GEI Consultants

Environmental Impact Study

7140 Hurontario Street

Mississauga, Ontario

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Statement of Conditions

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1.0 INTRODUCTION

1.1 Project Overview and Subject Lands

GEI Consultants Canada Ltd. (GEI) was retained by De Zen Realty Company Limited (De Zen) to complete an Environmental Impact Study (EIS) for a proposed development located at 7140 Hurontario Street in Mississauga, Ontario (herein referred to as the Subject Lands). The lands are described as Part of Lots 11 & 12, Concession 1, West of Hurontario Street. The Subject Lands are generally located south of Highway 407, east of Fletchers Creek, west of Hurontario Street and north of Derry Road (**Figure 1**, **Appendix A**).

The Subject Lands consist primarily of agricultural lands with a swale, remnant farm pond and a tributary to Fletchers Creek bisecting the lands, and with Fletchers Creek and the associated valley generally forming the southern and western boundaries of the Subject Lands. A portion of the Subject Lands east of the tributary of Fletchers Creek has historically been agricultural in nature but is currently being used for the Illumi Toronto lightshow.

The proposed development will be implemented in two phases. Phase 1 will see development on the east side of the Subject Lands (east of the Tributary of Fletchers Creek), and Phase 2 will be developed on the west side of the Tributary. A concept plan has been prepared to demonstrate feasibility of the development when taking into consideration the natural heritage and other constraints on the property.

The client received comments from Credit Valley Conservation (CVC) on February 28, 2012 indicating that a formal EIS was required to address development on these lands. Savanta (now GEI) submitted an EIS in March 2014 (Savanta 2014) to address CVC's comments. CVC issued a second round of comments on August 18, 2014 and a revised EIS was prepared and submitted in February 2018 (Savanta 2018) to address those CVC comments. CVC issued a third round of comments on July 26, 2018 and follow-up comments on May 5, 2020. This current revision to the EIS addresses design changes in response to agency comments and policy changes since the 2018 version of the EIS was submitted.

1.2 Natural Heritage Planning Considerations

In addition to an assessment of natural heritage features and functions of the Subject Lands, there are several legislation and policy areas that must be examined as preliminary layers of constraint to development proposals. The following municipal and regulatory agencies and relevant items of legislation and policy have been considered in the planning context of the application.

Due to the length of time this proposed development has been in the planning process, there have been changes to planning policies, responsibilities and jurisdiction at the provincial and municipal levels. This current version of the EIS has been prepared to address the most-recent relevant planning policy requirements related to natural heritage.

1.2.1 Provincial Planning Statement (2024)

The Province of Ontario's updated Provincial Planning Statement (PPS; MMAH 2024) came into effect on October 20, 2024. This document replaces the previous Provincial Policy Statement (2020) and *A Place to Grow: Growth Plan for the Greater Golden Horseshoe (*2020*).* Many of the natural heritage

considerations remain the same as the previous 2020 version of the Provincial Policy Statement. The PPS (MMAH 2024) provides direction on matters of provincial interest related to land use planning and development. It "…supports a comprehensive, integrated and long-term approach to planning…" The PPS is to be read in its entirety and land use planners and decision-makers need to consider all relevant policies and how they work together.

This report addresses those policies that are specific to natural heritage (Section 4.1) with some reference to other policies with relevance to natural heritage and impact assessment considerations and areas of overlap.

Eight types of natural heritage features and areas are identified in the PPS, as follows:

- Significant wetlands;
- Significant coastal wetlands and other coastal wetalnds;
- Significant woodlands;
- Significant valleylands;
- Significant wildlife habitat (SWH);
- Fish habitat;
- Habitat of endangered and threatened species; and
- Significant Areas of Natural and Scientific Interest (ANSI).

The PPS indicates that development and site alteration shall not be permitted in significant wetlands or significant coastal wetlands. The PPS indicates that development and site alteration may be permitted on lands adjacent to these natural heritage features provided it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

The PPS indicates that development and site alteration shall not be permitted in significant woodlands, significant valleylands, SWH or significant ANSIs or on lands adjacent to these natural heritage features and areas, unless it is demonstrated that there will be no negative impacts on the natural features or areas or their ecological functions.

The PPS indicates that development and site alteration shall not be permitted in the habitat of endangered and threatened species or in fish habitat, except in accordance with provincial and federal requirements.

The PPS indicates that development and site alteration may be permitted on lands adjacent to the identified natural features and areas provided it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

1.2.2 Region of Peel

Bill 185, the Cutting Red Tape to Build More Homes Act, 2024, received Royal Assent on June 6, 2024. Included in this omnibus bill are Planning Act changes first introduced through Bill 23, the More Homes Built Faster Act, 2022, which remove planning policy and approval responsibilities from several upper-tier municipalities, including Peel Region, as of July 1, 2024. Since July 1, 2024, the Region of Peel Official Plan (RPOP) has become a plan of the local municipalities (including the City of Mississauga), and they will be required to implement and ensure applications conform to the RPOP.

Schedule E-1 (Regional Structure) of the RPOPdepicts the Subject Lands as being a part of the Urban System and Regional Intensification Corridor (Conceptual). The Regional Intensification Corridor runs parallel to Hurontario Street and covers approximately half of the Subject Lands. As discussed in Section 5.3.3 of the PROP, Regional Intensification Corridors are "major locations of intensification that include compact forms of urban development and redevelopment providing a range and mix of housing, employment, recreation, entertainment, civic, cultural and other activities for Peel residents".

As identified in Schedule C-2 of the RPOP(2022), the valley and naturally vegetated area associated with Fletchers Creek are designated as Core Areas of the Greenlands System. Core Areas of the Greenland System contain "ecological features, forms and/or functions that provide favourable conditions for uninterrupted natural systems and maximum biodiversity" (Peel Region 2022).

The RPOP (2022) implements the PPS's natural heritage system policies by providing policy direction for the protection of natural heritage and water resource features through the Greenlands System's Core Areas, Natural Areas and Corridors (NAC) and Potential Natural Areas and Corridors (PNAC) policy framework. NHFs and areas identified within this framework include:

- ANSIs;
- Environmentally Sensitive or Significant Areas;
- Escarpment Natural Areas;
- Escarpment Protection Areas;
- Fish and wildlife habitat;
- Habitats of threatened and endangered species;
- Wetlands;
- Woodlands;
- Valley and Stream Corridors;
- Shorelines;
- Natural Lakes;
- Ground water recharge and discharge areas;
- Open space portions of the Parkway Belt West Plan; and
- Other natural features and functional areas.

Section 2.3 of the RPOP(2022) contains natural heritage policies including criteria for determining Core Areas, NAC and PNAC and policies regarding their protection.

Section 2.4 of the RPOP(2022) deals with the policies applied to natural hazards. Specific sections deal with Ravine, Valley and Stream Corridors (Section 2.4.4) and Riverine Floodplains (Section 2.4.5).

The above-noted sections of the RPOP(particularly those related to natural heritage) have been considered in the preparation of this EIS.

1.2.3 City of Mississauga

Schedule 1 (Urban System) of the City of Mississauga Official Plan (MOP; 2024 Office Consolidation) identifies the Subject Lands as primarily being an Employment Area, with the Fletchers Creek corridor and a portion of the Fletchers Creek tributary on the Subject Lands being part of the Green System.

Schedule 10 (Land Use Designations) identifies Business Employment Areas and Greenlands on the Subject Lands. The majority of the Subject Lands are designated as Business Employment Areas, with the Fletchers Creek corridor identified as Greenlands and the Fletchers Creek tributary identified as Natural Hazard.

Schedule 3 (Natural System) depicts the Subject Lands containing Significant Natural Areas and Natural Green Spaces, which corresponds with the valley associated with Fletchers Creek and the Fletchers Creek tributary. No other components of the NHS are identified on the Subject Lands in Schedule 3. Directly south of the Subject Lands, a Special Management Area is depicted.

Schedule 1a (Urban System – Green System) similarly illustrates the Fletchers Creek corridor, including the Tributary to Fletchers Creek, which traverses the Subject Lands from north to south, as being a part of the Green System. Additionally, a diagonal strip of land crossing the northeast portion of the Subject Lands is depicted; this corresponds with the hydro corridor. Presently, this strip of land is used for agricultural purposes.

The City of Mississauga's Natural Areas Survey (2014) Figure 1 (Natural Areas Framework) illustrates the Subject Lands containing a portion of natural area MV15. This corresponds with the Fletchers Creek valleyland, which is found on the western and southern portions of the Subject Lands.

The MOP indicates that the City's Green System consists of the Natural Heritage System, Natural Hazard Lands, Urban Forest and Parks and Open Spaces. The Natural Heritage System and Natural Hazard Lands, as defined in the MOP, include the following components:

- Natural Heritage System;
  - Significant Natural Areas;
    - Provincially or regionally significant life science ANSIs;
    - Environmentally sensitive or significant areas;
    - Habitat of endangered or threatened species;
    - Fish habitat;
    - SWH;
    - Significant woodlands;
    - Significant wetlands;
      - Provincially Significant Wetlands (PSWs)
      - Coastal wetlands; and
      - Other wetlands >0.5 ha; and
    - Significant valleylands;
  - Natural Green Spaces;
    - Woodlands >0.5 ha that don't meet criteria to be significant;
    - Wetlands that do not meet criteria to be significant;
    - Watercourses that do not fulfill requirements to be a significant valleyland; and
    - All natural areas >0.5 ha that have vegetation that is uncommon in Mississauga;
  - Special Management Areas;
    - Lands adjacent to or near Significant Natural Areas or Natural Green Spaces that will be managed or restored to enhance and support the adjacent areas
  - Residential Woodlands;
  - Linkages;

- Natural Hazard Lands;
  - Valleylands;
  - Floodplain;
  - Lake Ontario Shoreline.

Policies 6.3.7 and 6.3.8 of the MOP indicate that buffers to provide physical separation between development from natural heritage feature limits and natural hazard limits are required and shall be determined on a site-specific basis through an EIS.

Section 6.3.11 of the MOP (2024) indicates that the exact limit of each component of the City's NHS is to be determined through an EIS (or other similar study) and that minor refinements to the NHS limits may occur without an amendment to the MOP provided they are supported by an EIS or other similar study and accepted by the City.

Section 6 of the MOP identifies development restrictions for natural areas and natural hazards. Specifically, Policy 6.3.24 outlines the protections and associated management approaches for the City's Natural Heritage System. Policy 6.3.27 indicates that development and site alteration "within or adjacent to a Significant Natural Area will not be permitted unless all reasonable alternatives have been considered and any negative impacts minimized". Policy 6.3.32 indicates that "development and site alteration will not be permitted within or adjacent to Natural Green Spaces, Linkages and Special Management Areas unless it has been demonstrated that there will be no negative impact to the natural heritage features and their ecological functions and opportunities for their protection, restoration, enhancement and expansion have been identified".

Policy 6.3.47 indicates that "development and site alteration will not be permitted within erosion hazards associated with valleyland and watercourse features" and Policy 6.3.48 indicates that development adjacent to valleylands and watercousres may need to be supported by slope stability and erosion studies. Policy 6.3.51 indicates that "development and site alteration is generally prohibited on lands subject to flooding".

Policy 6.3.33 of the MOP indicates that EISs will need to

- Delineate the area to be analyzed;
- Describe existing physical conditions;
- Identify environmental opportunities and constraints;
- Evaluate the ecological sensitivity of the area; and
- Outline measures to protect, enhance, restorat and expand the NHS and associated ecological functions.

This EIS has been prepared to address the EIS requirements of the MOP. With respect to MOP policy 6.3.11, this EIS determines the exact limits of NHS components (e.g., through on-the-ground assessment such as field staking or desktop analysis) and proposes the NHS boundary accordingly. While the NHS has refined the NHS boundary, these refinements are considered to be minor relative to the existing Natural System mapping in Schedule 3 of the MOP.

1.2.4 Credit Valley Conservation

Within the Credit River watershed, Credit Valley Conservation (CVC) administers Ontario Regulation 41/24 (Prohibited Activities, Exemptions and Permits) under the *Conservation Authorities Act*. Authorizations are required from CVC for any development within their regulated areas which include watercourses, flooding and erosion hazards and wetlands as well as regulated allowances adjacent to these features. In particular, 30 m setbacks from regulated wetlands are required as per O. Reg. 41/24; while this does not determine developable limits, permits are required for any site alteration within this setback and impacts to natural hazards must be considered.

CVC has also prepared an Ecosystem Offsetting Guideline (2020) that provides compensation guidance for the removal and offsetting of natural heritage features to ensure that critical ecosystem functions and services are not negatively impacted by development and can instead be restored or enhanced through the development process. This guideline can be used to help guide municipalities to make decisions related to offsetting during the development process.

CVC regulatory requirements and policies have been considered during the preparation of the EIS.

1.2.5 Provincial Endangered Species Act (2007)

The provincial *Endangered Species Act, 2007* (ESA 2007) was developed to:

- Identify species at risk, based upon best available science;
- Protect species at risk and their habitats and to promote the recovery of species at risk; and
- Promote stewardship activities that would support those protection and recovery efforts.

The ESA 2007 protects all threatened, endangered and extirpated species listed on the Species at Risk in Ontario (SARO) list. These species are legally protected from harm or harassment and their associated habitats are legally protected from damage or destruction, as defined under the ESA 2007.

GEI requested information from the Ontario Ministry of Natural Resources and Forestry (MNRF) on natural heritage features and element occurrences occurring on or adjacent to the Subject Lands. The MNRF responded on March 23, 2012 indicating that they have records of Redside Dace (*Clinostomus elongatus*) for the area. There were no natural heritage features recorded for the area. Further communication with the MNRF in regard to Redside Dace habitat has been conducted. An MNRF representative was present at a site visit on July 6, 2012. During that site visit, MNRF indicated that as per Section 29.1 of Ontario Regulation 242/08 under the ESA 2007, if the bankfull width of Fletchers Creek downstream of the confluence with the headwater Tributary is greater than 7.5 m, then the watercourse will not meet the definition of "Redside Dace Contributing Habitat" under the ESA 2007. As discussed further in this report, the bankfull width does not meet this criteria, so the Tributary is not considered to be regulated Redside Dace habitat.

1.2.6 Federal 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".

The *Fisheries Act* prohibits the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat (HADD). A HADD 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" (DFO 2019a).

Some projects may be eligible for exemption from the DFO review process, as specified under Step 3 of the DFO Fish and Fish Habitat Protection Program review process (DFO 2019b; e.g., clear-span bridges and bridge maintenance projects where DFO mitigation measures are applied, artificial waterbodies with no hydrological connection to occupied fish habitat, and projects that follow the Standards and Codes of Practice defined by DFO). All other projects or activities that have the potential to impact fish or fish habitat should be submitted to DFO through the "Request for Review" process. DFO will review the proposed project to determine whether there is potential to (1) impact an aquatic species at risk, (2) cause the death of fish or (3) result in HADD of fish habitat. The death of fish by means other than fishing or a HADD of fish habitat can be authorized by DFO under the Fisheries Act.

1.3 Purpose of the Study

The EIS is a requirement of the municipal planning process and is intended to fulfill the policies of the City of Mississauga and Region of Peel Official Plans and the requirements of CVC.

The study components have included:

- A review of existing background information, policies and legislation applicable to the Subject Lands in its regional context;
- A field review and description of the natural environmental features and functions on and immediately adjacent to the Subject Lands;
- An evaluation of the significance of the natural environmental features relative to relevant policies and guidelines;
- A determination of constraints to development that subsequently identifies a potential development envelope to accommodate development;
- A description of the proposed undertaking and development proposal;
- Identification of the potential for direct and indirect impacts of development approaches on natural features;
- Recommendations for mitigation to avoid or minimize impacts; and
- Identification of offsetting to address identified natural heritage feature impacts.

1.4 Agency Consultation

Extensive agency consultation with respect to natural heritage features has occurred over the history of this development application. Communication items and dates include:

- Agency (City, CVC) top-of-bank staking – June 10, 2010;
- CVC and Parish Geomorphic readjust some top-of-bank stakes – December 16, 2010;
- CVC and Parish Geomorphic readjust some top-of-bank stakes – March 24, 2011;
- Submission of De Zen: Fletchers Creek Hazard Assessement to CVC by Parish Geomorphic – August 29, 2011;
- CVC letter to Lethbridge Planning providing comments on Parish report – February 28, 2012;

- Savanta letter to MNR Re: SAR – March 6, 2012;
- MNR letter to Savanta Re: SAR – March 23, 2012;
- Agency (MNR, CVC, City) thicket dripline and wetland staking – July 6, 2012;
- Meeting with CVC – August 22, 2012;
- Savanta submission of Information Gathering Form (IGF) to MNR – November 26, 2012;
- MNR letter to Savanta Re: DeZen Industrial Lands Letter of Advice AU-LOA-022013 – April 3, 2013;
- Savanta email to MNR for clarification of LOA – April 3, 2013;
- MNR email to Savanta providing clarification – April 4, 2013;
- Savanta and MNRF email correspondence from September 17, 2017 to January 29, 2018 confirming that a revised LOA will be required at the detailed design stage;
- City and CVC comments issued on July 26, 2018;
- Agency (CVC, City of Mississauga) site visit on May 8, 2019 to review potential SWM outlet locations in the Fletchers Creek valley;
- Discussions in June 2019 with CVC regarding the presence of Terrestrial Crayfish on the Subject Lands;
- Discussions with the Ministry of Environment, Conservation and Parks (MECP) regarding proposed changes to the stormwater management plan (i.e., inclusion of an outlet to Fletchers Creek) and associated impacts on Redside Dace (September 2019), and submission of an Information Gathering Form (IGF) to MECP on October 31, 2019;
- A meeting with the City of Mississauga and CVC on February 27, 2020;
- Submission of a draft revised site plan to CVC for review and comment on April 22, 2020.
- EIS resubmission after revisions in response to comments to CVC in June, 2020.
- Re-engagment of discussion with CVC about development application on October 24, 2023.
- Re-engagment of discussion with City of Mississauaga about development application on August 27, 2024.
- Redesign was shared with CVC and City of Mississauga for comment on August 28, 2024.

1.5 Subject Lands Evaluation

This work plan was developed to achieve the study components for the EIS and was based on the following:

- A review of background information including previous studies, fieldwork, existing policies and legislation;
- Site walk with agency staff to stake wetland and thicket dripline (completed on July 6, 2012);
- Site visits conducted by Savanta/GEI to determine and investigate the terrestrial and aquatic features (details provided in section 2.4);
- Site visits conducted by Parish Geomorphic, Geomorphic Solutions and GEO Morphix Ltd. to determine and investigate fluvial geomorphic features and functions and other hazards. Details are provided in section 2.3 as well as under separate cover in the DeZen: Fletchers Creek Hazard Assessment (Parish Geomorphic 2011), Detailed Geomorphic Assessment – Fletchers Creek (Geomorphic Solutions 2012) and Tributary of Fletchers Creek Erosion Hazard Assessment (GEO Morphix 2019); and
- Site visits conducted by Soil Engineers Ltd. for the preparation of the Geotechnical Investigation for Slope Stability Study (2008, revised 2016).

The Subject Lands evaluation and subsequently the EIS, are intended to guide the implementation of the proposed development, afford protection to appropriate natural heritage features and satisfy the requirements of CVC, City of Mississauga, and MECP. In addition, the EIS is required to identify any impacts to natural features and determine appropriate remedial measures to offset such impacts (i.e., restoration or enhancement of features, functions and linkages) and to meet municipal/agency policies.

2.0 EXISTING CONDITIONS

2.1 Physiography and Soils

A general description of the physiography of the site is included in Parish Geomorphic's report (2011). Generally, the site is located on the Peel Plain, a physiographic unit characterized as a level to undulating area consisting of thin, heavy-textured, clayey silt soils and fine-textured glaciolacustrine deposits.

Detailed descriptions of the subsurface conditions are provided in the Soil Engineers Ltd. report (2008). The site is predominantly underlain by a stratum of soft to hard, generally hard silty clay till. A layer of very dense sandy silt till was found underlying the silty clay till in two borehole locations on either side of the Tributary to Fletchers Creek (BH 1 and BH2). The soft to stiff soils are restricted to the surficial weathered zone of clay till, extending to a depth of approximately 1 m below the prevailing surface.

2.2 Hydrogeology

Hydrogeological information such as general groundwater conditions has been collected in support of the Geotechnical Investigation for Slope Stability Study (Soil Engineers Ltd. 2008). All four of the boreholes remained dry during completion of the investigation, although some minor groundwater seepage was detected from the sandy silt layer at a depth of approximately 7.6 m below the prevailing ground surface. Soil colour observations imply that the permanent groundwater regime exists at a depth of approximately 4 m or an elevation of 195 m. It is noted that this level is subject to seasonal fluctuations. Due to low permeability of the clay till, the overall yield is suspected to be small and limited.

2.3 Natural Hazard Assessment

The natural hazard assessment was conducted by Parish Geomorphic in their report DeZen: Fletchers Creek Hazard Assessment (2011). Details of the study are found under separate cover. The resulting meanderbelt and floodline mapping are shown in **Figure 4** (**Appendix A**).

The physical top of bank of the Fletchers Creek valley was staked with CVC on October 6, 2010 and March 24, 2011, as shown on **Figure 5** (**Appendix A**).

The slope stability analysis was conducted by Soil Engineers Ltd. in their Geotechnical Investigation for Slope Stability Study (2008, updated in 2020). Details of the study are found under separate cover. The long-term stable slope was updated in 2020 based on the results of a toe-erosion setback suggested by GEO Morphix Ltd. The resulting long-term stable slope limit is shown in **Figure 5** (**Appendix A**).

2.4 Biophysical Inventory

Aquatic and terrestrial surveys on the Subject Lands were completed by Savanta, primarily in 2012, with some updates in 2019, to assess the natural features on site and to investigate and compare the features documented in agency and government records, and whether there are any additional natural features present on site, including any potential Species at Risk (SAR) habitat.

2.4.1 Vegetation Communities and Vascular Plants

Botanical investigations were carried out on June 21 and July 23, 2012. Following satellite image interpretation, preliminary mapping of potential vegetation types was created. During the field surveys, the types were confirmed, sampled and revised, if necessary, using the sampling protocol of the Ecosystem Land Classification (ELC) for Southern Ontario (Lee at al. 1998). Species names generally follow the nomenclature of Flora Ontario (University of Guelph 2005; FOIBIS website). The ELC polygons were augmented, where required, using the staking information obtained through the July 6, 2012, staking exercise.

Vegetation Communities

The Subject Lands are almost entirely dominated by an agricultural field (and the Illumi lightshow area), with semi-natural cover types (i.e., primarily cultural thickets with one small cultural woodland) in the peripheral areas along the west and south boundary. A narrow strip of cattail marsh follows the tributary of Fletchers Creek in the centre of the Subject Lands (more details on this feature are provided in section 2.4.6).

The ELC types occurring on the Subject Lands are described in **Table 4** (**Appendix B**) and shown in **Figure 2** (**Appendix A**).

Vascular Plants

One hundred species of vascular plants were recorded from the Subject Lands. Of that number, 42 (or 42%) species are native and 58 (or 58%) species are exotic. The very high percentage of non-native species is a reflection of the highly disturbed character of the vegetation.

Most of the native species, 38 (or 93%), are ranked S5 (Secure – common, widespread and abundant in Ontario), with three species (7%) ranked S4 (Apparently Secure – uncommon, but not rare in Ontario):

- Black walnut (*Juglans nigra*) – occasional at the edge of buckthorn thicket;
- Small-flowered evening-primrose (*Oenothera parviflora*) – an "S4?" species, occasional in the cultural meadow; and
- Bushy knotweed (*Polygonum ramosissimum*) – occurring as a weed, scattered within the old-field meadow.

No nationally or provincially rare or endangered species were recorded from the Subject Lands. A full species list is included in **Table 2** (**Appendix B**).

2.4.2 Breeding Birds

Breeding bird surveys were conducted on June 16 and July 5, 2012. The surveys were completed according to the protocol set forth in the Ontario Breeding Bird Atlas (Cadman et al. 2001). Four-point count locations (**Figure 3**, **Appendix A**) were used during each survey as well as area searches. Each point-count location was surveyed for birds within 100 m and outside 100 m (each counted separately). Birds were observed for signs of breeding behaviour. Surveys were conducted between 5:00 AM and 10:00 AM on sunny to partially cloudy days with winds of less than 15 km/hr.

Savanta recorded 37 species on the Subject Lands during the two rounds of breeding bird surveys (**Table 3**, **Appendix B**). Of these, nine species were confirmed as breeding on the site, seven species were considered probable breeders, 15 are considered possible breeders, while the remaining six are believed to be non-breeding visitors. Species diversity was highest near PC3 on the south side of the site, and lowest at PC1, on the north side.

Two bird SAR were observed on the Subject Lands: Bobolink (*Dolichonyx oryzivorus*) and Barn Swallow (*Hirundo rustica).* Both species are provincially ranked S4B (Apparently Secure – uncommon, but not rare in Ontario). Bobolink are designated as Threatened in both Ontario and Canada, while Barn Swallow are designated as Special Concern in Ontario and Canada.

During the two rounds of breeding bird surveys, a maximum of six individual Barn Swallows were observed flying above all habitats on the Subject Lands, including fallow fields, cultural meadow at the east end of the plot, a sedge/cattail drainage bisecting the north end, as well as over the wooded riparian area to the south. A sex ratio was not determined but no juvenile birds were observed. All activity was feeding behaviour with birds flying onto and out of the Subject Lands from all directions. Some were flying low over the fields, and others much higher above, feeding, flying off, and returning. No suitable Barn Swallow breeding structures are present on the Subject Lands.

On June 16, 2012, one individual male Bobolink was observed in flight over the fallow field between PC1 and PC2. The bird flew in and sang for a couple minutes high atop a tree at the field edge. While conducting the point count, the bird flew off; no behavior that would confirm successful breeding was observed, as no female or young were detected. For the most part, at the time of the survey, the site was dominated by early successional weeds and little grass cover overall. However, currently, the Subject Lands are actively farmed with row crops.

One other finding of interest included an active Red-tailed Hawk (*Buteo jamaicensis*) nest, containing two young, located on a transmission line tower approximately 50 m northwest of the Subject Lands. The young were seen in the nest on June 16, 2012, while both adults were observed hunting on the Subject Lands.

Bird diversity was greatest along the southwest and southeast sides of the site, where habitat was the most diverse. This was particularly noticeable at PC3 and PC4, where the fallow field is bordered by a shrubby/wooded riparian area and cultural meadow, respectively. PC2 was only slightly less diverse, due to its proximity to a parking lot and newly constructed road.

Through discussions with MNRF, it was confirmed that the Subject Lands are not considered to be protected habitat for Bobolink or Barn Swallow (note: at the time of discussions with MNRF, Barn Swallow was identified as threatened in Ontario; it has since been downgraded to special concern).

2.4.3 Breeding Amphibians

Amphibian surveys were conducted on April 5, May 2, and June 13, 2012. The surveys were completed according to the protocol set forth in the Great Lakes Marsh Monitoring Program (Bird Studies Canada 2004). Surveys were conducted on three nights during the spring, beginning one half hour before dusk and ending before midnight. Surveys were conducted on warm nights with little wind.

Each visit was at least 15 days apart. The first visit should be conducted with a minimum nighttime air temperature of 5^0C, the second visit should have a minimum of 10^0C and the third visit a minimum of 17^0C. Each site was surveyed for three minutes (the length of the survey window was extended to compensate for ambient road noise from the ETR407 and Hurontario Street, as well as airplane traffic from Pearson International Airport) and a three-level call category system was used to identify the calling activity. The call levels are: 1) Individual calls do not overlap and calling individuals can be discreetly counted; 2) Calls of individuals sometimes overlap but number of individuals can still be estimated; 3) Overlap among calls seems continuous (full chorus) and a count estimate is impossible. Anurans were recorded as within the station if they were within 100 m. All other species were recorded as outside the station.

Savanta conducted surveys at two locations on the Subject Lands (**Figure 3**, **Appendix A**). Stations were identified using a preliminary review of aerial photography to determine potential station locations, which were then verified in the field to ensure all areas of potential amphibian breeding were surveyed. Station 1 was oriented around a remnant farm pond on the Tributary of Fletchers Creek and Station 2 was located within the shallow mineral marsh to the north of the remnant farm pond.

The results of the amphibian call surveys are summarized in **Table 1** (**Appendix B**). Two calling amphibian species were heard during amphibian surveys: American Toad (*Bufo americanus*), and Green Frog (*Rana clamitans*). Both species are provincially ranked S5. They were recorded at Station 1 during the second and third survey dates. No calls were heard at Station 1 during the initial survey in April, or during any of the three surveys at Station 2. No species of concern were recorded on the Subject Lands.

2.4.4 Terrestrial Crayfish

Terrestrial crayfish chimneys were observed on the Subject Lands, in association with the Tributary of Fletchers Creek that bisects the property, during a site visit on May 8, 2019. Terrestrial crayfish had not been documented on the property during previous investigations completed prior to that date.

Targeted terrestrial crayfish chimney surveys were completed on the Subject Lands on June 12 and 14, 2019 to confirm the presence, distribution and relative abundance of Terrestrial Crayfish along the tributary. The survey involved walking all areas within and adjacent to (i.e., generally within 30 m) the wetland communities associated with the tributary to locate constructed chimneys. The survey was conducted prior to agricultural activities being completed within the agricultural lands on the property, so visibility was suitable and chimneys had not been disturbed by ploughing or planting. The location of each individual chimney, or cluster of chimneys when they were located in close proximity, was recorded using a GPS. Supplementary information recorded for each chimney included the vegetation community the chimney was constructed in (including the area within a 1-m radius around the chimney), the distance from the chimney to the closest surface water and the number of chimneys present, when the GPS location taken represented a cluster of chimneys.

A total of 2,289 terrestrial crayfish chimneys were observed on and adjacent to the Subject Lands, all in association with the tributary. Chimney locations (i.e., individuals or clusters of chimneys) are shown on **Figure 4** (**Appendix A**). The majority of the observed chimneys (74%) were located within agricultural field areas dominated by bare soils, while 17% were in grassed areas (cultural meadow at the field edge or meadow marsh, although some areas in this category were dominated by bare soil coverage of up to 85% within a 1-m radius of the chimney), 5% were in marsh areas dominated by cattail and 4% were in marsh areas dominated by European Common Reed.

2.4.5 Incidental Wildlife Observations

Incidental wildlife observations were recorded by Savanta/GEI during all of the surveys. Minimal wildlife activity was observed on the Subject Lands. White-tailed Deer tracks were observed adjacent to the woodland and cultural meadow areas.

2.4.6 Aquatic Habitat Assessment

Savanta conducted headwater drainage feature assessments on the Subject Lands on March 23, May 2, May 22, June 7, and July 6, 2012. As noted in earlier versions of this EIS, the evaluation and classification of headwater drainage features relied upon the 2011 version of the CVC/TRCA "Evaluation, Classification, and Management of Headwater Drainage Features" (CVC and TRCA 2011), which was the relevant guidance document at the time the investigations were completed.

Fish habitat classifications from CVC and TRCA (2011) include:

- Permanent Fish Habitat (direct habitat);
- Seasonal Fish Habitat (direct habitat);
- Complex Contributing Habitat (indirect habitat); and
- Simple Contributing Habitat (indirect habitat).

"Permanent Habitat" – includes the presence of direct habitat onsite that would contribute to feeding, breeding and/or migration functions. Further, these functions occur as a result of year-round regional groundwater discharge and/or permanent standing surface water.

"Seasonal Habitat" – (i.e., providing limited direct habitat onsite as a result of seasonally high regional groundwater discharge or seasonally extended contributions from wetlands or other surface storage areas that support intermittent flow conditions, or rarely ephemeral flow conditions). Typically, seasonal habitat will occur within the "mainstem" of the watercourse.

"Contributing Habitat" – (i.e., providing indirect or contributing habitat to downstream reaches) – in these streams, the functions generally increase with flow and/or as flows move downstream with increasing length of channel, or channel density (e.g., extent of contributing area). There are two types of contributing habitat:

"Complex Contributing Habitat" – these features are formed generally as a result of intermittent or ephemeral surface flows and can have marginal sorting of substrates – these are generally well-vegetated features, which can influence flow conveyance/attenuation/storage/infiltration, water quality and sediment, and food (invertebrates). Generally, there are two types: a) defined features with natural bank vegetation consisting of forest, scrubland/thicket or meadow (as defined in the Ontario Stream Assessment Protocol (Stanfield 2018) or ELC); or b) poorly defined features (swales) typically distinguished by hydrophilic vegetation.

"Simple Contributing Habitat" – these are formed generally as a result of ephemeral or (less commonly) intermittent surface flows – these are generally not well-vegetated features that influence flow conveyance, attenuation, storage and infiltration as well as sediment transport. Generally, there are two types: a) defined features characterized by crop cultivation, mowing or no vegetation; or b) poorly defined features (swales) that may contain terrestrial vegetation.

"Not Fish Habitat" – The use of "**Not Fish Habitat**" is appropriate for some reaches. The elements of this category include "The pre-screened drainage feature has been field-verified to confirm that no features and/or functions associated with headwater drainage features is present – generally characterized by no definition or flow, no groundwater seepage or wetland functions, and evidence of cultivation, furrowing, presence of a seasonal crop, lack of natural vegetation and fine textured soils (i.e., clay and/or silt)".

To assist in the evaluation of aquatic habitat quality of the remnant farm pond, two minnow traps were established in the remnant farm pond for a 48-hour set (May 22 to 24, 2012) – no fish were captured. During each survey for the headwater assessment (i.e., through spring/early summer), the remnant farm pond was visually scanned for fish and none were observed. As well, the tributary was walked from the remnant farm pond downstream to its confluence with Fletchers Creek during each site visit to assess for any observations of fish – particular attention was focused on three "pools". No fish were noted on any occasion. On May 22, a staff gauge was installed in the remnant farm pond to monitor declining water levels during the spring and early summer. The level on the staff gauge measured 36 cm on May 22 and gradually declined until early July (the remnant farm pond was "dry" during the agency site visit on July 6, 2012). These measurements document the reliance on surface water contributions to support this remnant farm pond.

The remnant farm pond and Tributary (south of the remnant farm pond; Reach 1) exhibit "intermittent" flow. Based on site characterization, the supporting flows into the remnant farm pond and to downstream reaches of the Tributary are provided by surface water contributions. The following are some observations regarding the form and function of the watercourse:

- The width of the Tributary downstream of the remnant farm pond ranges from 2 m in a shallow area that has been the location of a tractor crossing for many years, to about 8 cm where the Tributary narrows. Water depths ranged from 4 cm in the shallow area to about 15 cm in a pool. During late spring/early summer, the Tributary became dry;
- The Tributary does exhibit "bed and bank" morphology; and
- Substrate conditions are comprised primarily of silts and organic matter.

Classification – based on the above, GEI has identified this tributary as:

- Intermittent flow;
- Fish Habitat – Although it was considered that portions of the lower reach of the Tributary could be classified as "Seasonal (Fish) Habitat", GEI's professional opinion is that the majority of the Tributary, under the majority of flow regimes, would not provide seasonal habitat, and is therefore classified as "Contributing Habitat";
- Aquatic Habitat – A qualitative assessment of benthic invertebrates (i.e., turning of stones and small rocks in pools or observations of beetles/water striders in pools) provided minimal indication of benthic use. GEI therefore classifies the Tributary as "Low" in this category;
- Terrestrial Habitat – The presence of the MAS2-1 (Cattail Mineral Shallow Marsh) within the Tributary and surrounding the remnant farm pond, and the proximity to Fletchers Creek and associated naturally vegetated area and valley, GEI considers the Tributary connection to Fletchers Creek as a "Low to Medium" ranking in this category;
- Overall Classification – "Complex Contributing Habitat"; and
- Management recommendation – "Conservation".

Fletchers Creek adjacent to the Subject Lands provides habitat for Redside Dace (*Clinostomus elongatus*). It is considered to be "occupied" habitat by the MECP (as per the ESA 2007 and associated regulations) and Critical Habitat by DFO.

Discussions with the MNRF indicated that if the bankfull width of Fletchers Creek downstream of the confluence with the headwater tributary is greater than 7.5 m, then the watercourse would not meet the definition of "Redside Dace Contributing Habitat" under the Act (pers. comm. Heaton 2012). The rationale being that when a small watercourse flows into a much larger stream (i.e., greater than 7.5 m bankfull), the significance of this small watercourse to serve as "Contributing Habitat" is diminished. Geomorphic Solutions was retained to obtain detailed bankfull measurements within the portion of Fletchers Creek south of the confluence with the Tributary. The result of their survey is that the bankfull width of Fletchers Creek south of the confluence with the tributary is 8.5 m; therefore, the tributary on the Subject Lands is not considered to be "Redside Dace Contributing Habitat". The tributary and remnant farm pond will be retained with a 15 m buffer on either side (**Figure 5**, **Appendix A**), as per the regulations relating to warmwater fisheries.

The area north of the remnant farm pond (Reach 2) is a broad swale type feature that has no "bed or bank" definition. Based on Savanta's various site observations through the 2012 spring and summer, as well as consideration of aerial photography of these lands over the past decade, we note that the presence of the current MAS2-1 (Cattail Mineral Shallow Marsh) feature upstream from the remnant farm pond was virtually non-existent prior to the construction of the hydro substation (which does not appear in aerial imagery from November 2007 but is present in aerial imagery from September 2009). Once the substation was constructed (with the fairly substantial volume of fill), it appears that the area to the south now tends to collect and retain surface water in a broad, shallow corridor, thus providing the supporting moisture for the establishment of the anthropogenic MAS2-1 (Cattail Mineral Shallow Marsh). With respect to fish habitat, GEI recommends that Reach 2 be classified as contributing habitat.

3.0 ANALYSIS OF ECOLOGICAL AND NATURAL HERITAGE SIGNIFICANCE

The MOP (2024 Consolidation) identifies the natural heritage features that form a component of the City's NHS and Natural Hazard Lands. This includes the following:

- Natural Heritage System:
  - Significant Natural Areas;
    - Provincially or regionally significant life science ANSIs;
    - Environmentally sensitive or significant areas;
    - Habitat of endangered or threatened species;
    - Fish habitat;
    - SWH;
    - Significant woodlands;
    - Significant Wetlands;
      - Provincially Significant Wetlands (PSWs)
      - Coastal wetlands; and
      - Other wetlands >0.5 ha; and
    - Significant valleylands;
  - Natural Green Spaces:
    - Woodlands >0.5 ha that don't meet criteria to be significant;
    - Wetlands that do not meet criteria to be significant;
    - Watercourses that do not fulfill requirements to be a significant valleyland; and
    - All natural areas >0.5 ha that have vegetgation that is uncommon in Mississauga;
  - Special Management Areas:
    - Lands adjacent to or near Significant Natural Areas or Natural Green Spaces that will be managed or restored to enhance and support the adjacent areas
  - Residential Woodlands;
  - Linkages;
- Natural Hazard Lands;
  - Valleylands;
  - Floodplain;
  - Lake Ontario Shoreline.

The Significant Natural Areas defined in the MOP (2024 Consolidation) include the eight types of natural heritage features and areas defined in the PPS (2024). In addition to the guidance provided in the MOP (2024 Consolidation), the MNRF's Natural Heritage Reference Manual (NHRM; MNR 2010) provides technical guidance on the identification and definition of the significant natural heritage features defined in the PPS.

The City's NHS and Natural Hazard Lands components generally address the requirements of the RPOP (2022) Greenlands System. However, the following Greenlands System components from the RPOP (2022) are not specifically identified in the City's Green System and will therefore be addressed separately in this EIS:

- Escarpment Natural Areas;
- Escarpment Protection Areas;
- Valley and Stream Corridors;

- Shorelines;
- Natural Lakes;
- Ground water recharge and discharge areas;
- Open space portions of the Parkway Belt West Plan; and
- Other natural features and functional areas.

The following sections provide a detailed discussion regarding the designation of natural heritage and natural hazard features as defined by the PPS, MOP (2024 Consolidation) and RPOP (2022), and whether any of the above noted features are present on or adjacent to (i.e., within 120 m of) the Subject Lands.

3.1 Significant Natural Areas

3.1.1 Provincially or Regionally Significant Life Science ANSIs

An ANSI is an area identified by the MNR as having provincially or regionally significant representative geological or ecological features.

There are no ANSIs identified on or adjacent to the Subject Lands in MNR LIO mapping (MNR 2023). The closest ANSI is the Meadowvale Station Woods regionally significant Life Science ANSI located approximately 2.6 km southwest of the Subject Lands.

3.1.2 Environmentally Sensitive or Significant Areas

The MOP (2024) defines Environmentally Sensitive or Significant Areas as "*places where ecosystem functions or features warrant special protection. These may include but are not limited to rare or unique plant or animal populations or habitats, plant or animal communities, or concentrations of ecological functions*".

The Fletchers Creek valley corridor on and adjacent to the Subject Lands provides fish and wildlife habitat including protected habitat for the endangered Redside Dace. Therefore, it generally meets the criteria and is considered to be an Environmentally Sensitive or Significant Area for the purposes of this EIS. The limit of the area is considered to be the extent of the flooding or erosion hazard (whichever is further). This NHS component is not specifically mapped on **Figure 5** (**Appendix A**).

3.1.3 Habitat of Endangered and Threatened Species

Endangered and threatened species are identified in Ontario by the MECP using procedures established by the Committee on the Status of Species at Risk in Ontario ("COSSARO").

The MNRF previously indicated (prior to MECP assuming jurisdiction over the ESA 2007) that Redside Dace was the only potential SAR on the Subject Lands. Fletchers Creek on and adjacent to the Subject Lands provides occupied Redside Dace habitat and is therefore protected under both the ESA 2007 and the federal Species at Risk Act (as Critical Habitat for the species). These protections are afforded to the watercourse, all areas within the meander belt and all vegetated or agricultural areas within 30 m of the meander belt. The limit of Regulated Redside Dace habitat/Critical Habitat is depicted as 30 m from the meander belt on **Figure 5** (**Appendix A**).

Given that Fletchers Creek has a bankfull width >7.5 m, the Tributary of Fletchers Creek on the Subject Lands does not meet the criteria to be Contributing Habitat for Redside Dace, per the definitions in O. Reg. 242/08.

As previously discussed, one individual male Bobolink was observed in flight over the field between PC1 and PC2. No behavior that would confirm successful breeding on site was observed, and suitable breeding habitat does not exist on the Subject Lands, given the prominence of row crop agricultural lands.

Therefore, the only habitat for threatened or endangered species is the regulated/Critical Habitat for Redside Dace in Fletchers Creek.

3.1.4 Fish Habitat

Fish habitat, as defined in the federal *Fisheries Act* (R.S.C., 1985, C. F-14; Government of Canada 2019), are those parts of the environment on which fish depend, directly or indirectly, in order to carry out their life processes.

There are two watercourses on the Subject Lands. Fletchers Creek is a permanent watercourse that provides direct fish habitat.

The tributary to Fletchers Creek exists on the tablelands portion of the Subject Lands and includes a remnant farm pond and associated MAS2-1 (Cattail Mineral Shallow Marsh) downstream from the pond. GEI has designated this tributary as Complex Contributing Habitat (i.e. indirect fish habitat), with a corresponding HDFA management recommendation of “Conservation”. This watercourse is not expected to provide direct fish habitat where it is present on the tablelands.

The tributary and associated wetlands provide indirect fish habitat functions by conveying flow to downstream fish habitat in Fletchers Creek and assisting with maintaining water quality.

3.1.5 Significant Wildlife Habitat

SWH is one of the more complex natural heritage features to identify and evaluate. There are several provincial documents that provide guidance for identifying and evaluating SWH: the NHRM (MNR 2010) and the SWH Ecoregion 7E Criterion Schedule (MNRF 2015). In addition, guidance on SWH is also provided by the Peel-Caledon Significant Woodlands and Significant Wildlife Habitat Study (North-South Environmental Inc. et al. 2009).

There are four general types of significant wildlife: seasonal concentration areas, migration corridors, rare or specialized habitat, and species of conservation concern. All types of significant wildlife habitat in relation to the Subject Lands are discussed in more detail below.

Seasonal Concentration Areas

Seasonal concentration areas are those sites where large numbers of a species gather together at one time of the year, or where several species congregate. The following is a partial list of numerous potential examples: deer yards, amphibian breeding ponds, snake and bat hibernacula, waterfowl staging and moulting areas, raptor roosts, bird nesting colonies, shorebird staging areas, and passerine

migration concentrations. Only the best examples of these concentration areas are usually designated as significant wildlife habitat. Areas that support a species at risk, or if a large proportion of the population may be lost if the habitat is destroyed, are examples of seasonal concentration areas which should be designated as significant.

Based on the surveys conducted, the Subject Lands do not provide suitable Seasonal Concentration Areas.

Rare or Specialized Habitat

Rare or specialized habitat are two separate components. Rare habitats are those with vegetation communities that are considered rare in the province. SRANKS are rarity rankings applied to species at the 'state', or in Canada at the provincial level, and are part of a system developed under the auspices of the Nature Conservancy (Arlington, VA). Generally, community types with SRANKS of S1 to S3 (extremely rare to rare-uncommon in Ontario), as defined by the NHIC, could qualify. It is assumed that these habitats are at risk and that they are also likely to support additional wildlife species that are considered significant. Based on the ecological surveys conducted, there are no rare habitats on the Subject Lands.

Specialized habitats are microhabitats that are critical to some wildlife species. Potential examples include waterfowl nesting areas, turtle nesting areas, groundwater seeps and springs and amphibian breeding habitats.

Based on the habitat types present on the Subject Lands and the ecological surveys conducted, the only potential specialized habitat type that could be present is amphibian breeding habitat (wetland). The MNRF (2015) Eco-Region Criteria Schedule indicates that defining criteria for this type of SWH is "presence of…2 or more of the listed frog/toad species with at least 20 individuals (adults or egg masses) or 2 or more of the listed frog/toad species with Call Level Codes of 3". MNRF (Kowalyck, per. comm. 2018) has further clarified that "the 20 individuals can represent a mix of species, each of which do not need to reach 20 individuals for amphibian habitat to be significant". With respect to cumulative versus individual round total numbers of amphibians, MNRF (Kowalyck, per. comm. 2018) has agreed with "using the highest number of individuals of a species recorded during a round as long as the different breeding periods for all species was covered".

As summarized in **Table 1** (**Appendix B**), amphibian call surveys completed at the remnant farm pond found a cumulative total of six American Toads and four Green Frogs. Based on these results, the remnant farm pond would not meet the MNRF (2015) criteria to be considered amphibian breeding habitat (wetland) SWH, since the required number of individuals (at least 20) was not identified either when assessed using MNRF's intended protocol of peak count per round, or when considered cumulatively.

The Peel-Caledon SWH Study (North-South Environmental Inc. et al. 2009), which CVC had indicated that they use for guidance when determining SWH in Peel Region (Tripodo, pers. comm. 2018), indicates that amphibian breeding SWH for species including American Toad and Green Frog is confirmed where the breeding population contains two or more of the listed species with a combined total of at least 40 individuals present. North-South Environmental Inc. et al. (2009) further clarifies that with respect to the number of individuals present, it is assumed that for every male frog/toad heard during a call survey, that there would also be a female present and that totals are aggregated over all surveys. Based on this

assumption, the number of individual frogs/toads present on the Subject Lands would be 20 (10 males heard calling cumulatively across the three rounds, assumed 10 females present as well). This number of individuals would not meet the SWH criteria in the Peel-Caledon SWH Study (North-South Environmental Inc. et al. 2009).

CVC (Tripodo, pers. comm. 2018) has indicated that they apply the assumption that an equal number females are present to the observed numbers of males heard calling when interpreting SWH under the MNRF (2015) Eco-Region Criteria Schedule as well. Based on this assumption, CVC would count the number of individual amphibians present as 20 (i.e., number of males counted cumulatively during call studies, with an equal number of females present) and would consider this as meeting the MNRF (2015) defining criteria threshold and would therefore consider the remnant farm pond to be amphibian breeding (wetland) SWH. While this approach to counting the number of amphibians is not known to be applied outside the Peel Region, nor is it consistent with the guidance provided by MNRF with respect to cumulative counting of numbers of ampibians (Kowalyck, per. comm. 2018), for the purposes of this assessment, the remnant farm pond will be considered a locally important breeding habitat and will be carried forward to the impact assessment.

As shown on **Figure 5** (**Appendix A**), the remnant farm pond represents the limits of the amphibian breeding area, since the pond itself is the only potential breeding habitat present. Amphibian call studies completed in the marsh habitat north of the pond did not identify any amphibian usage of this area. MNRF (2014) notes that American Toads will utilize a wide range of breeding habitat, including open ponds, with the young generally leaving the pond before the end of June and adults moving to open areas (e.g., fields, residential areas) or forested habitat. MNRF (2014) notes that Green Frogs require permanent water bodies to breed, since tadpoles require one year to transform and leave the pond, and adults typically remain within the pond. Ampibian movement corridors are discussed under the Animal Movement Corridors heading below.

Habitat for Species of Conservation Concern

Species of conservation concern include those that are designed as Special Concern on the SARO, or are identified as rare (based on SRanks of S1 – S3). Habitats of species of conservation concern do not include habitats of Endangered or Threatened species, as identified by the ESA, 2007. These are discussed in section 3.2.

According to the Significant Wildlife Habitat Ecoregion Criterion Schedule (MNRF 2015), habitat for species of conservation concern also includes five types of habitats:

a) Marsh bird breeding habitat;
b) Open country bird breeding habitat;
c) Shrub/early successional bird breeding habitat;
d) Terrestrial crayfish; and
e) Special concern and rare wildlife species.

Based on the habitat types present and the ecological surveys conducted, the Subject Lands provide habitat for terrestrial crayfish, but do not provide suitable habitat for any of the other Species of Conservation Concern categories.

With respect to terrestrial crayfish, MNRF (2015) indicates that the presence of one or more chimneys "in suitable meadow marsh, swamp or moist terrestrial sites" provides confirmation of SWH, with the limit of the SWH being the "area of ELC ecosite or an ecoelement area of meadow marsh or swamp within the larger ecosite area". CVC has indicated that they consider areas where chimneys are located, provided they are in suitably moist ecosites (i.e., including moist agricultural fields) to be part of the SWH. Therefore, based on this definition, all chimney locations observed on the Subject Lands would be considered Terrestrial Crayfish SWH (**Figure 5**, **Appendix A**).

The limit of the SWH may be highly variable on an annual basis, since the groundwater level likely has a significant bearing on chimney construction, and construction of multiple chimneys (including movement away from the wetland feature to avoid high groundwater) may occur in wetter years, such as occurred in spring 2019. During drier years, chimneys may be located substantially closer to the wetland boundary compared to observations in spring 2019. Chimney locations are also impacted by agricultural activities on the property, although Terrestrial Crayfish tunnel networks are expected to persist below the typical depth of ploughing/planting, provided access to groundwater is maintained.

As previously discussed, Barn Swallows were observed on the Subject Lands. All observed activity was feeding behavior, with birds flying onto and out of the Subject Lands from all directions. This feeding function will be maintained and potentially improved with the expansion of the wetland surrounding the Tributary to Fletchers Creek. General foraging habitat for this species is not considered to be SWH. There are no structures on site to provide suitable nesting habitat for Barn Swallows and this species was not found to be breeding on the Subject Lands.

Animal Movement Corridors

Migration corridors are areas that are traditionally used by wildlife to move from one habitat to another. This is usually in response to different seasonal habitat requirements. Within Eco-Region 7E, the only type of movement corridor that requires consideration is a movement corridor used by amphibians to move between breeding habitat SWH and summering habitat.

Given that this report has assumed that locally important amphibian breeding (wetland) habitat is present in the remnant farm pond (based on criteria used by CVC), a movement corridor has to be identified. Based on the nature of the Subject Lands, specifically in the area around the remnant farm pond, the only movement corridor present would be the Tributary running from the farm pond to the woody valleylands around Fletchers creek to the south. MNRF (2015) indicates that amphibian movement corridors:

- "should consist of native vegetation, with several layers of vegetation. Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant" and
- "corridors should have at least 15 m of vegetation on both sides of waterway or be up to 200 m wide of woodland habitat and with gaps <20 m".

The movement corridor from the farm pond to the adjacent valleylands is approximately 100 m long, and generally consists of an approximately 10 m wide naturalized corridor surrounded by agricultural land use. Vegetation is predominantly meadow and does not generally consist of several layers. Based on these criteria, the corridor does not specifically meet the criteria for significance suggested by MNRF (2015), although given that amphibian breeding habitat is being considered significant by CVC and

as locally important in this report, the vegetated portions of the tributary from the remnant farm pond to the Fletchers Creek valleyland have been identified as a locally important Amphibian Movement Corridor for the purposes of this assessment, as shown on **Figure 5** (**Appendix A**). This means that this corridor is considered SWH and as a result is a component of a NHS.

3.1.6 Significant Woodlands

Significant woodlands are woodlands that are 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.

Criteria to identify significant woodlands is provided in both the MOP (2024) and the RPOP (2022); the NHRM (MNR 2010) also provides guidance on delineating significant woodlands in Ontario. For the purposes of this EIS, the MOP criteria will be used.

The MOP (2024) indicates that significant woodlands are woodlands that meets one or more of the following criteria:

- "woodlands, excluding cultural savannahs, greater than or equal to four hectares;
- Woodlands, excluding cultural woodlands and cultural savannahs, greater than or equal to 2 ha and less than 4 ha;
- Any woodland greater than 0.5 ha that:
    - Supports old growth trees (greater than or equal to 100 years old);
    - Supports a significant linkage function as determined through an Environmental Impact Study approved by the City in consultation with the appropriate conservation authority;
    - Is located within 100 metres of another Significant Natural Area supporting a significant ecological relationship between the two features;
    - Is located within 30 metres of a watercourse or significant wetland; or
    - Supports significant species or communities".

There is one small (0.16 ha) cultural woodland community on the Subject Lands and this does not meet the criteria to be considered significant since it is <0.5 ha in size.

The vegetated areas of the Fletchers Creek valleyland on and adjacent to the Subject Lands are a cultural thicket and do not meet woodland criteria. Although the dripline of this thicket was staked on July 6, 2012 (**Figure 5**, **Appendix A**), this staked limit is the limit of the natural vegetation of the valleyland and not a woodland dripline.

Therefore, there are no significant woodlands on or within 120 m of the Subject Lands.

3.1.7 Significant Wetlands

Under the MOP (2024), significant wetlands include:

- "Provincially significant coastal wetlands;
- Provincially significant wetlands;
- Coastal wetlands; and
- Other wetlands greater than 0.5 ha."

There are no PSWs or coastal wetlands identified on or adjacent to the Subject Lands.

The wetland associated with the Tributary of Fletchers Creek on the Subject Lands is approximately 0.42 ha and therefore, it doesn't meet the criteria to be a significant wetland under the MOP (2024).

As depicted on **Figure 2** (**Appendix A**), a shallow marsh/meadow marsh wetland has been identified in the Fletchers Creek valleyland southwest of the Subject Lands. This wetland has not been evaluated under the Ontario Wetland Evaluation System (OWES; MNRF 2022), but is >0.5 ha and therefore meets the criteria to be a significant wetland under the MOP (2024).

3.1.8 Significant Valleylands

Significant valleylands should be defined and designated by the planning authority. General guidelines for determining significance of these features are presented in the NHRM (MNR 2010) for Policy 2.1 of the PPS. Recommended criteria for designating significant valleylands include prominence as a distinctive landform, degree of naturalness, and importance of its ecological functions, restoration potential, and historical and cultural values.

The development plan will respect the top-of-bank and long-term stable slope of the valley associated with Fletchers Creek (shown on **Figure 5**, **Appendix A**), which meets various criteria for designation as a significant valleyland under the PPS and MOP.

3.2 Natural Green Spaces

3.2.1 Non-Significant Woodlands

Woodlands >0.5 ha that do not meet the criteria to be a significant woodland (as discussed in Section 3.1.6) are considered to be Natural Green Spaces under the City's Green System.

The only woodland on the Subject Lands is 0.16 ha and therefore, it does not meet the minimum size criteria to be a Natural Green Space.

3.2.1 Non-Significant Wetlands

Wetlands that do not meet the criteria to be significant wetlands (as discussed in Section 3.1.7) are considered to be Natural Green Spaces under the City's Green System.

The wetland associated with the Tributary of Fletchers Creek running through the Subject Lands does not meet the criteria to be significant, so it is identified as a Natural Green Space.

3.2.1 Watercourses Outside of Significant Valleyland

The Tributary of Fletchers Creek running through the Subject Lands is located outside the Fletchers Creek valley system, but it is identified as a regulated watercourse by CVC. Therefore, the watercourse is identified as a Natural Green Space.

3.2.1 Natural Areas >0.5 ha with Uncommon Vegetation

There are no natural areas on the Subject Lands meeting this criteria that haven't already been identified as part of a different Green System component.

3.3 Special Management Areas

There are no areas adjacent to the Significant Natural Areas or Natural Green Spaces on the Subject Lands that warrant designation as a Special Management Area.

3.4 Residential Woodlands

There are no residential woodlands on the Subject Lands.

3.5 Linkages

The MOP (2024) identifies linkages as "*those areas that are necessary to maintain biodiversity and support ecological functions of Significant Natural Areas and Natural Green Spaces but do not fulfil the criteria of Significant Natural Areas, Natural Green Spaces, Special Management Areas or Residential Woodlands*".

No such areas are present on the Subject Lands. The Fletchers Creek valleyland would likely provide a linkage corridor along its length. However, it is already considered to be a Significant Natural Area. The Tributary of Fletchers Creek on the Subject Lands is already identified as a Natural Green Space; regardless, it does not appear to provide a linkage corridor to any other natural feature, as it terminates at the transformer station north of the Subject Lands.

3.6 Natural Hazard Lands

3.6.1 Valleylands

The Fletchers Creek valleyland is located on and adjacent to the Subject Lands. The physical top of bank was staked with CVC on October 6, 2010 and March 24, 2011. A long-term stable slope assessment was completed by Soil Engineers Ltd. (2008 and 2020), which incorporated the toe erosion setback recommended by GEO Morphix Ltd. (2019). The physical top of bank and long-term stable slope are also present at the downstream end of the Tributary of Fletchers Creek that runs through the Subject Lands.

The physical top of bank and long-term stable slope are depicted on **Figure 5** (**Appendix A**).

3.6.2 Floodplain

CVC has identified a regulatory floodplain for Fletchers Creek (**Figure 5**, **Appendix A**). The floodplain extends slightly up the lower end of the Tributary of Fletchers Creek, but no floodplain is present on the upper reaches of the tributary (above the staked top of bank).

3.6.3 Lake Ontario Shoreline

The Subject Lands are not located in proximity to Lake Ontario.

3.7 Other Peel Region Greenlands Components

This section address the RPOP (2022) Greenlands components that are not addressed in the MOP (2024) Green System.

3.7.1 Escarpment Natural Areas and Protection Areas

The Subject Lands are not located within the Niagara Escarpment Plan Area.

3.7.2 Valley and Stream Corridors

The RPOP (2022) provides criteria evaluate valley and stream corridors to determine if they meet the criteria to be Core Areas of the Region's Greenlands System. Valley and stream corridors not meeting the Core Area criteria are considered to be Natural Areas and Corridors in the Greenlands System.

Schedule C-2 (Core Areas in the Greenlands System in Peel) identifies Fletchers Creek valleyland on and adjacent to the Subject Lands as a Core Area. Based on Table 2 (Criteria and Thresholds for the Identification of Core Area Valley and Stream Corridors) from the RPOP (2022), Fletchers Creek is a tributary of the Credit River that provides habitat for Redside Dace and crosses municipal boundaries. Therefore, it does meet criteria to be a Core Area Valley and Stream Corridor.

Aside from the downstream end located within the Fletchers Creek valleyland, the Tributary of Fletchers Creek is not located in a valley landform. Therefore, it does not meet the criteria to be a Core Area Valley and Stream Corridor and is instead identified as part of Natural Areas and Corridors component of the Regional Greenlands System.

3.7.3 Shorelines and Natural Lakes

The Subject Lands do not contain any shorelines or natural lakes.

3.7.4 Groundwater Recharge and Discharge Areas

The Subject Lands have not been identified as a significant groundwater recharge or discharge area. General ground infiltration requirements have been identified in the Functional Servicing Report (SKIRA 2024).

3.7.5 Open Space Portions of Parkway Belt West Plan

The Parkway Belt West Plan Area is located immediately north of the Subject Lands. No impact on land use in this area will occur as a result of the proposed development on the Subject Lands.

3.7.6 Other Natural Features and Functional Areas

There are no other natural features or functional areas located on the Subject Lands that have not already been incorporated under other components of the PPS, MOP or PROP.

3.8 Summary of Natural Heritage and Natural Hazard Features

The natural heritage and natural hazard features present on and adjacent to the Subject Lands are associated with either Fletchers Creek or the Tributary of Fletchers Creek. All other areas of the Subject Lands and adjacent lands consist of active agricultural lands, developed areas (e.g., Illumi lightshow) or infrastructure (e.g. transformer station and transmission lines, municipal roads).

The natural heritage and natural hazards designations associated with each feature, based on the PPS (2024), RPOP (2022) and MOP (2024) are as follows:

Fletchers Creek

- Habitat for endangered species (occupied Redside Dace habitat);
- Fish habitat;
- Significant wetland;
- Significant valleyland;
- Core Area Valley and Stream corridor;
- Regulatory floodplain; and
- Erosion hazard (physical top of bank and long-term stable slope).

Tributary of Fletchers Creek (outside Fletchers Creek Valley)

- Natural Areas and Corridors Valley and Stream Corridor;
- Indirect fish habitat;
- Significant Wildlife Habitat
    - Locally important amphibian breeding area and associated movement corridor;
    - Terrestrial Crayfish habitat; and
- Non-signfiicant wetland (Natural Green Space).

These natural heritage and natural hazard features generally meet the PPS (2024), RPOP (2022) and/or MOP (2024) criteria to be part of the City or Region Natural Heritage System and are subject to the relevant policies of the Official Plans.

These features are carried through to the Impact Assessment section of the EIS (**Section 5**).

4.0 DEVELOPMENT PROPOSAL

The proposed development will include the construction of multiple industrial buildings with associated parking and landscape areas in two separate blocks that will be developed in two phases. Phase 1 contains lands west of Derrycrest Drive and east of the Tributary to Fletchers Creek. Phase 2 is comprised of the remainder of the developable lands to the west of Phase 1. The proposed Draft Plan of Subdivision, prepared by Design Plan Services Inc. (February 19, 2025) is provided in **Appendix C**. As depicted on the Draft Plan of Subdivision, the Subject Lands are proposed to be subdivided into four blocks; tow Employment Area Blocks (1 and 4), the Greenlands Area Crossing Block (3) and the Greenlands Area (Block 2).

The proposed Site Plan, prepared by Baldassarra Architects, is also provided in **Appendix C**. The Site Plan and associated grading plan (from the FSR prepared by Skira & Associates, 2024) are overlaid onto the natural heritage and natural hazard constraints plan on **Figure 6** (**Appendix A**).

A road crossing of the Tributary of Fletchers Creek (and its associated wetland) will be required to provide road access between the Phase 1 and Phase 2 areas (**Figure 6**, **Appendix A**). The previous version of this EIS identified that the road would occur north of the pond on the Tributary of Fletcher's Creek. However, in order to minimize impacts on natural heritage features associated with the road crossing, it has been moved south of the pond, as depicted on the Site Plan in **Appendix C**. A 1.8 m wide by 1.2 m high by 20 m long closed bottom concrete culvert will be installed to convey flows in the Tributary of Fletchers Creek past the road.

Through this development, the natural heritage system surrounding the Tributary to Fletchers Creek will be conveyed to the City of Mississauga to become part of their Green System and Natural Heritage System. The lands within this conveyance, which includes natural features and associated buffer areas and compensation areas, are proposed to be zoned as G1 (Greenbelt). The limit of development adjacent to these areas will be fenced to protect against encroachment. The conceptual site plan is provided in **Figure 6** (**Appendix A**).

The end use development of the lands will increase the imperviousness of the Subject Lands compared to the existing land use, through the construction of buildings and pavement areas. Stormwater management measures are discussed in the Functional Servicing Report (Skira & Associates 2024). External drainage from the lands to the north of the Subject Lands (12.16 ha) that is currently conveyed to the Tributary of Fletcher's Creek will continue to do so post-development.

Surface water runoff (up to and including the 100-year flow) from the Phase 1 area will be captured and conveyed to the existing storm sewer on Vicksburg Drive that ultimately discharges to the existing City of Mississauga Stormwater Management (SWM) Pond 4402B, located south of Derry Road. This existing SWM pond was sized to accommodate flow from this proposed development. This SWM pond was designed to provide Level 1 Enhanced (80% Total Suspended Solids (TSS) removal) water quality treatment, 24 hour detention of the 25 mm design storm (per erosion control requirements) and pre to post quantity control.

Surface water runoff from the Phase 2 area (up to the 10-yr peak flow in the minor system) will be captured, treated and conveyed to an outlet in the Fletcher's Creek valley southwest of the Subject Lands. Major system flows in excess of the 10-yr peak flow are planned to use loading and parking area surfaces to control runoff and ultimately convey to the same outlet location. No quantity control is required by the City in this portion of the Fletcher's Creek Subwatershed (Skira & Associates 2024).

Flows from the Phase 2 portion of the Subject Lands will be managed through a treatment train approach using a combination of SWM practices to retain the first 5 mm of rainfall and provide appropriate quality control. The proposed treatment train will be finalized at the detailed design stage but may include the following measures (per Skira & Associates 2025):

- Increased topsoil depth;
- Dedicated clean-water conveyance from rooftops;
- Catchbasin treatment (Goss Traps or CB shields);
- Oil-Grit Separator (OGS);
- Erosion control storage tank with filtration; and
- Bio-retention swales.

The FSR indicates that an erosion control storage tank sized to control the post-development 25 mm flow to pre-development levels and an OGS will be provided in the Phase 2 area. The final treatment train approach will capture drainage and provide water quality treatment and control of the 25 mm event to meet erosion control and quality control requirements for Fletchers Creek. The FSR (Skira & Associates 2024) indicates that Low Impact Development (LID) measures including increased topsoil depth, rain gardens/bioretention in landscaped areas and localized permeable paving in parking areas will be considered at the detailed design stage.

The Phase 2 SWM system will convey flows via a buried pipe to an outfall located in the adjacent Fletchers Creek valley (**Figure 6**, **Appendix A**), specifically within the Buckthorn/Hawthorn Cultural Thicket ELC unit (CUT1-7). The outfall will consist of a concrete headwall and a stone core wetland to provide erosion protection and promote infiltration into the floodplalin. No constructed outlet channel will be built from the stone core wetland to Fletchers Creek and overflow from the wetland will be discharged as dispersed overflow through a level spreader (300 mm wattle) to the surrounding valley floor. The proposed stone core wetland, outlet headwall and pipe will be installed by open cut installation methodologies, which will include the following main steps:

- Installation of erosion and sedimentation control measures;
- Vegetation removal;
- Open-cut trenching and grading (using heavy equipment);
- Installation of pipe, outlet headwall and stone core wetland;
- Final grading;
- Rehabilitation of disturbed areas; and
- Construction demobilization.

Sanitary flows for the Phase 1 area will be conveyed by the existing 300 mm sanitary sewer on Vicksburgh Drive. Sanitary flows from the Phase 2 area will be conveyed to the existing City of Mississauga 1500-mm trunk sewer located in the Fletchers Creek valleyland southwest of the Subject Lands (**Figure 6**, **Appendix A**). The new sewer from the proposed development will be installed by open-cut methodology, in conjunction with the storm sewer discussed previously. Following completion of the construction, the sewer will be completely buried, with no permanent expression on the ground surface.

The water supply for the proposed development will come from existing city water distribution system east of the Subject Lands (i.e., existing 300-mm diameter watermain along Vicksburgh Drive). Water supply will be conveyed to the Phase 2 lands via a buried distribution pipe within the right-of-way of the road crossing of the wetland between Phase 1 and 2.

The FSR (Skira & Associates 2024) indicated that an erosion and sediment control plan will be designed at the Site Plan Approval stage, but noted that the following measures will be installed and maintained during construction:

- Temporary sediment control fence installed prior to commencement of grading;
- Sediment traps to manage runoff within the construction site; and
- Gravel mud mats at construction vehicle access points.

The FSR (Skira & Associates 2024) indicates that these measures will be routinely inspected and repaired as necessary throughout construction and that measures will be remain in place until the site is restored and stable.

4.1 Development Limits

As will be discussed in Section 5 and shown on **Figure 5** and **Figure 6** (**Appendix A**), the proposed development has generally been sited to address natural heritage feature and hazard setbacks, including:

- 10 m setback from staked wetlands (July 6, 2012) along Tributary 1 (including farm pond and wetlands south of the farm pond which are identified as locally important amphibian breeding habitat and corridor, respectively);
- 15 m setback from Tributary 1 watercourse centerline (south of farm pond);
- 10 m setback from long-term stable top of slope of Tributary 1 and Fletchers Creek (which has incorporated the toe erosion allowance where necessary);
- 10 m setback from the staked top of bank (October 6, 2010 and March 24, 2011);
- 30 m setback from the meander belt of Fletchers Creek (Regulated Redside Dace habitat); and
- 10 m setback from the staked dripline of valleyland vegetation (July 6, 2012).

In addition, the proposed development has been designed to avoid most Terrestrial Crayfish chimney locations, although some locations will be impacted by the proposed development. This is assessed further in Section 5.

The resulting protected area also protects the majority of the staked wetland along the Tributary of Fletchers Creek, with the exception of the proposed road crossing, which will impact 208 m^2 of wetland (**Figure 6**, **Appendix A**). As discussed further in section 5, wetland compensation plantings are proposed along the tributary south of the farm pond to provide a 1:1 compensation ratio to address the area of wetland impacted by the proposed road crossing. Additional information is provided in **Section 6**.

Encroachment into the 10 m buffer adjacent to the wetland north of the farm pond is proposed in three locations (**Figure 6**, **Appendix A**), with a total impact area of 1,405 m^2. One of those locations is associated with the proposed road crossing (683 m^2, which includes the road surface and embankment grading), which necessarily bisects the wetland and adjacent buffer areas. There is a proposed 483 m^2 wetland enroachment into the buffer on the east side of the Tributary (north of the road crossing). This encroachment is associated with grading only and a minimum distance of approximately 4 m will be retained between the wetland and the limit of grading in this location. No impervious surface will be located within 10 m of the wetland. Finally, there is an encroachment of 239 m^2 on the west side at the north end of the Triburary to facilitate the proposed development. A retaining wall will be constructed a minimum of approximately 2 m from the wetland boundary. Parking and driveway areas will be provided beyond the retaining wall.

Subject to the mitigation discussed in **Section 5**, these encroachment areas are not expected to result in negative impacts on the wetland. However, they will result in a reduction in the size of the Natural Heritage System (which includes buffers) that would otherwise be protected. To address this, two buffer encroachment compensation areas has been proposed along the Tributary (**Figure 6**, **Appendix A**). The proposed compensation areas (totalling 1,405 m^2), which are located outside of all existing features and associated buffers/setbacks but is directly adjacent, will compensate for the proposed encroachments into the Natural Heritage System area.

Aside from wetlands and encroachments associated with the road crossing (which will necessarily encroach into the floodplain, watercourse, valley vegetation and top of bank buffers), these is one minor ecroachments into other buffers around the perimeter of the proposed development. An approximately 2-m encroachment for a retaining wall into the 10-m buffer from the long term stable slope is proposed in the southeast corner of Phase 2. This encroachment is not expected to have any negative impact on the function of the buffer to project the adjacent feature.

The proposed development area outside the NHS includes a portion of a cultural meadow (CUM1-1) community along the western boundary of the Subject Lands (just south of the cultural woodland unit). This cultural meadow unit is considered by CVC to be part of the Natural Area associated with the Fletchers Creek corridor on and adjacent to the Subject Lands. However, the portion of cultural meadow that is within the proposed development limit is located on the tablelands outside of the long-term stable slope line that has been identified. The Natural Area Survey summary for this site (mv15) notes that the overall area provides the following significant functions:

- Habitat for an uncommon species (Canada Blue-joint – *Calamagrostis canadensis*);
- Habitat for 19 flora Species of Conservation Concern;
- Habitat for 11 fauna Species of Conservation Concern, including 10 birds and one mammal species;
- Linkage functions associated with Fletchers Creek;
- Close proximity to an adjacent natural area (mv11); and
- Floodwater storage within the floodplain.

As a small tableland meadow (approximately 350 m^2), this area provides relatively limited biophysical or ecological functions relative to the main corridor of the valleyland. The cultural meadow area is not known to support any of the uncommon species or Species of Conservation Concern known to be located within the valleylands themselves. As a tableland lobe adjacent to an agricultural field, the cultural meadow community is not anticipated to support any significant wildlife linkage function, compared to the main valley. Finally, the cultural meadow is not located within the floodplain and would not provide any floodwater storage function.

The tableland cultural meadow does provide buffering of the valleyland from runoff and other active agricultural activities occurring within the agricultural field. Post-development, a 10 m setback from the greatest constraint (typically the long-term stable top of slope in this area) will be maintained and the area within the setback will be vegetated to provide similar buffering functions. The majority of the buffer will be located in areas that are currently actively farmed, resulting in an overall increase in the amount of meadow habitat adjacent to the valleylands. The setback from the long-term stable top of slope will also incorporate some of the existing tableland cultural meadow community. Given the relatively limited biophysical and ecological function provided by the tableland meadow community and

that the overall amount of vegetated area adjacent to the valley will be increased due to vegetation planting within the 10 m setback from the greatest constraint, removal of a portion of the tableland cultural meadow (outside the 10 m setback from the greatest constraint) is not anticipated to have any negative impacts on the residual natural features associated with the Fletchers Creek valleylands.

The March 2018 version of the EIS did not incorporate the 10 m setback from the staked dripline into the development limit shown on **Figure 5** (**Appendix A**). The development limit has been revised in this current version to generally incorporate the 10 m dripline setback in all areas of the Subject Lands.

4.2 Water Balance

A wetland water balance analysis has been prepared by Skira & Associates (2024) to assess potential impacts on the wetland associated with the Tributary of Fletchers Creek running through the Subject Lands. Off-site drainage from the adjacent transformer station is the primary source of water for this wetland and this will be maintained post-development.

The Phase 1 and 2 tableland areas both convey surface water runoff towards the wetland under pre-development conditions. Skira & Associates (2024) have indicated that overall unmitigated surface water runoff from the Phase 1 and 2 development areas would be anticipated to increase as a result of increased imperviousness, but that runoff towards the wetland may decrease as a result of redirection of flows towards SWM Pond 4402B (Phase 1) and towards Fletchers Creek (Phase 2). The water balance assessment indicated that, during the spring, summer and fall months, a reduction of 350 m^3/year would be expected, incorporating 105 m^3 of surface runoff and 244 m^3/yr of groundwater recharge volume. Based on the calculated existing water volume delivered to the wetland, this represents an overall 4% reduction, which is not anticipated to have a negative impact on wetland form and function. The majority of water supplied to the wetland is from external drainage areas that will not change in the post-development scenario. When winter months are considered, the total annual surface water volume to the wetland would be reduced by 13%.

The monthly changes in surface water balance were also assessed by Skira & Associates (2024). The assessment indicated that surface runoff volumes to the wetland would be reduced by 16% from December to March and 14% in April. Corresponding increases of 16% are expected between June and October. This represents an actual change of between 79 and 93 m^3/month, which will be concentrated around precipitation events. This minor increase in precipitation event runoff volume during the late spring through early fall period is not anticipated to have any negative effect on the wetland.

To mitigate changes in infiltration and surface water runoff supporting the wetland, a number of measures are proposed including:

- Permable pavement in parking areas in Phase 1;
- Uncontrolled landscape areas adjacent to the north and south sections of the wetland; and
- LID measures in the Phase 2 area to provide 5 mm runoff storage, potentially including:
    - Rain gardens/bioretention;
    - Increased topsoil depth;
    - Filter strips;
    - Attenuation galleries/infiltration swales;
    - Clean water conveyance from rooftops; and
    - Perforated pipe systems.

LID measures to maintain water balance will be confirmed during the detailed design process.

5.0 IMPACT ASSESSMENT

Table 5 below discusses the potential direct and indirect impacts of the proposed development on natural heritage features within and adjacent to the Subject Lands.

Table 5 – Impact Assessment, Mitigation and Net Effects

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
Thicket and Cultural Woodland	*Potential Direct Impacts:* - Encroachment into woodland and thicket by industrial development - Installation of SWM outfall piping and sanitary sewer piping through thicket community on valleyland slope *Potential Indirect Impacts:* - Rooting zone compaction/alteration	Cultural woodland does not meet criteria for significant woodland or Natural Green Space. Cultural thicket on its own does not meet criteria to be a component of the NHS. However, both communities are located within the limits of the significant valleyland	- The proposed tableland development will not encroach into the cultural woodland and thicket to avoid impacts. - A vegetated buffer of at least 10m will be established from the staked dripline. With one minor exception (a buffer encroachment discussed in Section 4), no development or site alteration is proposed within the buffer. This buffer will be allowed to naturalize by scarifying and planting with a native upland meadow mix. This will have the effect of expanding the natural area around the existing wooded edge in what historically have been active agricultural fields - The limit of development adjacent to the buffer and feature will be fenced to prevent human encroachment - Some thicket vegetation on the valleyland slope will be removed to facilitate installation of the SWM and buried sewer piping. Following construction, the area will be revegetated with native shrub and groundcover species. - The proposed SWM outfall will result in a permanent decrease in thicket habitat, although it will be revegetated as a stone core wetland.	Some short-term impacts on thicket vegetation in the valleyland will occur for installation of the SWM discharge and buried sewer connection. Minor permanent impact due to SWM outlet headwall and stone core wetland. No long-term impact following site restoration Net overall increase in thicket and woodland due to woodland and buffer planting plans

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
			Enhancement*:* Net increase in natural vegetation cover due to long-term vegetation growth in tableland buffer. Woodland vegetation planting is proposed in three locations (shown on **Figure 6**, **Appendix A**) to result in long-term increase in woodland on the Subject Lands	
Valleyland Associated with Fletchers Creek	*Potential Direct Impacts:* - Encroachment into valleyland by industrial development - Construction and operation of a SWM outfall in the valleyland - Installation of buried sanitary sewer pipe in valleyland *Potential Indirect Impacts:* - Erosion due to vegetation removal	Valleyland is considered significant (PPS) and as a Core Area Valley and Stream Corridor. Wetland within the valley is a significant wetland under the MOP (2024). Valley expected to provide linkage functions.	- The proposed development area (with the exception of the SWM outlet and sanitary connection) will not encroach into the valleyland and a 10 m buffer will be provided for the staked top of bank and long-term stable slope limit. One minor grading encroachment into the staked top of bank buffer is proposed, but graded area will be vegetated following completion of grading activities. The 6-m erosion access allowance next to the top of bank will remain undisturbed - A portion of the cultural meadow community outside the 10 m setback from the long-term stable top of slope will be removed. Net increase in meadow habitat due to enhancement associated with planting within existing agricultural areas of the 10 m setback. No negative impacts on functions of Fletchers Creek natural area due to removal of cultural meadow - Surface water from the development area will be collected and piped to an outlet and stone core wetland on the valley floor, therefore, minor permanent removal of valley floor vegetation - SWM pipe to outlet will be installed by open-cut methodology, therefore, temporary disturbance to vegetation on the valley floor and slope. Vegetation community in the area is not sensitive, dominated by shrubs with limited	No impacts on significant valleyland anticipated due to tableland industrial development Permanent SWM outlet in valleyland, short-term impacts during construction and long-term changes, but no long-term negative impact on valley function anticipated SWM outlet will result in minor permanent loss of natural vegetation on the valley floor and altered vegetation / topography in the stone core wetland area Permanent buried sanitary sewer in valleyland, short-term impacts during construction but no long-term negative impact anticipated after restoration completed. Short term potential disruption to wildlife movements along the valley corridor during construction. Following rehabilitation, no negative impacts on the corridor function of the valley expected to occur.

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
			trees. Disturbed area will be restored following pipe installation. No long-term impact on valleyland anticipated due to short-term disturbance associated with construction or long-term presence of the outlet - SWM outlet will be designed as a stone-core wetland to prevent erosion of the valley floor due to SWM discharge and promote infiltration. No outlet channel will be constructed from the wetland to minimize disturbance to the valley floor - Sewer installation disturbance area to be fully restored following completion of construction - The SWM outlet location will be finalized through consultation with CVC during detailed design. A detailed restoration plan for the disturbed area will also be prepared during detailed design.	
Fletchers Creek, Fish Habitat, Redside Dace Habitat	*Potential Direct Impacts:* - Alteration of watercourse - SWM outlet and sewer pipe construction and operation *Potential Indirect Impacts:* See Surface Water Quality discussion below	Watercourse is designated as Redside Dace regulated habitat, direct fish habitat and a Core Area Valley and Stream Corridor.	- There will be no direct alteration to the watercourse as a result of the proposed tableland development - A 30m buffer for the tableland development will be provided to the meander belt of the watercourse to protect Redside Dace habitat - Fencing will be installed along the limit of development where it borders the valleylands to prevent human encroachment - The SWM outlet in the valleyland will be constructed within Redside Dace habitat and will result in permanent loss of a minor amount of natural valleyland vegetation - A stone core wetland will be installed at the SWM outlet to promote infiltration and dispersed overland flow; no direct conveyance of storm flows to the creek will occur (i.e., no channel will be constructed)	No direct residual effects anticipated as a result of the tableland components of the development SWM outlet will result in minor permanent loss of natural vegetation on the valley floor and altered vegetation / topography in the stone core wetland area. No impact on fish habitat or function of overall Redside Dace habitat is anticipated. No long-term impact on valley slopes anticipated due to temporary construction of SWM piping and outlet. Short term impact on vegetation will occur.

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
			- SWM outlet and sewer pipe construction will result in temporary disturbance in regulated habitat on the valley floor and slope, but area will be restored following completion of construction - Erosion and sedimentation control measures will be installed prior to construction, maintained and monitored throughout construction and left in place until vegetation is sufficient to take over functions - Stormwater storage tank will provide quality control (80% TSS removal) and erosion control (25 mm storm event). Quantity control is not required - Use of buried stormwater management tank, stone core wetland and LID measures on the development will assist in mitigating impacts on water quality and temperature in Fletchers Creek - Discussions with MECP required to ensure that all requirements under the ESA are met with respect to activities in regulated Redside Dace habitat	No long-term impacts on water quality/temperature predicted as a result of stormwater management
Wetland along Tributary of Fletchers Creek	*Potential Direct Impacts:* - encroachment into wetland due to access road crossing *Potential Indirect Impacts:* - Changes in wetland form and function due to water balance changes	Wetland is not a significant wetland but is a Natural Green Space under the MOP (2024). Wetland part of the Natural Areas and Corridors Valley and Stream Corridor. Wetland supports indirect fish habitat and provides Terrestrial Crayfish Significant Wildlife Habitat.	- This wetland will generally be protected in place to protect wetland form and function and Terrestrial Crayfish Significant Wildlife Habitat. - A 10 m buffer will be maintained from the staked wetland boundary (with some minor encroachments proposed as discussed below). Buffers will revegetate over time to enhance buffer function compared to current agricultural (row crop) buffer vegetation - Fencing will be installed along the limit of development where it borders the valleylands to prevent human encroachment - Wetland will not receive direct surface water	Majority of wetland will be protected, and no residual effects anticipated. Some wetland area will be impacted by the proposed road crossing, but the wetland compensation area will ensure overall area of wetland is maintained. Enhanced buffer vegetation anticipated to result in long-term improvements in wetland riparian function compared to current agricultural conditions adjacent to wetland

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
			inputs from adjacent development areas. All runoff from industrial development will be collected and discharged through SWM system. Direct runoff from vegetated buffers will continue to occur. - Existing hydrological inputs from the adjacent (off-site) transformer station will continue to be directed to the feature to maintain water balance - Water balance to the tributary will be maintained through the continued conveyance of off-site drainage and use of LID techniques on the Subject Lands, such as increased topsoil depth in landscaped areas, attenuation galleries/infiltration swales, rain gardens/bioretention, perforated pipe systems, constructed wetland and filter strips - Approximately 208 m^2 of wetland will be removed for the access road crossing. Road crossing will be designed to continue to convey flows through wetland to avoid changes in water balance - Wetland compensation plantings will occur within a 208 m^2 area along the tributary north of the road crossing to ensure a 1:1 ratio of wetland is provided to address the removal required for the access road. A detailed compensation plan will be prepared at the Site Plan stage for CVC approval prior to implementation - Encroachment into the 10 m wetland buffer is required in three locations. A total encroachment area of 1,405 m^2 is proposed. Buffer compensation areas (totally 1,405 m^2) are proposed that are located outside of any other NHS component. Additional areas outside	Minor buffer encroachments are proposed, but a buffer encroachment compensation is proposed to ensure a net ecological gain in natural heritage system lands and overall function

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
			other features and buffers are also included outside the development to ensure a net ecological gain. - Fencing, stormwater management, planting in the residual buffer area, erosion and sedimentation controls and spill prevention and response measures will be implemented to prevent negative impacts on the adjacent wetland as a result of the proposed encroachment. - Vegetation salvage to be completed in road disturbance area with any desirable native species being transplanted to adjacent wetland/buffer areas Enhancement: Net increase in natural vegetation cover due to long-term vegetation growth in buffer and buffer compensation area. Wetland vegetation compensation area to maintain overall wetland area on the Subject Lands	
Locally Important Amphibian Breeding Habitat (Wetland)	*Potential Direct Impacts:* - Removal of habitat *Potential Indirect Impacts:* - Alteration to catchment area of habitat - Noise and lighting from development	Locally important amphibian breeding (wetland) habitat present (based on criteria used by CVC) in the remnant farm pond	- Existing habitat (i.e., very limited within the remnant farm pond) is being retained - Water balance to the farm pond will be maintained through the continued conveyance of off-site drainage and use of LID techniques on the Subject Lands, such as increased topsoil depth in landscaped areas, attenuation galleries/infiltration swales, rain gardens/bioretention, perforated pipe systems, constructed wetland and filter strips - Ambient noise at this location is very high due to its proximity to ETR 407 and Hurontario Street. Noise walls proposed for parts of the development. Therefore, any potential increase in noise after development will be minor and would not be expected to disrupt breeding activities of the tolerant amphibian species	No direct or indirect residual effects anticipated

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
			previously confirmed within this pond. - Use of shielded lighting fixtures and/or motion-activated fixtures that will focus lighting downward and away from the natural areas are recommended	
Locally Important Amphibian Movement Corridor	*Potential Direct Impacts:* - Removal of habitat - Road crossing *Potential Indirect Impacts:* - Alteration to catchment area of habitat	Amphibian movement corridor present along Fletchers Creek tributary from Farm Pond (breeding habitat) to thicket/valleyland around Fletchers Creek	- The proposed general development retains this feature throughout its length on the Subject Lands, with a minimum 15 m setback (from the centerline of the channel downstream from the farm pond) - The proposed road crossing culvert (1.8 m by 1.2 m by 20 m) has an openness ratio of 0.108, which exceeds the recommended openness ratio for amphibian passage of 0.10 identified in CVC's Fish and Wildlife Crossing Guidelines (2017). The culvert also exceeds the CVC (2017) recommended width and height of 1 m and is less than the recommended maximum length of 25 m. Barrier fencing should be considered as part of detailed design to prevent amphibian movement over the road surface to minimize the potential for morality and direct wildlife to the culvert - Revegetation within the buffer and buffer compensation area, as well as wetland compensation plantings along the channel will result in long-term enhancement to the corridor compared to current agricultural conditions *Enhancement:* Net increase in natural vegetation cover in riparian area due to vegetation plantings in buffer compensation area, feature buffers and wetland compensation area	No negative impacts on amphibian movements along the corridor expected to occur. Culvert exceeds minimum recommended criteria for amphibian passage (CVC 2017) Long-term improvement in corridor form and function anticipated due to vegetation enhancements compared to existing agricultural operations adjacent to the feature

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
Terrestrial Crayfish SWH	*Potential Direct Impacts:* - Removal of habitat for development and proposed access road *Potential Indirect Impacts:* - Alteration to surface and groundwater balance due to development	Terrestrial Crayfish habitat is present along both sides of the Tributary to Fletchers Creek throughout its reach on the Subject Lands.	- The site plan, which previously called for removal of all wetland upstream from the remnant farm pond was revised to retain these wetland areas and associated Terrestrial Crayfish SWH. The majority of areas where Terrestrial Crayfish chimneys were observed in 2019 are protected within the revised site plan. Some chimney areas were observed outside the areas that will be retained, but the amount of land protected within and around the wetland feature is anticipated to provide sufficient habitat for the existing Terrestrial Crayfish population, such that negative impacts are not expected - The proposed access road will result in the removal of approximately 208 m^2 of potential Terrestrial Crayfish burrowing habitat associated with the wetland. However, the area lost will be a small portion of the overall amount of habitat available and no negative impacts on the overall terrestrial crayfish population are anticipated. The culvert beneath the access road will continue to provide a Terrestrial Crayfish movement corridor to permit dispersal of the species - A Terrestrial Crayfish salvage program will be implemented to remove crayfish from within the proposed development area prior to any site grading being completed. A permit from the MNR will be required to implement the salvage program. Potential relocation areas within existing suitable habitat on the Subject Lands are shown in **Figure 6** (**Appendix A**)	Majority of existing Terrestrial Crayfish SWH to be protected in place. Minor amount of removal of some agricultural land that supported chimney construction in 2019 and some wetland habitat for the proposed access road. However, amount of habitat removed is minor compared to overall habitat retained and no negative impacts on the Terrestrial Crayfish population are anticipated to occur A salvage program will be implemented to minimize the potential for negative impacts on individual crayfish

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
			- Mitigation to maintain water balance and continued conveyance of off-site drainage through the wetland are anticipated to maintain groundwater levels in the vicinity of the Tributary, where Terrestrial Crayfish reside	
Mammal Habitat	*Potential Direct Impacts:* - Alteration of land could lead to removal of ground based mammal and bat habitat *Potential Indirect Impacts*: - Alteration of land could lead to decreased mobility across lands - Noise and lighting from development	No rare mammal species or habitat was encountered No bat or bat habitat studies completed.	- The proposed development area consists of agricultural land and does not provide any habitat necessary to maintain existing wildlife species and populations in the area. It is anticipated that following development of these lands, wildlife will continue to use the adjacent natural areas, the area adjacent to the Tributary to Fletchers Creek, and the naturalized buffer area - No removal of any mature trees that could potentially provide roosting habitat for bats is expected to be required - See discussions related to noise and lighting from Amphibian Habitat section	Some short-term disruption of wildlife habitat use in the Fletchers Creek valley expected due to construction noise and disturbance during installation of the SWM outfall and sanitary sewer connection. Mammals may avoid the area during periods when construction is active. This is not expected to have a negative impact on wildlife species or populations Minor alterations in habitat in the Fletchers Creek valley will occur due to the SWM outlet and associated construction disturbance area. Area will be revegetated following completion of construction. Permanent SWM outlet not expected to have long-term impact on wildlife. Mammals are not expected to be using the Tributary of Fletchers Creek as a potential linkage corridor to facilitate any specific movements on the Subject Lands. No natural features present north of the developable portion of the Subject Lands. Post-development, wildlife will continue to be able to

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
				move past the Subject Lands via the Fletchers Creek valleyland. No direct or indirect residual effects anticipated due to any other component of the development.
Breeding Bird Habitat	*Potential Direct Impacts:* - Alteration of land could lead to removal of breeding bird breeding habitat *Potential Indirect Impacts*: - Alteration of land could lead to removal of breeding bird foraging habitat - Noise and lighting from development	- Bobolink and Barn Swallow were observed on these lands, but indications of breeding were not observed	- Alteration of the Subject Lands is not anticipated to have any impact on Bobolink - Barn Swallow are expected to continue to use the riparian area of the Tributary to Fletchers creek as foraging, which will be enhanced with the wetland rehabilitation - See discussions related to noise and lighting from Amphibian Habitat section - Vegetation removal should occur outside the general bird breeding period (April 1 to August 31) to avoid direct impacts on nesting birds.	Some short term disruption to bird use of adjacent natural areas may occur due to noise and disturbance during construction. No direct or indirect residual effects anticipated
Natural Hazards – Regional Floodlines, Erosion and Stable Slope Limits	*Potential Direct Impacts:* - Encroachment into these features (tableland development or infrastructure) *Potential Indirect Impacts:* - None anticipated	Features are designated by CVC and have been staked	- A 10 m setback is provided from these features for the proposed tablelands industrial development - One minor encroachment into the erosion hazard buffer is proposed, but this is not expected to have any negative impact on erosion hazards. Graded areas will be revegetated following completion of grading. The 6 m erosion access allowance will remain undisturbed. - Installation of the SWM outfall and buried sewer pipe in the valleyland is not anticipated to have any negative impact on floodlines or valleyland erosion following implementation of appropriate design and construction mitigation (e.g., sediment and erosion control, slope restoration)	No direct or indirect residual effects anticipated

NATURAL HERITAGE FEATURE	POTENTIAL DIRECT OR INDIRECT IMPACT	COMMENTARY	PROPOSED AVOIDANCE ALTERNATIVES AND/OR MITIGATION MEASURES	RESIDUAL EFFECT
Surface Water Resources (Fletchers Creek and tributary)	*Potential Direct Impacts:* - Alteration in surface water quantity and quality due to stormwater runoff *Potential Indirect Impacts:* - Alterations in water quality due to erosion and sedimentation during construction	See rows regarding Fletchers Creek and its Tributary for more detail.	- Erosion and sedimentation control and spill prevention and response measures implemented during construction - Disturbed areas will be revegetated following construction - SWM mitigation (i.e., storage tank, stone core wetland outlet, LID measures) will be used to prevent negative impacts on water quality - Site-wide water balance will be maintained through SWM and LID measures - Existing off-site inputs to tributary (i.e., from transformer station) will be maintained	No direct or indirect residual effects anticipated following implementation of mitigation
Ground Water Resources	*Potential Direct Impacts:* - Alteration in ground water quantity or quality *Potential Indirect Impacts:* - None anticipated	Not designated as a significant source of groundwater recharge or discharge	- Site wide water balance will be maintained to prevent effects on groundwater resources	No direct or indirect residual effects anticipated

6.0 REHABILITATION AND ENHANCEMENT OPPORTUNITIES

As shown on **Figure 6** (**Appendix A**), wetland compensation areas are proposed along both sides of the Tributary to address wetland impacts occurring as a result of the proposed road crossing. A total compensation area of 208 m^2 is provided to ensure a 1:1 compensation ratio, in accordance with CVC's Ecosystem Offsetting Guidelines (CVC 2020). The intent of the proposed compensation is to expand the existing area of wetland associated with the Tributary into the adjacent area that is currently subject to intensive agriculture practices. The proposed wetland compensation will consist of a variety of native shrub and ground cover species suitable for the local site conditions. Potential tall shrub species that will be considered will include:

- Nannyberry (*Viburnum lentago*);
- Highbush Cranberry (*Viburnum opulus spp. trilobum*);
- Common Elderberry (*Sambucus canadensis*);
- Grey Dogwood (Cornus *racemosa*);
- Red-osier Dogwood (*Cornus sericea*);
- Bebb's Willow (*Salix bebianna*); and
- Heart-leaved Willow (*Salix eriocephala*).

In addition to shrub plantings, a ground cover seed mix will be applied. The proposed wetland compensation area is expected to be semi-moist, so it is anticipated that an appropriate lowland restoration mix (e.g., CVC3 – Valley Land Mixture) will be selected, based on CVC guidelines (2014). The appropriate seed mix will be confirmed at the detailed design stage based on site-specific conditions in the proposed compensation area.

The wetland compensation area is anticipated to:

- Provide enhanced wildlife habitat adjacent to the watercourse by providing a structurally diverse mix of native vegetation forms and species;
- Increase the width of the naturally vegetated locally important amphibian movement corridor between the valleyland to the south and the farm pond breeding area to the north; and
- Provide enhanced riparian vegetation functions compared to existing agricultural riparian zones, including water quality and hydrology regulation, soil stabilization, shading and allochthonous inputs to benefit the downstream fish community in Fletchers Creek (including Redside Dace).

A detailed wetland compensation plan will be prepared at the detailed design stage in accordance with CVC's guidelines (2020), and submitted with site plan applications. This will include a detailed design brief outlining the restoration, as well as landscape plan drawings. This will include specification of appropriate species and seed mixes, planting densities (in accordance with CVC's guidelines), temporary measures (e.g., erosion control blanket), additives (e.g., fertilizer), maintenance and monitoring requirements. The compensation plan will require CVC approval prior to implementation.

As shown on **Figure 6** (**Appendix A**), wetland buffer encroachment compensation areas are proposed to address the three proposed buffer encroachment areas. The compensation areas, which are located outside of any existing natural feature or buffer, will have a total area of 1,405 m^2, which will

compensate for loss/alteration of wetland buffer area at a 1:1 basis. The three encroachment areas will occur within existing agricultural fields that are contiguous with the NHS. The proposed compensation areas will be planted with an upland seed mix (e.g., CVC7 – Upland Native Meadow Mix, per CVC 2014) with a variety of native herbaceous ground cover species, and the areas will be allowed to naturally succeed (i.e., no vegetation maintenance will occur). Proposed plantings within these areas will be included as part of the detailed compensation plan discussed in the paragraph above.

All groundcover seed mixes will be distributed in combination with a nurse crop to provide short-term erosion and weed control alloing for the native seed mixes to establish. CVC (2014) recommends an annual nurse crop of Common Oats (*Avena sativa*) and Buckwheat (*Fagopyrum esculentum*) applied at a rate of 22 kg/ha. For planting between approximately May 8 and May 31 or between August 1 and August 31 (approximately 40–60 days before the first frost), Oat is the preferred nurse crop. For planting between June 1 and July 31, Buckwheat should be used. The application of native and cover crop seed mixes is not recommended between July 1 and August 31 due to drought conditions (unless regular watering can be provided).

As shown on **Figure 6** (**Appendix A**), woodland rehabilitation is proposed in three locations, with a total area of 895 m^2, adjacent to the existing woodland associated with Fletchers Creek. The existing community is comprised of a tall shrub layer of very densely growing common buckthorn and hawthorn species, with a few remaining old domestic apple trees, Tartarian honeysuckle, and a few single white elm trees, emerging over the shrubs. The herb layer is poorly developed, with scattered garlic mustard, yellowish enchanter's nightshade and yellow avens. Native tree and shrub species will be hand planted within these areas, with a cover crop to provide short-term stabilization and longer term native groundcover seeding. The target long-term community is anticipated to be a Fresh-moist Sugar Maple Deciduous Forest. Detailed planting plans including species lists and densities will be prepared through discussions with the CVC during the detailed design stage of the project.

7.0 CONCLUSIONS AND RECOMMENDATIONS

This EIS has resulted in the preparation of the natural heritage and natural hazard feature Constraints Plan (**Figure 5**, **Appendix A**) and a proposed wetland/woodland rehabilitation strategy (**Figure 6**, **Appendix A**).

Constraint mapping and the resultant development limit has been prepared to incorporate the following natural features and associated setbacks:

- 30 m buffer from the meanderbelt, as required due to the presence of Redside Dace in Fletchers Creek;
- 10 m buffer from the top-of-bank;
- 10 m buffer to the stable slope limit (incorporating toe erosion allowances where necessary);
- 10 m buffer from staked wetlands;
- 10 m buffer from staked valleyland vegetation along Fletchers Creek;
- 15 m buffer from the centerline of the Tributary of Fletchers Creek;
- Terrestrial Crayfish SWH; and
- Locally Important Amphibian Breeding and Amphibian Movement Corridor Wildlife Habitat.

The buffers will be allowed to naturalize by scarifying the soils and planting with a native upland meadow mix. This will have the effect of expanding the natural area in what has historically been active agricultural fields.

In addition to the plantings within the buffer, there will be a net gain by 895 m^2 of forested area through the rehabilitation and enhancement opportunities outlined in section 6.

A total of 208 m^2 of wetland will be impacted by the proposed road crossing of the Tributary running through the Subject Lands. To address this loss, wetland compensation is proposed at a ratio of 1:1 to address CVC's ecological offsetting requirements. The proposed compensation area is anticipated to result in a number of ecological benefits including enhanced watercourse riparian function, improved wildlife habitat and amphibian movement corridor functions.

Localized encroachments into the 10 m buffer area adjacent to the wetland are proposed in three locations, with a total area of 1,405 m^2. These encroachments are not anticipated to impact the adjacent wetland, but will result in a reduction in the size of the natural heritage system that would otherwise be conveyed to the City. To address this reduction, buffer compensation areas (totalling 1,405 m^2) are proposed.

A detailed ecosystem compensation plan will be prepared at the site plan stage in accordance with CVC (2020) requirements. Maintenance and monitoring measures will also be specified in the plan.

Temporary alterations to the vegetation in the Fletchers Creek valleyland will be required to installation the SWM outfall and sanitary connection to the existing sewer in the valley. All disturbed areas will be rehabilitated following construction. The only permanent alteration will be the small stone core wetland and outlet headwall for the SWM outfall. These features are not expected to have any negative impact once they are constructed and surrounding areas are restored.

With respect to MOP policy 6.3.11, this EIS determines the exact limits of NHS components (e.g., through on-the-ground assessment such as field staking or desktop analysis) and proposes the NHS boundary accordingly. While the NHS has refined the NHS boundary, these refinements are considered to be minor relative to the existing Natural System mapping in Schedule 3 of the MOP.

Considering the above, and as discussed within the accompanying Impact Assessment table, the development of the Subject Lands can be completed without negative impact on the significant natural heritage features and associated functions.

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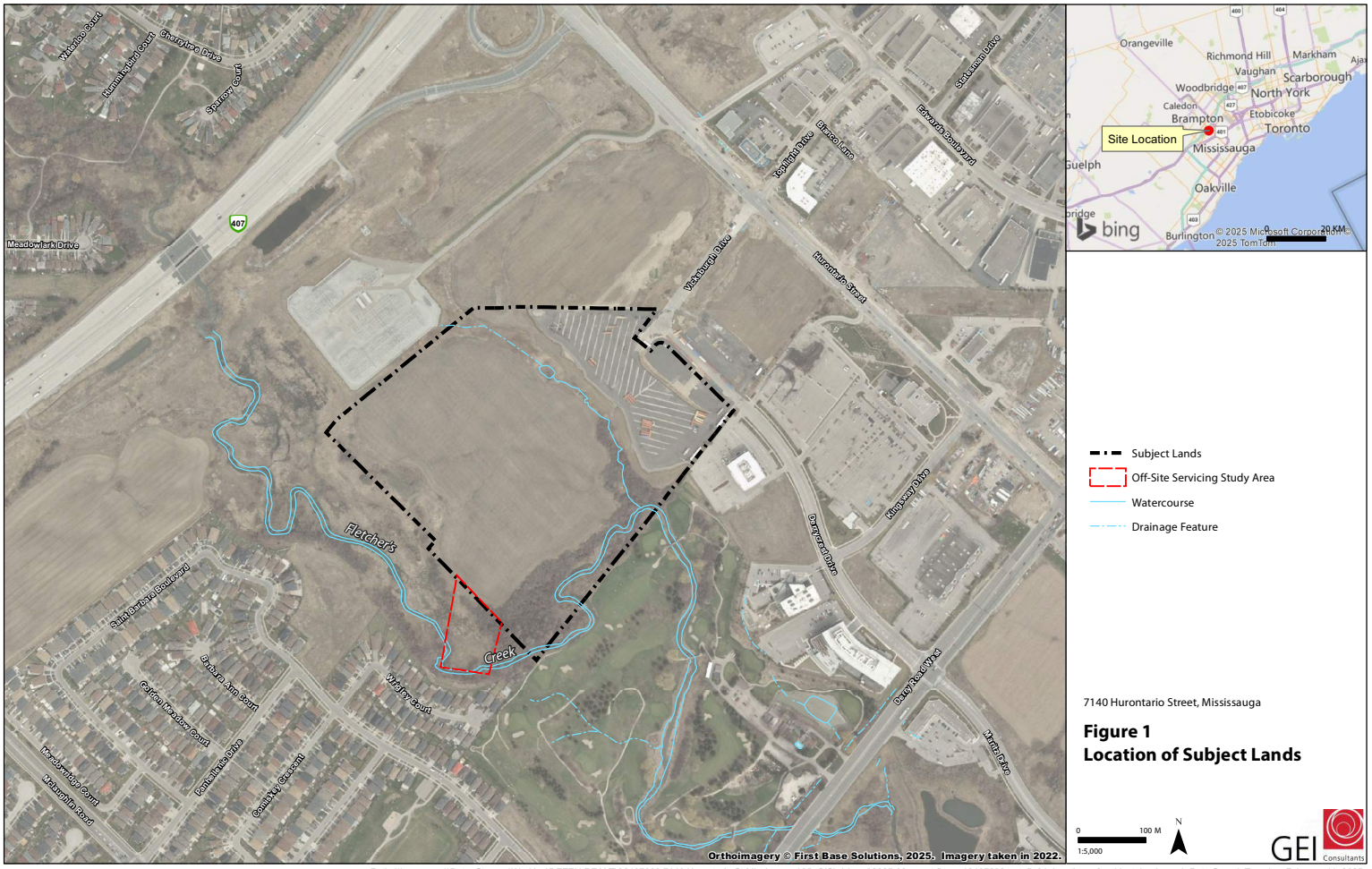
APPENDICES

Appendix A – Figures

Appendix B – Tables

Appendix C – Draft Plan and Site Plan

Appendix A – Figures



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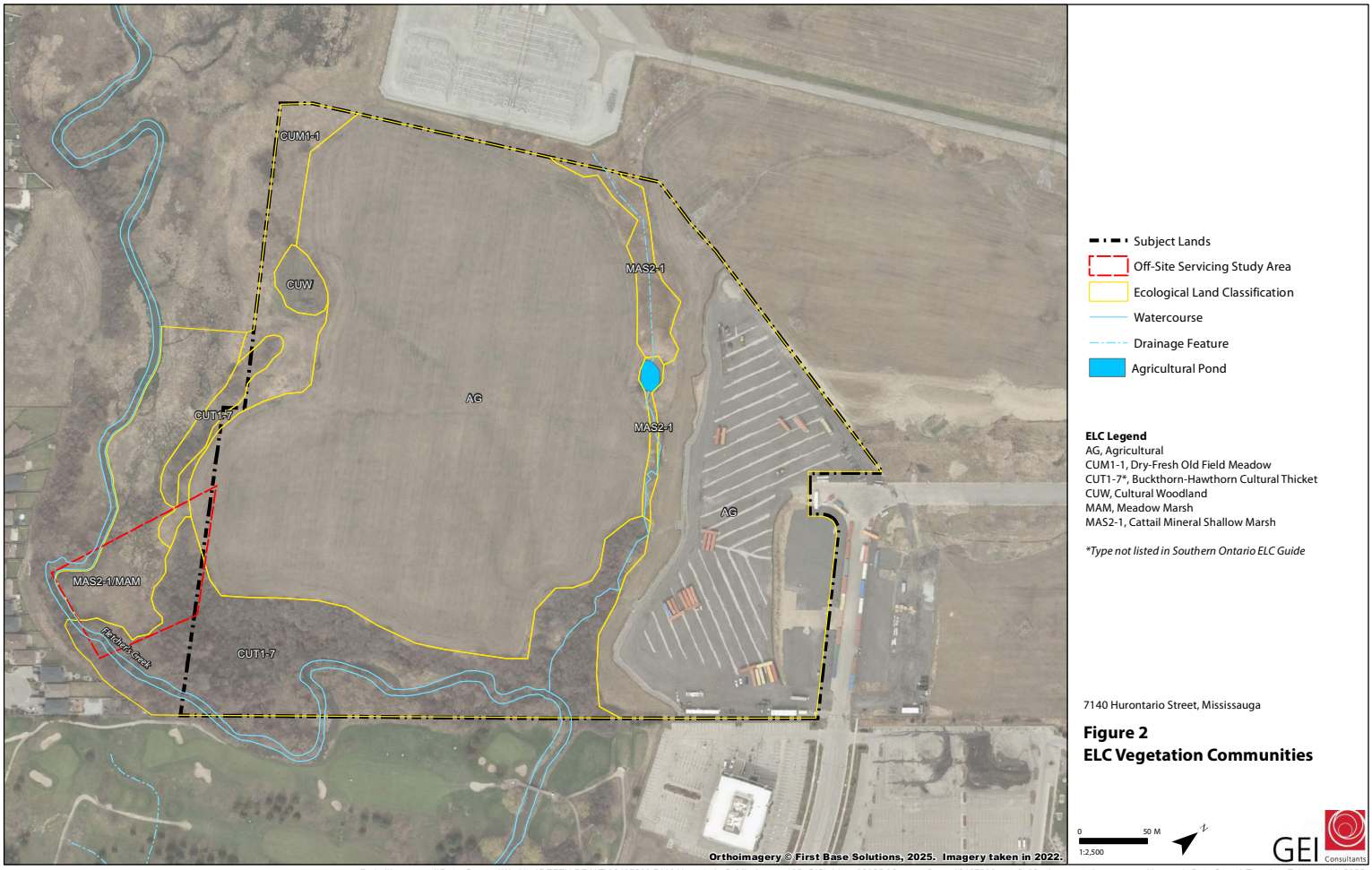

7140 Hurontario Street, Mississauga

Figure 2
ELC Vegetation Communities

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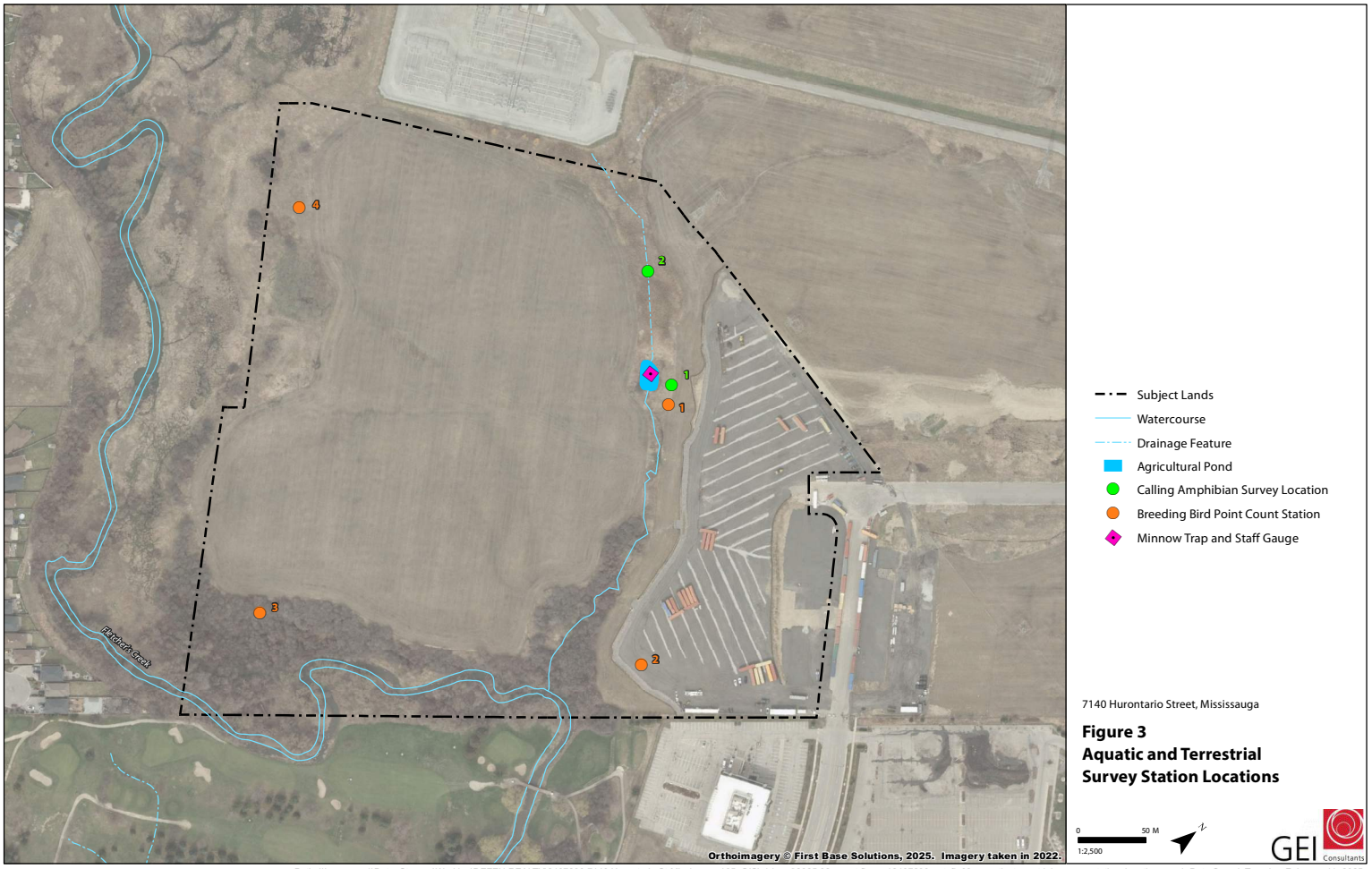

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Figure 3
Aquatic and Terrestrial Survey Station Locations

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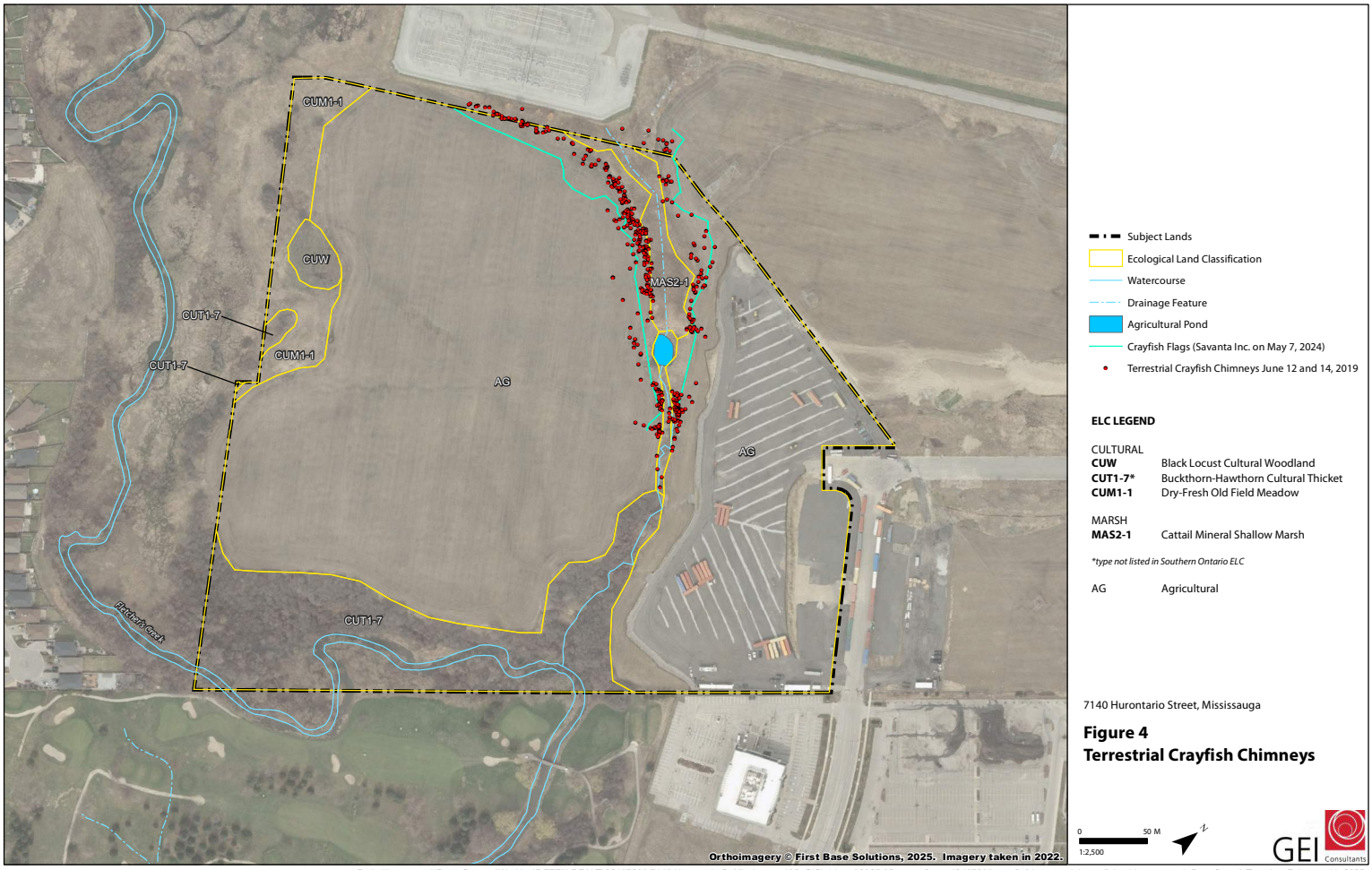

Subject Lands
Ecological Land Classification
Watercourse
Drainage Feature
Agricultural Pond
Crayfish Flags (Savanta Inc. on May 7, 2024)
Terrestrial Crayfish Chimneys June 12 and 14, 2019

ELC LEGEND

CULTURAL	
CUW	Black Locust Cultural Woodland
CUT1-7*	Buckthorn-Hawthorn Cultural Thicket
CUM1-1	Dry-Fresh Old Field Meadow
MARSH	
MAS2-1	Cattail Mineral Shallow Marsh

**type not listed in Southern Ontario ELC*

AG	Agricultural

7140 Hurontario Street, Mississauga

Figure 4
Terrestrial Crayfish Chimneys

0 50 M
1:2,500

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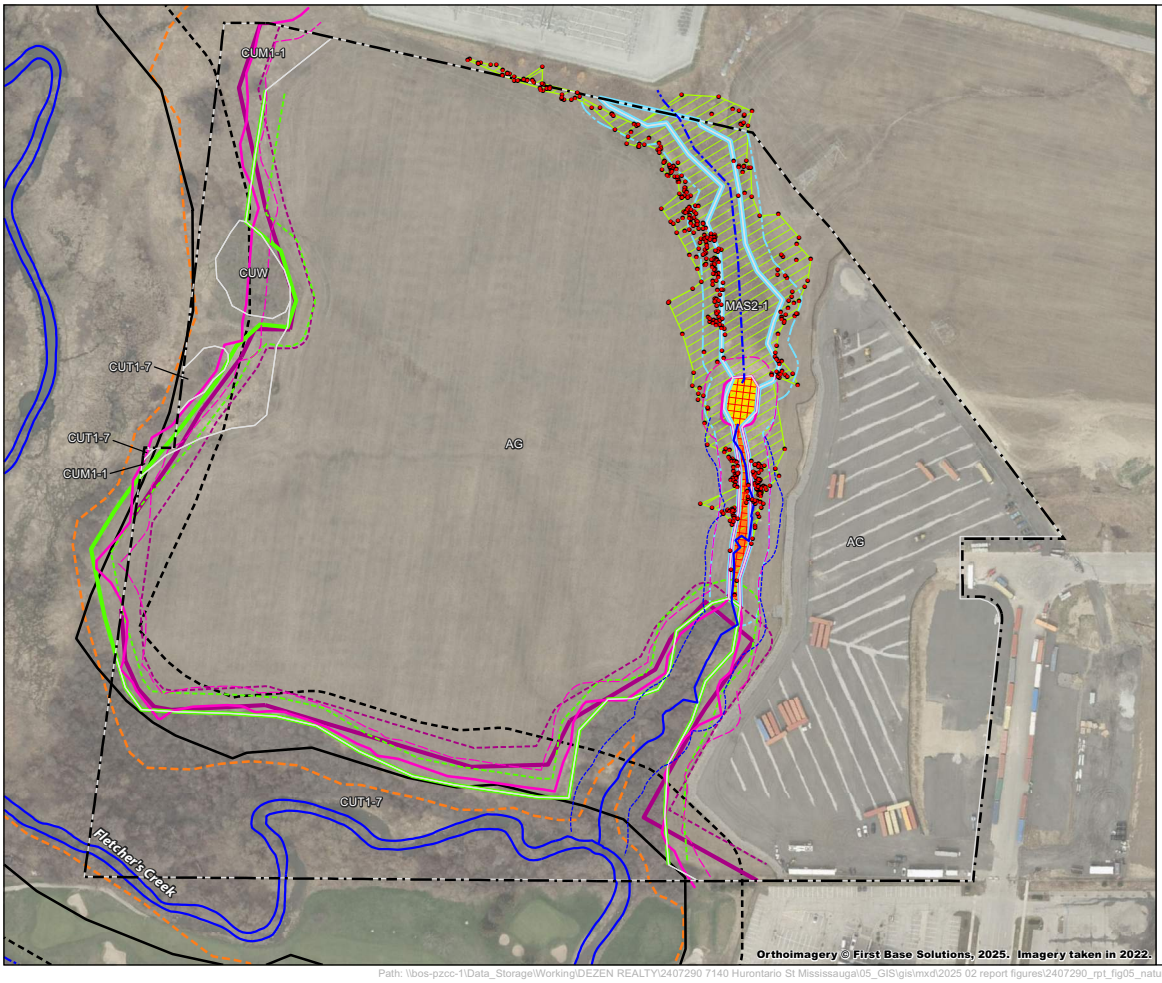

Subject Lands
Watercourse
Drainage Feature
15m Watercourse Buffer
CVC Floodline
Final Meanderbelt
30m Setback from Meanderbelt
Staked Dripline July 6, 2012
10m Setback from Staked Dripline
Staked Wetland July 6, 2012
10m Setback from Staked Wetland/Locally Important Amphibian Breeding Habitat & Corridor (where necessary)
Long-term Stable Slope
10m Setback from Long-term Stable Slope
Top of Bank Staked October 6, 2010 and March 24, 2011
10m Setback from Top of Bank
Terrestrial Crayfish Chimney June 14, 2019
Terrestrial Crayfish SWH (Based on furthest extent of 2019 Chimney Observations)
Ecological Land Classification
Approximate location of *Galium trifidum*
Amphibian Movement Corridor
Locally Important Amphibian Breeding Habitat (Wetland)

ELC LEGEND

CULTURAL

CUW	Black Locust Cultural Woodland
CUT1-7*	Buckthorn-Hawthorn Cultural Thicket
CUM1-1	Dry-Fresh Old Field Meadow

MARSH

MAS2-1	Cattail Mineral Shallow Marsh

**type not listed in Southern Ontario ELC*

AG	Agricultural

7140 Hurontario Street, Mississauga

Figure 5
Natural Heritage Feature Constraints

0 50 M
1:2,000

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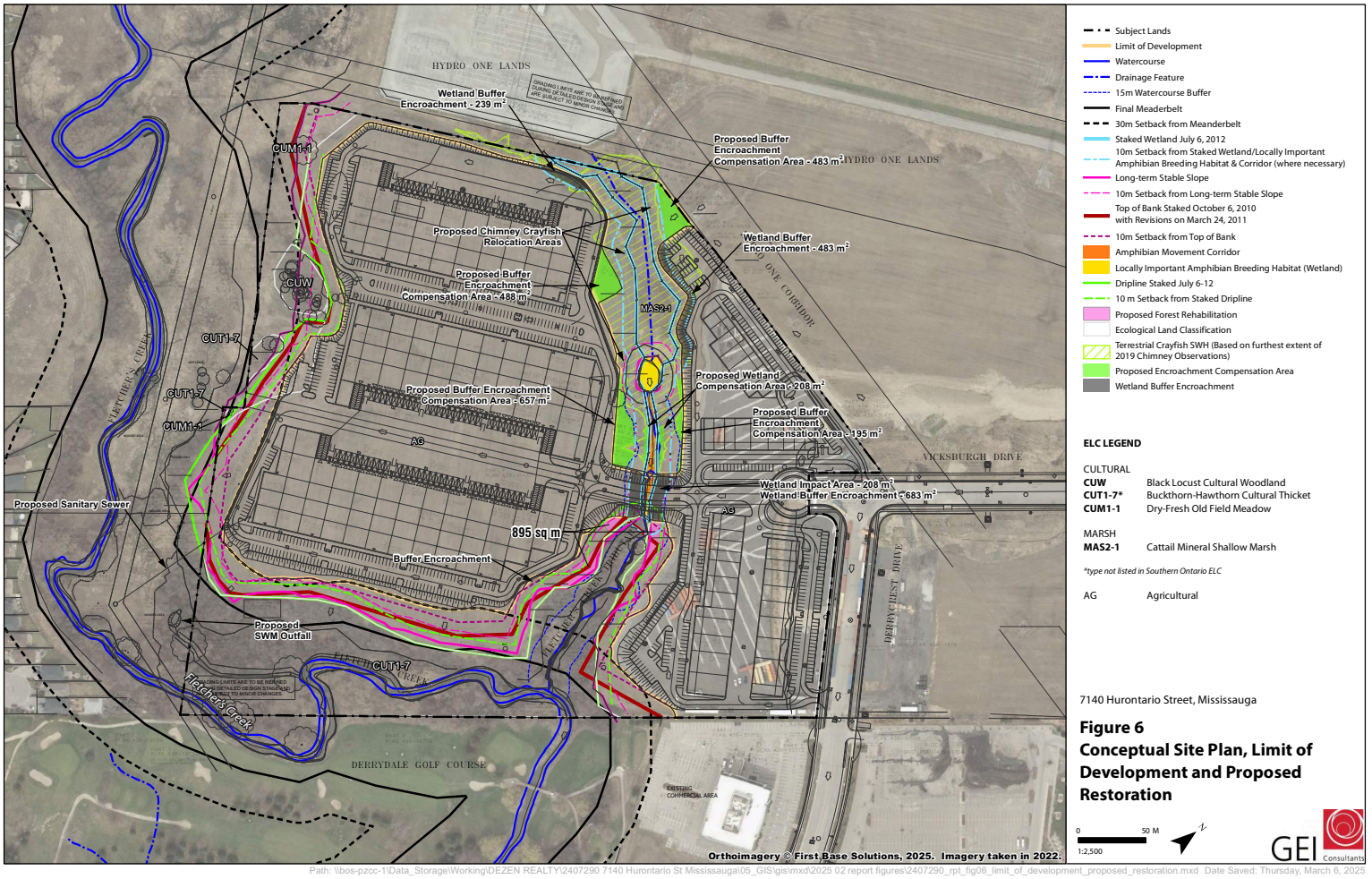

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Figure 6
Conceptual Site Plan, Limit of Development and Proposed Restoration

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Appendix B – Tables

Table 1: Amphibian Call Count Survey Results

SURVEY ROUND	STATION NUMBER	SPECIES CODE											
		NOAM	AMTO	FOTO	GRTR	SPPE	CHFR	WOFR	NLFR	PIFR	GRFR	BULL	MIFR
1	1	X											
2	1		1(4)								1(2)		
3	1		1(2)								1(2)		
1	2	X											
2	2	X											
3	2	X											

Note: Survey dates for Round 1, 2 and 3 were April 5, May 2 and June 13, 2012 respectively.

LEGEND:

SPECIES CODE	COMMON NAME	SCIENTIFIC NAME
NOAM	No Amphibians	No amphibians despite survey effort
AMTO	American Toad	*Anaxyrus americanus*
FOTO	Fowler's Toad	*Anaxyrus fowleri*
GRTR	Gray Treefrog	*Hyla versicolor*
CHFR	Western Chorus Frog	*Pseudacris triseriata*
WOFR	Wood Frog	*Lithobates sylvaticus*
NLRF	Northern Leopard Frog	*Lithobates pipiens*
PIFR	Pickerel Frog	*Lithobates palustris*
GRFR	Green Frog	*Lithobates clamitans*
BULL	American Bullfrog	*Lithobates catesbeianus*
MIFR	Mink Frog	*Lithobates septentrionalis*
SPPE	Spring Peeper	*Pseudacris crucifer*

CALL CODES	
X	No amphibians heard
1	Calls can be counted without error
2	Calls overlap but can be reliably estimated
3	Calls overlap too much to estimate number

Note: For each species, the first number is the call code and the second number, which is in brackets, is the number of individuals of that species heard calling

Table 2: Vascular Plant List

Latin Name	Common Name	Coefficient of Conservatism	Wetness Index	Weediness Index	Provincial Status S-Rank	OMNR Status	COSEWIC Status	Global Status G-Rank	Local Status (Peel)	Local Status (GTA)	Local Staus (CVC/Peel)	Local Status (Peel)
									Varga 2005	Varga 2005	CVC 2002	
DICOTYLEDONS	**DICOTS**											
Aceraceae	**Maple Family**											
Acer negundo	Manitoba Maple	0	-2		S5			G5	X	X	X	X
Anacardiaceae	**Sumac or Cashew Family**											
Rhus typhina	Staghorn Sumac	1	5		S5			G5	X	X	X	X
Apiaceae	**Carrot or Parsley Family**											
Daucus carota	Wild Carrot		5	-2	SNA			GNR	X	X	X	I
Asclepiadaceae	**Milkweed Family**											
Asclepias syriaca	Common Milkweed	0	5		S5			G5	X	X	X	X
Asteraceae	**Composite or Aster Family**											
Ambrosia artemisiifolia	Annual Ragweed	0	3		S5			G5	X	X	X	X
Anthemis arvensis	Corn Chamomille		5	-1	SNA			GNR	X	X	X	I
Arctium lappa	Greater Burdock				SNA			GNR	X	X	X	I
Arctium minus	Common Burdock		5	-2	SNA			GNR	X	X	X	I
Bidens frondosa	Devil's Beggaticks	3	-3		S5			G5	X	X	X	X
Cichorium intybus	Chicory		5	-1	SNA			GNR	X	X	X	I
Cirsium arvense	Canada Thistle		3	-1	SNA			GNR	X	X	X	I
Cirsium vulgare	Bull Thistle		4	-1	SNA			GNR	X	X	X	I
Erigeron strigosus	Daisy Fleabane	0	1		S5			G5	X	X	X	X
Inula helenium	Elecampane Flower		5	-2	SNA			GNR	X	X	I	I
Lactuca serriola	Prickly Lettuce		0	-1	SNA			GNR	X	X	I	I
Leucanthemum vulgare	Oxeye Daisy		5	-1	SNA			GNR	X	X	X	I
Matricaria discoidea	Pineapple-weed Chamomile				SNA			G5	X	X	I	I
Solidago altissima	Tall Goldenrod	1	3		S5			G5	X	X	X	X
Sonchus arvensis ssp. *arvensis*	Field Sow-thistle				SNA			GNRTNR	X	X	I	I
Symphyotrichum lanceolatum var. lan	White Panicled Aster	3	-3		S5			G5T5	X	X	X	X
Symphyotrichum novae-angliae	New England Aster	2	-3		S5			G5	X	X	X	X
Taraxacum officinale	Common Dandelion		3	-2	SNA			G5	X	X	I	I
Tragopogon pratensis	Meadow Goat's-beard		5	-1	SNA			GNR	X	X	I	I
Balsaminaceae	**Touch-me-not Family**											
Impatiens capensis	Spotted Jewelweed	4	-3		S5			G5	X	X	X	X
Brassicaceae	**Mustard Family**											
Alliaria petiolata	Garlic Mustard		0	-3	SNA			GNR	X	X	X	I
Barbarea vulgaris	Yellow Rocket		0	-1	SNA			GNR	X	X	X	I
Capsella bursa-pastoris	Common Shepherd's Purse		1	-1	SNA			GNR	X	X	X	I
Lepidium campestre	Field Pepper-grass		5	-1	SNA			GNR	X	X	I	I
Rorippa palustris ssp. *hispida*	Hispid Marsh Yellowcress				S5			G5T5	X	X	X	X
Sinapis arvensis	Corn Mustard		5	-1	SNA			GNR	X	X	I	I
Thlaspi arvense	Field Penny-cress		5	-1	SNA			GNR	X	X	I	I
Caprifoliaceae	**Honeysuckle Family**											
Lonicera tatarica	Tartarian Honeysuckle		3	-3	SNA			GNR	X	X	I	I
Caryophyllaceae	**Pink Family**											
Dianthus armeria	Deptford-pink		5	-1	SNA			GNR	X	X	X	I
Chenopodiaceae	**Goosefoot Family**											
Atriplex patula	Halberd-leaf Saltbush	0	-2		S5			G5	X	X	X	X
Chenopodium album var. *album*	White Goosefoot		1	-1	SNA			G5TNR	X	X	X	I
Salsola kali	Russian Thistle		3	-1	SNA			GNR			I	I
Cornaceae	**Dogwood Family**											
Cornus sericea	Red-osier Dogwood	2	-3		S5			G5	X	X	X	X
Dipsacaceae	**Teasel Family**											
Dipsacus fullonum	Fuller's Teasel		5	-1	SNA			GNR	X	X	X	I

Table 2: Vascular Plant List

Latin Name	Common Name	Coefficient of Conservatism	Wetness Index	Weediness Index	Provincial Status S-Rank	OMNR Status	COSEWIC Status	Global Status G-Rank	Local Status (Peel)	Local Status (GTA)	Local Staus (CVC/Peel)	Local Status (Peel)
									Varga 2005	Varga 2005	CVC 2002	
Fabaceae	**Pea Family**											
Medicago lupulina	Black Medic		1	-1	SNA			GNR	X	X	I	I
Melilotus officinalis	Yellow Sweetclover		3	-1	SNA			GNR	X	X	I	I
Robinia pseudoacacia	Black Locust		4	-3	SNA			G5	X	X	I	I
Securigera varia	Common Crown-vetch		5	-2	SNA			GNR	X	X	X	I
Trifolium pratense	Red Clover		2	-2	SNA			GNR	X	X	I	I
Vicia cracca	Tufted Vetch		5	-1	SNA			GNR	X	X	I	I
Guttiferae	**St. John's-wort Family**											
Hypericum perforatum	Common St. John's-wort		5	-3	SNA			GNR	X	X	I	I
Juglandaceae	**Walnut Family**											
Juglans nigra	Black Walnut	5	3		S4?			G5	X	X	X	X
Lamiaceae	**Mint Family**											
Leonurus cardiaca	Common Motherwort		5	-2	SNA			GNR	X	X	I	I
Nepeta cataria	Catnip		1	-2	SNA			GNR	X	X	I	I
Lythraceae	**Loosestrife Family**											
Lythrum hyssopifolia	Hyssop-leaved Loosestrife				SNA			G5				
Lythrum salicaria	Purple Loosestrife		-5	-3	SNA			G5	X	X	I	I
Onagraceae	**Evening-primrose Family**											
Circaea lutetiana	Enchanter's Nightshade	3	3		S5			G5	X	X	X	X
Epilobium hirsutum	Great-hairy Willow-herb		-4	-2	SNA			GNR	X	X	X	I
Epilobium parviflorum	Small-flower Willow-herb		3	-1	SNA			GNR	X	X	X	I
Oenothera parviflora	Northern Evening-primrose	1	3		S4?			G4?	X	X	X	X
Plantaginaceae	**Plantain Family**											
Plantago lanceolata	English Plantain		0	-1	SNA			G5	X	X	I	I
Plantago major	Common Plantain		-1	-1	SNA			G5	X	X	I	I
Polygonaceae	**Smartweed Family**											
Persicaria maculosa	Lady's-thumb		-3	-1	SNA			G3G5	X	X	I	I
Polygonum ramosissimum	Bushy Knotweed	8	1		S4			G5				
Rumex crispus	Curly Dock		-1	-2	SNA			GNR	X	X	I	I
Primulaceae	**Primrose Family**											
Anagallis arvensis	Scarlet Pimpernel		4	-1	SNA			GNR	X	X	X	I
Ranunculaceae	**Buttercup Family**											
Ranunculus sceleratus var. sceleratus	Cursed Buttercup	2	-5		SU			G5T5			X	X
Rhamnaceae	**Buckthorn Family**											
Rhamnus cathartica	Common Buckthorn		3	-3	SNA			GNR	X	X	I	I
Rosaceae	**Rose Family**											
Crataegus monogyna	English Hawthorn		5	-1	SNA			G5	X	X	I	I
Crataegus species	Hawthorn species											
Geum aleppicum	Yellow Avens	2	-1		S5			G5	X	X	X	X
Geum canadense	White Avens	3	0		S5			G5	X	X	X	X
Potentilla norvegica ssp. *norvegica*	Norwegian Cinquefoil				S5			G5	X	X	I	I
Potentilla recta	Sulphur Cinquefoil		5	-2	SNA			GNR	X	X	I	I
Rubus idaeus ssp. *strigosus*	Red Raspberry	0	-2		S5			G5T5	X	X	X	X
Rubiaceae	**Madder Family**											
Galium trifidum	Small Bedstraw	5	-4		S5			G5	R4	U	L	L
Salicaceae	**Willow Family**											
Salix bebbiana	Bebb's Willow	4	-4		S5			G5	X	X	X	X
Salix x rubens	Reddish Willow		-4	-3	SNA			GNA	XSR	X		

Table 2: Vascular Plant List

Latin Name	Common Name	Coefficient of Conservatism	Wetness Index	Weediness Index	Provincial Status S-Rank	OMNR Status	COSEWIC Status	Global Status G-Rank	Local Status (Peel)	Local Status (GTA)	Local Staus (CVC/Peel)	Local Status (Peel)
									Varga 2005	Varga 2005	CVC 2002	
Scrophulariaceae	**Figwort Family**											
Linaria vulgaris	Butter-and-eggs		5	-1	SNA			GNR	X	X	I	I
Verbascum thapsus	Common Mullein		5	-2	SNA			GNR	X	X	I	I
Solanaceae	**Nightshade Family**											
Solanum dulcamara	Climbing Nightshade		0	-2	SNA			GNR	X	X	I	I
Ulmaceae	**Elm Family**											
Ulmus americana	White Elm	3	-2		S5			G5	X	X	X	X
Urticaceae	**Nettle Family**											
Urtica dioica ssp. *gracilis*	American Stinging Nettle	2	-1		S5			G5T5	X	X	X	X
Vitaceae	**Grape Family**											
Vitis riparia	Riverbank Grape	0	-2		S5			G5	X	X	X	X
MONOCOTYLEDONS	**MONOCOTS**											
Alismataceae	**Water-plantain Family**											
Alisma triviale	Northern Water-plantain	3	-5		S5			G5	X	X	X	X
Cyperaceae	**Sedge Family**											
Carex bebbii	Bebb's Sedge	3	-5		S5			G5	X	X	X	X
Carex vulpinoidea	Fox Sedge	3	-5		S5			G5	X	X	X	X
Eleocharis erythropoda	Red-footed Spike-rush	4	-5		S5			G5	X	X	X	X
Schoenoplectus tabernaemontani	American Great Bulrush	5	-5		S5			G5	X	X	X	X
Juncaceae	**Rush Family**											
Juncus bufonius	Toad Rush	1	-4		S5			G5	X	X	X	X
Juncus dudleyi	Dudley's Rush	1	0		S5			G5	X	X	X	X
Juncus torreyi	Torrey's Rush	3	-3		S5			G5	X	X	X	X
Poaceae	**Grass Family**											
Agrostis gigantea	Redtop		0	-2	SNA			G4G5	X	X	I	I
Agrostis stolonifera	Redtop		-3		S5			G5	X	X	X	X
Bromus inermis	Awnless Brome		5	-3	SNA			G5TNR	X	X	I	I
Bromus secalinus	Cheat Chess		5	-1	SNA			GNR	X	X	I	I
Elymus repens	Quack Grass		3	-3	SNA			GNR	X	X	I	I
Hordeum jubatum ssp. jubatum	Foxtail Barley		-1	-1	S5?			G5T5	X	X	I	I
Phalaris arundinacea var. arundinacea	Reed Canary Grass	0	-4		S5			GNR	X	X	X	X
Phleum pratense	Timothy		3	-1	SNA			GNR	X	X	I	I
Phragmites australis ssp. americanus	American Reed	0	-4		S4?			G5T4			X	X
Poa compressa	Canada Blue Grass	0	2		SNA			GNR	X	X	X	X
Poa palustris	Fowl Meadow Grass	5	-4		S5			G5	X	X	X	X
Poa pratensis ssp. pratensis	Kentucky Bluegrass	0	1		SNA			G5T5	X	X	X	X
Puccinellia distans	Spreading Goose Grass		-5	-1	SNA			G5	X	X	I	I
Typhaceae	**Cattail Family**											
Typha latifolia	Broad-leaved Cattail	3	-5		S5			G5	X	X	X	X
Typha x glauca	Glaucous Cattail	3	-5		SNA			GNA	X	X	X	X

STATISTICS		
Species Richness		
Total Number of Species:	100	
Native Species:	42	42%
Exotic Species:	58	58%
S1-S3 Species:	0	0%
S4 Species:	4	10%
S5 Species:	36	90%

Latin Name	Common Name	Coefficient of Conservatism	Wetness Index	Weediness Index	Provincial Status S-Rank	OMNR Status	COSEWIC Status	Global Status G-Rank	Local Status (Peel)	Local Status (GTA)	Local Staus (CVC/Peel)	Local Status (Peel)
									Varga 2005	Varga 2005	CVC 2002	

Floristic Quality Indices		
Mean Co-efficient of Conservatism (CC)	2.2	
CC 0 - 3 = lowest sensitivity	31	79%
CC 4 - 6 = moderate sensitivity	7	18%
CC 7 - 8 = high sensitivity	1	3%
CC 9 - 10 = highest sensitivity	0	0%
Floristic Quality Index (FQI)	14	
Weedy and Invasive Species		
Mean Weediness Index:	-1.6	
-1 = low potential invasiveness	30	57%
-2 = moderate potential invasiveness	14	26%
-3 = high potential invasivenss	9	17%
Wetland Species		
Mean Wetness Index	0.7	
upland	24	26%
facultative upland	19	20%
facultative	20	22%
facultative wetland	21	23%
obligate wetland	9	10%

See next page for explanation of terms*

EXPLANATION OF TERMINOLOGY

Botanical and Common Name: From Newmaster et. al, 1998. Species requiring confirmation noted (cf).
Co-efficient of Conservatism: This value, ranging from 0 (low) to 10 (high), is based on a species tolerance of disturbance and fidelity to a specific habitat integrity.

Wetness Index: This value, ranging from -5 (obligate wetland) to 5 (upland) provides the probability of a species occurring in wetland or upland habitats.
Weediness Index: This value, ranging from -1 (low) to -3 (high) quantifies the potential invasiveness of non-native plants. In combination with the percentage of non-native plants, it can be used as an indicator of disturbance.
Provincial Status: Provincial ranks are used by the NHIC to set protection priorities for rare species and natural communities. These ranks are not legal designations. S4 and S5 species are generally uncommon to common in the province. Species ranked S1-S3 are considered to be rare in Ontario.

Local Status:

X: native species present (collection-based) and all exotic species
R: native species locally rare (number of sites): Hamilton-Wentworth (<6 sites), Durham (<10 sites), GTA (<40 sites), Site District 6E7 (<20 sites), Oak Ridges Moraine (20 or fewer sites), Halton (<5 sites); Peterborough (suspected of being rare, 5 or fewer occurrences); CVC/Peel Region (<11 sites)
U: native species locally uncommon Hamilton-Wentworth (6-10 sites), Durham (11-20 sites), GTA (41-80 sites), Site District 6E7 (21-40 sites), Halton (5-15 sites).

E: Presumed Extirpated

?: More work required to determine status

H: historic record

O: only old (>20 years) records known (Peterborough)

Record Type

SR - sight record

SRP - sight record with photograph

VARGA 2005 Rankings:

+ Introduced species
X+ Native species that is introduced in that municipality
(+) Possibly introduced species or a native species that is introduced in some municipalities
X Common native species or an introduced species that is present
R Rare native species
E Extirpated native species that has not been refound at its known locations or its habitat is gone
SR Species record based on a sight record (all other species records based on herbarium collections)
LR Species record based on a literature record
U Uncommon native species
R6 Number of stations for a rare native species
H Historical species not seen since 1950, however its habitat is still present
X̲ Species that occur only in the portion of site district 6E7 outside of the Greater Toronto Area

TRCA Rankings (April 2016):

L5: able to withstand high levels of disturbance; generally secure throughout the jurisdiction, including the urban matrix. May be of very localized concern in highly degraded areas

L4: able to withstand some disturbance; generally secure in rural matrix; of concern in urban matrix

L3: able to withstand minor disturbance; generally secure in natural matrix; considered to be of regional concern.

L2: unable to withstand disturbance; some criteria are very limiting factors; generally occur in high-quality natural areas, in natural matrix; probably rare in the TRCA jurisdiction; of concern regionally

L1: unable to withstand disturbance; many criteria are limiting factors; generally occur in high-quality natural areas in natural matrix; almost certainly rare in the TRCA jurisdiction; of concern regionally

LX: extirpated from our region with remote chance of rediscovery. Presumably highly sensitive

LH: hybrid between two native species. Usually not scored unless highly stable and behaves like a species (e.g. *Equisetum x nelsonii*)

L+: exotic. Not native to TRCA jurisdiction. Includes hybrids between a native species and an exotic

L+?: origin uncertain or disputed, i.e. may or may not be native

pL : found in natural cover, but only as planted, not regenerating

Status in Region of Waterloo: * significant but with the expectation that additional research may prove otherwise, + significant only if demonstrably indigenous - most populations in Region of Waterloo are thought to be of non-indigenous origin, # significant but known Region of Waterloo reports are treated as hypothetical.

The sensitivity of natural areas can be assessed through application of the Weediness Index. The Weediness Index quantifies the potential invasiveness of non-native plants, and, in combination with the percentage of non-native plants can be used as an indicator of disturbance. Values (ranging from 1- to -3) have been assigned to most non-native species based on the potential impact each species can have in natural areas:

-1: little or no impact on natural areas (most non-native plants are in this category)

-2: occasional impacts on natural areas, generally infrequent or localized

-3: major potential impacts on natural areas

Status in Niagara Regional Municipality (Oldham 2010)

R: Rare, 10 or fewer post 1980 records

RH: Rare Historic, no records post 1980

U: Uncommon, 11-20 post 1980 records

C: Common, more than 20 post 1980 records

DD: Data deficient, further work needed to determine status

I: Introduced

hyb: hybrid, no Niagara status assigned

Status in Haldimand-Norfolk (Sutherland 1987)

R: Rare, 1-5 sites, number of sites indicated

VU: Very Uncommon, 6-8 sites

U: Uncommon, 9-15 sites

C: Common, more than 15 sites

I: Introduced, not native

X: Present in Haldimand-Norfolk, no status assigned

?: Status uncertain

Status in Wellington (Frank and Anderson 2009)

R1: 1-3 sites

R2: 4-6 sites

R3: 7-10 sites

FACW (Facultative Wetland): usually occurs in wetlands, but occasionally found in non-wetlands (estimated 67-99% probability)

FAC (Facultative): equally likely to occur in wetlands or non-wetlands (estimated 34-66% probability)

FACU (Facultative Upland): occasionally occurs in wetlands, but usually occurs in non-wetlands (estimated 1-33% probability)

UPL (Upland): occurs almost never in wetlands under natural conditions (estimated <1% probability)

Further refinement of the Facultative categories are denoted by a "+" or "-" to express exaggerated tendencies for those species. The "+" denotes a greater estimated probability occurring in wetlands than species in the general indicator category, but a lesser probability than species occurring in the next higher category. The "-" denotes a lesser estimated probability of occurring in wetlands than species in the general indicator category, but a greater probability than species occurring in the next lower general category.

Each wetland category has been assigned a numerical value to facilitate the quantification of the wetness index. The wetland categories and their corresponding values are as follows:

OBL : -5

FACW+: -4

FACW: -3
FACW-: -2
FAC+: -1
FAC: 0
FAC-: 1
FACU+: 2
FACU: 3
FACU-: 4
UPL: 5

Provincial Status
Provincial ranks are used by the NHIC to set protection priorities for rare species and natural communities. These rankings are based on the total number of extant Ontario populations and the degree to which they are potentially or actively threatened with destruction. The ranks are:
S1: Critically Imperiled - Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
S2: Imperiled - Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
S3: Vulnerable - Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4: Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5: Secure - Common, widespread, and abundant in the nation or state/province.
SH: Possibly Extirpated (Historical)—Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20-40 years. A species or community could become NH or SH without such a 20-40 year delay if the only known occurrences in a nation or state/province were destroyed or if it had been extensively and unsuccessfully looked for. The NH or SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.
SR: Reported in Ontario, but without persuasive documentation.
SX: Presumed Extirpated—Species or community is believed to be extirpated from the nation or state/province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SE: Exotic; not believed to be a native component of Ontario's flora. Numerical rankings after SE follow designations described above for native species.
SNA: Unranked — Status not assigned.
SU: Unranked — Nation or state/province conservation status not yet assessed.
Rank ranges, e.g. S2S3, indicate that the rank is either S2 or S3, but that current information is insufficient to differentiate.
"?" following a rank indicates uncertainty about the assigned rank.
Q: Questionable taxonomy —Taxonomic distinctiveness of this entity is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or the inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority conservation status.

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Frank. R. and A. Anderson. 2009. The Flora of Wellington County. Wellington County Historical Society. Fergus, Ontario. 145 pp.

Table 3: Breeding Bird Survey and Incidental Observations

Common Name	Species Code	Scientific Name	Breeding Evidence	#PC	Inc	National Status (Grank)	Provincial Status (Srank)	COSSARO (MNR)	COSEWIC
Anseriformes									
Anatinae									
Mallard	MALL	*Anas platyrhynchos*	H	0	x	G5	S5		
Pelecaniformes									
Ardeidae									
Great Blue Heron	GBHE	*Ardea herodias*	X	1	x	G5	S4		
Accipitriformes									
Accipitridae									
Red-tailed Hawk	RTHA	*Buteo jamaicensis*	NY	2	x	G5	S5	NAR	NAR
Charadriiformes									
Charadriinae									
Killdeer	KILL	*Charadrius vociferus*	H	0	x	G5	S5B,S5N		**Candidate (low priority)**
Larinae									
Ring-billed Gull	RBGU	*Larus delawarensis*	X	2	x	G5	S5B,S4N		
Columbiformes									
Columbidae									
Rock Pigeon	ROPI	*Columba livia*	X	3	x	G4	SNA		
Mourning Dove	MODO	*Zenaida macroura*	H	2	x	G5	S5		
Piciformes									
Picinae									
Downy Woodpecker	DOWO	*Picoides pubescens*	H	0	x	G5	S5		
Northern Flicker	NOFL	*Colaptes auratus*	H	1	x	G5	S4B		
Passeriformes									
Fluvicolinae									
Willow Flycatcher	WIFL	*Empidonax traillii*	P	2	x	G5	S5B		
Vireonidae									
Warbling Vireo	WAVI	*Vireo gilvus*	A	1	x	G5	S5B		
Red-eyed Vireo	REVI	*Vireo olivaceus*	S	1	x	G5	S5B		
Corvidae									
Blue Jay	BLJA	*Cyanocitta cristata*	H	0	x	G5	S5		
American Crow	AMCR	*Corvus brachyrhynchos*	H	0	x	G5	S5B		
Alaudidae									
Horned Lark	HOLA	*Eremophila alpestris*	H	0	x	G5	S5B		
Hirundininae									
Tree Swallow	TRES	*Tachycineta bicolor*	H	0	x	G5	S4B		
Northern Rough-winged Swallow	NRWS	*Stelgidopteryx serripennis*	X	2	x	G5	S4B		
Cliff Swallow	CLSW	*Petrochelidon pyrrhonota*	X	0	x	G5	S4B		
Barn Swallow	BARS	*Hirundo rustica*	X	3	x	G5	S4B	**THR**	**THR**
Paridae									
Black-capped Chickadee	BCCH	*Poecile atricapillus*	FY	0	x	G5	S5		
Turdidae									
American Robin	AMRO	*Turdus migratorius*	FY	4	x	G5	S5B		
Mimidae									
Gray Catbird	GRCA	*Dumetella carolinensis*	CF	2	x	G5	S4B		
Northern Mockingbird	NOMO	*Mimus polyglottos*	H	1		G5	S4		
Sturnidae									
European Starling	EUST	*Sturnus vulgaris*	P	2	x	G5	SNA		
Bombycillidae									
Cedar Waxwing	CEDW	*Bombycilla cedrorum*	H	3	x	G5	S5B		
Parulidae									
Common Yellowthroat	COYE	*Geothlypis trichas*	S	1	x	G5	S5B		
Yellow Warbler	YWAR	*Setophaga petechia*	P	3	x	G5	S5B		
Emberizidae									
Savannah Sparrow	SAVS	*Passerculus sandwichens*	FY	4	x	G5	S4B		
Song Sparrow	SOSP	*Melospiza melodia*	FS	4	x	G5	S5B		
Cardinalidae									
Northern Cardinal	NOCA	*Cardinalis cardinalis*	P	1	x	G5	S5		
Icteridae									
Bobolink	BOBO	*Dolichonyx oryzivorus*	S	1	x	G5	S4B	**THR**	**THR**
Red-winged Blackbird	RWBL	*Agelaius phoeniceus*	CF	4	x	G5	S4		

Table 3: Breeding Bird Survey and Incidental Observations

Common Name	Species Code	Scientific Name	Breeding Evidence	#PC	Inc	National Status (Grank)	Provincial Status (Srank)	COSSARO (MNR)	COSEWIC
Common Grackle	COGR	*Quiscalus quiscula*	FY	3	x	G5	S5B		
Brown-headed Cowbird	BHCO	*Molothrus ater*	D	3	x	G5	S4B		
Orchard Oriole	OROR	*Icterus spurius*	FY	4	x	G5	S4B		
Baltimore Oriole	BAOR	*Icterus galbula*	H	0	x	G5	S4B		
Carduelinae									
American Goldfinch	AMGO	*Spinus tristis*	P	4	x	G5	S5B		

Species Common Name and Scientific Name: consistent with the American Ornithologists' Union. 2012. Check-list of North American Birds. Accessed May 25, 2012. Available online: www.aou.org/checklist/north/full.php/

Species Code: consistent with the American Ornithologists' Union. 2012. Species 4-Letter-Codes. Accessed May 25, 2012. Available online: www.birdsontario.org/atlas/codes.jsp?lang=en&pg=species/

Breeding Evidence[2]: Codes assigned for breeding evidence are consistent with the Ontario Breeding Bird Atlas (OBBA). 2012. Breeding Evidence Codes. Accessed May 25, 2012. Available online: http://www.birdsontario.org/dataentry/codes.jsp?page=breeding/. Several different types of breeding evidence are often recorded for any given species over the course of surveys and incidental observations - this table reports only the highest level of breeding evidence

#PC[+]: total number of point count (PC) stations on the Subject Lands where each bird species was observed. Detailed point count data is provided in in the Breeding Bird Survey Point Count Table

Inc[t]: an "x" in this column means an incidental observation(s) was made of this species; the "Breeding Bird Point Count Data and Incidental Bird Observations Table" provides the date and number of individuals observed.

S ranks: Provincial ranks are from the Natural Heritage Information Centre; S1 (critically imperiled), S2 (imperlied), S3 (vulnerable), S4 (apparently secure), S5 (secure); ranks were updated using NHIC species list Feb 17, 2012

G ranks: National ranks are from the Natural Heritage Information Centre; G1 (extremely rare), G2 (very rare), G3 (rare to uncommon), G4 (common), G5 (very common); ranks were updated using NHIC species list Feb 17, 2012

COSSARO (MNR): Ontario Species at Risk as listed by the Committee on the Status of Species at Risk in Ontario (from NHIC Table Feb 17, 2012); END - Endangered, THR - Threatened, SC - Special Concern, NAR - Not at Risk; Candidate Species at Risk to be assessed by COSSARO are listed online: www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/STDPROD_068707.html/.

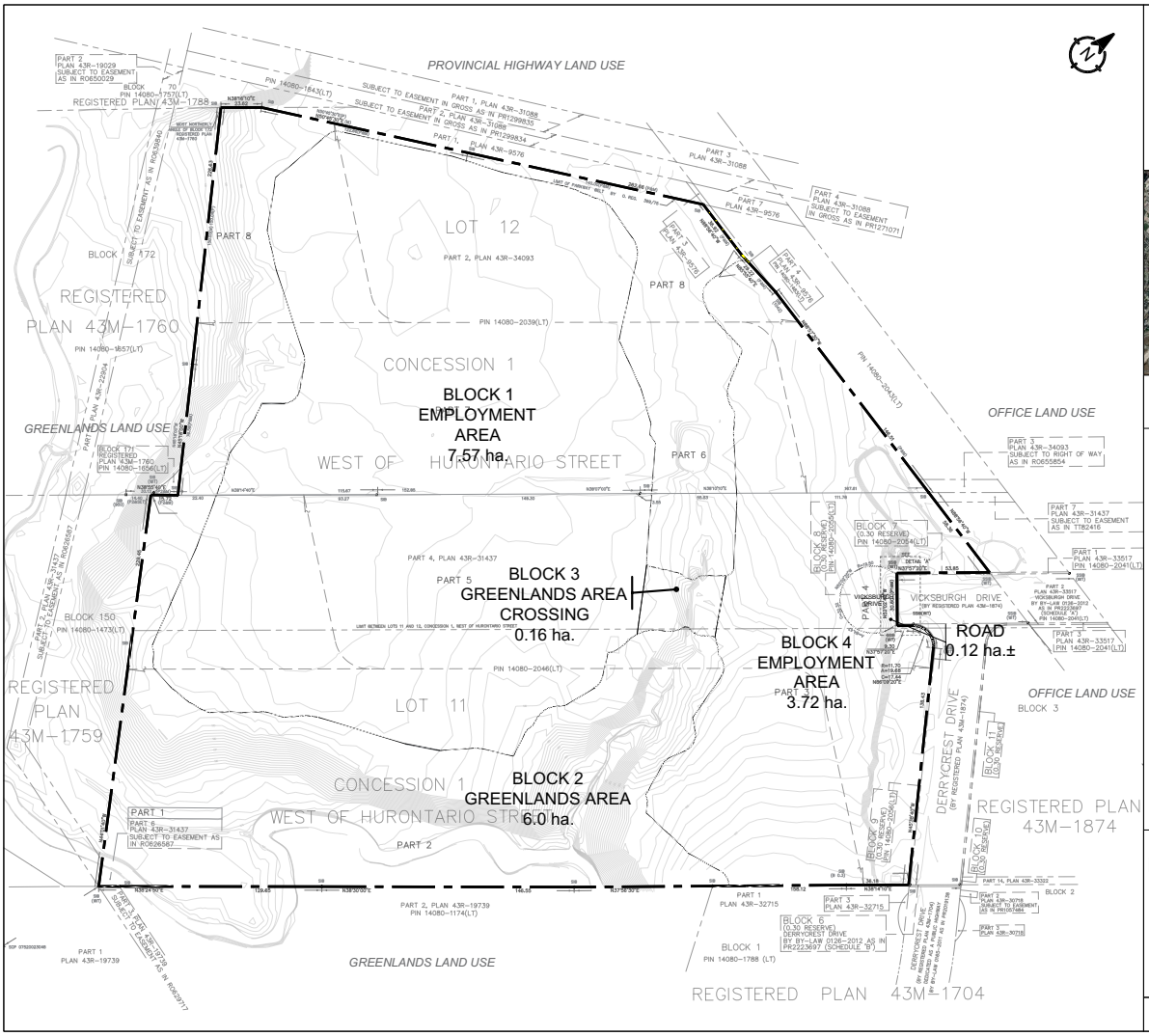
COSEWIC: Canada Species at Risk as listed by the Committee on the Status of Endangered Wildlife in Canada (from NHIC Table Feb 17, 2012); END - Endangered, THR - Threatened, SC - Special Concern, NAR - Not at Risk; Candidate Species at Risk to be assessed by COSEWIC are listed online: www.cosewic.gc.ca/eng/sct3/index_e.cfm/.

Table 4: ELC Community Summary Table

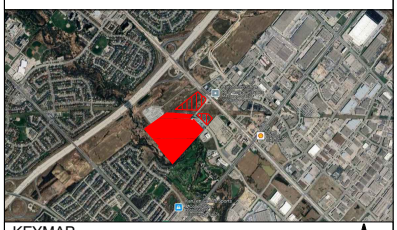
ELC Community Code	Description
CULTURAL	
CUW Black Locust Cultural Woodland	This is a small and low-quality patch of Black Locust entirely dominating the tree layer. Locust saplings are also present in the shrub layer, together with scattered presence of Tartarian Honeysuckle and some Riverbank Grape. Ground herbaceous cover is almost exclusively of Garlic Mustard, followed by native Tall Goldenrod and Yellow Mustard, and non-native Quack Grass, Awnless Brome and Common Motherwort.
CUT1-7* Buckthorn-Hawthorn Cultural Thicket	This community is floristically and structurally simple. The tall shrub layer is that of very densely growing mix of Common Buckthorn and hawthorn species, with a few remaining old domestic apple trees, Tartarian Honeysuckle, and a few single White Elm trees emerging over the shrubs. The herb layer is poorly developed, with scattered Garlic Mustard, Yellowish Enchanter's Nightshade and Yellow Avens. This unit covers the slopes of the Fletcher's Creek valleyland.
CUM1-1 Dry-Fresh Old Field Meadow	Surrounding the locust woodland, this is a diverse assemblage of exotic species and native species of weedy predisposition. Several species can attain local dominance, or are scattered throughout, for example, Canada Thistle, Quack Grass, Tall Goldenrod, Prickly Lettuce, Common Ragweed, Teasel, Charlock, and Corn Chamomile.
MARSH	
MAS2-1 Cattail Mineral Shallow Marsh	This community is defined by the width of the swale. Glaucous Cattail and occasional Wide-leaved Cattail form a dense tall herb layer. Associates include Reed-canary Grass, Great Hairy Willow-herb, Red-footed Spike-rush, Tall White Aster, Red-top, and a short cover of Toad Rush.

ELC Community Code	Description
MAS2-1/MAM Cattail Mineral Shallow Marsh/Meadow Marsh	This is a complex unit of forb-dominated meadow marsh on the creek floodplain, with areas of cattail shallow marsh in small depressions and old oxbows. The meadow component is dominated by Tall Panicled Aster (*Symphyotrichum lanceolatum*), Reed-canary Grass (*Phalaris arundinacea*), Elecampane (*Inula helenium*) and Spotted Joe-pye Weed (*Eupatorium maculatum*), while the Glaucous Cattail (*Typha* x *glauca*) is the main shallow marsh species.

Appendix C – Draft Plan and Site Plan



PROPOSED DRAFT PLAN OF SUBDIVISION
PART OF LOTS 11 AND 12, CONCESSION 1
WEST OF HURONTARIO STREET
(GEOGRAPHIC TOWNSHIP OF TORONTO, COUNTY OF PEEL)
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL



KEYMAP

Subject Property

Additional land owned by the Applicant/owner

LEGEND

Subject Site Boundary

Block Lines

AREA TABLE

Employment Area Blocks 1 & 4	11.29	ha.
Greenlands Area Block 2	6.0	ha.
Greenlands Area Crossing Block 3	0.16	ha.
Road	0.12	ha.±
TOTAL	17.57	ha.±

ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51 (17) OF THE PLANNING ACT

C. The applicant owns additional land adjacent to the proposed subdivision.
D. Industrial Buildings.
H. Piped water to be provided.
I. Silty clay till & sandy silt till.
K. Sanitary and storm sewers to be provided

SURVEYOR'S CERTIFICATE

I hereby certify that the boundaries of the land to be subdivided as shown on this plan, and their relationship to the adjacent lands are accurately and correctly shown.

Anthony Vas - O.L.S. Signature Day Month Year

OWNERS AUTHORIZATION

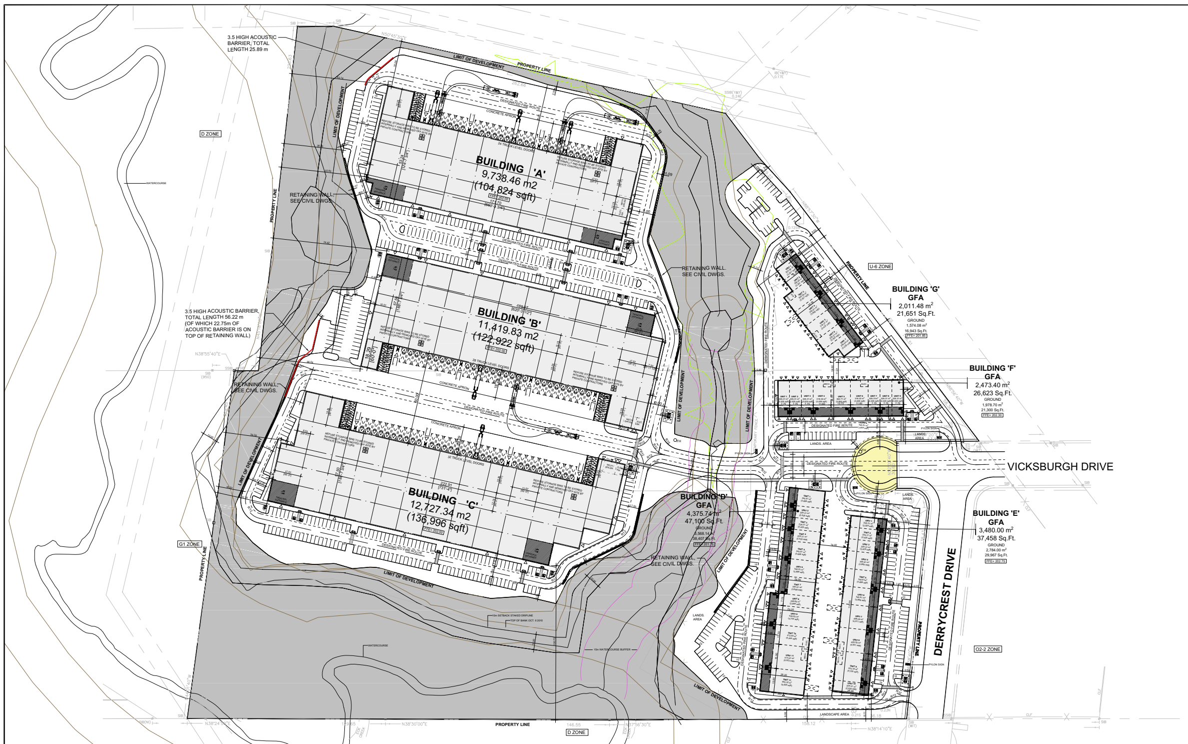
I, _____ here by authorize Design Plan Services Inc. to prepare and submit a draft plan of subdivision for approval.

– Owner Signature Day Month Year

DESIGN PLAN SERVICES INC.
Town Planning Consultants

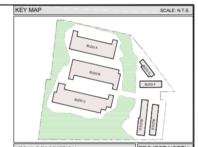
87 Skyway Avenue, Suite 200
Toronto, ON M9W 6R3
Telephone: 416.626.5445
www.designplan.ca

1:1000	March 7th /2025	22332-5			RW
Scale	Date	Drawing Number	Rev.	Drawn	Design



KEY MAP

SCALE: N.T.S.



LEGAL DESCRIPTION

PLAN OF SURVEY OF
PART OF LOTS 11 AND 12
CONCESSION 1
(GEOGRAPHIC TOWNSHIP OF TORONTO, COUNTY OF PEEL)

CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL

PROJECT NORTH

TRUE NORTH

SITE STATISTICS

SITE AREA	175,684.18 m2	or 43.41 acres	or	17.56 ha
SITE AREA W/ CUL DE SAC	174,726.72 m2	or 43.18 acres	or	17.47 ha
DEVELOPABLE SITE AREA	115,468.04 m2	or 28.53 acres	or	11.54 ha
ZONING				D ZONE (DEVELOPMENT)

	FOOTPRINT AREA	45,418.65 m2	or	488,882 sf
	SITE COVERAGE	45,418.65 m2	or	39.33 %
	LANDSCAPED AREA	21,884.14 m2	or	18.95 %
	PAVED AREA	48,165.25 m2	or	41.72 %
		REQUIRED		PROVIDED
SETBACKS	FRONT YARD (DERRY SOUTH)	7.50 m		26.39 m
SETBACKS	REAR YARD (WEST)	7.50 m		32.78 m
SETBACKS	EXTERIOR SIDE YARD (NORTH)	7.50 m		30.03 m
SETBACKS	EXTERIOR SIDE YARD (SOUTH)	7.50 m		14.98 m
LANDS. BUFFER	ALONG G1 ZONE	5.00 m		16.07 m
LANDS. BUFFER	ALONG D ZONE	3.00 m		6.08 m
LANDS. BUFFER	ALONG U-6 ZONE	0.00 m		6.01 m
LANDS. BUFFER	ALONG O2-2 ZONE	3.00 m		6.00 m
GROSS FLOOR AREA	BUILDING 'A'	9,738.46 m2	or	104,824 sf
GROSS FLOOR AREA	MECH. / ELECTR./ STAIRS/ WR.	108.40 m2	or	1,167 sf
GROSS FLOOR AREA	BUILDING 'B'	11,419.83 m2	or	122,922 sf
GROSS FLOOR AREA	MECH. / ELECTR./ STAIRS/ WR.	108.40 m2	or	1,167 sf
GROSS FLOOR AREA	BUILDING 'C'	12,727.34 m2	or	136,996 sf
GROSS FLOOR AREA	MECH. / ELECTR./ STAIRS/ WR.	108.40 m2	or	1,167 sf
GROSS FLOOR AREA	BUILDING 'D'	4,375.74 m2	or	47,100 sf
GROSS FLOOR AREA	MEZZANINE	721.65 m2	or	7,768 sf
GROSS FLOOR AREA	GROUND FLOOR	3,501.09 m2	or	37,685 sf
GROSS FLOOR AREA	MECH. / ELECTR./ STAIRS/ WR.	153.00 m2	or	1,647 sf
GROSS FLOOR AREA	BUILDING 'E'	3,480.00 m2	or	37,458 sf
GROSS FLOOR AREA	MEZZANINE	624.35 m2	or	6,720 sf
GROSS FLOOR AREA	GROUND FLOOR	2,717.04 m2	or	29,246 sf
GROSS FLOOR AREA	MECH. / ELECTR./ STAIRS/ WR.	138.61 m2	or	1,492 sf
GROSS FLOOR AREA	BUILDING 'F'	2,473.40 m2	or	26,623 sf
GROSS FLOOR AREA	MEZZANINE	430.33 m2	or	4,632 sf
GROSS FLOOR AREA	GROUND FLOOR	1,920.81 m2	or	20,675 sf
GROSS FLOOR AREA	MECH. / ELECTR./ STAIRS/ WR.	122.26 m2	or	1,316 sf
GROSS FLOOR AREA	BUILDING 'G'	2,011.48 m2	or	21,651 sf
GROSS FLOOR AREA	MEZZANINE	386.87 m2	or	4,164 sf
GROSS FLOOR AREA	GROUND FLOOR	1,520.05 m2	or	16,362 sf
GROSS FLOOR AREA	MECH. / ELECTR./ STAIRS/ WR.	104.56 m2	or	1,125 sf
GROSS FLOOR AREA	TOTAL GFA	46,226.25 m2	or	497,655 sf

GFA NON-RESIDENTIAL BREAKDOWN

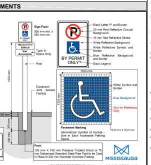
BUILDING	TOTAL GFA	M/E ROOM GFA	GFA NON-RES
A	9,738.46 m2	108.40 m2	9,630.06 m2
B	11,419.83 m2	108.40 m2	11,311.43 m2
C	12,727.34 m2	108.40 m2	12,618.94 m2
D	4,375.74 m2	153.00 m2	4,225.74 m2
E	3,480.00 m2	138.61 m2	3,341.39 m2
F	2,473.40 m2	122.26 m2	2,351.14 m2
G	2,011.48 m2	104.56 m2	1,907.92 m2
TOTAL	46,226.25 m2	843.63 m2	45,381.62 m2

PARKING	1.1 spaces / 100 m2 of MUITI-UNIT WAREHOUSE GFA	REQUIRED	PROVIDED
PARKING	BUILDING 'A'	108 spaces	137 spaces
PARKING	BUILDING 'B'	126 spaces	138 spaces
PARKING	BUILDING 'C'	141 spaces	155 spaces
PARKING	BUILDING 'D'	49 spaces	109 spaces
PARKING	BUILDING 'E'	39 spaces	74 spaces
PARKING	BUILDING 'F'	28 spaces	26 spaces
PARKING	BUILDING 'G'	23 spaces	58 spaces
PARKING	TOTAL PARKING	514 spaces	697 spaces
PARKING	ACCESSIBLE PARKING Required Regular Parking Spaces (201-1000, 2.0 + 2% of total)	13 spaces	28 spaces
BICYCLES	LONG TERM SPACES 0.10/ 100 m2 GFA (EXACT LOCATION TBD DURING TENANT FIT-OUT) BUILDING A= 10 spaces BUILDING B= 12 spaces BUILDING C= 13 spaces BUILDING D= 5 spaces BUILDING E= 4 spaces BUILDING F= 3 spaces BUILDING G= 2 spaces	49 spaces	TBD during tenant fit-out
BICYCLES	SHORT TERM SPACES 2 spaces/ ring	Min. 2 spaces	56 spaces/ 28 rings
LOADING	Greater than 250 m2 but less than or equal to 2,350 m2	1 Spaces	
LOADING	Greater than 2,350 m2 but less than or equal to 7,500 m2	6 Spaces	
LOADING	Greater than 7,500 m2 but less than or equal to 14,000 m2	9 Spaces	
LOADING	TOTAL LOADING	16 spaces	84 spaces
	BUILDING HEIGHT	N/A	XX.XX m
	FLOOR SPACE INDEX (FSI)	1.0	XX.XX m

SYMBOL LEGEND

	MAN DOOR
	LOADING DOCK DOOR
	DRIVE-IN / OVERHEAD DOOR
FH	HYDRANT + VALVE
FDC	FIRE DEPARTMENT CONNECTION / SIAMESE
CB	CATCH BASIN
SANMH	SANITARY MAN HOLE
CB/MH	CATCH BASIN / MAN HOLE
SMH	STORM MAN HOLE
HP	HYDRO POLE STANDARD / UTILITY POLE
BR	BIKE RACK (2-3 BIKES)
HT	HYDRO TRANSFORMER
	ACCESSIBLE PARKING SPACE
	ACCESSIBLE PARKING SPACE SIGNAGE
SNW	SNOW STORAGE AREA
G	REFUSE STORAGE BINS
	STOP SIGNS
B	CONC. FILLED STEEL BOLLARDS, EXT. TYPE A, IN ACCORDANCE MS-25 WITH, DRAWING A-0.0
	LOADING SPACE 9.0 m x 3.5 m x 4.2 m H
M	GAS METER
FR	FIRE ROUTE SIGNS

ACCESSIBLE PARKING SIGN REQUIREMENTS



Maximum Fine $5000.00	Van Accessible

PARKING SPACES RESERVED FOR PEOPLE WITH DISABILITIES MUST BE IDENTIFIED BY A SIGN, INSTALLED AT THE APPLICANT'S EXPENSE, IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS OF SCHEDULES 2 & 3 OF BY-LAW #10-2016.

AUTHORITIES HAVING JURISDICTION & GENERAL NOTES

PLANNING AND BUILDING DEPARTMENT

SP 25-XX WX

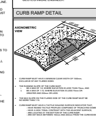
LANDSCAPE ARCH

TRANSPORTATION & WORKS DEVELOPMENT ENGINEERING

FIRE PREVENTION FIRE DEPARTMENT NOTE

ENVIRONMENTAL ENGINEERING

CURB RAMP DETAIL



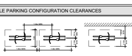
A TACTILE SURFACE / DETECTABLE HAZARD INDICATOR 150mm FROM EDGE OF CURB AND 610mm IN DEPTH

B SLOPE SURFACE @ 1:10 (max)

C LANDING / UNINTERRUPTED SPACE OF NOT LESS THAN 1100mm

D FLARED SIDES WITH MAX SLOPE OF 1:10

BICYCLE PARKING CONFIGURATION CLEARANCES



OTM BOOK 18 - CYCLING FACILITIES

SITE PLAN NOTES

1. SNOW TO BE REMOVED OFF-SITE BY PRIVATE CONTRACTOR
2. ALL ROOF TOP MECHANICAL UNITS SHALL BE ADEQUATELY SCREENED FROM PUBLIC VIEWS BY THE APPLICANT. THE DESIGN, PLACEMENT AND SCREENING OF THE UNITS SHOULD COMPLEMENT THE BUILDING ARCHITECTURE WITH RESPECT TO FORM, MATERIALS AND COLOUR.

No.	ISSUED	DATE

No.	REVISION	DATE

BALDASSARRA Architects Inc.

30 Great Gulf Drive, Unit 20 | Concord ON | L4K 0K7
T. 905.660.0722 | www.baldassarra.ca

OWNERS INFORMATION:

HWY 10 & HWY 407

MISSISSAUGA, ON

SITE PLAN
INDUSTRIAL DEVELOPMENT

DATE:	DRAWN BY:	CHECKED:	SCALE:
DEC. 2024	HP	JP	1:1000

PROJECT No. P-24058

DRAWING No. A-1.0