) serves to address potential impacts to natural heritage features identified during the preliminary development review process, as required by the Provincial Policy Statement (PPS, 2020), The Growth Plan for the Greater Golden Horseshoe (GPGGH, 2020) and the Oak Ridges Moraine Conservation Plan (ORMCP, 2017). The Site contains or is adjacent to (within 120 m of) the following mapped natural heritage and hydrologic features:

- Woodlands (on Site and adjacent lands)
- Watercourse; tributary to Reesor Creek (adjacent lands)
- Goodwood/Glasgow Provincially Significant Wetland (PSW) complex (adjacent lands)

The Site is within Ecoregion 6E of Ontario (Crins, Gray, Uhlig, & Wester, 2009). The Site is outside of settlement area boundaries. The ORMCP designates the woodlands along the eastern Site boundary as Natural Core Area and the remainder of the Site as Natural Linkage.

The Site is within the jurisdiction of the Toronto and Region Conservation Authority (TRCA). Their regulated area overlaps the northeast corner of the Site in relation to the watercourse mapped on adjacent lands. As such, this Study will consider regulations on development as imposed by the local Conservation Authority's Regulation under the Conservation Authorities Act, 1990. The Endangered Species Act, 2007 (ESA) protects endangered and threatened species and their habitats from harm or destruction. Habitat for endangered and threatened species is also afforded protection under provincial natural heritage policy; however, it is ultimately the proponent's responsibility to ensure that no harm to these species or their habitats occurs during their planned activities. This Study includes a habitat-based screening for species of conservation concern to determine if the Site has suitable habitat for any provincially or federally listed species at risk (SAR).

This Study has been prepared to meet application submission standards for the proposed development of the Site, and includes: the results of the background review, a description of methods used to collect site specific natural heritage information, and a summary of field investigations conducted on the Site. Information has been compiled to characterize the existing form and function of natural heritage features on and adjacent to the Site and provide an evaluation of the significance and sensitivity of those features. Furthermore, an assessment of potential for impacts to these features in relation to the proposed development is provided. Data was interpreted in accordance with provincial and municipal policies and regulations to determine potential constraints to development, to guide the decision-making process and address approval authority requirements.

1.1 Terms of Reference

The Terms of Reference (TOR) were circulated to Toronto and Region Conservation Authority and the Township of Uxbridge on June 14, 2023, and June 27, 2023, respectively. A response from TRCA was received dated on June 21, 2023. No response was received from the Township of Uxbridge. Relevant correspondence and documentation are included in Appendix A.

1.2 Existing Land Use and Proposed Development

The Site has an approximate area of 24 ha and is currently occupied by a residential dwelling and agricultural accessory buildings fronting on Highway 47. The Site is currently primarily used for agricultural purposes, with the exception of the woodlot along the east boundary.



Land uses adjacent to the Site include industrial to the north, residential to the east and west, and agricultural to the south.

The proposed development is an industrial subdivision that includes 14 industrial lots, a new internal road that would enter the Site from Highway 47 near the northern corner, and a stormwater management block in the southeast portion of the Site. A copy of the proposed Draft Plan of Subdivision is provided in Appendix B.



2.0 Natural Heritage Policy Context

The evaluation of the form and function of natural heritage features present on, and adjacent to, the Site was undertaken to meet the requirements of the following legislation, plans and policies:

- Provincial Policy Statement (PPS), 2020
- Growth Plan for the Greater Golden Horseshoe (GPGGH), 2020
- Oak Ridges Moraine Conservation Plan (ORMCP), 2017
- Conservation Authorities Act, 1990
- Durham Region Official Plan (2020) Official Plan
- Township of Uxbridge Official Plan (2014)
- Township of Uxbridge Zoning By-law No. 81-19 (2021)
- Endangered Species Act, 2007 (ESA)
- Fisheries Act, 2019
- Species at Risk Act, 2002 (SARA)
- Migratory Birds Convention Act, 1994 (MBCA)

This Study includes an assessment of conformity of the proposed development with relevant natural heritage policies. A summary of policy conformity is included in Section 6.0.

2.1 Provincial Policy Statement, 2020

The PPS provides direction on matters of provincial interest related to land use planning and development. Section 2.1 of the PPS (Ministry of Municipal Affairs and Housing, 2020) protects the form and function of eight types of significant natural heritage features, which include:

- significant wetlands
- significant coastal wetlands
- significant woodlands (limited to Ecoregions 6E and 7E)
- significant valleylands
- significant wildlife habitat (SWH)



- significant areas of natural and scientific interest (ANSI)
- fish habitat
- habitat of endangered and threatened species

Given their significance, development and site alteration are prohibited within provincially significant wetlands (PSW) in Ecoregions 5E, 6E, and 7E and within significant coastal wetlands. Development and site alteration in fish habitat and the habitat of endangered and threatened species shall only be permitted in accordance with provincial and federal requirements. Development and site alteration within other natural heritage features and on lands adjacent to all natural heritage features may be permitted if it is demonstrated that there will be no negative impacts on the feature or its ecological function. The PPS defines "development" as the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act. "Site alteration" means activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site.

Section 2.2 of the PPS protects the quality and quantity of water, including the form and hydrologic function of sensitive surface water features and sensitive ground water features. Focus is given to maintaining hydrologic linkages and functions at the watershed scale to minimize potential negative impacts, including cross-jurisdictional and cross-watershed impacts of development. Mitigative measures and/or alternative development approaches should be considered for development near water features.

2.2 Growth Plan for the Greater Golden Horseshoe, 2020

The Greater Golden Horseshoe is one of the most dynamic and fast-growing regions in North America. To address the challenges of increased development within the area, the Growth Plan for the Greater Golden Horseshoe, 2020 (GPGGH) builds on the PPS "*to establish a unique land use planning framework for the Greater Golden Horseshoe that supports achievement of complete communities, a thriving economy, a clean and healthy environment, and social equity*" (Ministry of Municipal Affairs and Housing, 2020). In general, the GPGGH



seeks to preserve agricultural lands, water resources, and natural areas by directing growth to settlement areas as defined in municipal Official Plans.

The GPGGH contains policies regarding a provincial Natural Heritage System (NHS), key hydrologic features (KHFs), key hydrologic areas (KHAs), and key natural heritage features (KNHFs) (Table 1). Policies that reference the provincial NHS apply once the municipal Official Plan has incorporated the provincial NHS into their schedules; until that time, outside of settlement areas, the policies that reference the NHS will apply to the natural heritage systems identified in Official Plans that were approved and in effect as of July 1, 2017, to the extent that such systems existed at that time. Section 4.2.3 of the GPGGH states that, outside of settlement areas, development or site alteration is generally not permitted in KNHFs that are part of the NHS or in KHFs. Section 4.2.4 states that, outside of settlement areas, a proposal for new development or site alteration or Hydrologic Evaluation that identifies a suitable vegetation protection zone (i.e., a development setback). For KHFs, fish habitat, and significant woodlands the vegetation protection zone can be no less than 30 m measured from the outside boundary of the feature.

Key Hydrologic Features	Key Natural Heritage Features	
Permanent Streams	Habitat of Endangered and Threatened Species	Significant Wildlife Habitat
Intermittent Streams	Fish Habitat	Sand Barrens
Inland Lakes and their Littoral Zones	Wetlands	Savannahs
Seepage Areas and Springs	Life Science Areas of Natural and Scientific Interest (ANSI)	Tallgrass Prairies
Wetlands	Significant Valleylands	Alvars
	Significant Woodlands	

This Study is intended to address the requirements of a Natural Heritage Evaluation (NHE) under the GPGGH.



2.3 Conservation Authority Regulation

"Conservation Authorities are community-based watershed management agencies, whose mandate is to undertake watershed-based programs to protect people and property from flooding, and other natural hazards, and to conserve natural resources for economic, social and environmental benefits" (Conservation Ontario, 2022). Historically, Conservation Authorities each had their own Regulation under the *Conservation Authorities Act, 1990*. However, since Bill 23 received royal assent on November 28, 2022, all 36 conservation authority regulations have been consolidated into a single regulation within the *Conservation Authorities Act*, which is effective as of July 1, 2023. Part VI of the *Conservation Authorities Act* outlines areas within the regional conservation authorities jurisdiction include watercourses, hazard lands, wetlands, river or stream valleys, and the nearshore areas of the Great Lakes, St. Lawrence River, and applicable inland lakes.

2.4 Oak Ridges Moraine Conservation Plan, 2017

The Oak Ridges Moraine (ORM) is an environmentally sensitive geological landform covering approximately 470,000 acres of Southern Ontario and provides the headwaters for many of the region's watercourses. The Oak Ridges Moraine Conservation Plan, 2017 (ORMCP) under the Oak Ridges Moraine Conservation Act, 2001 designates lands within the ORM as Natural Core Area, Natural Linkage Areas, Countryside Area, or Settlement Area. Natural Core Areas protect the lands with high concentrations of Key Natural Heritage Features (KNHFs); Natural Linkage Areas protect the natural corridors between Natural Core Areas and along rivers and streams; and, Countryside Areas provide a transitional buffer between the natural areas and urbanized Settlement Areas (Ministry of Municipal Affairs and Housing, 2017). The ORMCP contains policies regarding key hydrologic features (KHFs) and key natural heritage features (KNHFs) (Table 2). Section 22 states that a proposal for new development or site alteration within the area of influence (50-120 m) of a KNHF will require a Natural Heritage Evaluation that identifies a suitable vegetation protection zone (i.e., a development setback).



Key Hydrologic Features	Key Natural Heritage Features	
Permanent Streams	Wetlands	Significant Woodlands
Intermittent Streams	Habitat of Endangered and Threatened Species	Significant Wildlife Habitat
Wetlands	Fish Habitat	Sand Barrens
Kettle Lakes	Life Science Areas of Natural and Scientific Interest (ANSI)	Savannahs
Seepage Areas and Springs	Significant Valleylands	Tallgrass Prairies

Table 2 Protected Features of the ORMCP

This Study is intended to address the requirements of a Natural Heritage Evaluation (NHE) under the ORMCP.

2.5 Greenbelt Plan, 2017

The goal of the Greenbelt Plan is to provide guidance for urban development and conservation within the Golden Horseshoe by identifying where urbanization should not occur in order to "provide permanent protection to the agricultural land base and the ecological features and functions [within] the landscape" (Ministry of Municipal Affairs and Housing, 2016). Lands are identified as Protected Countryside in the Greenbelt Plan and are split into three (3) types: Agricultural System, Natural Heritage System, and Settlement Areas. The Natural Heritage System (NHS) identifies and links the highest concentrations of Key Natural Heritage Features (KNHF) and Key Hydrologic Features (KHF). KNHFs include significant habitat for SAR, fish habitat, wetlands, Life Science Areas of Natural and Scientific Research (ANSIs), significant valleylands, significant woodlands, Significant Wildlife Habitat, sand barrens, savannahs and tallgrass prairies, and alvars. KHFs include permanent and intermittent streams, lakes (and their littoral zones), seepage areas and springs, and wetlands.

Section 3.2.4 of the Greenbelt Plan states that development or site alteration is generally not permitted within a KNHF or KHF on lands within the NHS. (Ministry of Municipal Affairs and Housing, 2016). Similar to the PPS, the Greenbelt Plan definition of development includes the creation of a new lot, a change in land use, or the construction of buildings and structures,



requiring approval under the Planning Act, but does not include activities that create or maintain infrastructure authorized under an environmental assessment process.

A proposal for new development or site alteration within 120 m of a KNHF within the NHS or a KHF anywhere within the Protected Countryside requires a Natural Heritage Evaluation and Hydrological Evaluation. In the case of wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes, and significant woodlands, a vegetation protection zone of 30 m is to be maintained from the outside boundary of the KNHF or KHF.

This Study is intended to address the requirements of a Natural Heritage Evaluation (NHE) under the Greenbelt Plan.

2.6 Official Plan and Zoning By-Law

The land use designations and zoning of the Site are summarized in Table 3:

 Table 3
 Summary of Municipal Official Plan and Zoning By-law Designations

Source	Designation / Zoning
Official Plan – Durham Region	Oak Ridges Moraine Areas
Official Plan – Township of Uxbridge	Oak Ridges Moraine Areas
Zoning By-law – Township of Uxbridge	Rural (RU) and Rural-80 (RU-80)

A summary of conformity with the relevant policies is included in Section 6.0.

2.7 Endangered Species Act, 2007

Species listed as endangered or threatened on the Species at Risk in Ontario (SARO) list, and their habitats, are protected under the provincial *Endangered Species Act* (ESA) (Government of Ontario, 2007). Section 9(1) of the ESA prohibits a person from killing, harming, harassing, capturing or taking a member of a species listed as endangered, threatened, or extirpated. Section 10(1) of the ESA prohibits the damage or destruction of habitat of species listed as endangered or threatened. Protection of special concern species is provided through designation of their habitat as significant wildlife habitat (SWH), a provincially protected natural heritage feature. Species at risk (SAR) are discussed throughout this report, as applicable.



2.8 Fisheries Act

The Department of Fisheries and Oceans Canada (DFO) administers the federal *Fisheries Act* which defines fish habitat as "*spawning grounds and other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes*" (Subsection 2(1)). Works within and adjacent to lakes, watercourses, and other bodies of water containing fish have the potential to impact fish and/or fish habitat. The Fisheries Act prohibits the harmful alteration, disruption, or destruction (HADD) of fish habitat (Subsection 35(1)), which is defined as "*any temporary or permanent change to fish habitat that directly or indirectly impairs the habitat's capacity to support one or more life processes*".

As a result of amendments to the federal Fisheries Act in 2019, projects near water that could potentially impact fish or fish habitat may require DFO review. The primary purpose of the review is to determine whether HADD of fish habitat, as defined by the Act, can be avoided. The DFO Fisheries Protection Program provides a Decision Framework and guidance material applicable to these reviews (available on-line at <u>www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html</u>).

Fish habitat occurs in the following locations adjacent to the Site: Ponds on adjacent lands to north and east of the Site.

2.9 Species at Risk Act

The federal *Species at Risk Act* (SARA) was adopted in 2002 to prevent endangered or threatened species from becoming extinct or extirpated, to help in the recovery of endangered, threatened and extirpated species, and to manage species of special concern to help prevent them from becoming endangered or threatened. Habitat which is deemed necessary for the survival/recovery of a listed wildlife species, referred to as Critical Habitat, is protected under Section 56 of the SARA. The SARA applies to all federal lands in Canada; however, at-risk aquatic and migratory bird species located on private property in Ontario also receive protection under the Act.



2.10 Migratory Birds Convention Act, 1994

The federal *Migratory Birds Convention Act* (MBCA) prohibits killing, capturing, injuring, taking or disturbing of the listed migratory birds. Including damaging, destroying, removing, or disturbing of nests of all migratory bird species that contain a live birds or viable eggs. In 2022, new *Migratory Birds Regulations* (MBR) were adopted that offer year-round protection for the nests of 18 migratory species, until the nest is deemed to be abandoned. Nest abandonment must be reported through the Abandoned Nest Registry, administered by Environment and Climate Change Canada (ECCC), if there is a need to damage, disturb, destroy or remove a nest of a species listed in Schedule 1 of the MBR. The time period to confirm nest abandonment varies by species, and ranges from 12-36 months.

To ensure compliance with the MBCA during development, best management practices should be implemented to detect and avoid disturbances to active nests of listed species. Active nests are protected and should be left undisturbed until all young have fledged, the nest is determined by a professional to be inactive or abandoned.



3.0 Technical Approach and Data Collection Methods

3.1 Background Information Review

Supporting background information pertaining to the Site and surrounding landscape was compiled and reviewed, as part of a comprehensive desktop exercise, to better understand local biophysical conditions. Data was obtained from provincial, municipal, and other online resources to provide context to the development proposal, and to guide development of the site-specific work program. Field studies were subsequently conducted to verify and/or add detail to the high-level contextual information derived from these publicly available resources.

The comprehensive desktop review for this Site included the following resources:

- Land Information Ontario (LIO) database via the online Natural Heritage Areas: Make-a-Map tool (Ministry of Natural Resources and Forestry, 2022)
- Natural Heritage Information Center (NHIC) database: species at risk (SAR) occurrence records
- Online Atlas Data:
 - Ontario Reptile and Amphibian Atlas (ORAA) (Ontario Nature, 2018)
 - Ontario Breeding Birds Atlas (OBBA) (2001-2005) (Bird Studies Canada, 2005)
- Aquatic Species at Risk distribution maps (Fisheries and Oceans Canada, 2022)
- Aquatic Resource Area Summary Data (Government of Ontario, 2022)
- Fish ON-Line (Ministry of Natural Resources and Forestry, 2022)
- TRCA Regulated Area Search (Toronto and Region Conservation Authority, 2023)

Mapped natural heritage features present in the general area of the Site are shown on Figure 1. A summary of background review results is provided in Table 4.



Table 4	Background Review Summary
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Source	Location Reference	Relevant Records
LIO Geographic Database	Site and 120 m adjacent lands	 Woodland (on Site and adjacent land) Unnamed Watercourse (tributary to Ressor Creek; adjacent lands) Goodwood/Glasgow PSW complex (adjacent lands)
NHIC Database	17PJ4175 17PJ4174 17PJ4275	 Bobolink - THR Eastern Meadowlark – THR Wood Thrush – SC Snapping Turtle – SC
Ontario Breeding Bird Atlas (OBBA)	17TPJ47	Incorporated into list of species within Appendix C
Ontario Reptile and Amphibian Atlas (ORAA)	17PJ47	Incorporated into list of species within Appendix C
Aquatic SAR distribution maps	Site and 120 m adjacent lands	None

Note: THR = Threatened species on SARO list

END = Endangered species on SARO list

SC = Special concern species on SARO list

The species of conservation concern screening provided in Appendix C includes a list of all species within the overlapping OBBA and ORAA squares with potential policy implications.

3.2 Consultation and Agency Correspondence

Regulatory agency consultation may involve input from Fisheries and Oceans Canada (DFO), the Ministry of Natural Resources and Forestry (MNRF), the Ministry of Environment, Conservation, and Parks (MECP), and/or the local Conservation Authority, as applicable. The MECP is responsible for administering the ESA and providing direction on potential compliance issues. MECP has prepared a guidance document titled *Client's Guide to Preliminary Screening for Species at Risk* (Ministry of the Environment, Conservation and Parks, 2019). This document aims to "help clients better understand their obligation to gather information and complete a preliminary screening for SAR before contacting the Ministry". This document was used to guide the SAR habitat-based screening for the Study.



3.3 Field Investigations

Ecological investigations were completed on the Site by a team of qualified ecologists to understand potential ecological constraints to development and opportunities for restoration/enhancement. Information gathered through the background review was used to guide the development of the fieldwork program and was supplemented with additional sitespecific information gathered through various standard methodologies. Survey methodologies for each of the field investigations completed on the Site are described in the following sections.

All surveys were conducted by appropriately trained Cambium staff. Survey stations were GPS marked in the field. Data were documented manually, reviewed upon return to the office, and transposed to digital format for secure data management.

3.3.1 Ecological Land Classification and Vegetation Inventory

The Ecological Land Classification (ELC) System for Southern Ontario (Lee, et al., 1998) was used to classify vegetation communities on the Site. Definitions of vegetation types are derived from the ELC for Southern Ontario First Approximation Field Guide (Lee, et al., 1998) and the revised 2008 tables. ELC units were initially delineated and classified by orthoimagery interpretation. Field investigations served to confirm the type and extent of ELC communities on the Site through vegetation inventory, and soil assessment with a hand auger where vegetation types could not be classified based on vegetation alone. Where vegetation communities extended off the Site, classification was done through observation from property boundaries and publicly accessible lands.

Data includes the provincial status of plant species and vegetation communities, where such information exists. Sensitivity of individual vegetation species was evaluated based on the coefficient of conservatism (CC) which is a measure of the tolerance of a species to disturbance and fidelity to a specific habitat type; species with CC of 9-10 exhibit a high degree of fidelity to a narrow range of habitat parameters. The sensitivity of vegetation communities was evaluated through an assessment of various community attributes including age, habitat quality, degree of disturbance, presence of non-native/invasive species, and presence of



sensitive plant species (plants with CC of > 9). A description of CC values is provided in Table 5.

Coefficient of Conservatism	Rank	Description
0 to 3	Tolerant	Found in a wide variety of plant communities, including disturbed sites.
4 to 6	Moderately Conservative	Typically associated with a specific plant community but tolerate moderate disturbance.
7 to 8	Conservative	Typically associated with a plant community in an advanced successional stage that has undergone minor disturbance.
9 to 10	Highly Conservative	Typically displaying a high degree of fidelity to a specific plant community or a narrow range of synecological parameters.

 Table 5
 Coefficient of Conservatism (Adapted from Oldham et al. 1995)

3.3.2 Wetland Boundary Delineation

In Ontario, wetlands are mapped and evaluated under the Ontario Wetland Evaluation System (OWES). Mapped evaluated wetlands have undergone extensive study and been assessed based on their form and function under four categories: Biological, Social, Hydrological, and Special Features (Ministry of Natural Resources, 2022). Evaluated wetlands that score high enough are deemed Provincially Significant Wetlands (PSW). Evaluated wetlands that did not score high enough to be a PSW are called Locally Significant Wetlands (LSW). The province also maps unevaluated wetlands. These mapped wetlands are approximate; as such, they require field verification in order to confirm their presence and determine their boundaries.

The subject wetland was delineated following provincially approved methods outlined in the Ontario Wetland Evaluation System: Southern Manual, 3rd Ed. (Ministry of Natural Resources, 2022). Fieldwork was carried out by provincially certified Cambium staff. Wetland boundaries were initially delineated and classified by orthoimagery interpretation. The presence/absence of wetlands on the Site was confirmed through field investigations during the growing season (late May through October). Wetland boundaries were determined using the 50% wetland



vegetation rule. Where vegetation-based delineation was inconclusive, soil assessment with a hand auger was used to confirm wetland boundaries. Wetland boundaries on the Site were marked with a hand-held GPS unit and staked/flagged in the field. Where wetland communities extend off the Site, classification was done through observation from property boundaries and publicly accessible lands.

To supplement the procedure outlined above, the Site was visited during the early spring in order to document the extent of surface flooding at that time of year. This information is used to assist with the determination of wetland boundaries during the growing season.

3.3.3 Surface Water and Drainage Feature Mapping

Presence, location, boundary, and direction of flow were confirmed for all surface water features on and adjacent to the Site through visual investigation. Where feasible, the substrate type and cover features of surface water features were also noted. Indicators of surface drainage, including erosion of soils, gullies, and sediment deposition areas were noted and traced to identify sources of erosion. All watercourse and drainage feature crossings were noted and GPS marked in the field, including bridges, culverts, and bed-level crossings.

3.3.4 Aquatic Habitat Assessment

Aquatic habitat surveys were completed to identify and map all aquatic features on Site, including waterbodies, watercourses (permanent and intermittent), seeps, springs, and overland drainage paths. Aerial photography and topographical mapping sources were reviewed to identify hydrologically connected aquatic features on adjacent lands that were inaccessible during the field assessments. On-site features were characterized based on instream and riparian cover, channel structure/morphology, substrates, flow, and hydrologic characteristics, as well as general documentation of channel instability, erosion/sedimentation, groundwater, and flow permanency indicators. If present, crossing features including bridges, culverts, and bed-level crossings were noted and georeferenced in the field. Standard assessment methods and technical criteria referenced in the Ontario Stream Assessment Protocol (Ministry of Natural Resources and Forestry, 2017) were applied to wadeable



streams. All identified aquatic features were assessed to determine their potential function as fish habitat, with particular consideration to sensitive, limiting, or critical habitat, such as spawning locations, overwintering habitat, and migratory corridors. Fish observations, habitat connectivity, and barriers to fish movement were documented, when present, to provide regional context to their function within the general aquatic network and sub-watershed.

3.3.5 Breeding Bird Surveys

Two breeding bird surveys were carried out during the peak breeding season between May 24 and July 10, a minimum of seven days apart. Point counts were completed using the Ontario Breeding Bird Atlas (OBBA) Guide for Participants (Ontario Breeding Bird Atlas, 2001). Point count stations were established in various habitat types and were combined with incidental observations to determine the presence, variety, abundance, and breeding evidence of species. As outlined in the OBBA protocol, point counts are to be done between dawn and five hours after dawn, when wind speed is low (<19 km/h) and in the absence of rain or thick fog. Surveys conducted outside of this five-hour window remain valid, provided that the protocol adjustment is documented and justifiable. All species observations (visual and auditory) were recorded at predetermined point count stations during a five-minute period. Observations were also documented between point count stations and were tabulated with the nearest station. Each species observed was classified and assigned a code based on the highest level of breeding evidence, as defined by the protocol: Confirmed, Probable, Possible or Observed. A description of breeding evidence classes is included in Table 6.

Code	Description				
	CONFIRMED				
NB	Nest-building or excavation of nest hole by a species other than a wren or a woodpecker				
DD	Distraction display or injury feigning				
NU	Used nest or eggshells found (occupied or laid within the period of the survey)				
FY	Recently fledged young (nidicolous species) or downy young (nidifugous species) incapable of sustained flight				
AE	Adult leaving or entering nest site in circumstances indicating occupied nest				

 Table 6
 OBBA Breeding Evidence Codes and Classes



Code	Description					
FS	Adult carrying fecal sac					
CF	Adult carrying food for young					
NE	Nest containing eggs					
NY	Nest with young seen or heard					
	PROBABLE					
М	At least 7 individuals singing or producing other sounds associated with breeding (e.g., calls or drumming), heard during the same visit to a single square and in suitable nesting habitat during the species' breeding season.					
Р	Pair observed in suitable nesting habitat in nesting season					
т	Permanent territory presumed through registration of territorial song, or the occurrence of an adult bird, at the same place, in breeding habitat, on at least two days a week or more apart, during its breeding season. Use discretion when using this code. "T" is not to be used for colonial birds, or species that might forage or loaf a long distance from their nesting site e.g., Kingfisher, Turkey Vulture, and male waterfowl					
D	Courtship or display, including interaction between a male and a female or two males, including courtship feeding or copulation					
V	Visiting probable nest site					
А	Agitated behaviour or anxiety calls of an adult					
В	Brood Patch on adult female or cloacal protuberance on adult male					
N	Nest-building or excavation of nest hole, by a wren or a woodpecker					
	POSSIBLE					
Н	Species observed in its breeding season in suitable nesting habitat					
S	Singing male(s) present, or breeding calls heard, in suitable nesting habitat in breeding season					
	OBSERVED					
Х	Species observed in its breeding season (no breeding evidence)					

Source: Ontario Breeding Bird Atlas: Instructions for General Atlassing (Birds Canada, April 2021)

The Natural Heritage Information Center (NHIC) database and Species at Risk in Ontario (SARO) list were reviewed to determine the current provincial status for each bird species.



3.3.6 Winter Raptor and Stick Nest Survey

Visual surveys for winter use of the property by raptors were completed in accordance with a modified version of the Hawk Migration Association of North America (HMANA) protocol. A single survey was conducted during leaf-off conditions. The HMANA protocol was developed for long-term monitoring, and is not fully compatible with a site specific, short-term evaluation of use of a particular area. As such, the data collected by Cambium should be viewed as a snapshot in time, and not a reflection of overall or long-term migration patterns of raptors in the area. Sightings of raptors and habitat were noted, if applicable.

3.3.7 Bat Maternity Roost Habitat Surveys

Bats present in Ontario typically require a snag or cavity tree for maternity roosting habitat. A snag or cavity tree is defined as a standing live or dead tree \geq 25 cm diameter at breast height (DBH), with cracks, crevices, hollows, cavities and/or loose or naturally exfoliating bark appropriate for bat roosting. High quality or SWH is defined as woodlands with greater than 10 roost trees per hectare. To determine if suitable habitat for bats existed on/or adjacent to the Site, Cambium staff conducted a bat maternity roost survey using the methods detailed in the *Bat and Bat Habitats: Guidelines for Wind Power Projects* (Ontario Ministry of Natural Resources, 2011). The protocol requires that for sites with \leq 10 ha of deciduous or mixed treed forest or swamp ELC community types (i.e. FOD, FOM, SWD, SWM), a minimum of 10 randomly selected plots are to be surveyed, with an additional plot added per hectare, to a maximum of 35 plots for the project area. At each plot, the number of snag/cavity trees \geq 25 cm DBH within a 12.6 m radius (0.05 ha) is to be recorded. A calculation is then made to determine the snag density and if the number of cavity trees found meets the criteria for maternity surveys.



4.0 Characterization of Natural Features and Functions

Data acquired through the background information review and field investigations is summarized in the following sections. Based on the information gathered, an assessment of significance has been completed to identify protected natural heritage and hydrologic features on and/or adjacent to the Site.

A summary of the field investigations completed on the Site is presented in Table 7. Representative Site photos are included within the Photo Log in Appendix D. Survey stations/areas are shown on Figure 2.

Date Time On Site		Weather Observer		Activities	
2023-04-14	10:00 – 13:55	Temp: 21.0- 27.0°C; Sunny; Wind: 0-2 Noise: 1-2	T. Radimer	 Aquatic Habitat Assessment Bat Maternity Roost Habitat Survey Winter Raptor and Stick Nest Survey Tree Cavity Nesting Surveys Surface Water and Drainage Feature Survey 	
2023-06-06	07:00 - 08:25	Temp: 12.0- 17.0°C; Cloudy and Light Rain; Wind: 1-3 Noise: 1-3	K. Vizza	Breeding Bird Survey #1	
2023-06-14	07:30 - 14:00	Temp: 15.0- 18.0°C; Partly Cloudy to Moderate Rain; Wind: 0-3 Noise: 1-3	K. Vizza	 Ecological Land Classification Vascular Plant Survey #1 Breeding Bird Survey #2 	
2023-09-26	08:15 – 14:15	Temp: 15.0- 20.0ºC;	B. Hnatiw	Aquatic Habitat Assessment	

Table 7 Summary of Field Investigations



Date	Time On Site	Weather	Observer	Activities
		Sunny, Partly		Vascular Plant Survey #2
		Cloudy		
		Wind: 1-3		
		Noise: 1-3		

Notes: Wind = Beaufort Wind Scale value (0 = 0-2 kph, 1 = 3-5 kph, 2 = 6-11 kph, 3= 12-19 kph, 4 = 20-30 kph, 5 = 31-39 kph, 6 = 40-50 kph). Noise is reported based on background noise levels: Index 0 – no appreciable effect, 1 – slightly affecting sampling, 2 – moderately affecting sampling, 3 – seriously affecting sampling, 4 – profoundly affecting sampling.

4.1 Landscape Position and Topography

The Site is located within the Mixedwood Plains Ecozone: Lake Simcoe Rideau Ecoregion 6E, which extends southward from a line connecting Lake Huron in the west to the Ottawa River in the east, including Ottawa, Kingston, Peterborough, Barrie, Tobermory, Kitchener, and Toronto. This Ecoregion is characterized by a mixed geology that includes both shallow soil areas such as alvar and bedrock plains, as well as deep soil areas such as the Oak Ridges Moraine. It falls within the Great-Lakes St. Lawrence Forest Region, including deciduous and mixed forests; however, over 50% of the landscape in this Ecoregion is currently in use as agricultural land (Lee, et al., 1998).

The Site is composed of rolling upland features while it slopes toward the west limit. The central meadow/old agricultural field that comprises the majority of the Site is located on relatively high topography and drains toward the forested community and a mapped watercourse to the east of the Site limit. The mapped intermittent watercourse on adjacent lands to the east drains southeast toward the Goodwood/Glasgow PSW complex. On adjacent lands to the west there is roadside drainage with several culverts present along York Durham Line 30. A intermittent unnamed watercourse is situated in the west on adjacent lands, that drains southwest toward York Durham Line 30.

4.1.1 ORMCP Landform Conservation Areas/Aquifers

As indicated on Landform Conservation Areas of the Oak Ridges Moraine Map No. 2 the Site and adjacent lands surrounding the entirety of the Site, are designated as 'Category 2' Landform Conservation Area. The Category 2 Landform Conservation Area is assumed to be



present as mapped for the purposes of this Study. A report addressing Landform Conservation policies will be submitted under a different cover.

4.2 Surface Water and Drainage Features

Provincial mapping show two water features on Site. These areas are old agricultural fields and were dry during all field visits. There are no surface water or drainage features on the Site.

There is a stormwater pond northeast of Site. This pond has >2m of water. The riparian area consisted of Green Ash (*Fraxinus pennsylvanica*) and Willow species (*Salix spp.*). There was minimal to no in water vegetation. This Pond outlets via a culvert under Hwy 47. At the time of the assessment the pond was not out letting any water.

An unnamed intermittent watercourse (Watercourse 1) to the east of the Site originates from the stormwater pond north of Hwy 47, passes via municipal drainage culvert under Hwy 47 where it eventually drains south toward the Goodwood/Glasgow PSW and pond east of Site. The watercourse exits the culvert via small channel dominated by boulders were it quickly turns to overland flow where it drains into the pond to the south and continues to drain overland into the woodlands west of the pond. The vegetation before the woodland was dominated by Reed Canary Grass (*Phalaris arundinacea*), White Panicled Aster (*Symphyotrichum lanceolatum*), and Purple-stemmed Aster (Symphyotrichum puniceum). The watercourse continues overland through a White Ash (*Fraxinus americana*), Red Pine (*Pinus resinosa*) dominated section of forest, before channelizing again. Where channelization began banks ranged from 5 to 10cm: nearly vertical or heavily sloped in areas. Bank width was approximately 1m wide. Substrate was silty sand with gravel and some areas contained clusters of boulders. Vegetation was dominated by mature Sugar Maple (*Acer saccharum*) and saplings. The watercourse was dry at the time of the assessment.

The Pond east of Site had >1m of water, but water levels were low based on the high-water mark. Banks of the pond were dominated by Reed Canary Grass on the north end and Broad-leaved Cattails (*Typha latifolia*) to the south. There was submerged vegetation but mostly a muddy substrate.



The unnamed intermittent watercourse originates from a currently dry stormwater pond NE of the Durham 30 Hwy 47 intersection and exits onto adjacent lands west of Durham 30 via culvert under Hwy 47. The watercourse quickly goes subsurface through a ditch area dominated by Reed Canary Grass, Giant Golden Rod *(Solidago gigantea),* and Swamp Aster. The watercourse comes back to the surface with defined vertical channels. Channel depth was approximately 15 cm and approximately 1 m wide. Substrates consisted of sandy clay silt with some cobbles. Bank were dominated by Reed Canary Grass and Giant golden Rod. The watercourse exits via two culverts under Durham 30. The water course was dry at the time of the assessment.

A small drainage channel runs south along the east side of Durham 30. The drainage channel does not have an origin and is caused by roadside drainage. The channel starts as a ditch with no defined banks along Hwy 47 before channelizing north of the Tenth Line and Durham 30 intersection. The channel was approximately 15 cm deep and 15 cm wide. The drainage channel exited via a culvert under Durham 30 at the Tenth Line Durham 30 intersection. This channel was dry at the time of assessment.

4.3 Wetland Delineation

The Goodwood/Glasgow PSW complex is located on adjacent lands east of the Site. The wetland was evaluated and deemed provincially significant on June 7, 2000. This wetland feature is a pond describe in Section 4.2 and a small extension of the PSW complex.

Provincial mapping provides the delineated wetland boundary. Given that the proposed development footprint does not come within 30 m of the PSW complex, no in-field boundary marking occurred.

No additional unmapped wetlands were observed during field investigations.

4.4 Vegetation Communities and Inventory

The vegetation communities on the Site are summarized in Table 8 and are mapped on Figure 2. A list of identified species and representative photos for each community are provided in Appendix E.



No	ELC Code	Community Description	Community Type	S - Rank
1	CUM	Cultural Meadow	Terrestrial	SNA
2	FOD5-1	Dry – Fresh Sugar Maple Deciduous Forest Type	Terrestrial	S5
3	OAG	Open Agricultural	Terrestrial	SNA
4	CVR	Constructed Residential	Constructed	SNA

Table 8 Vegetation Communities

Community one is a cultural meadow dominated by Canada Golden Rod (*Solidago canadensis*), with New England Aster (*Symphyotrichum novae-angliae*), Spreading Dogbane (Apocynum androsaemifolium) and Black Swallowwort (*Vincetoxicum nigrum*) associates. It should be noted the last two species listed invasive species. The community contained many Sugar Maple and White Ash saplings less than 2m tall that are starting to take over.

Community 2 is a woodland dominated by mature Sugar Maple with White Ash and American Beech (*Fagus grandifolia*) associates. There was <10% understory but when present was dominated by Alternate Leaved Dogwood (*Cornus alternifolia*) and Common Chokecherry (*Prunus virginiana*). Ground cover was greater than 60%; dominated by False Solomen Seal (*Maianthemum racemosum*) and Wild Sarsaparilla (*Aralia nudicaulis*) and Zigzag Goldenrod (*Solidago flexicaulis*) Associates. The edges of this community were dominated by Dog Strangling Vine.

Community 3 is an old agricultural field. This community was dominated by Common Lamb'squarters (*Chenopodium album*) with Common Ragweed (*Ambrosia artemisiifolia*) and Canada Thistle (*Cirsium arvense*) associates. Some corn was present throughout the community but was dominated by CUM species and starting to naturalize. Based on spring field visits the field was planted with corn in 2022 shows signs of being ploughed the previous fall. There is little thatch and lots of exposed soil between plants. There are still slight indications of rows present throughout the field.



No provincially rare vegetation communities were observed on the Site or adjacent lands. One at risk or provincially rare (S1, S2) species were identified on the Site. Overall, the floristic quality of vegetation identified on the Site was low to moderate.

A search for Butternut (*Juglans cinerea*; provincially endangered) was completed as part of the vegetation survey; seven Butternut trees were identified on the Site and further details are provided in Section 4.10.1.

4.4.1 Soil Characterization

Soil characterization was completed for wetland and transitional vegetation communities, where conclusive classification to vegetation type could not be completed based solely on vegetation. Soils were sampled using a hand auger, and moisture regimes were determined based on industry standard guidance. A summary of the soil characterization efforts on the Site is provided in Table 9, and soil core locations are illustrated on Figure 2.

No.	ELC Code	Soil Description	Effective Texture	Moisture Regime
1	FOD5-1	Sampled to 100cm. Loamy Sand to a depth of 17cm over Sandy Loam; No gley, mottles or water table encountered.	Sandy Loam	Very Fresh
2	CUM	Sampled to 100cm. Silt Loam to a depth of 7 cm over Loam to a depth of 15cm overlying Sandy Clay; Mottles encountered at 50 cm; No gley or water table encountered.	Sandy Clay	Mod. Moist
3	OAG	Sampled to 100 cm.Silty Loam to a depth of 9 cm over Loam. Loam to a depth of 16 cm over Silty Clay Loam; Mottles encountered at 48 cm; No gley or water table encountered; Coarse fragments encountered at 95 cm.	Loam	Mod. Moist

Table 9 Soil Characterization Summary

4.4.2 Butternut Survey and Health Assessment

A search for Butternut was completed as part of the vegetation inventory. Seven butternuts were identified on Site in Community 2 (FOD5-1) (see Figure 2). Currently the seven



butternuts would require a development setback of 25 m. If reduction of setback is required or removal of the Butternuts necessary, a Butternut Health assessment would have to be conducted. A Butternut Health assessment could not be conducted on any of the Butternuts in 2023 because they were observed outside the Butternut growing season which occurs from May 15 to August 31 of any given year. It should be noted that Butternut Hybrids are not protected receive no protection under the ESA.

To assess this tissue samples would have to be collected from the seven Butternut trees and submitted to NatureMetrics for DNA analysis of hybridity.

Additional details on this endangered species and its protected habitats are provided in Section 4.10.1.

4.5 Significant Woodlands

In the past 200 years over 70 percent of woodland cover has been lost in Ecoregions 6E and 7E (Ministry of Natural Resources, 2010). The protection of woodland cover in southern Ontario is an important concern (Ministry of Natural Resources, 2010). Planning authorities are responsible for protecting significant woodlands within Ecoregions 6E and 7E in accordance with policies 2.1.4(b) and 2.1.6 of the PPS. The amount of woodland cover is high across the landscape within Ecoregion 5E. As such, the Natural Heritage Reference Manual and the PPS do not protect or designate significant woodlands within Ecoregion 5E.

For the ORM Area The Township of Uxbridge Official Plan (2014) Section 2.3.5.2 states:

"The Key Natural Heritage and Hydrologically Sensitive Features identified on Schedule "B" include the following natural heritage and hydrologically sensitive features which include significant woodlands".

The Durham Region Official Plan defines significant woodland as:

"an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning



area; or economically important due to site quality, species composition, or past management history."

The Durham Region OP includes significant woodlands within the Key natural Heritage Durham maps Key Natural Heritage Features on Schedule B. The Woodlands are mapped as Key Natural Heritage Features on Schedule B and are considered as Significant Woodlands under the Durham Region OP.

In the Oak Ridges Moraine, significant woodlands are further defined by the Province (Ministry of Natural Resources) in the Oak Ridges Moraine Conservation Plan and the associated Technical Guidelines. (Regional Municipality of Durham, 2020). ORMCP Technical Paper 7 defines Significant Woodlands as:

"a tree crown cover of over 60% of the ground, determinable from aerial photography and 0.5 hectares or larger in Natural Core or Natural Linkage Areas of the ORMCP".

The woodlands on Site have a tree crown cover greater than 60% and are part of woodlands designated Natural Core Areas greater than 0.5 ha. The woodlands are considered Significant under the ORMCP.

4.6 Significant Valleylands

The Durham Region Official Plan defines significant valleyland as:

"a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year, which is ecologically important in terms of features, functions, representation or amount, and contributes to the quality and diversity of the Greenlands System" (Regional Municipality of Durham, 2020). Elevation on the Site ranges from 335 to 340 masl and no valleylands are present on the Site.

4.7 Wildlife Survey Results

Incidental wildlife observations were recorded during all site visits. These included: American Crow (*Corvus brachyrhynchos*), Black Capped Chickadee (*Poecile atricapillus*), Blue Jay



(*Cyanocitta cristata*), Eastern Phoebe (*Sayornis phoebe*), Field Sparrow (*Spizella pusilla*), Turkey Vulture (*Cathartes aura*), and Coyote scat (*Canis latrans*).

4.7.1 Birds

OBBA breeding bird surveys were completed as a part of the current study, as detailed in Appendix F. Bird species observed on or adjacent to the Site, breeding evidence, federal and provincial status and s-ranks are provided in Appendix F. A total of nine species had probable or confirmed breeding evidence (shaded cells in Appendix F). Species with probable or confirmed breeding evidence **on the Site** included:

- American Goldfinch (Spinus tristis)
- Barn Swallow (*Hirundo rustica*)
- Blue-headed Vireo (Viero solitarius)
- Eastern Wood-pewee (Contopus virens)
- Great Crested Flycatcher (Myiarchus crinitus)
- Horned Lark (*Eremophila alpestris*)
- Killdeer (Charadrius vociferus)
- Red-eyed Vireo (Vireo olivaceus)
- Song Sparrow (Melospiza melodia)

Tree cavity nesting surveys were completed as a part of the Study to determine whether nest protections outlined in the MBR apply to the Site. A total of seven cavity trees were identified on the Site. No probable or confirmed nesting cavities were observed. All cavities observed were confirmed as Woodpecker foraging cavities.

One Stick nest was observed during winter raptor and stick nest surveys. Given it size it was assumed to be a crow nest. No activity was observed at the nest during field investigations and is assumed to be abandoned. A Woodland Raptor Broadcasting station was conducted in



Community 2. A Red-Tailed Hawk (*Buteo jamaicensis*) called back during the broadcast. No nesting was observed on Site, and was likely just foraging for food.

No Bobolinks or Eastern Meadowlarks were observed during Breeding Bird Surveys.

Building nest sweep confirmed no bird species were actively nesting in the buildings on Site.

Two of the above species listed Barn Swallow and Eastern Wood-pewee are listed as Special Concern. Details on species of conservation concern and their protected habitats are provided in Section 4.10.

4.7.2 Mammals

The bat maternity roost survey was conducted in the forest community (Community 2). Given the relatively small size of the forest (1.78 ha), the entire community was surveyed by walking transects spanning the entire area. Individual trees that met the criteria were marked with a hand-held GPS unit. A summary is provided in Table 10.

Station ID	Tree ID	Species	DBH ¹ (cm)	Tree Height (m)	Decay Code ²	Notes	
Community 2							
	1	Sugar Maple	45	25	2	Some peeling bark and a cavity	
	2	Sugar Maple	35	25	2	Two cavities and split trunk	
	3	Sugar Maple	35	25	1	Large cavity	
	4	American Beech	45	25	1	Cavity extends up trunk	
Transects	5	Black Cherry	35	20	1	Large cavity	
	6	Sugar Maple	45	25	2	Small cavity	
	7	Sugar Maple	80	25	1	A cavity	
	8	Sugar Maple	30	25	2	Large Cavity	
	9	Sugar Maple	75	25	2	2 round cavities	
	10	Sugar Maple	40	25	1	Large cavity	
	11	Sugar Maple	65	25	2	Cavity	

Table 10 Bat Maternity Roost Habitat Survey Results



Station ID	Tree ID	Species	DBH ¹ (cm)	Tree Height (m)	Decay Code ²	Notes
	12	Sugar Maple	50	25	1	Crack
	13	Sugar Maple	30	25	2	Large cavity on split trunk

Notes: 1. DBH: diameter at breast height

2. Decay Code: 1 – healthy, live tree; 2 – declining live tree, part of canopy lost; 3 – very recently dead, no canopy, bark intact; 4 – recently dead, bark peeling, only large branches intact; 5 – older dead tree, 90% of bark lost, few branch stubs, broken top; 6 – very old dead tree, advanced decay, no branches, parts of the stem have rotted away.

Candidate roost tree density in Community 2 was found to be 7.3 candidate roost tress/ha and did not meet the Provincial snag density criteria of 10 snag trees/ha. Community 2 is not considered significant wildlife habitat (SWH) for bat maternity roosting, as per Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (Ministry of Natural Resources and Forestry, 2015).

Building sweeps determined that the buildings on Site were not being actively used by bats for roosting activities.

4.8 Significant Wildlife Habitat

Significant Wildlife Habitat (SWH) guidance documents produced by the MNRF were used as a guide to identify and confirm SWH on the Site (MNR, 2000). The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (Ministry of Natural Resources and Forestry, 2015) apply to the subject property. Information gathered during the background review and field investigations were compared to SWH criteria to evaluate the property for SWH.

The forested areas on and adjacent to the Site and adjacent lands were confirmed SWH for Eastern Wood-pewee (Special Concern). The Monarch Butterfly and Yellow-banded Bumble Bee could potentially used Community 3 on Site. Community 1 and 2. Neither of these species were observed during the field investigations. Potential impacts to SWH is further described in Section 5.3.



4.9 Fish and Fish Habitat.

No fish habitat was observed on Site. Water course and drainage features adjacent to the Site were identified as intermittent or ephemeral. These features were determined to have a Coldwater thermal regime. These features were dry during the approved survey period (i.e., after July 15th), confirming no permanent fish habitat is present adjacent to the Site. Given its connectivity to downstream habitat, seasonal/ indirect fish habitat was present adjacent to Site.

4.10 Species of Conservation Concern

According to the Significant Wildlife Habitat Technical Guide (Ministry of Natural Resources, 2000), Species of Conservation Concern (SCC) include species that are identified as at risk by COSEWIC or on the SARO list, known rare species (provincially, regionally, locally), and species with populations in known decline. A list of SCC, including SAR, with potential to occur in the general vicinity of the Site has been compiled based on known species' ranges, habitat requirements, and review of background information sources (as listed in Section 3.1). In addition, the list has been augmented with direct field observations from the Study, as detailed in the previous sections. Cambium has employed a habitat-based screening, supplemented with targeted field surveys when necessary, in order to identify suitable habitat for species located on or adjacent to the Site. A detailed habitat suitability analysis is provided in Appendix C and a discussion of the results is provided below.

No Critical Habitat for aquatic species at risk listed under SARA was identified in Reesor Creek Tributary and pond adjacent to the Site.

4.10.1 Endangered and Threatened Species

The habitat of endangered and threatened species is regulated under the ESA, 2007, and associated regulations. The following endangered species are known to occur in the regional area of the Site, and the habitat types occurring on the Site may support these species. Accordingly, a detailed evaluation of habitat type, size, and availability was completed, supplemented by targeted surveys where required, to determine whether the Site is actively used by any of the species listed below.


The Site may provide habitat for the following bat species: Tri-coloured Bat (*Perimyotis subflavus*), Eastern Small-footed Myotis (*Myotis leibii*), Little Brown Myotis (*Myotis lucifugus*), and Northern Myotis (*Mytois septentrionalis*). Bat Maternity Roost surveys determined that while there are suitable cavity trees for bats to roost, these trees do not occur at a density that meets the threshold for habitat protection. However, the species could still be using it for non maternity roosting. Buildings on Site may provide habitat for these species but sweeps of the buildings determined they were not being used by Bat species. Open areas of the Site may be used as foraging habitat for these species; however, foraging habitat is not protected under the ESA. As such, there is no protected habitat for SAR bats on the Site, but SAR bats still could be present on Site. Avoidance and mitigation measures relating to the general protection of bats are provided in Section 5.6.

Butternut is listed as federally and provincially endangered. Butternut trees naturally grow in a variety of treed and open habitats in Ontario. They occur along fencerows, within treed riparian zones, on the lower slopes of treed ravines, and in and around mixed deciduous woodlots and forests, where they grow beneath canopy openings, near forest edges and along forest roads. Trees occur on rich, moist, well-drained loams and on well-drained rocky soils, especially of limestone origin. Cultivated Butternut trees may be present in additional habitats such as manicured gardens and parks. Seven Butternut trees were identified on Site within Community 2, details on avoidance and mitigation measures for the protection of this species is provided in Section 5.6.

4.10.2 Special Concern Species

Barn Swallows are listed as special concern provincially. They require open habitats including grassy fields, pastures, agricultural crops, shorelines, cottage areas, wetlands, or sub-artic tundras which are also in close association with human populations as this swallow typically nests inside man-made structures such as abandoned barns or other buildings with sufficient openings or road culverts. Barn Swallow were observed during Breeding Bird Surveys. Community 4 contained multiple buildings on the Site but building nest sweeps determined that they were not being used for nesting purposes. They were likely using the Site for foraging



purposes and nest on lands within proximity to Site. General avoidance and mitigation measures are detailed within Section 5.0.

The Eastern Wood-pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests with little understorey vegetation, as available in community 2 on the Site. Community 2 consist of a hardwood tree species dominate canopy with many open areas for foraging. Eastern Wood-pewee were observed during both breeding bird survey from BBS4 inside Community 2 (Figure 2).

The Snapping Turtle prefers slow-moving water with a soft mud bottom and dense aquatic vegetation. Established populations are most often located in ponds, sloughs, shallow bays or river edges and slow streams, or areas combining several of these wetland habitats. Individual Snapping Turtles are somewhat tolerant of degraded conditions (e.g., golf course ponds, irrigation canals), but populations are unlikely to persist in these areas. Suitable habitat is present in the ponds adjacent to Site. No Snapping Turtle was observed during field investigations.

Yellow-banded Bumble Bee are habitat generalists, inhabiting woodlands, meadows, grasslands, farmlands, and able to collect pollen and nectar from a variety of plant genera. As such, the open and semi-open habitats on the Site and adjacent lands (Communities 1 and 3) provide potential habitat for these species. Yellow-banded Bumble Bee was not observed during field investigations.

Monarch Butterfly uses a variety of habitats throughout its lifecycle. This species migrates annually from its overwintering grounds in Mexico and California to breed in Canada. Critical staging areas along the migration route are found within 5 km of Lake Ontario; the Site is located beyond this range and therefore does not meet the SWH criteria for Migratory Butterfly Stopover Areas. Breeding habitat, associated with Milkweeds, which provide the sole food source for monarch caterpillars, is present in open and semi-open habitats throughout the Site (Communities 1 and 3). No Monarch was observed during field investigations.

The background review identified records for the following additional species within 1 km of the Site: Wood Thrush. While suitable habitat for this species was documented on the Site in



Community 2 it was not documented during Breeding Bird Surveys. Habitat requirements for each species are presented in Appendix C.

4.10.3 Locally Important Species

The Midland Painted Turtle is federally listed as special concern but is not listed provincially on the SARO list, or currently afforded species or habitat protection under provincial legislation. This species uses waterbodies such as ponds, marshes, lakes, and slow-moving creeks with a soft-bottom and aquatic vegetation. Suitable habitat is present in ponds adjacent to the Site. No Midland Painted Turtle was observed during field investigations.

Western Chorus Frog is federally listed as threatened but is not listed provincially on the SARO list, or currently afforded species or habitat protection under provincial legislation. This species requires both wetland and terrestrial habitats in close proximity. Suitable habitat is present in Pond and woodlands adjacent to the Site. No Western Chorus Frog was observed during field investigations.



5.0 Impact Assessment and Mitigation Measures

The proposed development is an industrial subdivision that includes 14 industrial lots, a new internal road that would enter the Site from Highway 47 near the northern corner, and a stormwater management block in the southeast portion of the Site.

In summary, the following protected features were identified on and adjacent to the Site:

- Provincially Significant Wetland
- Significant Woodland
- Intermittent Streams
- Significant Wildlife Habitat
- Fish Habitat
- Habitat of Endangered or Threatened Species
- Land Conservation Area Category 2

No other natural heritage features protected by provincial policy were confirmed on or adjacent to the Site.

The following sections address potential impacts to protected features identified on and adjacent to the Site that may result from the proposed development and Site alteration. Mitigation measures and best management practices have been recommended to ensure that the integrity of the existing natural features is protected and/or enhanced and that the associated functions are not negatively impacted during or following construction.

5.1 Provincially Significant Wetlands

No development is proposed in the wetland and not direct impacts expected due to the proposed development. A small pond which is part of the Goodwood/Glasgow PSW complex is located approximately 58.9 m east of the Site boundary. In the Oak Ridges Moraine, the minimum vegetation protection zone (VPZ) for all wetlands is 30 m. The pond that is part of the PSW is greater than 30 m away from the property boundary, within the adjacent woodlands.



The proposed woodland VPZ is adequate to protect the existing form and function of the wetland feature.

5.2 Significant Woodlands

The significant woodlands on Site are not part of the development and are being retained. Per the ORMCP Table (page 53), a 30 m Vegetation Protection Zone (VPZ) is recommended for the significant woodlands, as shown on Figure 2. For the proposed development, a 30 m woodland VPZ is not achievable in all area of the Site. Part of the roadway and part of Block 14 will encroach into the VPZ area (approximately 0.59 ha), as shown on Figure 4. A combination of on-site compensation and cash in-lieu compensation will be carried out to compensate for the loss of VPZ area, as shown on Figure 4. The area occupied by Community 1 will be used to compensate for approximately 0.25 ha of the lost VPZ area. Discussion with the Town should take place to determine a compensation value for the remaining 0.34 ha of lost VPZ area. The encroachment of the 30 m VPZ by the road and part of Block 14 should not impact the form and function of the woodland. The remaining VPZ is considered sufficient to protect the existing form and function of the significant woodland, provided that the area is maintained as natural vegetation and be allowed to naturally self-sustain (i.e., a buffer area where no vegetation removals or grading is allowed). Future Site Plans should show the significant woodland boundary and variable VPZ. All future development should be directed outside of these features/areas. The VPZ should be demarcated on the ground prior to the commencement of any site alteration or construction activities. The proposed dry stormwater management pond within the VPZ is to receive enhanced plantings within the area of the VPZ. It is Cambium's opinion that with the enhanced planting the stormwater pond should be included as part of the VPZ. All machinery, equipment, construction materials, and stockpiles should be stored within the construction area throughout the construction period, outside of the VPZ.



5.3 Significant Wildlife Habitat

The forested areas on the Site and adjacent lands were confirmed SWH for Eastern Woodpewee and is to be retained. A VPZ applied to this feature (recognizing its status as a significant woodland) will protect the form and function of this species habitat.

The Monarch Butterfly and Yellow-banded Bumble Bee could potentially used Community 3 on Site. Community 1 and 2 which is proposed to be retained and adjacent lands will continue to provide habitat for these species if present. Neither of these species were observed during any field investigations.

Potential habitat for Snapping Turtle is located entirely on adjacent lands and is > 30 m away from any proposed development. The VPZ on the significant woodlands will further protect this habitat.

Building nest sweeps confirmed not nesting of Barn Swallows on Site. While Community 3 could provide foraging habitat. Suitable habitat on adjacent lands and retained Community 2 on Site will continue to provide foraging habitat for this species.

5.4 Intermittent Streams

There are two intermittent streams on adjacent lands to the east and west of the Site. The stream to the east is approximately 33.3 m and to the west is approximately 72.7 m away from the Site boundary. Per the ORMCP Table (page 53), a 30 m Vegetation Protection Zone (VPZ) is recommended from the meander belt of all permanent and intermittent streams, as shown on Figure 2. The ORMCP requires 30 m minimum VPZ from the meander belt of intermittent streams. Given that the streams are greater than 30 m away from any development and within the woodlands the that require a VPZ, the existing form and function of the watercourse will be protected.

5.5 Fish Habitat

The proposed development does not involve any in-water work, the placement of fill, or excavation below the high-water mark. As such, HADD of fish habitat, or the "death of fish" by



means other than fishing, will not occur based on the proposed development and the proposed work does not contravene protective provisions outlined in the *Fisheries Act*. The two intermittent streams on adjacent lands to the east and west of the Site were dry for most of the year. Given the presence of the fish in the culvert east of Site and both watercourses drain into the Goodwood/Glasgow PSW complex: these watercourses are providing indirect fish habitat. Per the ORMCP Table (page 53), a 30 m Vegetation Protection Zone (VPZ) is recommended for fish habitat, as shown on Figure 2. Given that these streams are greater than 30 m away from any proposed development (33.3 m and 72.7 m, respectively). The existing form and function of the fish habitat will be maintained.

5.6 Habitat of Endangered and Threatened Species

<u>Bats</u>

While the woodlands on the Site do not qualify as SWH for bat maternity roosting the Site may offer marginal bat roosting habitat potential for endangered bats listed in Section 4.10.1. The woodlands on Site are not proposed for development and are being retained. A VPZ is already required around the woodlands because they are considered Significant Woodlands. The VPZ is sufficient to protect the existing form and function of the bat habitat on Site provided that the area is maintained as natural vegetation and be allowed to naturally self-sustain (i.e., a buffer area where no vegetation removals or grading is allowed).

If any vegetation removal is required in Site, it should occur outside of the active bat season, which extends from April 1 to September 31 of any given year. Any SAR discovered on the property must be left undisturbed as required by the ESA. If any individuals are encountered, activities should cease until consultation MECP has occurred. Provided this timing window is respected, no impacts to at-risk bats are anticipated as a result of the proposed development.

<u>Butternut</u>

As detailed in Section 4.4.2, Butternut was confirmed to be present on the Site.

Due to the timing of the year Butternut Health Evaluation could not be conducted. If the Butternuts require removal a Butternut Health evaluation would have to be conducted during



the Butternut growing season (May 15 to August 31). It should be noted Hybrids of Butternut and non-native Walnut trees are different species from Butternut, are not fully native to Ontario, and are not protected under the ESA. To determine if a tree is a putative hybrid, the BHE must use the Key for Field Identification of Butternut Hybrids as detailed in the ministry guidelines. Should the field assessment results be inconclusive, genetic testing may be pursued. According to O.Reg. 830/21 no permanent structure or infrastructure shall be installed within 25 m of a Butternut unless the Ministry responsible for species at risk approves in writing the structure/infrastructure can be installed within 25 m of said Butternut. All of the Butternuts were observed in the woodlands on Site that are to be retained. A VPZ is required for the woodlands, which is greater than the 25 m protection zone required on the Butternut trees except for one, shown on Figure 3. The proposed road is on the edge of the 25 m buffer for the butternut. A NOI will have to be submitted to MECP before development can occur. The VPZ is sufficient to protect the existing form and function of the Butternuts and their habitat on Site provided that the area is maintained as natural vegetation and be allowed to naturally selfsustain (i.e., a buffer area where no vegetation removals or grading is allowed). If any grading is required within 25 m of a Butternut a Notice of Impact will be submitted to MECP for approval.

5.7 Landform Conservation Area – Category 2

As detailed in Section 4.1.1, the Site is mapped as Land Conservation Area – Category 2. As such, ORMCP Policy 30 (6) applies:

A report addressing Landform Conservation policies will be submitted under a different cover.

5.8 Mitigation Measures and Best Management Practices

To minimize potential impact to the natural environment on and surrounding the Site, Cambium recommends that the mitigation measures and best management practices outlined in be implemented at the Site.



Table 11 Mitigation Measures and Best Management Practice Recommendations

Potential Impact	Recommended Best Practice
Erosion and Sedimentation	Prior to any construction activities taking place, it is essential that perimeter sediment fencing be installed around construction areas. Fencing should be properly keyed into the ground and securely fastened to vertical supports spaced ≤ 2 m apart. This key control measure will help prevent sediment from entering surface water features (i.e., wetlands and the watercourse) in the surrounding landscape. All sediment fencing should be regularly maintained and kept in good working condition, until the area has been stabilized and/or successfully revegetated. Any observed overland drainage channels originating from Site, that may or may not have arisen as a result of erosion, should be directed to a check dam structure, prior to discharging to off-site areas. Construction activities that require earthworks (e.g., grading, excavation, etc.) should be scheduled to avoid dates of heavy rainfall events and times of high runoff volumes.
Increase in Runoff - Impervious Surfaces	Runoff from the Site is expected to increase with the introduction of impermeable surfaces (i.e., building roofs, roadways, and walkways) and compacted surfaces with reduced infiltration capacity. Measures to increase infiltration of run-off from these surfaces should be encouraged and, where possible, included in the Site Plan for the development. Eavestrough downspouts should be directed to vegetated areas (such as lawn, or gardens) and not onto hardened surfaces, to encourage infiltration.
Changes to Water Quality and Quantity	The Stormwater Management Plan prepared for the Site should specifically address potential stormwater-related impacts to water quality and quantity of the surrounding wetlands and watercourse, through quality control measures and a feature-based water balance study.
Wildlife: Birds (Disturbance and Harm)	Nesting birds and their nests, eggs, and young are protected under the <i>Migratory Birds Convention Act, 1994.</i> Vegetation clearing on the Site should occur outside the breeding bird season, which extends from April 1 to August 31 in the local area (as per Environment and Climate Change Canada Guidelines). If vegetation clearing or construction is to occur between April 1 and August 31, the vegetation should be investigated by a qualified biologist to confirm if any active nests are present, prior to site alteration. Vegetation clearing can proceed provided there are no active nests. If active nests are confirmed, the nests should be left undisturbed until young have fledged or the nest is determined to be inactive. Note that some birds nest on the ground and in low-lying



Potential Impact	Recommended Best Practice
	vegetation and shrubs; therefore, all habitat types should be inspected prior to ground disturbance if removals are to occur during the breeding season.
Wildlife: Bats (Disturbance and Harm)	Tree removal should be limited to the building envelope to the extent possible. Small scale tree removal will not result in impairing or eliminating the function of habitat to support bat life processes provided the tree removal avoids the active bat season (April 1 – September 30). If vegetation clearing or construction is to occur between April 1 and September 30, the vegetation should be investigated by a qualified biologist to confirm whether SAR bat habitat may be present. Presence or absence of habitat should be confirmed through acoustic monitoring following industry standard protocols prior to any tree removal during the active season for bats. Vegetation clearing can proceed provided absence is confirmed.
Wildlife: Reptiles (Disturbance and Harm)	Turtles and snakes are particularly vulnerable to construction-related impacts on sites adjacent to wetlands, watercourses, and waterbodies. Sediment fencing can function as wildlife exclusion fencing. To exclude wildlife from the Site, sediment fencing should be installed around the entire perimeter of the construction area prior to the earlier of May 1 or commencement of Site preparation to keep turtles and snakes from entering the construction area. This fencing should be made of light-duty sediment fence, staked at regular intervals, trenched-in at least 10-20 cm below ground, with an above ground height of at least 60 cm. The sediment fence should be inspected regularly to ensure that it remains in good condition: and any downed areas, rips, or holes should be repaired or replaced immediately. A designated point of ingress/egress should be identified, and a moveable barrier be constructed, to allow for the Site to fully remain enclosed while allowing vehicular access to the Site as needed. The construction area should also be actively inspected for turtles and snakes each day prior to the start of work throughout the duration of construction. As the Site is located adjacent to potential habitat for turtles, workers should be aware of the nesting season for turtles, which extends from May 15 to August 15. All stockpiled materials should be kept inside the exclusion fencing area and ideally should be covered and well secured around the base, to prevent turtles from nesting in loose substrates. Should any nesting turtles be encountered, work should stop immediately, and the turtle should be left to finish nesting



Potential Impact	Recommended Best Practice
	undisturbed. The turtle should be photographed, and the nest marked to ensure it is not disturbed during construction, or until eggs have hatched (late August – September). If a nest is laid in a stockpile or other area that requires disturbance, Cambium should be contacted to determine if the nest can be relocated. If any individuals are encountered, they should be photographed and allowed time to move out of harm's way.
Species at Risk (SAR; Threatened and Endangered)	SAR observations, including most species of snakes and turtles, should be reported to the Natural Heritage Information Centre (NHIC). If any individuals are encountered, they should be photographed and allowed time to move out of harm's way. SAR should not be handled by unauthorized individuals.
Spread of Invasive Species	 Invasive species are becoming problematic throughout Ontario and can adversely impact our natural landscapes, including wetlands, woodlands, and watercourses. Best management practices to reduce the spread of invasive species include: Revegetate with species native to the local area. Request fill and compost from reputable sources that are conscious of the potential for the spread of invasive species via these media. Get to know the most common invasive species in the area. Brush off or clean any shoes, boots and equipment that have encountered invasive species before returning to the property. Equipment and vehicles coming into the work area should be free of soil and seeds that could introduce non-native and invasive species following the Clean Equipment Protocol for Industry: Inspecting and Cleaning Equipment for the Purposes of Invasive Species Prevention (Halloran, 2013) Immediately eradicate invasive species if they are observed on the property. Do not compost invasive species; put them in plastic bags and dispose of them in the garbage. Do not dispose of lawn or garden clippings in the forest or wetlands to avoid species introductions. An excellent resource for identifying and controlling invasive species can be found through the Ontario Invasive Plant Council: <u>Home - Ontario Invasive Plant Council (ontarioinvasiveplants.ca)</u> (OIPC, 2022)
Anthropogenic Impacts – Noise	Noise is not expected to increase significantly because of the proposed development as it is consistent with the land use on the



Potential Impact	Recommended Best Practice
	surrounding properties. Maintaining the wooded areas surrounding the natural features on the Site will serve to buffer wildlife within the natural areas from noise-related impacts.
	Temporary acute noise may occur during construction activities and should follow appropriate local noise by-laws. All equipment should be equipped with appropriate mufflers to mitigate noise levels during construction.
Anthropogenic Impacts – Lighting	Artificial lighting can have an impact on nocturnal movement of wildlife within natural areas. To minimize impacts to wildlife, it is recommended that outdoor lights be operated on timers, rather than by motion detection. Outdoor lighting associated with the development should be directed at the ground, rather than into the adjacent natural areas. Bulb wattage should be as low as practical while meeting the safety intent of the lighting. Lighting in common areas should be capped to direct light to the intended area of the ground to limit light pollution.
Anthropogenic Impacts – Domestic Animals	Access of domestic animals to natural areas can have a negative impact on local wildlife due to predation, harassment, and spread of illness and disease. Signage should be posted at trailheads and park areas to keep pets on a leash at all times, and to appropriately dispose of pet waste.



6.0 Policy Conformity

6.1 Provincial Policies

Based on the key natural heritage and/or hydrologic features identified on or adjacent to the Site and the findings of the field investigations detailed herein, the proposed development of the Site is in conformity with the PPS, GPGGH, GB and ORMCP. The ORMCP is the most restrictive of these planning documents and the below policy conformity will be compared to ORMCP policies. Conformity with ORMCP policy is summarized in Table 12.

Key Natural Heritage / Hydrologic Feature	On Site	On Adjacent Lands	Meets Associated Policy	
	Yes	Yes	Yes: 21 (2)/ ORMCP Table (page 53)	
Wetlands	Explanation: The feature is located within the significant woodland on adjacent lands and is protected by the VPZ applied to the significant woodland.			
Habitat of Endangered and Threatened Species	Yes	Potentially	Yes: 21 (2)/ ORMCP Table (page 53)	
	Explanation: The feature is located within the significant woodland and is protected by the VPZ applied to the significant woodland.			
Fish Habitat	Yes	Potentially	Yes: 21 (2)/ ORMCP Table (page 53)	
	Explanation: The feature is located within the significant woodland on adjacent lands and is protected by the VPZ applied to the significant woodland.			
	No	No	N/A	

Table 12	ORMCP	Policy	Conformity	Summary
	ORINCE	FOLCY	Comonnity	Summary



Key Natural Heritage / Hydrologic Feature	On Site	On Adjacent Lands	Meets Associated Policy
Areas of Natural and Scientific Interest (Life Science)	Explanation: N/A		
Significant Valleylands	No	No	N/A
	Explanation: N/A		
	Yes	Yes	ORMCP Table (page 53)
Significant Woodlands	Explanation: Per the ORMCP Table (page 53), a 30 m Vegetation Protection Zone (VPZ) is recommended for the significant woodlands. For this development the 30 m VPZ will not be achievable in all locations. Part of the roadway and part of Block 14 will encroach into the VPZ area (Figure 4). On Site compensation and cash compensation will be conducted to compensate for the loss of VPZ area, as shown on Figure 4. Give the existing agricultural use, the proposed encroachments into the 30 m VPZ should not impact the form or function of the subject woodland. The remaining VPZ is considered sufficient to protect the existing form and function of the significant woodland, provided that the area be maintained as natural vegetation and be allowed to naturally self-sustain (i.e., a buffer area where no vegetation removals or grading is allowed).		
	Yes	Yes	Yes: 21 (2)/ ORMCP Table (page 53)
Significant Wildlife Habitat (including habitat of special concern species)	Explanation: The habitat for most of the species listed in Section 4.10.2 is located withing the woodlands and is protected by the VPZ applied to the significant woodland. The Monarch Butterfly and Yellow-banded Bumble Bee could potentially used Community 3 on Site. Communities 1 and 2 which is proposed to be retained and adjacent lands will continue to provide habitat for these species if present. Neither of these species were observed during any field investigations. Potential habitat for Snapping Turtle is located entirely on adjacent lands and is > 30 m away from any proposed development. Building nest sweeps confirmed not nesting of Barn Swallows on Site. While Community 3 could		



Key Natural Heritage / Hydrologic Feature	On Site	On Adjacent Lands	Meets Associated Policy	
	provide foraging habitat. and retain community 2 habitat for this species.		-	
Sand barrens, Savannahs and	No	No	N/A	
Tallgrass Prairies	Explanation: N/A			
Streams	Yes	Yes	Yes: 21 (2)/ ORMCP Table (page 53)	
(permanent/intermittent)	Explanation: The feature is located within the significant woodland on adjacent lands and is protected by the VPZ applied to the significant woodland.			
Kettle Lakes	No	No	N/A	
	Explanation: N/A			
Seepage Areas and	No	No	N/A	
Springs	Explanation: N/A			
Landform Conservation Area – Category 2	Yes Yes		Yes: 30 (6)	
	A report addressing Landform Conservation policies will be submitted under a different cover.			



7.0 Summary of Recommendations

The following recommendations are provided for the proposed development:

- 1. Ensure all relevant permits are obtained prior to any site alteration or construction activities taking place.
- Site Plans for the proposed development should show the significant woodland boundary and its variable VPZ, as shown on Figure 2; all buildings, structures, and infrastructure should be located outside these setbacks.
- 3. The area occupied by Community 1 (approximately 0.25 ha) will provide a venue for planting to compensate for a portion of the lost VPZ area. Discussion with the Town should take place to determine a cash in-lieu compensation value for the remaining 0.34 ha of lost VPZ area.
- 4. The significant woodland VPZ should be maintained as natural vegetation and be allowed to naturally self-sustain (i.e., a buffer area where no vegetation removals or grading is allowed).
- 5. The VPZ should be demarcated on the ground prior to the commencement of any site alteration or construction activities.
- 6. The Stormwater Management Plan prepared for the Site should specifically address potential stormwater-related impacts to water quality and quantity of the surrounding features, and erosion potential.
- Site Plans for the proposed development should show the location of the Landform Conservation Area – Category 2 and area measurements indicating:
 - a. less than 50% of the Landform Conservation Area on each lot will be disturbed, and
 - b. less than 20% of the Landform Conservation Area on each lot will be comprised of impervious surfaces.
- 8. All machinery, equipment, construction materials, and stockpiles should be stored within the construction area throughout the construction period, outside of the VPZ.



- Construction activities that require earthworks (e.g., grading, excavation, etc.) should be scheduled to avoid dates of heavy rainfall events and times of high runoff volumes. Stockpiles should be covered if inactive for a period of 48 hours or more.
- 10. Clearing of vegetation should occur outside of the active bird and bat season, which extends from April 1 to September 31. Vegetation removal should be limited to the greatest extent possible across the Site. Any active bird nests should be left undisturbed until young have fledged or the nest is determined to be inactive.
- 11. In the event that construction is planned to proceed during the breeding bird season, the construction area should be investigated regularly for the presence of breeding birds and nests containing eggs and/or young. It should be noted that some birds nest on man-made structures/machinery or in recently cleared areas, so these areas should be checked regularly. Nests discovered on Site should be left undisturbed until young have fledged or the nest is determined to be inactive.
- 12. Best management practices to reduce the spread of invasive species on the Site should be implemented during and following construction, including:
 - a. Future Landscape Plans should focus on native or non-invasive species that are suitable to the surrounding woodlands.
 - Request fill and compost from reputable sources that are conscious of the potential for the spread of invasive species via these media.
 - c. Get to know the most common invasive species in the area (e.g., European Buckthorn, European Swallow-wort (syn. Dog-strangling Vine), and Garlic Mustard).
 - d. Brush off or clean any shoes, boots and equipment that have encountered invasive species before returning to the property.
 - e. Immediately eradicate invasive species if they are observed on the property.
 - f. Do not compost invasive species; put them in plastic bags and dispose of them in the garbage.



- g. Do not dispose of lawn or garden clippings in the forest or wetlands to avoid species introductions.
- 13. If any species at risk (SAR) individuals are encountered, they should be photographed and allowed time to move out of harm's way. SAR observations, including most species of snakes and turtles, should be reported to the Natural Heritage Information Centre.





8.0 Closing

In closing, potential negative impacts associated with the proposed development and site alteration can be appropriately minimized, provided that the recommendations outlined in Section 7.0 are followed. The information presented herein demonstrates that the proposed development can be carried out in a way that will not adversely impact natural heritage and hydrologic features and function identified on or adjacent to the subject Site. Furthermore, the proposed development complies with applicable provincial policy.

Respectfully submitted,

Cambium Inc.

Jeremy Prahl, B.Sc., EP, Can-CISEC Senior Ecologist / Group Manager Brenden Hnatiw, B.Sc., EPt Ecological Technologist / ISA Arborist

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10.0 Glossary of Terms

ANSI: Area of Natural and Scientific Interest ARA: Aquatic Resources Area

ARA: Aggregate Resources Act

AS: Agricultural System ATK: Aboriginal Traditional Knowledge BMA: Bear Management Area BMP: Best Management Practice CA: Conservation Authority CEAA: Canadian Environmental Assessment Act/Agency

CFA: Canadian Forestry Association

CFIP: Community Fisheries Involvement Program CFS: Canadian Forestry Service CHU: Critical Habitat Unit CH: Cultural Heritage CLI: Canada Land Inventory

CLU: Crown Land Use

COSSARO: Committee on the Status of Species at Risk in Ontario

CR: Conservation Reserve

CWIP: Community Wildlife Involvement Program CWS: Canadian Wildlife Service DFO: Fisheries and Oceans Canada EA: Environmental Assessment EAA: Environmental Assessment Act EAB: Emerald Ash Borer EBR: Environmental Bill of Rights EIA: Environmental Impact Assessment EIS: Environmental Impact Study/Statement ELC: Ecological Land Classification System

ELUP: Ecological Land Use Plan

END: Endangered species

EPA: Environmental Protection Act

ER: Environmental Registry

ESA: Endangered Species Act (2007)

ESA: Environmentally Sensitive Area

ESC: Erosion and Sediment Control

GIS: Geographic Information System GLSL: Great Lakes - St. Lawrence GPGGH: Growth Plan for the Greater Golden Horseshoe GPS: Global Positioning System HSA: Habitat Suitability Analysis HIS: Habitat Suitability Index KHA: Key Hydrologic Areas KHF: Key Hydrologic Features KNHF: Key Natural Heritage Features LCFSP: Licence to Collect Fish for Scientific Purposes LIO: Land Information Ontario LRIA: Lake and Rivers Improvement Act LUP: Land Use Permit or Plan MA: Management Area MAFA: Moose Aquatic Feeding Area MCEA: Municipal Class Environmental Assessment MECP: Ontario Ministry of Environment, Conservation and Parks MNDMRF: Ontario Ministry of Natural Resources and Forestry NER: Natural Environment Report NHIC: Natural Heritage Information Centre NHIS: Natural Heritage Information System NHS: Natural Heritage System OBM: Ontario Base Map OFIS: Ontario Fisheries Information System OLI: Ontario Land Inventory OMAFRA: Ontario Ministry of Agriculture, Food and Rural Affairs OWES: Ontario Wetland Evaluation System PPS: Provincial Policy Statement (2014) PSW: Provincially Significant Wetland RLUP: Regional Land Use Plan **RMP: Regional Management Plan** R.P.F.: Registered Professional Forester SAR: Species at Risk SARO: Species at Risk in Ontario SC: Special Concern species



F&W: Fish and Wildlife FA: Fisheries Act (Federal) FEC: Forest Ecosystem Classification FMP: Forest Management Plan FRI: Forest Resources Inventory FWCA: Fish and Wildlife Conservation Act GGH: Greater Golden Horseshoe GHP: General Habitat Protection SWH: Significant Wildlife Habitat SWM: Stormwater Management THR: Threatened species TOR: Terms of Reference TPP: Tree Preservation Plan WIA: Woodlands Improvement Act WMU: Wildlife Management Unit



Appended Figures



^{2016/3/10/2017/2023-023-02-001} Unbanwary - EIS - 123 Hwy 47, Uxbhdge/2023-05-01 EIS.aprx



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Appendix A Correspondence



Geotechnical

Building Sciences

Construction Quality Verification

Telephone (866) 217.7900 (705) 742.7900

Website cambium-inc.com

Mailing Address P.O. Box 325, Peterborough, Ontario Canada, K9J 6Z3

Locations

Peterborough Kingston Barrie Oshawa

Laboratory Peterborough





June 14, 2023

Toronto and Region Conservation Authority

Attn: Stephanie Dore, RPP, MCIP Planner, Development Planning and Permits

Sent via email to: <stephanie.worron@trca.ca>

Re: Terms of Reference for Environmental Impact Study at 123 Regional Highway 47, Uxbridge, Region of Durham Cambium Reference: 17666-001

Dear Stephanie Dore, RPP, MCIP,

Cambium Inc. (Cambium) has been retained by Cambium Environmental Inc. (the Client) to complete an Environmental Impact Study (EIS; the Study) at 123 Regional Highway 47, Uxbridge, in the Region of Durham. The subject property is currently occupied by an agricultural use (formerly a golf driving range), with a woodlot along the east property boundary. We understand that the Client is pursuing a 21-lot industrial plan of subdivision on municipal water and private septic. Cambium understands that there is an approved OLT decision to develop the property for industrial use. Given the location and scale of the proposed development, the entire property will be considered the Site for the purpose of the Study.

Based on our initial review, the Site contains and/or is adjacent to (i.e., within 120 m of) the following known natural heritage and/or hydrologic features:

- Woodland (on Site and adjacent lands)
- Watercourse; tributary to Reesor Creek (adjacent lands)
- Unevaluated wetland (adjacent lands)
- CTC Source Protection Plan Area
- Oak Ridges Moraine Natural Linkage and Natural Core Area
- Area of significant groundwater recharge
- Duffins Creek Watershed

Given the presence of mapped wetlands and watercourses adjacent to the Site, the Study will address development restrictions imposed by the local Conservation Authority's Regulation under the *Conservation Authorities Act*



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Locations Peterborough

Kingston Barrie Oshawa

Laboratory Peterborough



DGA

June 14, 2023

(1990): Ontario Regulation 166/06 Toronto and Region Conservation Authority (TRCA).

The Study will serve to confirm the natural heritage and hydrologic features present on and adjacent to the Site, evaluate their function, and assess potential impacts based on the proposed development. A constraints analysis will be carried out, to identify the required minimum setbacks and evaluate whether the proposed development conforms with applicable policy. Recommended mitigation and compensation measures, and best practices will be provided to facilitate permitting and/or development approvals for the Site.

TERMS OF REFERENCE

The proposed Terms of Reference (ToR) for the Study has been prepared in consideration of applicable natural heritage policies and environmental regulation and based on our experience on similar projects, as well as the TRCA EIS Submission Guidelines (TRCA, 2014).

Background Review, Terms of Reference, and Agency Consultation

Cambium will access readily available documents and information about the Site from private, municipal, provincial and federal sources, as applicable. Information obtained will include but will not be limited to: land use of the subject and adjacent properties; geological and soils records; watercourses and surface drainage mapping; fish community records; species at risk records; and, the location of any provincially identified features such as wetlands, woodlands, and/or Areas of Natural and Scientific Interest (ANSI). Agency consultation may involve liaising with the TRCA, Ministry of Natural Resources and Forestry (MNRF), the Ministry of Environment, Conservation, and Parks (MECP), and/or Fisheries and Oceans Canada (DFO), as applicable.

Field Investigations

Cambium will conduct field investigations within standard seasonal timing windows and under appropriate weather conditions, as outlined in Table 1, below.



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Table 1 Terrestrial and Aquatic Field Investigations

Activity	Details	Timing		
Vascular Plant Survey and Community Classification	Two-season vegetation survey; Ecological Land Classification (ELC) System for Southern Ontario; Communities will be evaluated for their sensitivity, rarity, and botanical quality	May to October		
Aquatic Habitat Survey (Rapid)	One survey under ice-free conditions; mapping and characterization of watercourses, waterbodies, springs/seeps, and other surface drainage features based on Cambium's Rapid Aquatic Habitat Assessment SOP, utilizing methods outlined in the Ontario Stream Assessment Protocol (OSAP), and Stream Flow Permanency Handbook (MNR, 2013). To be completed at the watercourse crossing at Regional Highway 47 – the remainder of the watercourse is on adjacent private lands.	March to November		
Bat Maternity Roost Survey	One survey during leaf-off period; MNRF protocol	November to April		
Breeding Bird Surveys	Two morning surveys; Ontario Breeding Bird Atlas protocol. Screening for potential raptor habitat will be completed.	May 24 to July 10		
Raptor Stick Nest Survey	One survey during leaf-off period	November to April		
General Wildlife Habitat Surveys	Visual encounter surveys for evidence of breeding, foraging, sheltering, nesting, and/or movement	During all field investigations		
Provisional Items; necessity to be confirmed in consultation with TRCA:				
Aquatic Habitat Survey (Detailed)	One additional survey under ice-free conditions; mapping and characterization of watercourses, waterbodies, springs/seeps, and other surface drainage features based on Cambium's Detailed Aquatic Habitat Assessment SOP, utilizing methods outlined in the Ontario Stream Assessment Protocol (OSAP), and Stream Flow Permanency Handbook (MNR, 2013). Benthic sampling may be requested by TRCA.	March to November		
Fish Community Sampling	Backpack electrofishing, seine netting, and/or minnow trapping in suitable habitat; Cambium will secure a License to Collect Fish for Scientific Purposes from MNRF; see note below.	July to November		
Note: The proposed stormwater outlet is to Reesor Creek to the east of the Site on adjacent lands. Detailed				

Note: The proposed stormwater outlet is to Reesor Creek to the east of the Site on adjacent lands. Detailed assessment would include the outlet location if permission could be obtained from the adjacent landowner. If permissions cannot be secured, assessment of the watercourse crossing at Regional Highway 47 may be considered.

Information gathered through the field studies component will assist in assessing the connectivity of this property with the surrounding landscape to determine the ecological significance of the area.



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Impact Analysis and Reporting

As project-specific information is collected and analyzed, Cambium will prepare a detailed study report with supporting figures and appendices. The draft report will include:

- Description of the proposed works including the timing of work and extent of grading;
- An overview of applicable natural heritage policy and regulation;
- A summary of the background information collected;
- A summary of field investigations carried out, and associated protocols;
- Descriptions of natural heritage and hydrologic features identified on and adjacent to the Site;
- Characterization of terrestrial and aquatic habitats (i.e., classification according to ELC, form/function, sensitivity, etc.);
- A habitat-based screening for species of conservation concern (including species at risk), supplemented by targeted survey results, where applicable;
- An assessment of Significant Wildlife Habitat;
- A list of additional field investigations required to address regulatory requirements, where applicable (e.g., targeted surveys for species at risk where sensitive habitat is identified through the screening process);
- Analysis of impacts, and discussion of mitigation, restoration, and/or compensation measures required to address study requirements. Additional best management practices and/or enhancement measures may be recommended, as appropriate;
- An evaluation and summary of conformity with applicable provincial, municipal, and Conservation Authority natural heritage policy;
- A comprehensive list of recommendations, for ease of transfer to Site Plan and Draft Plan agreements;
- Detailed mapping of survey stations/areas, natural features, key species observations, and field-verified boundaries; and,
- Detailed mapping of constraint areas including development setbacks and buffers.

CLOSING

Cambium trusts that this ToR meets your expectations, and we look forward to your confirmation of our approach. If you have any questions or require clarification of any aspect of this submission, please do not hesitate to contact the undersigned at 705-768-1324.

Kind regards,



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June 14, 2023

Cambium Inc.

Andrea Coppins, B.A. Hons., Dipl. Project Manager / Senior Ecologist

AZC

P:\17600 to 17699\17666-001 Urbanway - EIS - 123 Hwy 47, Uxbridge\Correspondence\2023-06-14 TOR to TRCA.docx

Jade McGann

From:	Andrea Coppins
Sent:	Tuesday, June 27, 2023 4:02 PM
To:	lori.riviere-doersam@durham.ca; krainbow@uxbridge.ca
Cc:	mklose@uxbridge.ca; jbeer@uxbridge.ca; Tony Wang; File; Stephanie Dore
Subject:	EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)
Attachments:	2023-06-27 TOR to Planning Authorities.pdf; Record of pre-con - July 2020[32073].pdf

Good afternoon Lori and Kyle,

Cambium has been retained to complete an EIS for the proposed development of 123 Regional Highway 47 in the Township of Uxbridge. I am reaching out with our Terms of Reference for the EIS, which was previously forwarded to TRCA for review and comment. As you will note from the thread below, they are in agreement with our scope of work. I have attached the ToR for your review and comment, and have also attached the preconsultation record for ease of review.

In addition, can you please clarify:

- 1. We are planning to stake the woodland boundary in the next several weeks; would Township or Region staff like to be in attendance? I have included TRCA on this circulation, as they have expressed interest in staking the portions of the vegetation feature that is overlapped by their regulated area (i.e., northeast corner of the Site).
- 2. Will detailed aquatic data (i.e., fish community sampling) be required for the adjacent Reesor Creek? Note that the watercourse is located entirely on adjacent lands and that watercourse flows out of an existing stormwater pond on adjacent lands to the north on the opposite side of Hwy 47. General data has already been collected by our staff, to the extent possible, at the road crossing. Our professional opinion is that detailed aquatic information for this watercourse is not required based on the context of the feature and surrounding lands.
- 3. I'd like to understand whether a stormwater pond could be supported within the 30 m VPZ from the woodland under Town and Region policies. If you could point me to any applicable policies that may exist, I would be grateful. The client would also be willing to discuss offsetting approaches to ensure that the equivalent of the required 30 m VPZ is provided through a variable setback, if the pond were integrated into the VPZ. The outlet of the storm pond will be to the creek to the east of the Site.

Note, that in the interest of time we have started the field surveys on the Site as outlined in the attached ToR. We appreciate your review of the enclosed. If you have any questions, or would like to discuss our approach, please let me know.

Kindly, Andrea



Andrea Coppins, B.A. Hon., Dipl. (She/Her) Project Manager/Senior Ecologist Cambium - Peterborough 705.768.1324 866.217.7900 Cambium-inc.com

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From: Stephanie Dore <Stephanie.Worron@trca.ca>
Sent: Wednesday, June 21, 2023 2:58 PM
To: Andrea Coppins <Andrea.Coppins@cambium-inc.com>
Cc: File <file@cambium-inc.com>
Subject: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Good Afternoon Andrea,

The ToR is accepted from TRCA's perspective. I would also encourage your team, if they have not already done so, to reach out to the Town of Uxbridge staff to ensure that the natural heritage and ORM policies under the Town's purview are being satisfied.

If you have any other questions, please let me know.

Kind Regards, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: (437) 880-2469 E: stephanie.dore@trca.ca A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Sent: Wednesday, June 14, 2023 3:01 PM
To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Cc: File <<u>file@cambium-inc.com</u>>
Subject: RE: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Stephanie,

Here is an image of the project location, as requested:



Note that the two pond features shown on this provincial mapping (from Make-a-Map) do not currently exist on the Site.

Thanks, Andrea



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From: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Sent: Wednesday, June 14, 2023 2:08 PM
To: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Cc: File <<u>file@cambium-inc.com</u>>
Subject: RE: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

HI Andrea,

Interesting when the address you reference is put into our system it shows it is clearly outside.

Would you be able to provide an aerial image with the closest intersection so I can look into this further?

Thank you, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: <u>(437) 880-2469</u> E: <u>stephanie.dore@trca.ca</u> A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Sent: Wednesday, June 14, 2023 1:12 PM
To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Cc: File <<u>file@cambium-inc.com</u>>
Subject: RE: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Stephanie,

I checked the LSRCA mapping, and it confirms that this Site is in TRCA jurisdiction – unless there has been a change to the jurisdictional boundaries that has not been updated to the website. Please see the screen capture below:



The white area appears to represent TRCA jurisdiction. Can you please confirm.

Thanks,



Andrea Coppins, B.A. Hon., Dipl.

Project Manager/Senior Ecologist

Cambium - Peterborough

 705.768.1324

 866.217.7900

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From: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>> Sent: Wednesday, June 14, 2023 12:55 PM To: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>> Cc: File <<u>file@cambium-inc.com</u>> Subject: RE: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Good Afternoon Andrea,

Thank you for your email.

This site is located outside of the TRCA's jurisdiction and appears to be within the jurisdiction of Lake Simcoe Region Conservation Authority.

Here is a link to their contact page to assist: https://www.lsrca.on.ca/contact

Kind Regards, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: (437) 880-2469 E: <u>stephanie.dore@trca.ca</u> A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>> Sent: Wednesday, June 14, 2023 12:38 PM To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>

Cc: File <<u>file@cambium-inc.com</u>> Subject: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Good afternoon Stephanie,

Cambium has been retained to complete an EIS for a proposed industrial subdivision at 123 Regional Highway 47 in Uxbridge. A portion of the Site is within the regulated area of TRCA due to the presence of Reesor Creek on adjacent lands. I have attached the Terms of Reference for TRCA review and comment. In addition, I have attached the Record of Preconsultation from Durham Region for ease of reference.

In addition to your review of the TOR, I would appreciate confirmation of the following:

- Will TRCA require staking of the woodland drip line? If so, can you please indicate who all should be in attendance, so that I can initiate that site visit?
- Will detailed aquatic data (i.e., fish community sampling) be required for the adjacent Reesor Creek? Note that the watercourse is located entirely on adjacent lands and that watercourse flows out of an existing stormwater pond on adjacent lands to the north on the opposite side of Hwy 47. General data has already been collected by our staff, to the extent possible, at the road crossing.

Note, that in the interest of time we have started the field surveys on the Site as outlined in the attached ToR. We appreciate your review of the enclosed. If you have any questions, or would like to discuss our approach, please let me know.

Kindly, Andrea



Andrea Coppins, B.A. Hon., Dipl. (She/Her) Project Manager/Senior Ecologist

Cambium - Peterborough

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Laboratory Peterborough



DGA

June 27, 2023

Region of Durham and Township of Uxbridge

Attn: Lori Riviere-Doersam, Region of Durham Brian Pigozzo, Township of Uxbridge

Re: Terms of Reference for Environmental Impact Study at 123 Regional Highway 47, Uxbridge, Region of Durham Cambium Reference: 17666-001

Good day,

Cambium Inc. (Cambium) has been retained by Cambium Environmental Inc. (the Client) to complete an Environmental Impact Study (EIS; the Study) at 123 Regional Highway 47, Uxbridge, in the Region of Durham. The subject property is currently occupied by an agricultural use (formerly a golf driving range), with a woodlot along the east property boundary. We understand that the Client is pursuing a 21-lot industrial plan of subdivision on municipal water and private septic. Cambium understands that there is an approved OLT decision to develop the property for industrial use. Given the location and scale of the proposed development, the entire property will be considered the Site for the purpose of the Study.

Based on our initial review, the Site contains and/or is adjacent to (i.e., within 120 m of) the following known natural heritage and/or hydrologic features:

- Woodland (on Site and adjacent lands)
- Watercourse; tributary to Reesor Creek (adjacent lands)
- Unevaluated wetland (adjacent lands)
- CTC Source Protection Plan Area
- Oak Ridges Moraine Natural Linkage and Natural Core Area
- Area of significant groundwater recharge
- Duffins Creek Watershed

Given the presence of mapped wetlands and watercourses adjacent to the Site, the Study will address development restrictions imposed by the local Conservation Authority's Regulation under the *Conservation Authorities Act*



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DGA

June 27, 2023

(1990): Ontario Regulation 166/06 Toronto and Region Conservation Authority (TRCA). TRCA has been consulted on the ToR and has indicated agreement with our approach.

The Study will serve to confirm the natural heritage and hydrologic features present on and adjacent to the Site, evaluate their function, and assess potential impacts based on the proposed development. A constraints analysis will be carried out, to identify the required minimum setbacks and evaluate whether the proposed development conforms with applicable policy. Recommended mitigation and compensation measures, and best practices will be provided to facilitate permitting and/or development approvals for the Site.

TERMS OF REFERENCE

The proposed Terms of Reference (ToR) for the Study has been prepared in consideration of applicable natural heritage policies and environmental regulation and based on our experience on similar projects, as well as the TRCA EIS Submission Guidelines (TRCA, 2014).

Background Review, Terms of Reference, and Agency Consultation

Cambium will access readily available documents and information about the Site from private, municipal, provincial and federal sources, as applicable. Information obtained will include but will not be limited to: land use of the subject and adjacent properties; geological and soils records; watercourses and surface drainage mapping; fish community records; species at risk records; and, the location of any provincially identified features such as wetlands, woodlands, and/or Areas of Natural and Scientific Interest (ANSI). Agency consultation may involve liaising with the TRCA, Ministry of Natural Resources and Forestry (MNRF), the Ministry of Environment, Conservation, and Parks (MECP), and/or Fisheries and Oceans Canada (DFO), as applicable.



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June 27, 2023

Field Investigations

Cambium will conduct field investigations within standard seasonal timing windows and under appropriate weather conditions, as outlined in Table 1, below.

Table 1 Terrestrial and Aquatic Field Investigations

Activity	Details	Timing
Vascular Plant Survey and Community Classification	Two-season vegetation survey; Ecological Land Classification (ELC) System for Southern Ontario; Communities will be evaluated for their sensitivity, rarity, and botanical quality	May to October
Aquatic Habitat Survey (Rapid)	One survey under ice-free conditions; mapping and characterization of watercourses, waterbodies, springs/seeps, and other surface drainage features based on Cambium's Rapid Aquatic Habitat Assessment SOP, utilizing methods outlined in the Ontario Stream Assessment Protocol (OSAP), and Stream Flow Permanency Handbook (MNR, 2013). To be completed at the watercourse crossing at Regional Highway 47 – the remainder of the watercourse is on adjacent private lands.	March to November
Bat Maternity Roost Survey	One survey during leaf-off period; MNRF protocol	November to April
Breeding Bird Surveys	Two morning surveys; Ontario Breeding Bird Atlas protocol. Screening for potential raptor habitat will be completed.	May 24 to July 10
Raptor Stick Nest Survey	One survey during leaf-off period	November to April
General Wildlife Habitat Surveys	Visual encounter surveys for evidence of breeding, foraging, sheltering, nesting, and/or movement	During all field investigations
Provisional Iten	ns; necessity to be confirmed in consultation with planni	ng authorities:
Aquatic Habitat Survey (Detailed)	One additional survey under ice-free conditions; mapping and characterization of watercourses, waterbodies, springs/seeps, and other surface drainage features based on Cambium's Detailed Aquatic Habitat Assessment SOP, utilizing methods outlined in the Ontario Stream Assessment Protocol (OSAP), and Stream Flow Permanency Handbook (MNR, 2013). Benthic sampling may be requested by TRCA.	March to November
Fish Community Sampling	Backpack electrofishing, seine netting, and/or minnow trapping in suitable habitat; Cambium will secure a License to Collect Fish for Scientific Purposes from MNRF; see note below.	July to November

Note: The proposed stormwater outlet is to Reesor Creek to the east of the Site on adjacent lands. Detailed assessment would include the outlet location if permission could be obtained from the adjacent landowner. If permissions cannot be secured, assessment of the watercourse crossing at Regional Highway 47 may be considered.



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June 27, 2023

Information gathered through the field studies component will assist in assessing the connectivity of this property with the surrounding landscape to determine the ecological significance of the area.

Impact Analysis and Reporting

As project-specific information is collected and analyzed, Cambium will prepare a detailed study report with supporting figures and appendices. The draft report will include:

- Description of the proposed works including the timing of work and extent of grading;
- An overview of applicable natural heritage policy and regulation;
- A summary of the background information collected;
- A summary of field investigations carried out, and associated protocols;
- Descriptions of natural heritage and hydrologic features identified on and adjacent to the Site;
- Characterization of terrestrial and aquatic habitats (i.e., classification according to ELC, form/function, sensitivity, etc.);
- A habitat-based screening for species of conservation concern (including species at risk), supplemented by targeted survey results, where applicable;
- An assessment of Significant Wildlife Habitat;
- A list of additional field investigations required to address regulatory requirements, where applicable (e.g., targeted surveys for species at risk where sensitive habitat is identified through the screening process);
- Analysis of impacts, and discussion of mitigation, restoration, and/or compensation measures required to address study requirements. Additional best management practices and/or enhancement measures may be recommended, as appropriate;
- An evaluation and summary of conformity with applicable provincial, municipal, and Conservation Authority natural heritage policy;
- A comprehensive list of recommendations, for ease of transfer to Site Plan and Draft Plan agreements;
- Detailed mapping of survey stations/areas, natural features, key species observations, and field-verified boundaries; and,
- Detailed mapping of constraint areas including development setbacks and buffers.



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June 27, 2023

CLOSING

Cambium trusts that this ToR meets your expectations, and we look forward to your confirmation of our approach. If you have any questions or require clarification of any aspect of this submission, please do not hesitate to contact the undersigned at 705-768-1324.

Kind regards,

Cambium Inc.

Andrea Coppins, B.A. Hons., Dipl. Project Manager / Senior Ecologist

AZC

Encl. Cambium Qualifications and Limitations

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CAMBIUM QUALIFICATIONS AND LIMITATIONS

In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

Reliance on Materials and Information

June 27, 2023

Limited Warranty

The findings and results presented in reports prepared by Cambium are based on the materials and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work requested by the client. In formulating its findings and results into a report, Cambium assumes that the information and materials provided by the client or obtained by Cambium from the client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. Cambium relies on its client to inform Cambium if there are changes to any such information and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Cambium during the provision of services, work or reports.

Facts, conditions, information and circumstances may vary with time and locations and Cambium's work is based on a review of such matters as they existed at the particular time and location indicated in its reports. No assurance is made by Cambium that the facts, conditions, information, circumstances or any underlying assumptions made by Cambium in connection with the work performed will not change after the work is completed and a report is submitted. If any such changes occur or additional information is obtained, Cambium should be advised and requested to consider if the changes or additional information affect its findings or results.

When preparing reports, Cambium considers applicable legislation, regulations, governmental guidelines and policies to the extent they are within its knowledge, but Cambium is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, governmental guidelines and policies is for information only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations

Only conditions at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the site chosen for study by the client, or any other matter not specifically addressed in a report prepared by Cambium, are beyond the scope of the work performed by Cambium and such matters have not been investigated or addressed.

Reliance

Cambium's services, work and reports may be relied on by the client and its corporate directors and officers, employees, and professional advisors. Cambium is not responsible for the use of its work or reports by any other party, or for the reliance on, or for any decision which is made by any party using the services or work performed by or a report prepared by Cambium without Cambium's express written consent. Any party that relies on services or work performed by Cambium or a report prepared by Cambium without Cambium's express written consent, does so at its own risk. No report of Cambium may be disclosed or referred to in any public document without Cambium's express prior written consent. Cambium specifically disclaims any liability or responsibility to any such party for any loss, damage, expense, fine, penalty or other such thing which may arise or result from the use of any information, recommendation or other matter arising from the services, work or reports provided by Cambium.

Limitation of Liability

Potential liability to the client arising out of the report is limited to the amount of Cambium's professional liability insurance coverage. Cambium shall only be liable for direct damages to the extent caused by Cambium's negligence and/or breach of contract. Cambium shall not be liable for consequential damages.

Personal Liability

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Jade McGann

From:	Stephanie Dore <stephanie.worron@trca.ca></stephanie.worron@trca.ca>
Sent:	Friday, June 30, 2023 11:52 AM
To:	Tony Wang; Andrea Coppins
Cc:	File; Kyle Rainbow; Lori Riviere-Doersam; Richard Ramos
Subject:	RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Good Morning Tony,

Thank you for providing this information.

I will send the invoice to the Owner as requested in your email.

We look forward to seeing everyone on site on July 13th.

Kind Regards, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: (437) 880-2469 E: <u>stephanie.dore@trca.ca</u> A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Tony Wang <Twang@kingepcm.com>
Sent: Thursday, June 29, 2023 3:41 PM
To: Andrea Coppins <Andrea.Coppins@cambium-inc.com>; Stephanie Dore <Stephanie.Worron@trca.ca>
Cc: File <file@cambium-inc.com>; Kyle Rainbow <krainbow@uxbridge.ca>; Lori Riviere-Doersam <lori.riviere-doersam@durham.ca>; Richard Ramos <rramos@costonegroup.com>
Subject: RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Stephanie,

Please see the attached TRCA CDA forms, as well as some PRELIMINARY site plans.

We note that the preliminary site plans do not conform with several VPZs, and we are hoping to do the site walk in order to more closely delineate the appropriate offsets.

For payments, please contact the owner directly as per the CDA form's email address.

Thanks, Tony Tony Wang, P. Eng Principal Engineer



From: Andrea Coppins <Andrea.Coppins@cambium-inc.com>
Sent: Thursday, June 29, 2023 12:04 PM
To: Stephanie Dore <Stephanie.Worron@trca.ca>
Cc: File <file@cambium-inc.com>; Kyle Rainbow <krainbow@uxbridge.ca>; Tony Wang <Twang@kingepcm.com>; Lori Riviere-Doersam <lori.riviere-doersam@durham.ca>
Subject: RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Stephanie,

Sure, I can provide a meeting invitation.

See you on the 13th, Andrea



Andrea Coppins, B.A. Hon., Dipl. (She/Her) Project Manager/Senior Ecologist

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866.217.7900 <u>cambium-inc.com</u>

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From: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Sent: Thursday, June 29, 2023 8:48 AM
To: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Cc: File <<u>file@cambium-inc.com</u>>; Kyle Rainbow <<u>krainbow@uxbridge.ca</u>>; Tony Wang <<u>twang@kingepcm.com</u>>; Lori
Riviere-Doersam <<u>lori.riviere-doersam@durham.ca</u>>
Subject: RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Andrea,

Thank you for your confirmation, we have held this time internally.

Are you able to provide everyone with a meeting invite which also includes information as to where we can park on the day of?

Thank you, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: (437) 880-2469

E: stephanie.dore@trca.ca

A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Sent: Wednesday, June 28, 2023 2:20 PM
To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Cc: File <<u>file@cambium-inc.com</u>>; Kyle Rainbow <<u>krainbow@uxbridge.ca</u>>; Tony Wang <<u>twang@kingepcm.com</u>>; Lori
Riviere-Doersam <<u>lori.riviere-doersam@durham.ca</u>>
Subject: RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Stephanie,

We would like to secure the meeting time you suggested of 1 pm on July 13. We will work toward providing the form and fees in advance.

Kindly, Andrea



Andrea Coppins, B.A. Hon., Dipl. (She/Her) Project Manager/Senior Ecologist

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From: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Sent: Wednesday, June 28, 2023 11:28 AM
To: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Cc: File <<u>file@cambium-inc.com</u>>; Kyle Rainbow <<u>krainbow@uxbridge.ca</u>>; Tony Wang <<u>twang@kingepcm.com</u>>; Lori
Riviere-Doersam <<u>lori.riviere-doersam@durham.ca</u>>
Subject: RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

This message's attachments contains at least one web link. This is often used for phishing attempts. Please only interact with this attachment if you know its source and that the content is safe. If in doubt, confirm the legitimacy with the sender by phone.

Good Morning Andrea,

Yes, you would schedule a site visit with myself. I have provided some availability and the form/fee for this request below.

Availability:

- 1. July 13th @ 1pm
- 2. July 19th @ 1pm

Please note, an Ontario Land Surveyor should be present during the site staking to capture the staked limits.

Concept Development Application Requirements:

- 1. Application Form (attached)
- 2. Site Survey
- 3. Proposed Development Concept
- 4. Concept Development Application Review Fee: Commercial, Industrial Standard \$1,380.00 (fee can be received via cheque or I can provide an online invoice for payment via credit card)

*Additional information may be required upon our initial review of the application package and site visit.

Kind Regards, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: (437) 880-2469

E: stephanie.dore@trca.ca

A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Sent: Tuesday, June 27, 2023 4:00 PM
To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Cc: File <<u>file@cambium-inc.com</u>>; Kyle Rainbow <<u>krainbow@uxbridge.ca</u>>; Tony Wang <<u>twang@kingepcm.com</u>>
Subject: RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Good afternoon Stephanie,

Thank you for your swift response, and understood with respect to form/fees. We are hoping to coordinate the staking of the natural features in the next several weeks. Would we work toward scheduling this site visit with you? I will be circulating correspondence to the Municipality shortly, and will copy you on that correspondence.

It has come to my attention that the adjacent property to the east of the site, on which the creek is located, may be owned by TRCA. Are you able to confirm? The proposed outlet of the stormwater pond would be directed toward that feature, so consultation with the adjacent landowner will be required.

Kindly, Andrea



Andrea Coppins, B.A. Hon., Dipl. (She/Her) Project Manager/Senior Ecologist

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From: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Sent: Tuesday, June 27, 2023 3:20 PM
To: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Cc: File <<u>file@cambium-inc.com</u>>; Kyle Rainbow <<u>krainbow@uxbridge.ca</u>>
Subject: RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Andrea,

Please see the TRCA Regulated Area mapping that I have attached for you here within.

For the area identified in purple, this would be deferred to the Municipality as the woodland falls under the Oak Ridges Moraine Natural Core Area. I have copied Kyle from the Town so he is aware.

For the areas identified in the green layer, which is the TRCA Regulated Area limit, we would be able to stake the vegetation contiguous with both the wetland, its AOI, along with the top of bank in the northeast corner of the site. Please note that based on our review of our internal mapping, the top of bank in the northeast corner appears to be located on the adjacent site and would need to be ground-truthed to verify this.

Should you wish to have TRCA take part in a site staking of the lands within the Regulated Area prior to any municipal applications, a form and fee will be applicable.

Kind Regards, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services T: (437) 880-2469 E: <u>stephanie.dore@trca.ca</u> A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Sent: Tuesday, June 27, 2023 2:17 PM
To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Cc: File <<u>file@cambium-inc.com</u>>
Subject: RE: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Stephanie,

Thanks for confirming. Can you confirm whether TRCA has interest/authority in staking the woodland? I assume that this role no longer be filled, considering the recent changes re Bill 23.

Kindly, Andrea



Andrea Coppins, B.A. Hon., Dipl. (She/Her) Project Manager/Senior Ecologist Cambium - Peterborough

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From: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>> Sent: Wednesday, June 21, 2023 2:58 PM To: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>> Cc: File <<u>file@cambium-inc.com</u>> Subject: TRCA Response: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Good Afternoon Andrea,

The ToR is accepted from TRCA's perspective. I would also encourage your team, if they have not already done so, to reach out to the Town of Uxbridge staff to ensure that the natural heritage and ORM policies under the Town's purview are being satisfied.

If you have any other questions, please let me know.

Kind Regards, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: (437) 880-2469

E: stephanie.dore@trca.ca

A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Sent: Wednesday, June 14, 2023 3:01 PM
To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Cc: File <<u>file@cambium-inc.com</u>>
Subject: RE: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Stephanie,

Here is an image of the project location, as requested:



Note that the two pond features shown on this provincial mapping (from Make-a-Map) do not currently exist on the Site.

Thanks, Andrea



Andrea Coppins, B.A. Hon., Dipl. (She/Her) Project Manager/Senior Ecologist

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From: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Sent: Wednesday, June 14, 2023 2:08 PM
To: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Cc: File <<u>file@cambium-inc.com</u>>
Subject: RE: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

HI Andrea,

Interesting when the address you reference is put into our system it shows it is clearly outside.

Would you be able to provide an aerial image with the closest intersection so I can look into this further?

Thank you, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: (437) 880-2469

E: stephanie.dore@trca.ca

A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Sent: Wednesday, June 14, 2023 1:12 PM
To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Cc: File <<u>file@cambium-inc.com</u>>
Subject: RE: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Hi Stephanie,

I checked the LSRCA mapping, and it confirms that this Site is in TRCA jurisdiction – unless there has been a change to the jurisdictional boundaries that has not been updated to the website. Please see the screen capture below:



The white area appears to represent TRCA jurisdiction. Can you please confirm.

Thanks,



Andrea Coppins, B.A. Hon., Dipl. Project Manager/Senior Ecologist

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From: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>
Sent: Wednesday, June 14, 2023 12:55 PM
To: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>>
Cc: File <<u>file@cambium-inc.com</u>>
Subject: RE: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Good Afternoon Andrea,

Thank you for your email.

This site is located outside of the TRCA's jurisdiction and appears to be within the jurisdiction of Lake Simcoe Region Conservation Authority.

Here is a link to their contact page to assist: https://www.lsrca.on.ca/contact

Kind Regards, **Stephanie Dore, RPP, MCIP** Senior Planner Development Planning and Permits | Development and Engineering Services

T: (437) 880-2469 E: <u>stephanie.dore@trca.ca</u> A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca



From: Andrea Coppins <<u>Andrea.Coppins@cambium-inc.com</u>> Sent: Wednesday, June 14, 2023 12:38 PM To: Stephanie Dore <<u>Stephanie.Worron@trca.ca</u>>

Cc: File <<u>file@cambium-inc.com</u>> Subject: EIS Terms of Reference - 123 Regional Highway 47, Uxbridge (17666-001)

Good afternoon Stephanie,

Cambium has been retained to complete an EIS for a proposed industrial subdivision at 123 Regional Highway 47 in Uxbridge. A portion of the Site is within the regulated area of TRCA due to the presence of Reesor Creek on adjacent lands. I have attached the Terms of Reference for TRCA review and comment. In addition, I have attached the Record of Preconsultation from Durham Region for ease of reference.

In addition to your review of the TOR, I would appreciate confirmation of the following:

- Will TRCA require staking of the woodland drip line? If so, can you please indicate who all should be in attendance, so that I can initiate that site visit?
- Will detailed aquatic data (i.e., fish community sampling) be required for the adjacent Reesor Creek? Note that the watercourse is located entirely on adjacent lands and that watercourse flows out of an existing stormwater pond on adjacent lands to the north on the opposite side of Hwy 47. General data has already been collected by our staff, to the extent possible, at the road crossing.

Note, that in the interest of time we have started the field surveys on the Site as outlined in the attached ToR. We appreciate your review of the enclosed. If you have any questions, or would like to discuss our approach, please let me know.

Kindly, Andrea



Andrea Coppins, B.A. Hon., Dipl. (She/Her) Project Manager/Senior Ecologist

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Local Planning Appeal Tribunal Tribunal d'appel de l'aménagement local



ISSUE DATE: December 23, 2020

CASE NO(S).: PL150909

The Ontario Municipal Board (the "OMB") is continued under the name Local Planning Appeal Tribunal (the "Tribunal"), and any reference to the Ontario Municipal Board or Board in any publication of the Tribunal is deemed to be a reference to the Tribunal.

PROCEEDING COMMENCED UNDER subsection 34(11) of the *Planning Act*, R.S.O.

1990, c. P.13, as amended

Applicant and Appellant: Subject:	1477037 Ontario Limited Application to amend Zoning By-law No. ZBA-87- 28 - Refusal or neglect of the Township of Uxbridge to make a decision
Existing Zoning:	Major Öpen Space
Proposed Zoning:	Site Specific (To be determined)
Purpose:	To permit the construction of a driving range facility
Property Address/Description:	Part Lots 12, 13 & 14, Concession 1
Municipality:	Township of Uxbridge
Municipality File No.:	ZBA-87-28
LPAT Case No.:	PL150909
LPAT File No.:	PL150909
LPAT Case Name:	1477037 Ontario Limited v. Uxbridge (Township)

PROCEEDING COMMENCED UNDER subsection 22(7) of the *Planning Act*, R.S.O.

1990, c. P.13, as amended

nited
e Official Plan - Failure of
pality of Durham to adopt the nt
uction of a driving range
l, Concession 1 e
1

Approval Authority File No.: LPAT Case No.: LPAT File No.:	87-094-D PL150909 PL161094
Heard:	December 2, 2020 by video hearing
APPEARANCES:	
<u>Parties</u>	Counsel
1477037 Ontario Limited	Annik Forristal
Township of Uxbridge	Qunito Annibale

Regional Municipality of Durham Kevin Ryan

DECISION DELIVERED BY M. ARPINO AND ORDER OF THE TRIBUNAL

[1] This Local Planning Appeals Tribunal proceeding was originally scheduled as a Case Management Conference. The Tribunal was advised that the Parties have worked together and have come to an agreement regarding the Appeals. This Proceeding was converted to a Settlement Hearing at the request of the Parties.

[2] 1477037 Ontario Limited ("Appellant") owns land identified as Part Lots 12,13 & 14, Concession 1 ("Subject Land") in the Township of Uxbridge ("Township"). The Subject Land is within the Durham Region ("Region"), and is subject to the Oak Ridges Moraine conservation Plan ("ORMCP").

[3] The Appellant seeks to develop the Subject Land, and requires an Amendment of the Durham Region Official Plan ("ROPA") and Amendment of the Township Zoning By-law No. ZBA-87-28 ("ZBA").

[4] The Appellant submitted applications for ROPA and ZBA ("Applications"). The matters before the Tribunal are appeals filed pursuant to s. 34(11) and 22(7) of the *Planning Act*, failure to make decisions on the Applications within the prescribed time

frame (`Appeals`).

[5] This Settlement Hearing was scheduled for the Parties to present their planning evidence and submissions in support of the agreement regarding proposed ROPA and ZBA.

[6] At the commencement of this Proceeding the Tribunal was informed that although the Parties have an agreement regarding the ROPA, they have not reached consensus regarding the ZBA.

[7] Annik Forristal, Counsel for the Appellant, requested that the Appeal of the ZBA be adjourned *sine die*. The request for adjournment was made on consent of the Parties to allow them to further consider the proposed ZBA. The Tribunal granted the adjournment of the Appeal of the ZBA.

[8] The Parties made submissions and requested that the Tribunal approve the proposed ROPA.

[9] In order for the Tribunal to approve the agreement regarding the ROPA, the Parties must satisfy the Tribunal that the proposed ROPA is consistent with the Provincial Policy Statement, 2020 ("PPS"); conforms with the ORMCP; conforms with the Region's OP, and conforms with the Town OP. The ROPA must have due regard for the relevant matters of provincial interest as set out in s. 2 of the Act; the Tribunal must be satisfied that the proposed ROPA is in the public interest and represents good planning.

EVIDENCE AND SUBMISSIONS

[10] The Tribunal received extensive planning evidence regarding the Appeals. Brad Rogers a Registered Professional Planner retained by the Appellant provided a sworn affidavit being Exhibit 1. [11] The Tribunal also received an sworn Affidavit of Elizabeth Howson MCIP RPP, Exhibit 2. Ms. Howson has provided planning services to the Township since 1994, her Affidavit is Exhibit 2.

[12] The Appellant called Mr. Rogers to give evidence in support of the proposed ROPA. Ms. Forristal requested that he be qualified to provide opinion evidence regarding land use planning matters. The Tribunal did not receive any objections to the request.

[13] After having reviewed Mr. Rogers' curriculum vitae, and after hearing evidence in support of the request, the Tribunal qualified Mr. Rogers to provide opinion evidence in land use planning matters.

[14] Mr. Rogers adopted everything in Exhibit 1 as his oral evidence. He provided a brief explanation of the history of the development of the Subject Land, which commenced in 1987.

[15] He referred the Tribunal to Tab 31 of Exhibit 1 which is the proposed ROPA. Mr. Rogers informed the Tribunal that the proposed ROPA would not change the designation of the Subject Land; the effect of the amendment would be to permit employment uses.

[16] The proposed ROPA stipulates that development on the Subject Land may only proceed by plan of subdivision and after the ZBA is finalized. Further, Site Plan Approval must be completed prior to development of any lot on the Subject Land.

[17] Mr. Rogers stated that the Subject Land has sufficient access to municipal services and is well suited for growth and development. The Subject Land is located at the western entrance to the Township. He opined that the proposed ROPA is in keeping with the character of the area.

[18] Mr. Rogers stated that in his professional opinion the ROPA is consistent with the

Provincial Policy Statement, 2020 ("PPS"). He stated that he reviewed the applicable provisions of the ORMCP, and in his professional opinion the ROPA conforms to it.

[19] Mr. Rogers also stated that it was his opinion that the ROPA conforms with both the Region, and the Township Official Plans.

[20] Mr. Rogers further opined that the proposed ROPA is appropriate, desirable and represents good planning. He recommended that the Tribunal approve the ROPA as submitted by the Parties.

FINDINGS

[21] The Tribunal reviewed the record and the proposed ROPA and carefully considered the evidence and submissions presented at the Settlement Hearing. The Tribunal accepts the uncontested opinions and recommendations of the sole expert witness, Mr. Rogers. Accordingly, the Tribunal, having regard for the relevant matters of provincial interest and the decisions of the Region and the Township to endorse the proposed ROPA , determined that the proposed ROPA is consistent with the PPS; conforms with the ORMCP; conform with the Region's OP; conforms with the Township's OP; is in the public interest; and represents good planning.

ORDER

[22] The Tribunal Orders that the appeal filed by 1477037 Ontario Limited with respect to the Official Plan Amendment is allowed, in part, and that the Region of Durham's Official Plan is hereby amended in the manner set out in Attachment 1 to this Order. The Tribunal authorizes the municipal clerk to assign a number to this by-law for record keeping purposes.

[23] The Tribunal Orders that the appeal filed by 1477037 Ontario Limited with respect to the Zoning By-law Amendment is adjourned *sine die* and may be brought back before the Tribunal upon the issuance by 1477037 Ontario Limited of 60 days'

5

written notice to the Tribunal, the Township of Uxbridge and the Region of Durham.

"M. Arpino"

M. ARPINO MEMBER

If there is an attachment referred to in this document, please visit <u>www.olt.gov.on.ca</u> to view the attachment in PDF format.

Local Planning Appeal Tribunal

A constituent tribunal of Ontario Land Tribunals Website: <u>www.olt.gov.on.ca</u> Telephone: 416-212-6349 Toll Free: 1-866-448-2248

ATTACHMENT 1

Draft Regional Official Plan Amendment Application 87-094

Amendment #____ to the Durham Regional Official Plan

Purpose and Effect:

The purpose of this Amendment is to permit rural employment uses on the subject site, as well as to provide for the protection of the natural environment including natural heritage and hydrologic features.

Location:

123 Regional Highway 47 (Part Lots 13 and 14, Concession 1), Township of Uxbridge

Basis:

This Amendment will permit rural employment uses on the subject site. The application was submitted in 1987 and subsequently referred to the Ontario Municipal Board (now Local Planning Appeal Tribunal). Provisions for the protection of the natural heritage and hydrologic features of the subject site are also paramount.

Amendment:

The Durham Regional Official Plan is hereby amended by adding the following policy to Section 9B.3:

"9B.3.4 Notwithstanding any other provisions of this plan, rural employment uses, consistent with policy 9B.2.27, although the subject site may be serviced with municipal water subject to Regional approval and required supporting studies, and policy 9B.2.29, are permitted on 123 Regional Highway 47 (Part Lots 13 and 14, Concession 1, Assessment #18-29-010-002-001-00) Township of Uxbridge. Development shall only proceed by plan of subdivision and an amendment to the zoning by-law. In addition, site plan approval shall be required for each lot in the plan of subdivision to ensure that development is in conformity with the applicable policies of the Oak Ridges Moraine Conservation Plan. Development approval shall be in accordance with the following:

- *a) Plans and supporting studies which address the applicable policies of* Sections 20, 22, 23, 26, 43, 45, 46 and 47 *the Oak Ridges Moraine Conservation Plan;*
- b) Plans and supporting studies that address the Complete Application requirements set out in Schedule E, Table E8 of this plan;

- c) Plans and supporting studies that address Section 3.16, Development Application Pre-Consultation and Submission Requirements of the Township of Uxbridge Official Plan and illustrate conformity with the applicable policies of the Region of Durham Official Plan and illustrate conformity with the Township of Uxbridge Official Plan; and,
- d) The subject site is located at the western gateway to the Township of Uxbridge, as such any buildings and sites shall be designed to the highest standards of urban design and sustainable development. In addition, the location and design of the parking areas and open storage shall ensure that their impact is minimized as much as possible, particularly along Regional Highway 47 where their location will be generally prohibited. To meet this criterion architectural control guidelines shall be developed as a condition of draft plan approval of the plan of subdivision."

Implementation and Interpretation:

The provisions set forth in the Durham Regional Official Plan regarding the implementation of the Plan shall apply in regard to this Amendment.



Appendix B Proposed Draft Plan





Appendix C

Species of Conservation Concern Screening

CAMBIUM

APPENDIX: Species of Conservation Concern - Durham Region

APPENDIX: Species of Conservation Concern - Durham Region	es of Conservati	on Concer Federal	n - Durham R Provincial	am Kegic	L.	SUITABLE	SPECIES	
NAME	NAME	SARA	SARO	S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	HABITAT	OBSERVATIONS	ASSESSMENT
Birds								
Acadian Fly Catcher	Empidon ax virescens	END	END	S2S3B	The Acadian Flycatcher has an olive-green crown and back, a pale throat and breast, bold white ring around each eye, and a short, wide-based beak used to snatch insects out of the air. It is a forest interior species, requiring large tracts of mature, shady forests with ravines or forested swamps with lots of maple and beech trees. In Canada, the Acadian Flycatcher nests only in southwestern Ontario, near the shore of Lake Erie, in large Carolinian forests and forested ravines (1).	°Z	Confirmed absent through targeted surveys	No further consideration required
Baid Eagle	Hdi aeetus leucocephalus	No Status	sc	S2N,S4B	The Bald Eagle is a bird of prey with a white head, neck and tail, a massive bright yellow beak, powerful legs, and a wingspan of over 2 m. It nests in a variety of habitats and forest types, almost always near a major lake or river where they do most of their hunting. These nests are usually on islands in freshwater lakes or in large trees such as the pine and poplar. During the winter, they may also be found near open bodies of water that do not freeze (1).	° Z	Known to occur in the general area	No further consideration required
Bank Swallow	Riparia riparia	тнк	ТНК	S4B	The Bank Swallow is a small songbird of around 12 cm long with a distinctive dark breast band, that files with quick and erratic wingbeats (1). It nests in burrows in natural and human-made settings where there are vertical faces in silt and sand deposits. This can include banks of rivers and lakes, bluffs, active sand and gravel pits, road cuts and stockpiles of soils. However, they prefer sand-silt substrates for excavating their nest burrows. They often use large wetlands as communal nocturnal roosts post-breeding or during wintering periods (2).	Ŷ	Known to occur in the general area	No further consideration required
Barn Swallow	Hirun do rustica	ТНК	sc	S4B	The Barn Swallow is a mid-sized songbird with steel-blue backs and wings, glossy in males, and a line of white spots across its upper tail. It lives in a variety of open habitats for foraging, such as grassy fields, pastures, certain agricultural crops, shorelines, cottage areas, wetlands, or subarctic tundra (2). They prefer to nest within human made structures such as barns, bridges, and culverts. Barn Swallow nests are cup-shaped and made of mud, typically attached to horizontal beams or vertical walls underneath an overhang (1).	Yes: adjacent lands only	Potential habitat on adjacent lands through targeted surveys	Potential significant wildlife habitat on adjacent lands
Black Tern	Chlidonias niger	No Status	sc	S3B	The Black Tern is a small waterbird with a forked tail, straight pointed bill, slender shape, and black head during breeding season. It builds floating nests in loose colonies in shallow marshes, with a preference for cattalis. They breed primarily in the marshes along the edges of the Great Lakes, but may also use wetlands further north if suitable (1).	°Z	Known to occur in the general area	No further consideration required
Bobolink	Doli chonyx oryāvorus	ТНК	THR	S4B	The Bobolink is a mid-sized songbird of tan colour with black stripes, except for males during summer breeding season who are black with a white back and yellow collar. It prefers tall, grassy meadows, hayfields and some croplands, and feeds (largely on insects) on the ground in dense grasses (J). It tends to nest in forage crops: hayfields and pastures dominated by species including clover, bluegrass, and broadleaf plants (2).	Yes: adjacent lands only	Confirmed absent through targeted surveys	No further consideration required
APPENDIX: Species of Conservation Concern - Durham Region

COMMON Scientific Federal Provincial		Federal	Prov	Provincial	SBEVIES DESCRIPTION AND LABITAT BEOLUDEMENTS	SUIT ABLE	SPECIES	ASSESSMENT
NAME	NAME	SARA	SARO	S-RANK		HABITAT	OBSERVATIONS	
Canada Warbler	Cardellin a canadensis	THR	sc	S4B	The Canada Warbler is a small songbird with bright yellow underparts and bluish-grey back and tail (1). It can be found in a variety of forest types, but is most abundant in moist, mixed forests with a well-developed, dense shrub layer. Nests are usually located on or near the ground on mossy logs, and along stream banks (3).	°Z	Confirmed absent through targeted surveys	No further consideration required
Cerulean Warbler	Setophaga cerulea	END	THR	S3B	The Cerulean Warbler, a small songbird, is blue-green with white eyebrows and two prominent white wing bars (1). It requires relatively large tracts of mature deciduous forest (>100 ha), and nests in older, second-growth deciduous forests. During breeding season, it is found in relatively large tracts of mature deciduous forests that feature large, tall trees and an open understorey (4).	Yes: on-site and adjacent lands	Confirmed absent through targeted surveys	No further consideration required
Chimney Swift	Chaetura pelagica	THR	ТНК	S4B,S4N	The Chimney Swift is a small bird, between 12 and 14 cm, with a brown, cigar-shaped body, slender wings, and an erratic flight pattern. Prior to settlement, the Chimney Swift would mainly nest in cave walls and hollow trees. Now, it is found mostly near urban and suburban areas where the presence of chimneys or other mammade structures provide nesting and roosting habitat. They also tend to stay in habitat close to the water (1).	N	Known to occur in the general area	No further consideration required
Common Nighthawk	Chordeil es min or	THR	sc	S4B	The Common Nighthawk is a medium-sized bird with long, pointed wings, a long tail with a notch, and and large eyes. Its plumage of dark brown with black and white specks blends with its roost site. It is typically found in open areas such as gravel beaches, rock outcrops and burned woodlands, that have little to no ground vegetation. This species can also be found in highly disturbed locations such as clear cuts, mine tailing areas, cultivated fields, urban parks, gravel roads, and orchards (1).	N	Known to occur in the general area	No further consideration required
Eastern Meadowlark	Stumellamagna	ТНК	ТНК	S4B	The Eastern Meadowlark is a medium-sized migratory songbird with a bright yellow throat and belly, a black V shape on its chest, and a pointed bill. It prefers pastures and hayfields, but is also found to breed in orchards, shrubby fields, human-use areas such as airports and roadsides, or other open areas. The Eastern Meadowlark can nest from early May to mid-August, in nests that are built on the ground and well-camouflaged with a roof woven from grasses (1).	Yes: adjacent lands only	Confirmed absent through targeted surveys	No further consideration required
Eastern Whip-poor- will	Antrostomus vod ferus	ТНК	ТНК	S4B	The Eastern Whip-poor-will is a medium-sized bird with mottled brown and grey feathers to blend in with its surroundings, a large flattened head, and small bill. They are usually found in areas with a mix of open and forested areas such as patchy forests with clearings, forests that are regenerating after major disturbances, savannahs, open woodlands or openings in more mature forests. Breeding habitat is dependent on forest structure rather than composition, although common tree associations are pine and oak, and it nests with clearings as it forages in open areas and uses forested areas for patchy forests with clearings as it forages in open areas and uses forested areas for roosting (1).	°N N	Known to occur in the general area	No further consideration required

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APPENDIX: Species of Conservation Concern - Durham Region COMMON SCIENTIFIC Federal Provincial	es of Conservatio SCIENTIFIC	on Concer Federal	n - Durham R Provincial	am Regio ncial	SDEVIES DESCRIPTION AND LIABITAT DECUMENTS	SUIT ABLE	SPECIES	THERE
NAME	NAME	SARA	SARO	SARO S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	HABITAT	OBSERVATIONS	ASSESSIVIEN
Eastern Wood-Pewee	Contopus virens	sc	sc	S4B	The Eastern Wood-pewee is a species of 'flycatcher', a bird that eats flying insects. It grows to approximately 15 cm, has greyish-olive upper parts and pale bars on its wings. This species lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It prefers intermediate-age forest stands with little understory vegetation (1). It typically creates nests on tree branches 2-12 m in height (2).	Yes: on-site and adjacent lands	Confirmed habitat on- site through targeted surveys	Confirmed significant wildlife habitat on-site
Golden Winged Warbler	Vermivora chrysoptera	ТНК	sc	S4B	The Golden-winged Warbler is a small songbird with distinctive yellow wing patches and patches behind their eyes. It inhabits early successional habitat of old fields and favour areas where trees are spread out or forest edges to use for perching, singing, and searching for food. They seem to prefer regeneration zones with young shrub growth, surrounded by mature forest, locations that have recently been disturbed, such as field edges, hydro or utility right-of-ways, or logged areas for their breeding sites; often frequenting clusters of herbaceous plants and low bushes (1).	Ž	Known to occur in the general area	No further consideration required
Grasshopper Sparrow	Armandramus savamarum	sc	sc	S4B	The Grasshopper Sparrow is a small songbird with a streaked back, a white stripe down the center of its crown, a flattish head, and a conical beak. It inhabits open grasslands and prairies with well-drained soil, preferring areas that are sparsely vegetated. It will also nest in hayfields and pastures, as well as alvars and occasionally grain crops such as barley (1).	Yes: on-site and adjacent lands	Confirmed absent through targeted surveys	No further consideration required
King Rail	Ralius elegans	END	END	S2B	The King Rail is Ontario's largest rail, standing at 40 centimetres tall. It has a long, slightly curved bill, long legs and a tall but very thin body, which allows it to move easily between cattail stalks. The chest and neck are a dull cinnamon orange, while the back is a mixture of rust and brown streaks. The sides of the body are blackish with thin, vertical white bars. King Rails are found in densely vegetated freshwater mashes with open shallow water that merges with shrubby areas. They are sometimes found in smaller isolated marshes but most seem to prefer larger, coastal wetlands. Its nest is a dinner-plate sized platform made of plant material, placed just above the water in shrubs of other marsh plants (1).	Ê	Known to occur in the general area	No further consideration required
Least Bittern	lxobrychus exilis	THR	THR	S4B	The Least Bittern is a small member of the heron family, reaching around 30 cm in length. It has brown and beige plumage with chestnut patches on its wings (1). The species nests in marshes (> 5 - 10 ha) and swamps dominated by emergent vegetation, preferably cattails, interspersed with patches of woody vegetation and open water. They require dense vegetation and open water with stable levels within 10 m for nesting, and access to clear, open water for foraging (4).	°Z	Known to occur in the general area	No further consideration required
Loggerhead Shrike	Lamius Iudovicianus	END	END	S2B	The Loggerhead Shrike is a small bird with a black, hooked bill, grey crown, and white throat and chest. This species has specific habitat requirements that are dependent on active livestock grazing, or grassland areas that have naturally short grass cover (i.e. alvar communities). They also require spiny, multi-branched shrubs, or barbed fencing, to catch prey. They prefer grassland habitats that have sporadic occurrences of low trees and shrubs; particularly hawthorn species, which are used as part of their feeding behaviour (1).	Ž	Known to occur in the general area	No further consideration required

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APPENDIX: Species of Conservation Concern - Durham Region	es of Conservatio	on Concer	n - Durha	am Regio	5	1140 1110		
NAME	NAME	r ederal SARA	SARO S-RANK	s-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUII ABLE HABITAT	OBSERVATIONS	ASSESSMENT
Olive-sided Flycatcher	Contopus cooperi	ТНК	sc	S4B	The Olive-sided Flycatcher is a medium-sized songbird with olive colouring, often seen per ching on top of tall trees waiting to catch their prey. It prefers open areas along natural mature forest edges, forest edges near natural openings such as rivers or swamps, human-made openings, or burned forest openings with numbers of dead trees. Breeding habitat usually consists of coniferous or mixed forests adjacent to rivers or wetlands, in Ontario often nesting in White and Black Spruce, Jack Pine, and Balsam Fir (1).	Q	Known to occur in the general area	No further consideration required
Red-headed Woodpecker	Mel an erpes erythrocephalus	END	END	S4B	The Red-headed Woodpecker is a mid-sized bird, at around 20 cm long, with a vivid red head, neck and breast as well a strong bill. The species can be found in open woodland and woodland edges, often near man-made landscapes such as parks, golf courses and cemeteries. These areas must contain a large number of dead trees for perching and nesting (1).	Q	Known to occur in the general area	No further consideration required
Short-eared owl	Asio flammeus	SC	sc	S2N,S4B	The Short-eared Owl has a large round head with small tufts of feathers, long wings, a short tail, and cryptic colouring of brown streaks. This species is found in scattered pockets across the province where suitable open habitat, including grasslands, tundra, peat bogs and marsh, can be found in sufficient quantities. Adults build nests on the ground in grassy areas and occasionally agriultural fields (1). The main factor influencing their choice in habitat is believed to be an abundance of their food source, primarily rodents and other small mammals (2).	ĝ	Known to occur in the general area	No further consideration required
Wood Thrush	Hylocichla mustelina	THR	sc	S4B	The Wood Thrush is a medium-sized songbird of around 20 cm with rusty brown coloured upper parts and white underparts with large dark spots. It breeds in deciduous and mixed forests with moderate understories, shade and abundant leaf litter where it forages for food, including larval and adult insects as well as plant material. They prefer moist stands of trees with well-developed undergrowth and tall trees for perches (1).	Yes: on-site and adjacent lands	Confirmed absent through targeted surveys	No further consideration required
Yellow Rail	Cotumicops noveboracensis	SC	sc	S4B	The Yellow Rail is a small quail-like marsh bird, about 13 to 18 centimetres long. It has a short yellow or blackish bill and a very short tail. The chest and face are buff-yellow, and it is distinguished from other rails by the yellowish and black streaks on its back and white wing patches. It has a dark crown and dark stripe through its eyes. Yellow Rails are secretive birds and live deep in the reeds, sedges, and marshes of shallow wetlands, where they nest on the ground. The marshy areas used by Yellow Rails have an overlying dry mat of dead vegetation that is used to make roofs for nests (1).	Q	Known to occur in the general area	No further consideration required
Yellow-breasted Chat	lcteria virens	END	END	S2B	The Yellow-breasted chat is a medium-sized songbird, about 18 centimetres long, with a long tail. It has a bright yellow chest and throat, olive-green back, white circles around its eyes, white belly and undertail. The Yellow-breasted chat lives in thickets and scrub, especially locations where clearings have become overgrown. These birds spend their winters in coastal marshes. This bird eats insects gathered from the foliage of low, dense shrubs, or from the ground (1).	Ŷ	Known to occur in the general area	No further consideration required
Fish								

Environmental Impact Study - 123 Regional Highway 47, Uxbridge, Ontario Urbanway Development Management Inc. Cambium Reference: 17666-001

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APPENDIX: Species of Conservation Concern - Durham Region	es of Conservation	on Concer	n - Durh	am Regio				
COMMON NAME	SCIENTIFIC NAME	Federal SARA	Provincial SARO S-RANK	ncial S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUIT ABLE HABITAT	SPECIES OBSERVATIONS	ASSESSMENT
American Eel	Anguila rostrata	No Status	END	S1?	The American Eel is a long, slender bodied fish, with one long fin extending down the back and around the tail, and two small pectoral fins. It has thick lips, and a protruding lower jaw that extends out above the upper jaw. At the juvenile stage, they swim up the St. Lawrence River to reach Lake Orhario and connected tributaries where they will remain for 8 to 23 years before migrating back to their spawning grounds. In Ontario, the American eel prefers mud, sand or gravel substrates during the juvenile stage when they reside primarily in the benthic zone of waterbodies. More mature eels are able to thrive in most environments provided there is available cover during daylight hours, and the habitat is accessible (2).	Ŷ	Known to occur in the general area	No further consideration required
Lake Sturgeon	Acipenser fulvescens	No Status	END	S2	The Lake Sturgeon, a large freshwater fish, has an extended snout with four whisker-like organs hanging near the mouth and is dark to light brown or grey on its back and sides with a lighter belly. In Ontario, this fish is found in the rivers of the Hudson Bay Basin, the Great Lakes basin, and their connecting waterways. Lake Sturgeon's live almost exclusively in freshwater lakes and rivers with soft bottoms of mud, sand or gravel and are usually found at depths of 5 to 20 m. They spawn in relatively shallow, fast-flowing water or if available deeper water habitat as well (1).	N	Known to occur in the general area	No further consideration required
Northern Sunfish (Great Lakes - Upper St. Lawrence population)	Lepornis peltastes	SC	sc	23 S	The Northern Sunfish is a small (about 130 mm long), typical looking member of the sunfish family (Centrarchidae). It has a deep, laterally compressed and olive coloured body with bright blue and red markings. In Ontario, the Northern Sunfish lives in shallow vegetated areas of quiet, slow flowing rivers and streams, as well as warm lakes and ponds, with sandy banks or rocky bottoms. Northern Sunfish prefer to be near aquatic vegetation where they can avoid strong currents. The Great Lakes - Upper St. Lawrence Populations are flowing involtanci including waters flowing into Lake Huron, Georgian Bay, Lake St. Clair, Lake Erie and Lake Ontario, as well as rivers and small lakes in eastern Ontario (1).	°N N	Known to occur in the general area	No further consideration required
Redside Dace	dinostomus elon gatus	END	END	52	The Redside Dace is a small-bodied fish that is a member of the Minnow family. It averages about 75 milimeters in length and has a flattened body shape. Adults are colourful, with a red stripe on the front half of the body and a yellow stripe that extends almost the full length of the fish. Redside Dace prefer small streams and headwater areas with a gravel bottom. Overhanging grasses and shrubs provide ideal habitat as this species is adapted to jumping up to 10 cm out of the water to feed on insects (2).	N	Known to occur in the general area	No further consideration required
Silver Lamprey (Great Lakes - Upper St. Lawrence River population)	ichthyomyzon unicuspis	sc	sc	S3	The Silver Lamprey is an eel-shaped fish growing from 9 to 39 cm long, with a sucking disc mouth and no jaws or paired fins. They can be differed from other lamprey species based on fin shapes and teeth arrangements. Their habitat requirements include clear water, the availability of fish hosts, and relatively clean beds of sand or organic debris (1).	Νο	Known to occur in the general area	No further consideration required
Herptiles								

APPENDIX: Species of Conservation Concern - Durham Region

APPENDIX: Species of Conservation Concern - Durham Region COMMON SCIENTIFIC Federal Provincial	es of Conservations Scientia	on Concer Federal	n - Durham R Provincial	am Regio Incial	n SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUIT ABLE	SPECIES	ASSESSMENT
NAME Blanding's Turtle	NAME Emydoidea blandingii	END END	THR	S-RANK S3	Blanding's Turtles are identifiable by their bright yellow throat and chin and domed shell. They spend the majority of their life cycle in the aquatic environment, usually in large wetlands or shallow lakes with high densities of water plants (1). These turtles prefer shallow, nutient rich water with organic sediment and dense vegetation. They use therrestrial sites for travel between habitat patches and to lay clutches of eggs, often going hundreds of meters from their nearest water body. Blanding's Turtles nest in dry conferous and mixed forest habitats, as well as fields and roadsides (2). From late October until the end of Apri, they hibernate in the mud at the bottom of permanent water bodies (1).	HABITAT No	OBSERVATIONS Known to occur in the general area	No further consideration required
Eastern Musk Turtle	Stem otherus odoratus	sc	sc	23 23	The Eastern Musk Turtle is small with a narrow carapace, a dark brown body and two light stripes on each side of their head (5). It is a small freshwater turtle found primarily in slow moving water bodies with abundant emergent vegetation and mucky bottoms along the southern edge of the Canadian Shield within which they burrow into overwinter. Nesting sites vary, but must be close to the water and exposed to direct sunlight (1).	°,	Known to occur in the general area	No further consideration required
Midland Painted Turtle	<i>dhysemys picta</i> marginata	sc		S4	The Midland Painted Turtle has a olive to black carapace with red or dark orange markings on the marginal scutes, as well as red and yellow stripes on the head and neck. The species uses a variety of waterbodies including, ponds, marshes, lakes and slow- moving creeks with a soft bottom and an abundance of basking sites and aquatic vegetation. This species usually hibernates on the bottom of waterbodies (5).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands
Northern Map Turtle	Grapternys geographica	sc	sc	S3	The Northern Map Turtle is a medium sized turtle identified by its carapace's map contour- like patterning. It lives in larger lakes and rivers, requiring high water quality to support their primary prey species: molluscs. This species can often be seen in large groups basking together on rocks and logs. In the winter, the Northern Map Turtle can be found hibernating on the bottom of slow-moving rivers (1).	No	Known to occur in the general area	No further consideration required
Snapping Turtle	chelydra serpentin a	sc	sc	S3	, small plastron, and spiked tail, is najority of its life in water, preferring ravel upland to gravel or sandy hes to lay their eggs (1).	Yes: adjacent lands only	Known to occur in the general area	Potential significant wildlife habitat on adjacent lands
Spotted Turtle	demmys guttata	END	END	S2	The Spotted Turtle is named after the distinct yellow spots on its carapace. The species is semi-aquatic and prefers ponds, marshes, bogs and even ditches with slow-moving, unpolluted water and an abundant supply of aquatic vegetation. This species usually hibernates in wetlands or seasonally wet areas with structures such as overhanging banks, hummocks, tree roots, or aquatic animal burrows (1).	Νο	Known to occur in the general area	No further consideration required
WoodTurtle	Glyptemys insculpta	ТНК	END	52	The Wood Turtle has orange coloured front legs, neck and chin and a sculpted carapace with raised, pyramidal scutes (5). They prefer clear rivers and streams that have moderate current, and sandy or gravely substrates. This species spends more time on land than other turtle species including in meadows, swamps and fields. Wooded areas are an essential habitat component, and the species uses aquatic habitats for hibernation and mating. Nesting occurs in areas with sandy soil and abundant light (1).	N	Known to occur in the general area	No further consideration required

SPECIES OBSERVATIONS ASSESSMENT	Known to occur in the No further general area consideration required	Known to occur in the No further general area consideration required	Known to occur in the under local/regional general area objectives		Known to occur in the Potential significant general area wildlife habitat on-site	Known to occur in the Potential significant general area wildlife habitat on-site	Known to occur in the wildlife habitat on general area adjacent lands
SUIT ABLE HABITAT	Ŷ	2	Yes: adjacent lands only		Yes: on-site and adjacent lands	N	Yes: on-site and adjacent lands
on SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	The Eastern Hog-nosed Snake can be a variety of colours and patterns so is most easily identified by its flattened, upturned nose. They prefer sandy well-drained habitats such as beaches and dry forests because they lay their eggs, hibernate and burrow in these areas. The main diet of this snake is toads and frogs, so they usually stay close to water including marshes and swamps, where they have an increased chance of finding their preferred prey (1).	The Eastern Ribbonsnake is slender with three bright yellow stripes running down its back and sides and a white crescent in front of each eye. This snake is usually found close to water as they are strong swimmers, often fleeing predators by diving into shallow water. It prefers wetland habitats where its prev species, frogs and small fish, are abundant. Over winter, they congregate in underground burrows or rock crevices to hibernate (1).	The Western Chorus Frog is small with a dark stripe running through its eve and a light stripe underneath (5). It is primarily a lowland terrestrial species that requires access to terrestrial and aquatic habitats in close proximity to one another. Relying on marshes and wooded wetlands adjacent to forested habitats, this species also requires isolated, predator free pools for breeding. Temporary pools, such as vernal pools in wooded areas, are preferred. This species hibernates terrestrially in a variety of environments, including leaf litter, wood debris, and vacant animal burrows (2).		The Monarch is an orange and black butterfly with small white spots and a wingspan of around 10 cm. It relies on milkweed plants as a food source for growing caterpillars, but the adult butterflies forage in diverse habitats for nectar from wildflowers (1).	The West Virginia White is a small, dingy white butterfly. This species is found in moist deciduous woods, and requires a supply of toothwort, a small, spring-blooming plant, which provides the only source of food for its larvae. The West Virginia White is found mostly in the central and southern parts of Ontario, but its range extends north to Manitoulin and St. Joseph islands (1).	The Yellow-banded Bumble Bee is a medium-sized bumble bee with a distinct yellow and black abdominal band pattern found on its queens, males, and workers. This species is a forage and habitat generalist, able to use a variety of nectaring plants and environmental conditions. It can be found in mixed woodlands, particularly for nesting and overwintering, as well as a variety of open habitat such as native grasslands, farmlands and urban areas. The Yellow-banded Bumble Bee ranges from the Mixedwood Plains of conditions to the lunden Bay Loudonci in the north (1).
Durham Regic Provincial \RO S-RANK	23	S4	23		S2N,S4B	23 23	S355
rn - Durf Prov SARO	ТНК	sc			sc	sc	sc
on Conce Federal SARA	ТНК	sc	THR		SC	No Status	sc
es of Conservatio SCIENTIFIC NAME	Heterodon plati <i>t</i> hin os	Thamn ophis sawitus	Pseudacris triseriata		Danaus plexippus	Heris wrginiensis	Bambus terri cola
APPENDIX: Species of Conservation Concern - Durham Region COMMON SCIENTIFIC Federal Provincial NAME NAME SARA SARO S-RANK	Eastern Hog-nosed Snake	Eastern Ribbonsnake	Western Chorus Frog	Invertebrates	Monarch Butterfly	West Virginia White	Yellow-banded Bumble Bee

Environmental Impact Study - 123 Regional Highway 47, Uxbridge, Ontario Urbanway Development Management Inc. Cambium Reference: 17666-001

APPENDIX: Species of Conservation Concern - Durham Region COMMON SCIENTIFIC Federal Provincial	es of Conservati SCIENTIFIC	on Concer Federal	n - Durham R Provincial	am Regio ncial	n SPECIES DESCRIPTION AND HABITAT REQUIREMENTS	SUIT ABLE	SPECIES	ASSESSMENT
Eastern Pondmussel	и Амс	SC SC	SC SC	S1	The Eastern Pondmussel is a freshwater mussel that can grow to 10 centimetres long. They must attach to a fish host, consuming nutrients off its body until becoming juvenile, but it is unknown which fish species act as hosts. Typically found in sheltered areas of lakes and in slow-moving areas of river and canals with sand or mud bottoms, the Eastern Pondmussel was once one of the most common mussels in the lower Great Lakes but there are now only two known populations in Canada: one in the delta of Lake St. Clair and the second in Lyn Creek, a small tributary of the upper St. Lawrence River (1).		Known to occur in the general area	No further consideration required
Mammals								
Tri-colored Bat	Perimyotis subflavus	END	END	53? 53?	The Tri-colored Bat is small, with pale brown with orange-red forearms, muzzle, and ears. It is named for the black, yellow, and brown hairs on its back. It is considered rare in this region of Ontario which is at the northermost limit of the natural range. These bats prefer to nest in foliage, tree cavities and woodpecker holes, but are occasionally found in buildings; though this is not their preferred habitat. Wirter hibernation takes place in caves, mines and deep crevices. Tri-colored Bats prefer an open forest habitat type in proximity to water (6).	Yes: on-site and adjacent lands	Potential habitat on adjacent lands through targeted surveys	Consideration required under the ESA
Eastern Small-footed Myotis	Myotis leibii	No Status	END	\$253	The Eastern Small-footed Myotis has fur with black roots and shiny brown tips as well as very small feet. In the spring and summer, the Eastern Small-footed Myotis will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. They change their roosting locations daily and hunt at night for insects. They hibernate in winter, often in caves and abandoned mines choosing colder and drier sites than other similar bats (1).	Yes: on-site and adjacent lands	Potential habitat on adjacent lands through targeted surveys	Consideration required under the ESA
Little Brown Myotis	Myotis lucj'ugus	END	END	S4	The Little Brown Myotis has glossy brown fur and a fleshy projection covering the entrance to its ears. This species roosts in trees and buildings, often selecting attics, abandoned buildings and barns for summer colonies where they can raise their young. Little Brown Bats hibernate from October/November to March/April, most often in caves or abandoned mines that are humid and remain above freezing (1).	Yes: on-site and adjacent lands	Potential habitat on adjacent lands through targeted surveys	Consideration required under the ESA
Northern Myotis	Myotis septen tri on di s	END	END	S3	The Northern Myotis has dull yellow-brown fur with pale bellies and long, rounded ears. This species is found in boreal forests, roosting under loose bark and in the cavities of trees. These bats hibernate from October/November to March/April, most often in caves or abandoned mines (1).	Yes: on-site and adjacent lands	Potential habitat on adjacent lands through targeted surveys	Consideration required under the ESA
Trees, plants, fungi and lichens	gi and lichens							
American Ginseng	Panax quin quefolius	END	END	S2	American Ginseng is a perennial plant which grows up to 60 centimetres in height. The leaves typically have five leaflets arranged in a whorl at the end of the leaf stem. The root looks like a gnarly parsnip. The flowers are an inconspicuous green-white in colour, but the berries are bright red and arranged in a duster. In Ontario, the American Ginseng typically grows in rich, moist, and mature deciduous woods dominated by Sugar Maple, White Ash, and American Basswood. It typically grows in deep, nutrient rich soil over limestone or marble bedrock (1).	Yes: on-site and adjacent lands	Confirmed absent through targeted surveys	No further consideration required
Black Ash	Fraxinus ni gra	No status	END	S4	The Black Ash is a smaller-sized tree with a narrow crown, light grey and scaly bark, and green, oval leaflets on a central stalk. It grows everywhere in Ontario except for the far north, preferring moist climates and soils such as swampy woodlands or bogs (1).	No	Known to occur in the general area	No further consideration required

CAMBIUM WARK

APPENDIX: Species of Conservation Concern - Durham Region

ALLENDIA. Species of Collservation Collicetti - Durnant Region	es of collected				01		
COMMON	SCIENTIFIC	Federal	Prov	Provincial		SPECIES	ACCECCAGENT
NAME	NAME	SARA	SARO	SARO S-RANK	SPECIES DESCRIPTION AND HABITAT REQUIREMENTS HABITAT	OBSERVATIONS	ASSESSIVIEN I
Butternut	Jugtans anerea	END	END	52?	The Butternut is a medium sized tree reaching 30 m in height. It has large compound leaves with 11 to 17 leaflets. The fruit is oval, fuzzy and sticky. In Ontario, the Butternut prefers moist, well-drained soil, often along streams, or occasionally well-drained gravel sites. It grows alone or in small groups in deciduous forests (1).	Confirmed habitat on- site through targeted surveys	Confirmed habitat for endangered or threatened species on- site
Eastern Prairie Fringed-orchid	Platan thera leucophaea	END	END	S2	The Eastern Prairie Fringed-Orchid has distinctive fringed white flowers with a deep "hectar spur" containing nectar and a flat, fringed "lip" serving as a platform for pollinating insects. It may lie dormant for years before flowering. It can be found in areas of tallgrass prairie or fen throughout the province and in some tamarack swamps of the Bruce Peninsula and Ottawa Area (1).	Known to occur in the general area	No further consideration required
Pale-bellied Frost Lichen	Physconia subpdiida	END	END	23 S	The Pale-bellied Frost Lichen resembles a light dusting of frost on a dark tree trunk. This species is found throughout eastern North America, growing in wooded areas rich in hardwood species, such as White Ash, Hop Hornbeam (Ironwood), Black Walnut, and American Elm. It is also common to find this species growing on fenceposts or boulders within or near these wooded areas. In Ontario, this species has been found in the following counties: Frontenac, Haliburton, Hastings, Peterborough, Lanark and Renfrew (1).	Known to occur in the general area	No further consideration required
References 1. Ministry of Environment. Conservation and Parks. (2022). Species at Risk in Ontario.	ment. Conservation a	ind Parks. (2	022). Speci	es at Risk in	n Ontario. Retrieved from https://www.ontario.ca/bage/species-risk-ontario		
2. Government of Can	nada. (2021). Species	at Risk Publi	ic Registry.	Retrieved fi	2. Government of Canada. (2021). Species at Risk Public Registry. Retrieved from https://species-registry.canada.ca/index-en.html#/species?ranges=5&sortBy=commonNameSort&sortDirection=asc&pageSize=10	tion=asc&pageSize=10	
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Appendix D Photographic Log





Photo 1 Community 1 Cultural Meadow (CUM), June 2023.



Photo 2 Community 1 Cultural Meadow (CUM), September 2023.





Photo 3 Community 2 Dry – Fresh Sugar Maple Deciduous Forest (FOD5-1), June 2023.



Photo 4 Community 2 Dry – Fresh Sugar Maple Deciduous Forest (FOD5-1), September 2023.





Photo 5 Community 3 Open Agricultural (OAG), June 2023.



Photo 6 Community 3 Open Agricultural (OAG), September 2023.





Photo 7 Community 3 Open Agricultural (OAG), September 2023.



Photo 8 Community 4 Constructed Residential (CVR). Buildings currently being demolished, September 2023.





Photo 9 Community 4 Constructed Residential (CVR). Buildings currently being demolished, September 2023.



Photo 10 Watercourse 1 east of Site, September 2023.





Photo 11 Watercourse 1 east of Site turns to overland flow, September 2023.



Photo 12 Goodwood/Glasgow PSW complex pond east of Site, September 2023.





Photo 13 Watercourse 1 culvert under Hwy 47. Water and fish only present in first 1 m of culvert. September 2023.



Photo 14 Stormwater Pond north of Hwy 47 east of Site., September 2023.





Photo 15 Watercourse 2 on adjacent lands west of Site, September 2023.



Photo 16 Watercourse 2 on adjacent lands west of Site, September 2023.





Photo 17 Ditch/Drainage channel west of Site on east side of Durham 30, September 2023.



Photo 18 Ditch turn into drainage channel west of Site before draining into culvert at Durham 30, September 2023.





Photo 19 Butternut sapling observed in Community 2, September 2023.



Photo 20 Butternut observed in Community 2, September 2023.



Appendix E Vegetation Species List



Appendix - Vegetation Community and Inventory

	vogetation community and moon		tion Con	nmunity	>
#	Common Name (Latin Name)	1	2	3	CoW
1	Allegheny Blackberry (Rubus allegheniensis)		х		3
2	Alternate-leaved Dogwood (Cornus alternifolia)	х	х		3
3	American Beech (Fagus grandifolia)		с		3
4	Autumn Olive (Elaeagnus umbellata)	х			3
5	Basswood (Tilia americana)		х		3
6	Bitternut Hickory (Carya cordiformis)		х		0
7	Bittersweet Nightshade (Solanum dulcamara)			х	0
8	Black Cherry (Prunus serotina)		х		3
9	Black Swallowwort (Vincetoxicum nigrum)	х	х	х	5
10	Blue Cohosh (Caulophyllum thalictroides)		х		5
11	Bull Thistle (Cirsium vulgare)			х	3
12	Butternut (Juglans cinerea)		х		3
13	Calico Aster (Symphyotrichum lateriflorum)		х		0
14	Canada Goldenrod (Solidago canadensis)	D	х	х	3
15	Canada Thistle (Cirsium arvense)			s	3
16	Chokecherry (Prunus virginiana)		х		3
17	Coltsfoot (Tussilago farfara)	х	х	х	3
18	Common Burdock (Arctium minus)		х		3
19	Common Dandelion (Taraxacum officinale)		х	х	3
20	Common Hawkweed (Hieracium vulgatum)		х		5
21	Common Lamb's-quarters (Chenopodium album)			D	3
22	Common Milkweed (Asclepias syriaca)	х		х	5
23	Common Panicgrass (Panicum capillare)			х	0
24	Common Plantain (Plantago major)			х	3
25	Common Ragweed (Ambrosia artemisiifolia)			с	3
26	Common Shepherd's Purse (Capsella bursa-pastoris)			х	3
27	Common Timothy (Phleum pratense)	x		х	3
28	Common Wormwood (Artemisia vulgaris)			х	5
	Corn (Zea mays)			х	5
30	Downy Yellow Violet (Viola pubescens var. pubescens)		х		3
31	Eastern Prickly Gooseberry (Ribes cynosbati)		х		3
32	Eastern White Pine (Pinus strobus)	x			3
33	European Buckthorn (Rhamnus cathartica)	x	х		0
34	Field Pennycress (Thlaspi arvense)			х	5
⊢	Grass-leaved Goldenrod (Euthamia graminifolia)	x			0
⊢	Green Foxtail (Setaria viridis)			х	5
⊢	Heart-leaved Aster (Symphyotrichum cordifolium)	x	х		5
\vdash	Herb-Robert (Geranium robertianum)		x		3
⊢			x		-3
39	Hooked Buttercup (Ranunculus recurvatus)		Х		-3



Appendix - Vegetation Community and Inventory

		Vegeta	tion Con	nmunity	>
#	Common Name (Latin Name)	1	2	3	CoW
40	Large False Solomon's Seal (Maianthemum racemosum)		х		3
41	Long-stalked Sedge (Carex pedunculata)	х	х		3
42	Manitoba Maple (Acer negundo)		х		0
43	Meadow Hawkweed (Pilosella caespitosa)	х			5
44	Meadow Horsetail (Equisetum pratense)	х			-3
45	Moor Matgrass (Nardus stricta)	х			5
46	New England Aster (Symphyotrichum novae-angliae)	х	х	х	-3
47	Orchard Grass (Dactylis glomerata)	х			3
48	Philadelphia Fleabane (Erigeron philadelphicus)		х		-3
49	Prickly Lettuce (Lactuca serriola)			х	3
50	Purple-flowering Raspberry (Rubus odoratus)		х		5
51	Red Baneberry (Actaea rubra)		х		3
52	Red Clover (Trifolium pratense)			х	3
53	Red Maple (Acer rubrum)		х		0
54	Red Pine (Pinus resinosa)	х			3
55	Red Trillium (Trillium erectum)		х		3
56	Red-osier Dogwood (Cornus sericea)	х			-3
57	Redroot Amaranth (Amaranthus retroflexus)			х	3
58	Riverbank Grape (Vitis riparia)	х	х		0
59	Spreading Dogbane (Apocynum androsaemifolium)	с	х	х	5
60	Staghorn Sumac (Rhus typhina)	х			3
61	Sugar Maple (Acer saccharum)	х	D		3
62	Sweet-scented Bedstraw (Galium odoratum)		х		5
63	Thyme-leaved Sandwort (Arenaria serpyllifolia)			х	0
64	Tufted Vetch (Vicia cracca)	х		х	5
65	Virginia Waterleaf (Hydrophyllum virginianum)		х		0
66	White Ash (Fraxinus americana)	х	с		3
67	White Baneberry (Actaea pachypoda)		х		5
68	White Trillium (Trillium grandiflorum)		х		3
69	Wild Carrot (Daucus carota)			х	5
70	Wild Sarsaparilla (Aralia nudicaulis)		х		3
71	Wild Strawberry (Fragaria virginiana)	х			3
72	Zigzag Goldenrod (Solidago flexicaulis)		х		3



Appendix - Vegetation Species Significance and Status

			Rarity/Status ²	!	
#	Common Name (Scientific Name)	Federal		vincial	Co Co Co
		SARA	SARO	S-Rank	1 °
1	Allegheny Blackberry (Rubus allegheniensis)			\$5	2
2	Alternate-leaved Dogwood (Cornus alternifolia)			\$5	6
3	American Beech (Fagus grandifolia)			S4	6
4	Autumn Olive (Elaeagnus umbellata)			SNA	0
5	Basswood (Tilia americana)			\$5	4
6	Bitternut Hickory (Carya cordiformis)			\$5	6
7	Bittersweet Nightshade (Solanum dulcamara)			SNA	0
8	Black Cherry (Prunus serotina)			\$5	3
9	Black Swallowwort (Vincetoxicum nigrum)			SNA	0
10	Blue Cohosh (Caulophyllum thalictroides)			\$5	5
11	Bull Thistle (Cirsium vulgare)			SNA	0
12	Butternut (Juglans cinerea)	END	END	\$2?	6
13	Calico Aster (Symphyotrichum lateriflorum)			\$5	3
14	Canada Goldenrod (Solidago canadensis)			\$5	1
15	Canada Thistle (Cirsium arvense)			SNA	0
16	Chokecherry (Prunus virginiana)			\$5	2
17	Coltsfoot (Tussilago farfara)			SNA	0
18	Common Burdock (Arctium minus)			SNA	0
19	Common Dandelion (Taraxacum officinale)			SNA	0
20	Common Hawkweed (Hieracium vulgatum)			SNA	0
21	Common Lamb's-quarters (Chenopodium album)			SNA	0
22	Common Milkweed (Asclepias syriaca)			\$5	0
23	Common Panicgrass (Panicum capillare)			\$5	0
24	Common Plantain (Plantago major)			SNA	0
25	Common Ragweed (Ambrosia artemisiifolia)			\$5	0
26	Common Shepherd's Purse (Capsella bursa-pastoris)			SNA	0
27	Common Timothy (Phleum pratense)			SNA	0
28	Common Wormwood (Artemisia vulgaris)			SNA	0
29	Corn (Zea mays)			SNA	0
30	Downy Yellow Violet (Viola pubescens var. pubescens)			S5	5
31	Eastern Prickly Gooseberry (Ribes cynosbati)			\$5	4
32	Eastern White Pine (Pinus strobus)			\$5	4
33	European Buckthorn (Rhamnus cathartica)			SNA	0
34	Field Pennycress (Thlaspi arvense)			SNA	0
35	Grass-leaved Goldenrod (Euthamia graminifolia)			\$5	2
36	Green Foxtail (Setaria viridis)			SNA	0
37	Heart-leaved Aster (Symphyotrichum cordifolium)			\$5	5
38	Herb-Robert (Geranium robertianum)			\$5	2
39	Hooked Buttercup (Ranunculus recurvatus)			\$5	4



Appendix - Vegetation Species Significance and Status

			Rarity/Status ²		
#	Common Name (Scientific Name)	Federal		incial	C C C
		SARA	SARO	S-Rank	
40	Large False Solomon's Seal (Maianthemum racemosum)			\$5	4
41	Long-stalked Sedge (Carex pedunculata)			\$5	5
42	Manitoba Maple (Acer negundo)			\$5	0
43	Meadow Hawkweed (Pilosella caespitosa)			SNA	0
44	Meadow Horsetail (Equisetum pratense)			\$5	8
45	Moor Matgrass (Nardus stricta)			SNA	0
46	New England Aster (Symphyotrichum novae-angliae)			\$5	2
47	Orchard Grass (Dactylis glomerata)			SNA	0
48	Philadelphia Fleabane (Erigeron philadelphicus)			\$5	1
49	Prickly Lettuce (Lactuca serriola)			SNA	0
50	Purple-flowering Raspberry (Rubus odoratus)			\$5	3
51	Red Baneberry (Actaea rubra)			\$5	6
52	Red Clover (Trifolium pratense)			SNA	0
53	Red Maple (Acer rubrum)			\$5	4
54	Red Pine (Pinus resinosa)			\$5	8
55	Red Trillium (Trillium erectum)			\$5	6
56	Red-osier Dogwood (Cornus sericea)			\$5	2
57	Redroot Amaranth (Amaranthus retroflexus)			SNA	0
58	Riverbank Grape (Vitis riparia)			\$5	0
59	Spreading Dogbane (Apocynum androsaemifolium)			\$5	3
60	Staghorn Sumac (Rhus typhina)			\$5	1
61	Sugar Maple (Acer saccharum)			\$5	4
62	Sweet-scented Bedstraw (Galium odoratum)			SNA	0
63	Thyme-leaved Sandwort (Arenaria serpyllifolia)			SNA	0
64	Tufted Vetch (Vicia cracca)			SNA	0
65	Virginia Waterleaf (Hydrophyllum virginianum)			\$5	6
66	White Ash (Fraxinus americana)			S4	4
67	White Baneberry (Actaea pachypoda)			\$5	6
68	White Trillium (Trillium grandiflorum)			\$5	5
69	Wild Carrot (Daucus carota)			SNA	0
70	Wild Sarsaparilla (Aralia nudicaulis)			S5	4
71	Wild Strawberry (Fragaria virginiana)			\$5	2
72	2igzag Goldenrod (Solidago flexicaulis)			\$5	6



Notes:

CC - Coefficient of Conservatism. Assigned on a scale of 1-10, with 0 being the least conservative and 10 being the most conservative. CW - Coefficient of Wetness. Assigned on a scale of 5 to -5, with 5 indicating a preference for upland habitats and -5 indicating a preference for wetland habitats.

SARA - Species at Risk Act

SARO - Species at Risk in Ontario

SC - Special Concern

THR - Threatened

END - Endangered

NAR - Not at risk

S-Rank - Provincial rank used by the Natural Heritage Information Centre to prioritize protection efforts

S1 - Extremely rare in Ontario

S2 - Very rare in Ontario

S3 - Rare to uncommon in Ontario

S4 - Considered to be common in Ontario

S5 - Species is widespread in Ontario

SNA - Not Applicable (typically introduced species)

"?" - Indicates uncertainty in classification due to lack of information



Appendix F

Bird Species List

Environmental Impact Study - 123 Regional Highway 47, Uxbridge, Ontario Urbanway Development Management Inc. Cambium Reference: 17666-001



Appendix - Avifauna Observations

Common name	Scientific name	Station	Breeding Code	COSEWIC	SARO	S-Rank	Date
American Goldfinch	Spinus tristis	1	S	0	0	S5B	2023-06-06
American Goldfinch	Spinus tristis	3	S	0	0	S5B	2023-06-06
American Robin	Turdus migratorius	3	Н	0	0	S5B	2023-06-06
American Robin	Turdus migratorius	4	S	0	0	S5B	2023-06-06
Barn Swallow	Hirundo rustica	2	Ь	SC	SC	S4B	2023-06-06
Blue-headed Vireo	Vireo solitarius	4	S	0	0	S5B	2023-06-06
Canada Goose	Branta canadensis	1	Х	0	0	S5	2023-06-06
Chipping Sparrow	Spizella passerina	2	S	0	0	S5B	2023-06-06
Common Yellowthroat	Geothlypis trichas	3	S	0	0	S5B	2023-06-06
Eastern Wood-pewee	Contopus virens	4	S	SC	SC	S4B	2023-06-06
Great Crested Flycatcher	Myiarchus crinitus	4	S	0	0	S4B	2023-06-06
Horned Lark	Eremophila alpestris	2	S	0	0	S5B	2023-06-06
Killdeer	Charadrius vociferus	1	Ь	0	0	S5B,S5N	2023-06-06
Killdeer	Charadrius vociferus	2	А	0	0	S5B,S5N	2023-06-06
Killdeer	Charadrius vociferus	3	DD	0	0	S5B,S5N	2023-06-06
Red-eyed Vireo	Vireo olivaceus	2	S	0	0	S5B	2023-06-06
Savannah Sparrow	Passerculus sandwichensis	1	S	0	0	S4B	2023-06-06
Song Sparrow	Melospiza melodia	1	S	0	0	S5B	2023-06-06
Song Sparrow	Melospiza melodia	2	S	0	0	S5B	2023-06-06
Song Sparrow	Melospiza melodia	3	S	0	0	S5B	2023-06-06
Song Sparrow	Melospiza melodia	4	S	0	0	S5B	2023-06-06

Environmental Impact Study - 123 Highway 47, Uxbridge, Ontario Urbanway Development Management Inc. Cambium Reference: 17666-001



Appendix - Avifauna Observations

Common name	Scientific name	Station	Breeding Code	COSEWIC	SARO	S-Rank	Date
American Crow	Corvus brachyrhynchos	4	Р	0	0	S5B	2023-06-14
American Goldfinch	Spinus tristis	1	Т	0	0	S5B	2023-06-14
American Goldfinch	Spinus tristis	2	S	0	0	S5B	2023-06-14
American Redstart	Setophaga ruticilla	4	S	0	0	S5B	2023-06-14
Barn Swallow	Hirundo rustica	1	Р	SC	SC	S4B	2023-06-14
Barn Swallow	Hirundo rustica	2	Т	sc	SC	S4B	2023-06-14
Blue-headed Vireo	Vireo solitarius	2	S	0	0	S5B	2023-06-14
Blue-headed Vireo	Vireo solitarius	4	Т	0	0	S5B	2023-06-14
Chipping Sparrow	Spizella passerina	1	S	0	0	S5B	2023-06-14
Chipping Sparrow	Spizella passerina	3	S	0	0	S5B	2023-06-14
Eastern Wood-pewee	Contopus virens	4	Т	SC	SC	S4B	2023-06-14
Great Crested Flycatcher	Myiarchus crinitus	4	Т	0	0	S4B	2023-06-14
Green Heron	Butorides virescens	3	Х	0	0	S4B	2023-06-14
Horned Lark	Eremophila alpestris	2	Т	0	0	S5B	2023-06-14
Killdeer	Charadrius vociferus	1	A	0	0	S5B,S5N	2023-06-14
Ovenbird	Seiurus aurocapilla	4	S	0	0	S4B	2023-06-14
Red-eyed Vireo	Vireo olivaceus	2	Т	0	0	S5B	2023-06-14
Red-eyed Vireo	Vireo olivaceus	3	S	0	0	S5B	2023-06-14
Red-eyed Vireo	Vireo olivaceus	4	S	0	0	S5B	2023-06-14
Red-winged Blackbird	Agelaius phoeniceus	2	S	0	0	S4	2023-06-14
Song Sparrow	Melospiza melodia	1	Т	0	0	S5B	2023-06-14
Song Sparrow	Melospiza melodia	2	Т	0	0	S5B	2023-06-14
Song Sparrow	Melospiza melodia	3	Т	0	0	S5B	2023-06-14
Warbling Vireo	Vireo gilvus	4	S	0	0	S5B	2023-06-14



code	Description
×	Species observed during its breeding season, but NOT in suitable nesting habitat (no breeding evidence found). Note that this code is rarely used as birds tend to occupy nesting habitat during the breeding season. Do not use for species known to be migrants.
т	Species observed in suitable nesting Habitat during its breeding season.
s	Singing male or adult producing other sounds associated with breeding (e.g., calls or drumming) in suitable nesting habitat during the species' breeding season.
Μ	Multiple singing/calling/drumming individuals (7 or more) heard during one visit to a single square and in suitable nesting habitat during the species' breeding season. Use with caution to avoid counting migrants.
Р	P air observed in suitable nesting habitat during the species' breeding season.
-	Presumed Territory based on the presence of an adult bird (usually singing, but not necessanly so), in the same suitable nesting habitat patch on at least two visits, one week or more apart, during the species' breeding season. Use discretion when using this code. This not to be used for colonial birds, or species that might birage or loaf a long discretion.
-	Counter of the providence of t
>	Bird Visiting a probable nest site in suitable nesting habitat during the species' breeding season.
A	Agitated behavior or alarm calls of an adult in suitable nesting habitat during the species' breeding season.
œ	Brood patch or cloacal protuberance on an adult in suitable nesting habitat during the species' breeding season.
z	Nest-building by wrens or nest hole excavation by woodpeckers (both may build dummy or roosting nests so nest- building alone is not enough to confirm breeding).
NB	Nest building, including the carrying of nesting material, by all species except wrens and woodpeckers.
DD	Distraction Display, injury-feigning, or other displays attempting to draw attention a way from a nest or young.
N	E mpty Nest Used or identifiable eggshells from earlier in the same nesting season.
FΥ	Recently Fledged Young (nidicolous species – whose young are raised in a nest) or downy young (nidifugous species – whose young leave the nest soon after hatching) incapable of sustained flight.
AE	Adult Entering, occupying, or leaving a nest site (visible or not) or whose behavior suggests the presence of an occupied nest.
٢S	Adult carrying a Faecal Sac.
СF	Adult Carrying Food for young.
NE	Nest containing eggs

Nest with Young (seen or heard)

ž

Notes: COSEWIC - Committee on the Status of Endangered Wildlife in Canada SARO - Species at Risk in Ontario S-Rank - Provincial rank used by the Natural Heritage Inforamation Centre to prioritize protection efforts

SC - Special Concern

THR - Threatened END - Endangered

NAR - Not at risk

S1 - Extremety rare in Ontario

S2 - Very rare in Ontario

S3 - Rare to uncommon in Ontario

S4 - Considered to be common in Ontario
 S5 - Species is widespread in Ontario

SNA - Not Applicable (typically introduced species)

SU - Status is uncertain due to insufficient information

";" - Indicates uncertainty in classification due to lack of information



Appendix G Significant Wildlife Habitat Assessment



APPENDIX: Significant Wildlife Habitat - Ecoregion 6E

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes
Seasonal Concentration Areas of Animals Waterfowl Stopover and Staging Areas (Terrestrial)	Ducks	Cultural Ecosites: CUM1, CUT1	Fields that flood during spring (mid- March to May).	N	N/A
Waterfowl Stopover and Staging Area (Aquatic)	Ducks, Geese	Marshes, Swamps, Shallow Water Ecosites: MAS1,MAS2, MAS3, SAS1 SAM1, SAF1, SWD1 to SWD7,	Ponds, marshes, lakes, bays, coastal inlets, and watercourses. Sewage treatment ponds and storm water ponds not SWH Reservoir managed as a large wetland or pond/lake qualifies.	N	N/A
Shorebird Migratory Stopover Area	Shorebirds	Beaches, Dunes, Meadow Marshes: BBO1, BBO2, BBS1, BBS2 BBT1, BBT2, SDO1, SDS2, SDT1, MAM1 to MAM5	Shorelines of lakes, rivers and wetlands. Sewage treatment ponds and storm water ponds not SWH.	N	N/A
Raptor Wintering Area	Eagles, Hawks, Owls	Hawks/Owls - Combination of Forest and Cultural Ecosites: FOD, FOM, FOC, CUM, CUT, CUS, CUW Bald Eagle: Forest or swamp close to open water (hunting ground): FOD, FOM, FOC, SWD, SWM, SWC	Raptor wintering sites: >20ha, with a combination of forest and upland. Idle/Fallow/Meadow (>15ha) with adjacent woodlands. Eagle sites: open water, large trees and snags for roosting.	N	N/A
Bat Hibernacula	Big Brown Bat, Tri-coloured Bat	Caves, Crevices: CCR1, CCR2, CCA1, CCA2	Hibernacula may be found in caves, mine shafts, underground foundations and Karsts. Buildings and active mine sites not SWH.	N	N/A
Bat Maternity Colonies	Big Brown Bat, Silver-haired Bat	Deciduous or mixed forests and swamps: FOD, FOM, SWD, SWM	Mature deciduous and mixed forest stands with >10/ha; large trees >25 cm DBH with cavities.	N	Community 2 had a density of 7.3 candiate roost tress/ha and did not meet theProvinical criteria of 10 candiate roost trees/ha.
Turtle Wintering Area	Turtles	SW, MA, OA, SA, FEO, BOO	Free water beneath ice. Soft mud substrate. Permanent water bodies, large wetlands, bogs, fens with adequate DO.	N	N/A
Reptile Hibernaculum	Snakes	Habitat may be found in any ecosite other than very wet ones. Five-lined Skink: FOD and FOM, FOC1, FOC3	Below frost line in burrows, rock crevices, rock piles or slopes, stone fences, abandoned stone foundations. Conifer or shrub swamps/swales, poor fens, depressions in bedrock with accumulations of sphagnum moss or sedge hummock ground cover. Skink: mixed forest with rock outcrop openings; granite bedrock with fissures.	N	N/A
Colonially-nesting Bird Breeding Habitat (Bank and Cliff)	Cliff Swallow, Northern Rough- winged Swallow	Eroding banks, sandy hills/piles, burrow pits, steep slopes, cliff faces, bridge abutments, silos, barns. CUM1, CUT1, CUS1, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1	Exposed soil banks, not a licensed/permitted aggregate area. Does not include man-made structures (bridges or buildings), or recently (2 yrs) disturbed soil areas (berms, embankments, soil/aggregate stockoiles).	N	N/A
Colonially-nesting Bird Breeding Habitat (Tree/Shrubs)	Great Blue Heron, Black-crowned Night Heron, Great Egret, Green Heron	SWM2, SWM3, SWM5, SWM6, SWD1 to SWD7, FET1	Nests in live or dead standing trees in wetlands, lakes, islands and peninsulas. Shrubs and emergents may be used. Nests in trees are 11 to 15 m from ground, near top of the tree.	N	N/A
Colonially-nesting Bird Breeding Habitat (Ground)	Herring Gull, Great Black-backed Gull, Little Gull, Ring-billed Gull, Common Tern, Caspian Tern, Brewer's Blackbird	river. Close to watercourses in open fields or pastures with	Gulls and terns nesting on islands or peninsulas with open water or marshy areas. Brewers Blackbird colonies are found on the ground in low bushes close to streams and irrigation ditches within farmlands.	N	N/A
Migratory Butterfly Stopover Area	Painted Lady, Red Admiral, Special Concern: Monarch	Combination of open and forested ecosites (need one from each). Field: CUM, CUT, CUS Forest: FOC, FOD, FOM, CUP	Minimum of 10 ha, located within 5 km of Lake Ontario. Combination of field and forest, undisturbed sites, with flowering species (preferred nectar plants).	N	N/A
Landbird Migratory Stopover Areas	All migratory songbirds. All migrant raptor species.	FOC, FOM, FOD, SWC, SWM, SWD	Woodlots need to be >10 ha in size and within 5 km of Lake Ontario. If multiple woodlands are located along the shoreline, those Woodlands <2km from Lake Ontario are more significant. Include a variety of habitats; forest, grassland and wetlands.	N	N/A



SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes
Deer Yarding Areas	White-tailed Deer	FOM, FOC, SWM, SWC, CUP2, CUP3, FOD3, CUT	Stratum I: core deer yard - coniferous forest; 60% canopy cover with pine, hemlock, cedar, spruce. Stratum II: mixed or deciduous forest with plenty of browse available, may include agricultural areas.	N	Not mapped on Site.



SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes
Deer Wintering Congregation Areas	White-tailed Deer	FOC, FOM, FOD, SWC, SWM, SWD	When movement is not constrained by snow depth (20cm) Woodlots > 100 ha and used annually.	N	Not mapped on Site.
Rare Vegetation Communities	-	_	-		
Cliffs and Talus Slopes		TAO, TAS, CLO, CLS, TAT, CLT	Cliff: near vertical bedrock >3m in height; Talus Slope: coarse rock rubble at the base of a cliff	N	N/A
Sand Barren		S801, S851, S8T1	Sand Barrens >0.5 ha. Vegetation can vary from patchy and barren to continuous meadow, thicket-like, or thee covered (less than 60%). Less than 50% vegetation cover are exotic species.	N	N/A
Alvar	Indicator species: Corex crawei, Panicum philadelphicum, Eleocharis compressa, Scutellaria parvula, Trichastema brachiatum, Loggerhead Shrike	ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2	Alvar >0.5 ha. Level, mostly unfractured calcareous bedrock with mosaic or rock pavements and bedrock overlain with thin veneer of soil. Vegetation cover varies from patchy to barren with <50% tree cover.	N	N/A
Old Growth Forest		FOD, FOC, FOM, SWD, SWC, SWM	Woodland areas 30 ha or greater or with at least 10 ha interior habitat assuming 100 m buffer at edge of forest.	N	N/A
Savannah		TPS1, TPS2, TPW1, TPW2, CUS2	No minimum size; A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60% with less than 50% cover of exotic species. Remnant sites (railway right-of-ways) are not SWH.	N	N/A
Tallgrass Prairie		TP01, TP02	No minimum size; An open Tallgrass Prairie habitat has < 25% tree cover. Less than 50% cover of exotic species. Remnant sites (railway right-of-ways) are not SWH.	N	N/A
Other Rare Vegetation Communities		Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps. Review Appendix M	Ŷ	Butternut present in Community 2.
Specialized Habitat for Wildlife	1			I	
Waterfowl Nesting Area	Ducks	Upland habitats adjacent to: MAS1 to MAS3, SAS1, SAM1, SAF1, MAM1 to MAM6, SWT1, SWT2, SWD1 to SWD4		N	N/A
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	Osprey, Bald Eagle	FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas	Nesting areas are associated with waterbodies along forested shorelines, islands, or on structures over water.	N	N/A
Woodland Raptor Nesting Habitat	Northern Goshawk, Cooper's Hawk, Sharp-shinned Hawk, Red- shouldered Hawk, Barred Owl, Broad-winged Hawk	CUP3	Natural or conifer plantation woodland/forest stands >30 ha with > 10 ha interior habitat. Stick nests.	N	Stick nest observed in Community 2 is abandoned and does not have enough interior habitat.
Turtle Nesting Areas	Midland Painted Turtle, Snapping Turtle, Northern Map Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100m) or within: MAS1 to MAS3, SAS1, SAM1, SAF1, BOO1	Nest sites close to water, within open sunny areas with soil suitable for digging. Sand and gravel beaches. Nesting areas on sides of roads are not SWH.	N	N/A
Seeps and Springs	Wild Turkey, Ruffed Grouse, Spruce Grouse, White-tailed Deer, Salamander spp.	Seeps/Springs are areas where ground water comes to the surface.	Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream/river system.	N	N/A
Amphibian Breeding Habitat (Woodland)	Woodland Frogs and Salamanders	FOC, FOM, FOD, SWC, SWM, SWD	Wetland, pond or woodland pool of >500 m ² within or adjacent (within 120m) to wooded areas (no min. size). Woodlands with permanent ponds or those containing water until mid-July are preferred.	N	N/A
Amphibian Breeding Habitat (Wetlands)	Toads, Frogs, and Salamanders	SW, MA, FE, BO, OA and SA. Typically isolated (>120m) from woodland ecosites, however larger wetlands may be adjacent to woodlands.	Wetlands >500m ² isolated from woodland ecosites with high species diversity. Permanent water bodies with abundant vegetation for bullfrogs.	N	N/A



SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes
Woodland Area-Sensitive Bird Breeding Habitat	Birds: Yellow-bellied Sapsucker Red-breasted Nuthatch, Veery, Blue-headed Vireo, Northern Parula, Black-throated Green Warbler, Blackburnian Warbler, Black-throated Blue Warbler, Ovenbird, Scarlet Tanager, Winter Wren, <u>Special Concern:</u> Cerulean Warbler Canada Warbler	FOC, FOM, FOD, SWC, SWM, SWD	Large mature (>60 years) forest stands or woodlots > 30 ha. Interior forest habitat of >200 m from forest edge.	N	Indicator species not observed and not enough interior habitat.
Habitat of Species of Conservation Concern					
Marsh Bird Breeding Habitat	American Bittern, Virginia Rail, Sora, Common Moorhen, American Coot, Pied-billed Grebe, Marsh Wren, Sedge Wren, Common Loon, Sandhill Crane, Green Heron, Trumpeter Swan	MAM1 to MAM6, SA51, SAM1, SAF1, FEO1, BOO1 For Green Heron: SW, MA and CUM1 sites.	Wetlands with shallow water and emergent aquatic vegetation.	N	N/A
Open Country Bird Breeding Habitat	Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, Northern Harrier, Savannah Sparrow, Short-eared Owl	CUM1, CUM2	Grassland/meadow >30 ha. Not being actively used for farming. Habitat established for 5 years or more.	N	N/A
Shrub/Early Successional Bird Breeding Habitat	Brown Thrasher, Clay-coloured Sparrow, Field Sparrow, Black- billed Cuckoo, Eastern Towhee, Willow Flycatcher, Yellow-breasted Chat, Golden-winged Warbler	CUT1, CUT2, CUS1, CUS2, CUW1, CUW2	Large field areas succeeding to shrub and thicket habitats > 10 ha. Areas not actively used for farming in the last 5 years.	N	N/A
Terrestrial Crayfish	Chimney or Digger Crayfish; (Fallicambarus fodiens) Devil Crayfish or Meadow Crayfish; (Cambarus Diogenes)	MAM1 to MAM6, MAS1 to MAS3, SWD, SWT, SWM, CUM1 sites with inclusions of the aforementioned.	Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish	N	N/A
Special Concern and Rare Wildlife Species	Any species of concern or rare wildlife species (S1-S3, SH) plant and animal.	Any ELC code.	Presence of species of concern or rare wildlife species identified within 1 or 10 km grid (NHIC).	Y	See section 4.10 for more information.