

FINAL

Scoped Environmental Impact Study

6939 King Street, Caledon, Ontario

Prepared for:

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1.0 INTRODUCTION

Pinchin Ltd. (Pinchin) was retained by Swaminarayan Mandir Vasna Sanstha (SMVS) Canada (Client) to conduct a Scoped Environmental Impact Study (EIS) for the subject property located at 6939 King Street, Caledon, Ontario (Site). The location of the Site with general surrounding area is shown on Figure 1 in **Appendix A.** The EIS was required by the Town of Caledon and the Toronto and Region Conservation Authority (TRCA) in the pre-consultation meeting (DART meeting# PRE 18-142) in support of a proposed land development. The proposed land development is a place of worship with associated amenities.

Currently the Site is an approximately 6.06—hectare parcel of land with a single-family residential building along its northern edge. The remainder of the Site is used for agricultural purposes, with a small pond and hedgerows present along the southern and western edges. An intermittent stream is present at the southwestern corner of the Site. This stream is a tributary of the West Humber River. The Site is bounded by King Street to the north, a residential property to the west, agricultural fields to the south and Centreville Creek Road to the east.

The Site and its immediate surrounding environment as the identified Study Area for this EIS can be seen on Figure 2 in **Appendix A**. As shown on Figure 2, the Site can be visualized in two sections; the developed residential property and the undeveloped agricultural field and hedgerows.

This EIS report was prepared to: identify natural heritage features present on or immediately adjacent to the Site and characterize their ecological functions; evaluate the environmental effects of the development proposal that might reasonably be expected to have an impact on the natural features; and provide recommendations of mitigation measures to avoid or minimize the potential impacts. This EIS report will be prepared in general accordance with the Town of Caledon and Toronto and Region Conservation Authority guidelines.

2.0 POLICY CONTEXT

2.1 Provincial Policy Statement

The Provincial Policy Statement 2020 sets a policy foundation for regulating development and land use. It sets out guidelines for development while protecting resources of interest to the province, public health and safety and the quality of the natural environment. The PPS does support development and improved land use for planning, management and growth, but it does so in ways to enhance communities through efficient land use and environmental management and protection (Ministry of Housing and Municipal Affairs, 2020).



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2.2 Region of Peel Official Plan

The most resent consolidation of the Region of Peel Official Plan (ROP) was released in 2018 (Region of Peel, 2018). Policies within the ROP direct a significant portion of new growth to the Built-up Areas of the community through intensification, to protect the surrounding countryside of the Greenbelt and Oak Ridges Moraine. The Site is designated as Prime Agricultural Land within Schedule B of the ROP. A tributary of Lindsay Creek, a part of the West Humber Watershed and associated habitat are considered Core Areas of the Region of Peel as shown in Schedule A of the ROP. Finally, the Site is within the Agricultural and Rural Areas as shown in Schedule D4, Growth Policy Areas. There maps reviewed for this EIS are shown in **Appendix C**

2.3 Town of Caledon Official Plan

The most recent consolidation of the Town of Caledon Official Plan was released in 2018 and sets out targets for growth for the Town of Caledon and the surrounding communities (Town of Caledon, 2018). The Town of Caledon Official Plan is consistent with the PPS and supports sustainable land use development and environmental protection. The Official Plan outlines the Site as Rural and Agricultural Areas, as shown on Schedule A1 in **Appendix C.**

2.4 Ontario Regulation 166/06

Pursuant to the *Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*, any development in or on areas defined in the regulation area (e.g. river or stream valleys, hazardous land, wetlands) requires permission from the Toronto and Region Conservation Authority under Ontario Regulation 166/06 (GO, 2013). TRCA may grant permission for development in or on these areas if the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development.

The Regulation also states that it is prohibited to straighten, change, divert or interfere in any way the existing channel of a river, creek, stream or watercourse or change or interfere in any way with the wetland without the permission from the TRCA.

2.4.1 TRCA Living City Policy

The Living City Policies for Planning and Development in the Watershed of the TRCA (LCP) is a conservation authority policy document that guides the implementation of TRCA's legislated and delegated roles and responsibilities in the planning and development approvals process (TRCA, 2014). The LCP describes a "Natural System" made up of water resources, natural features and areas, natural hazards, potential natural cover and/or buffers. The LCP recommends that development, infrastructure and site alteration not be permitted within the Natural System and that it be conveyed into public ownership for its long-term protection and enhancement.

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3.0 STUDY METHODOLOGY

3.1 Background Review and Agency Consultation

A desktop background review of available information sources relating to the Study Area was conducted prior to a site reconnaissance. Included in the review were natural heritage features present on the Site and in the surrounding area, historical species occurrences available from the Natural Heritage Information Centre (NHIC), existing wildlife data records, Species of Conservation Concern lists and other relevant information. Additionally, information and documents available from the Client including site history and Site plan were also reviewed for this Site. Applicable policies and guidelines including the Town of Caledon Official Plan and Region of Peel Official Plan. These documents reference the MNRF Natural Heritage Reference Manual (Ministry of Natural Resources, 2010) and the Provincial Policy Statement 2020 which were reviewed for this report.

A formal consultation with TRCA was conducted by Pinchin through a Terms of Reference (TOR) completed on August 11, 2020, with comments received on August 31, 2020. This TOR sets out the agreed-upon scope of the EIS with TRCA staff prior to the completion of this report. A record of this agency consultation can be found in **Appendix B** of this report.

Natural heritage resources with the potential to be present on the Study Area were identified through the following information sources:

- An assessment of habitat through aerial photographs and online mapping:
 - o Land Information Ontario (MNRF, 2020a); and
 - Google Earth.
- A review of historical occurrence records for Species of Conservation Concern within or adjacent to the Study Area:
 - Natural Heritage Information Centre (MNRF, 2020b);
 - Atlas of the Breeding Birds of Ontario (BSC, 2020);
 - Atlas of the Mammals of Ontario (Dobbyn, 1994);
 - Ontario Reptile and Amphibian Atlas (ON, 2020);
 - Ontario Butterfly Atlas (TEA, 2020);
 - Ontario Regulation 230/08 Species at Risk in Ontario List (COSSARO, 2020);
 and
 - Provincial and federal assessments, recovery strategies, and management plans.



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3.2 Field Assessment

Pinchin conducted field studies to characterize the natural heritage features present on the Site and in the surrounding landscape. A summary of methodologies for the field work completed by Pinchin is provided below for reference.

3.2.1 Vegetation Surveys

Vegetation communities within the Study Area were assessed and described using the provincial Ecological Land Classification system. The *Ecological Land Classification for Southern Ontario: First Approximation and its Application* (Lee et al., 1998) was referenced to classify the habitats to ecosite. Ecosites classified within the Study Area were then applied to Ecological Land Classification (ELC) polygons mapped using aerial imagery.

The vegetation communities for two seasons in spring and summer were sampled for their structure, species composition and habitat characteristics. This information was supplemented by floristic surveys at the time of each visit. Species names generally follow the nomenclature of Flora Ontario (Newmaster and Ragupathy, 2012) and the NHIC.

3.2.2 Species at Risk

The likelihood of occurrence for Species at Risk was assessed qualitatively based on the ability of the habitat to meet one or more life requisites for each Species at Risk identified during the desktop assessment. If habitat suitable for Species at Risk was identified, additional survey effort was applied in that area. If incidental Species at Risk were observed, they were recorded throughout the field assessment within and adjacent to the Site.

3.2.3 Incidental Wildlife Observations

Wildlife was surveyed as part of general wildlife surveys during the Site visits. These surveys involved general coverage recording all species observations and signs, including tracks / trails, scat, burrows, dens, browse, and vocalizations. The wildlife surveys occurred during the coincident surveys for vegetation communities and vascular plants. Significant wildlife habitat was assessed according to the MNRF Natural Heritage Reference Manual (MNRF 2010) and the MNRF Significant Wildlife Habitat Technical Guide (MNRF 2000).

4.0 EXISTING CONDITIONS

4.1 Landform, Geology and Physiography

The Site is bounded by King Street to the north, a residential property to the west, agricultural fields to the south, and Centreville Creek Road to the east. The Study Area is located within a rural area, consisting primarily of rural residential properties, and a mix of active and abandoned agricultural fields which have begun to naturalize.

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A tributary of Lindsay Creek, within the West Humber Watershed is present at the southwestern corner of the Site. The Site is gently sloped towards this tributary for Site drainage.

The Ontario Geological Survey classifies the Site as being of Upper Ordovician-Richmondian origin (Red Shale), with the quaternary geology consisting primarily of clayey silt tills (Ontario Geological Survey, 1991). The soils in the Study Area are classified by Agriculture Canada and the Ministry of Agriculture and Food as Luvisolic mineral soils (OMAF, 1979). Soil samples taken at the time of visit indicated primarily sandy loam soils, with wetland indicators (mottles and gley) being found within the Reed-canary Grass Mineral Meadow Marsh described below. Gley occurs when the oxygen in the soil becomes depleted (due to water saturation) resulting in the iron being completely reduced takin on a blue-grey colouration. This reduced iron is also mobile and can re-oxidize, producing reddish, yellow, or orange spotting, which is known as mottling. Both of these are indicators of wetland presence due to the water table being close to the surface.

A detailed review and analysis on the vegetation communities and potential natural features including terrestrial and aquatic conditions on the Site are provided in Section 4.2 below.

4.2 Vegetation Surveys

4.2.1 Vascular Plants

Vegetation surveys were conducted for the Site on August 12, 2020. The weather for this field visit was clear, sunny with a high of 30° Celsius. A total of 61 plant species were identified on the Site from the vegetation survey. Of these 61 species, 33 are non-native species, many of which are typical in old-fields and disturbed habitats. These species are generally widespread and abundant in the cultural habitats within the area. 26 of the 28 native species found within the Site are considered "secure, common and widespread" in Ontario (Ranked S5), with the remaining two being considered "apparently secure, uncommon but not rare" in Ontario (S4 or S4S5). A full vascular plant species inventories as observed on the Site and Study Area during the field assessment program is catalogued in Table 1 in **Appendix D**.

4.2.2 Vegetation Communities

In total, four vegetation communities were identified on the Site, and one on the adjacent property, as a result of the survey. These communities present on the Site include a rural residential property, a Naturalized Deciduous Plantation, an agricultural field and a small dug-out wetland pond. It is worth noting that the adjacent property as a mixed meadow marsh present along the property boundary. These vegetation communities with their ELC polygons surveyed on the Site and the surrounding area are mapped on Figure 3 in **Appendix A**. Selected Site photographs of the vegetation communities are included in **Appendix D** for reference.



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Rural Residence (CVR_4): This community is found at the northwestern corner of the Site, at the entrance to the Site off King Street. It consists of a single-family house and two auxiliary barn type buildings. Manicured grass surrounds the Site with common planted species lining the edges of the Site. These species consist of White Cedar (*Thuja occidentalis*), Norway Maple (*Acer platanoides*), and Southern Catalpa (*Catalpa speciose*), as well as other common ornamental species. The grass on the ecosite is primarily made up of Kentucky Blue Grass (*Poa pratensis*), and the gardens on the Site are all non-native planted species.

Annual Row Crop (OAGM1): This community is the largest on the Site, present east of the residence described above, continuing along the northern edge to the eastern edge of the Site, and south to the hedgerows between the farm fields. This farm field was being used for Barley (*Hordeum sp.*) at the time of visit, and conversations with the farmer on Site indicated that this field has been farmed for over 100 years.

Duckweed Floating-leaved Shallow Aquatic (SAF1–3): This small community occurs on the western edge of the Site, contained within the rural residence described above. This community as a shallow pond is dominated by common duckweed (*Lemna minor*) with a ring of Broad-leaved Cattail (*Typha latifolia*) and other common species surrounding it. A pipe draining water into this community was found at the northern edge, suggesting that this pond likely acts as drainage for the rural residence. A thick clay layer along the base of this community indicates that it was dug out in the past, likely for agricultural purposes.

Naturalized Deciduous Hedgerow (FODM11): Separating crop fields as well as the rear of the property to the west are deciduous hedgerows ranging from approximately three to five trees wide with dense shrubby growth of Apple (*Malus pumila*) and Common Buckthorn (*Rhamnus cathartica*) below with vines including Riverbank Grape (*Vitis riparia*) and common grasses and wildflowers. It is not clear whether these hedgerows are remnants of older deciduous forest with natural regeneration or planted communities. Tree species present in the hedgerow include some dead Ash (*Fraxinus sp.*) and Elm (*Ulmus americana*).

The final community outlined on Figure 3 in **Appendix C** is a Panicled Aster Mineral Meadow Marsh (**MAMM2-2**) which was present on the adjacent property to the west, rear of the residence.

4.3 Incidental Wildlife

The following incidental wildlife were observed during the vegetation survey within the Study Area:

- American Robin (Turdus mirgatorius);
- American Crow (Corvus brachyrhynchos);
- White-tailed Deer (Odocoileus virginianus);
- Green Frog (Lithobates clamitans);



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- Grovesnail (Cepaea nemoralis); and
- Barn Swallow (Hirundo rustica)

An individual Barn Swallow was observed entering and exiting a barn on the other side of Centreville Creek and foraging over the field on the Site.

4.4 Fish and Aquatic Habitat

The unnamed tributary of West Humber River is present at the southwest corner of the Site. This stream is intermittent in nature, and therefore no water was observed during the field visit. The Humber River Fisheries Management Plan identifies this section of the Humber River as a first order watercourse in the West Humber subwatershed, as seen in **Appendix C** (TRCA 2005). First order watercourses are described within the Fisheries Management Plan as beginning at the point where rainfall begins to flow through a defined channel and ending where two first order streams meet. First order watercourses are often the most shaded streams in a watershed due in part to their narrow width. This section of the watercourse is identified as having fairly gradual slopes, ranging between 0.31 and 1%. Figure 22 of the Fisheries Management Plan identifies this watercourse as being part of the small riverine warmwater habitat category.

Due to the fine-textured soils and high clay content, as well as gently sloping topography, streams within this branch of the Humber River tend to be more linear than other subwatersheds. The stream flow regime is primarily driven by surface runoff, resulting in cool to warm aquatic habitat. The fine-textured soils also often cause turbidity in-stream conditions, particularly during storm events.

As the watercourse was dry at the time of field visit, a mud substrate bottom was evident and a maximum wet width of approximately 75 cm was observed. A meanderbelt study was conducted by GeoProcess as per TRCA's request. The tributary on the Site was found to be a straightened agricultural ditch, which has experienced minor adjustments since 1978. Lateral migration and channel bifurcation has occurred within the riparian corridor of the watercourse. The meanderbelt width varies throughout the reach and range from 6.34 to 9.52 m within the Study Area, with a width of 9.52 m at the intersection of the Site boundary. The lateral migration rate was also determined to be approximately 2.6 cm per year, creating a 2.6 m erosion offset (GeoProcess, 2020).

4.5 Species at Risk Screening

The Endangered Species Act, 2007 (ESA) provides protection from harm, harassment, or captures to species listed as extirpated, endangered, or threatened on the Species at Risk Ontario List. Additional protection is provided to the habitat of endangered or threatened species on the Species at Risk Ontario List. Species habitat includes anywhere the species depends on for reproduction, rearing, hibernation, migration, or feeding; or prescribed habitat as defined in Ontario Regulation 242/08 of the General Regulation under the ESA.

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A total of 23 Species at Risk (SAR) were identified as having potential occurrence on the Site, resulting from the background review of the NHIC records and other available data sources for the Study Area surrounding the Site. These 23 species, their listing status, the last observed date, habitat requirements, and the sources used to identify their presence in the area surrounding the Site are all summarized in the Species at Risk Screening Table in **Appendix F**.

Based on the background review and field assessment, nine of the 23 SAR were determined to have suitable habitat on the Site. Two reptiles, the provincially *Special Concern* Snapping Turtle (*Chelydra serpentine*) and the federally *Special Concern* Midland Painted Turtle (*Chrysemys picta marginata*) have potential to be present within the pond found on Site. This manmade pond is very small and exposed to a large amount of contaminants form the residential property, so species presence is highly unlikely and no evidence of these species was observed during the field visit.

Two bird species were considered to have suitable habitat on Site. These birds were the Barn Swallow (*Hirundo rustica*) and Prothanatary Warbler (*Protonotaria citrea*). The Barn Swallow (*Threatened*) could potentially utilize the structures on the Site as nesting habitat; however, no nest was observed during the field visit. One Barn Swallow was observed using the agricultural field for foraging and returning to its nest on the other side of Centreville Creek Road. Prothanatary Warblers (*Endangered*) are typically found in small, shallow holes on tree trunks that are either dead or dying, but are standing, often near woodlands and swamps. Trees meeting these descriptions are found within the hedgerows on Site. Neither of these species were observed during any of the surveys on the Site.

Four bat species were considered to have suitable habitat on the Site. These *Endangered* bats are the Little Brown Bat (*Myotis lucifuga*), Eastern Small-footed Myotis (*Myotis leibii*), Northern Myotis (*Myotis septentrionalis*), and Tri-coloured Bat (*Pipistrellus subflavus*). All four species can form summer colonies within attics, abandoned building and barns, as well as within established deciduous forests with loose bark and tree cavities. Based on the results of the completed fieldwork, the Site has the potential to provide habitat for these species within the hedgerows on Site. However, the hedgerows as windbreakers may be too small to be quality habitat for bats.

The final species, Monarch Butterfly (*Danaus plexippus*), relies on Common Milkweed, which is present along the roads and within the less maintained areas around the agricultural field. No Monarch Butterflies were observed during the field visit.

4.6 Significant Wildlife Habitat Screening

The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015) was consulted to screen the wildlife habitat for significance on Site. Field assessments of the Site were also undertaken to assess the quality of the habitat on the Site in relation to Significant Wildlife Habitat.



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Based on observations during the vegetation surveys, no Significant Wildlife Habitat is present within the Study Area. Two varieties of Significant Wildlife Habitat that are potentially present within the study area are: Bat Maternity Colonies and Amphibian Breeding Habitat.

Bat Maternity Habitat is a possibility within the Site boundaries. Several dead standing trees were observed during vegetation surveys within the hedgerows on Site; however, their size and quality are not ideal for bats or qualified as a Significant Wildlife Habitat.

Amphibian Breeding Habitat associated with wetlands may be present within the Study Area boundaries. The Duckweed Floating Leaved Shallow Aquatic community (SAF1–3) present along the western edge of the Site may provide Amphibian Breeding Habitat; however, this pond with its small size and exposure to residential contaminants as mentioned above does not provide good quality habitat to amphibians. Therefore, it does not qualify as a Significant Wildlife Habitat. The Panicled Aster Mineral Meadow Marsh (MAMM2-2) adjacent to the western edge of the Site nearest to the watercourse may potentially provide Amphibian Breeding Habitat.

4.7 Natural Heritage System and Ecological Connectivity

The Study Area is located in a rural area, surrounded by single-family residential developments to the west and agricultural operations to the north, south and east. Looking at the surrounding landscape, the wetlands on and adjacent to the Site appear to be apart of a more extensive community of agriculture fields with the occasional rural residence. Due to the extensive agricultural development present in the surrounding area, the Site offers little in terms of feature to the natural heritage system and value to the ecological connectivity in the surrounding landscape.

Nonetheless, the intermittent watercourse at the edge of the Site joins up with other tributaries of the West Humber River south of the Site, forming a network of stream corridors for landscape linkage and ecological connectivity in the region. Plants and wildlife can utilize this watercourse and associated riparian area for dispersal and movement.

5.0 PROPOSED DEVELOPMENT

Pinchin understands that the Client intends to develop the Site with a Temple as a place of worship with associated parking amenities. The purpose of this study is to understand the current constraints within the Site and Study Area for potential future development purposes, as well as the impacts from the proposed Temple development in those areas. A Site Plan for the proposed Temple and associated amenities is included in **Appendix G** for reference.



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6.0 IMPACT ASSESSEMENT

6.1 Direct Impacts

The proposed development will be contained within the existing footprint of the development plans. The potential direct impacts from Site construction on the natural heritage features as a result of the proposed development on the Site will include the following:

- Removal of trees and shrubs on the Site;
- Displacement of wildlife on the Site;
- Removal of the pond on the Site; and
- Stripping of vegetation and topsoil on the meadow adjacent to the Site

To accommodate the proposed development including the construction of temple buildings and parking lots, the stripping of vegetation and topsoil will take place within the residential and agricultural areas on the Site. These vegetation communities provide potentially seasonal habitat to birds and other wildlife. The impact to wildlife can be avoided by properly timing the vegetation and topsoil removal. The meadow adjacent to the Site in the Study Area is expected to have minimal impacts due to its location.

Although the hedgerows may not need to be removed to accommodate the proposed temple development, tree and shrub removal may be required on the Site at where the temple and parking areas are placed. A detailed tree report is to be carried out on the Site in order to determine the basis of the direct impact of the number of trees being replaced, removed or protected for the development of the Site. A total of 56 trees will be removed, and 24 will be preserved on the Site (Martin Smith Landscape Architects, 2020). Species that will be removed consist of Green Ash (*Fraxinus pennsylvanica*), Norway Maple (*Acer platanoides*), Buckthorn (*Rhamnus cathartica*) and Several Fruit Trees. Trees that will be retained on the Site consist of Pear Tree (*Pyrus sp.*) and Weeping Willow (*Salix babylonica*). A full list of species to be removed and retained can be seen in the Tree Inventory and Preservation Plan by Martin Smith Landscape Architects.

The Duckweed Floating-leaved shallow aquatic community is also likely to be drained and removed entirely to make way for the temple development. Any aquatic species within this community will need to be salvaged and relocated to other nearby aquatic habitat.

6.2 Indirect Impacts

The potential indirect impacts to the natural heritage features include the following:

- Effects on plants and wildlife by construction noise, dust and vibration;
- Sedimentation of the forest and marsh off-site by construction activities; and



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Alteration of water quality and flow regime in the adjacent watercourse and wetland

It is likely that during the construction periods, wildlife including birds and mammals that occasionally use the habitat on Site for foraging and breeding may be disrupted and are likely to abandon the disturbed edges due to indirect impacts of noise and vibration. The wildlife utilizing the hedgerows and the Site edges for foraging will be displaced temporarily, while over time the wildlife will likely return to the edges of the Site. Additionally, there is potential sedimentation buildup in the marsh and forest communities, but with the application of a protective buffer to these communities, the ecosystem will continue to perform its landscape and ecological functions.

Hydrologic impacts should be assessed through a Stormwater Management Report for the surface water quantity and quality, while geotechnical/hydrogeological impacts should be evaluated for the soils and groundwater quantity and quality on the Site through Geotechnical and Hydrogeological Reports.

The Stormwater Management Report prepared by Crozier shows the current surface runoff drains via sheet flow to the southwest corner of the Site and outlets to the tributary of the Humber River (Crozier, 2020). Additionally, the water balance on the Site was calculated to be 5 mm of retention of runoff in order to reach a water balance pre and post development.

Stormwater runoff from the construction Site has potential impacts to the adjacent wetlands and watercourse by releasing sediment-laden water into these features. The successful establishment of erosion and sediment control measures may act as a sufficient barrier to protect these adjacent natural features. Additional measures may be required depending on the extent of the development. The Site will be landscaped with a stormwater management facility that will outlet to the Humber River tributary on the southwest corner of the Site. Grass swales with sand filters will also be added as a filtration device prior to entering the stormwater management facility. A storage volume of 144 m³ will be provided to comply with the water balance criteria of retaining the first 5 mm of runoff on the Site (Crozier, 2020).

6.3 Residual and Cumulative Effects Assessment

Residual environmental effects are any permanent, non-mitigable change in an identified valued ecosystem component. As residual environmental effects on the natural environment cannot be completely addressed through mitigation, they are likely to persist following project completion. Residual effects may result in cumulative effects through the interaction between residual effects of the project and those associated with other identified projects and/or activities.

Due to the short-term, local construction of the temple and parking areas within the Site surrounded by roadways and farming operations, the residual effects from the Site construction is projected to be low significance in magnitude, geographic extent, duration and frequency. Residual adverse effects are not expected from the proposed development on the Site as all of the direct and indirect impacts identified above can be addressed through appropriate mitigation.

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With sufficient mitigation measures implemented prior to the construction activities, no cumulative impacts are anticipated as a result of the proposed temple construction. This further supports the Provincial Policy Statement rule regarding no negative impacts to the Key Features present on the Site. Recommendations and mitigation measures for the potential impacts are detailed in Section 7.0 below.

7.0 RECOMMENDED AVOIDANCE AND MITIGATION MEASURES

Based upon the above impacts assessment above, there are identified direct impacts and indirect impacts on the natural environment within the Study Area. The hedgerow located along the southern border of the Site and the wetland on the adjacent property may provide potential habitat for wildlife and possibly Species at Risk, and thus should be maintained if possible. According to the TRCA's EIS Guidelines, proposed mitigation measures, including recommendations for timing windows or other specifications for implementation, for all potential negative impacts will need to be included in the EIS. Furthermore, mitigation measures relating to the protection of setbacks and buffers during onsite works (such as fencing) must be implemented prior to the commencement of those works. Therefore, exclusion fencing to the sensitive natural features should be established and protected from any proposed development.

As avoidance is the most effective approach to mitigating environmental impacts, the proposed development should be set back from any of the natural features on or adjacent to the Site. Within the exclusion zone established, no development activities including site grading and construction will take place on the Site. The natural heritage features described above provide a good ecological value for plant, fish and wildlife, protection of the forest and waterbody from the proposed development is warranted to prevent soil erosion from occurring and sediment-laden water from entering these natural features during site construction.

The following recommendations are provided for the protection of the above key features prior to construction or site alteration. Additionally, restoration and enhancement plans must be timely developed and effectively implemented on the Site to ensure that no negative impacts will occur to the woodland and waterbody post construction.

Tree and vegetation removal:

- The extent of potential tree and vegetation removal within the Site is restricted to the construction footprint as necessary, primarily in the northern half portion.
- To minimize or avoid impacts to breeding and nesting birds, the removal of vegetation will
 be outside of the critical breeding period between April 1 and August 31. If construction
 work must occur in this breeding period, please consult with a qualified Biologist for
 possible bird nest surveys and mitigation measures.

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 A Tree Inventory and Preservation Plan will need to be developed for the Site and approved by the reviewing agencies prior to construction and site alteration.

Stormwater Management and Erosion and sediment control:

- A stormwater management facility with grass swales and sand filters will be installed to ensure water quality and quantity is controlled on the Site (Crozier, 2020).
- An Erosion and Sediment Control Plan with ecological protection measures will be developed for the Site construction and monitored through a Construction Environmental Monitoring Plan regularly (i.e. weekly) by a qualified Environmental Monitor.
- Prior to construction and site alteration, adequate erosion and sediment control (ESC) measures including heavy duty silt fencing should be established around the Site upgradient from the natural heritage features until the disturbed area is restored upon construction completion. Rock mud mats should also be installed at the entrance of construction zones to prevent mud tracking from Site to surrounding lands (Crozier, 2020). Sufficient buffers to the adjacent natural features through protection zones will be established.
- If required, repairs and maintenance of the installed ESC measures are conducted regularly until construction completion.
- Disturbed areas should be stabilized immediately post construction to prevent site erosion and/or sedimentation.

Wildlife and Species at Risk encounter protocol:

- If wildlife are encountered during construction, work should cease immediately and allow the animal to naturally move out of the construction zone. If the animal does not leave the area for a prolonged period of time, please consult with a qualified Biologist for possible response or mitigation measures.
- If an animal is injured or deceased or if a Species at Risk is found on the Site, the Ministry of Environment, Conservation and Parks will be contacted for guidance and handling.

Restoration and enhancement:

Additional to a Landscape Plan, a Restoration Plan for any removal natural features such
as trees and shrubs may be required for restoration and enhancement on the Site.
 Appropriate restoration for the replaced or removed trees on the Site through this planting
plan is utmost important to ensure that no negative impact will occur to the natural
features as a result of the construction.

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 The removed trees should be compensated with the planting of native deciduous or coniferous tree species on the Site or in a designated area in consultation with TRCA to provide for enhanced natural habitats.

Additional supporting studies may be required:

- Stormwater Management Report for the surface water quantity and quality on the Site: a stormwater management report has been prepared by Crozier and provide recommendations for on-site facilities to be installed during and post-construction (Crozier, 2020).
- Geotechnical and Hydrogeological Reports on soils and groundwater on the Site for the foundations of the temple buildings.

With the above recommendations taken into account and diligently implemented on the Site, no adverse negative impacts to the ecological integrity of the Site and the Study Area will result from the proposed temple development.

8.0 CLOSURE

The enclosed Scoped Environmental Impact Study report has been prepared to assess the natural heritage features including the terrestrial and aquatic conditions on the Site and within the Study Area. The information contained herein as a result of the EIS regarding the proposed commercial redevelopment is solely provided to the Client and approval agencies as a reference only.

In the event that clarifications or further information is required by the Client or agencies, please do not hesitate to contact the primary Pinchin contact indicated in the contact page of this document.

9.0 REFERENCES

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MEMBER OF

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10.0 LIMITATIONS

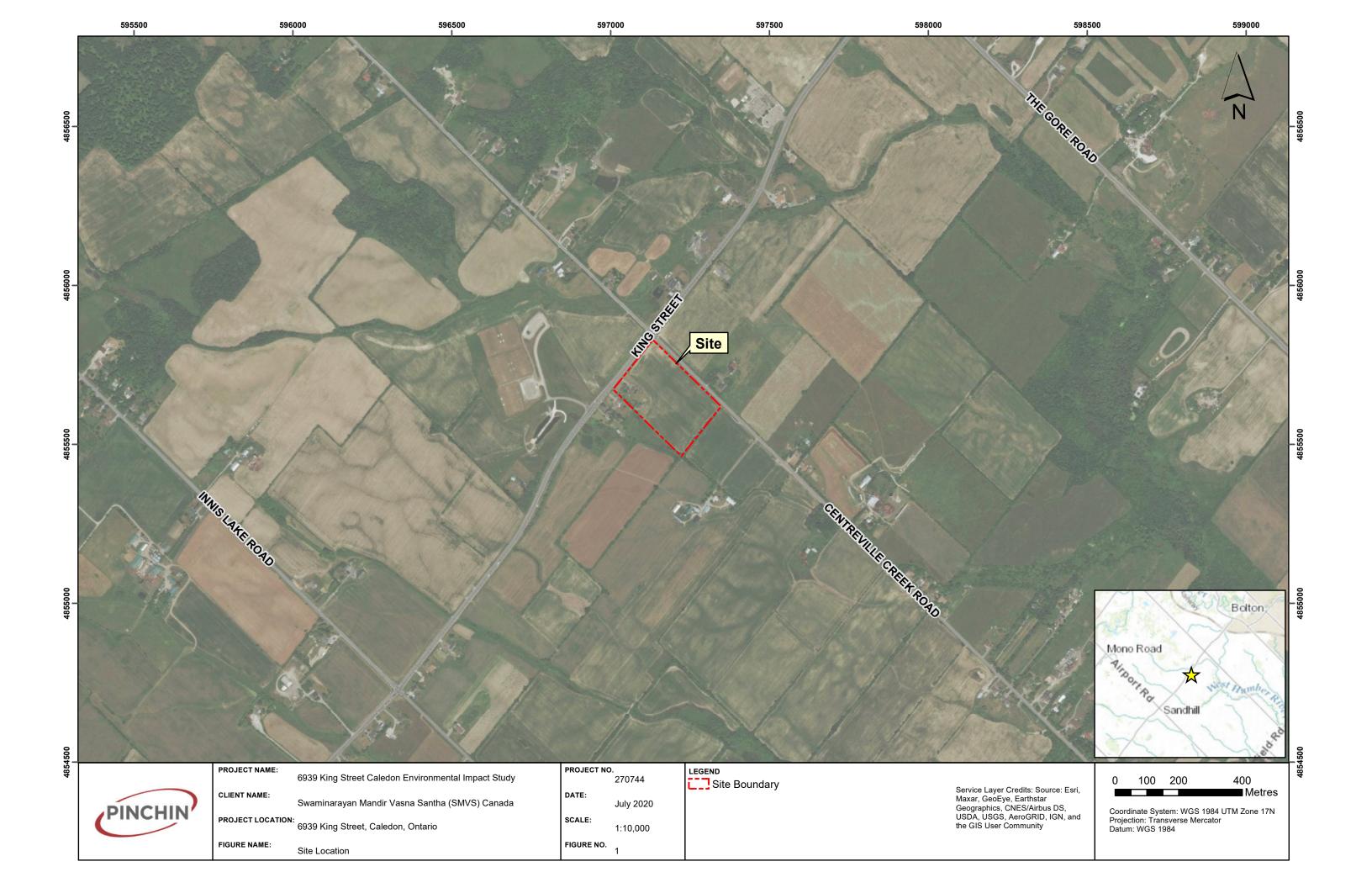
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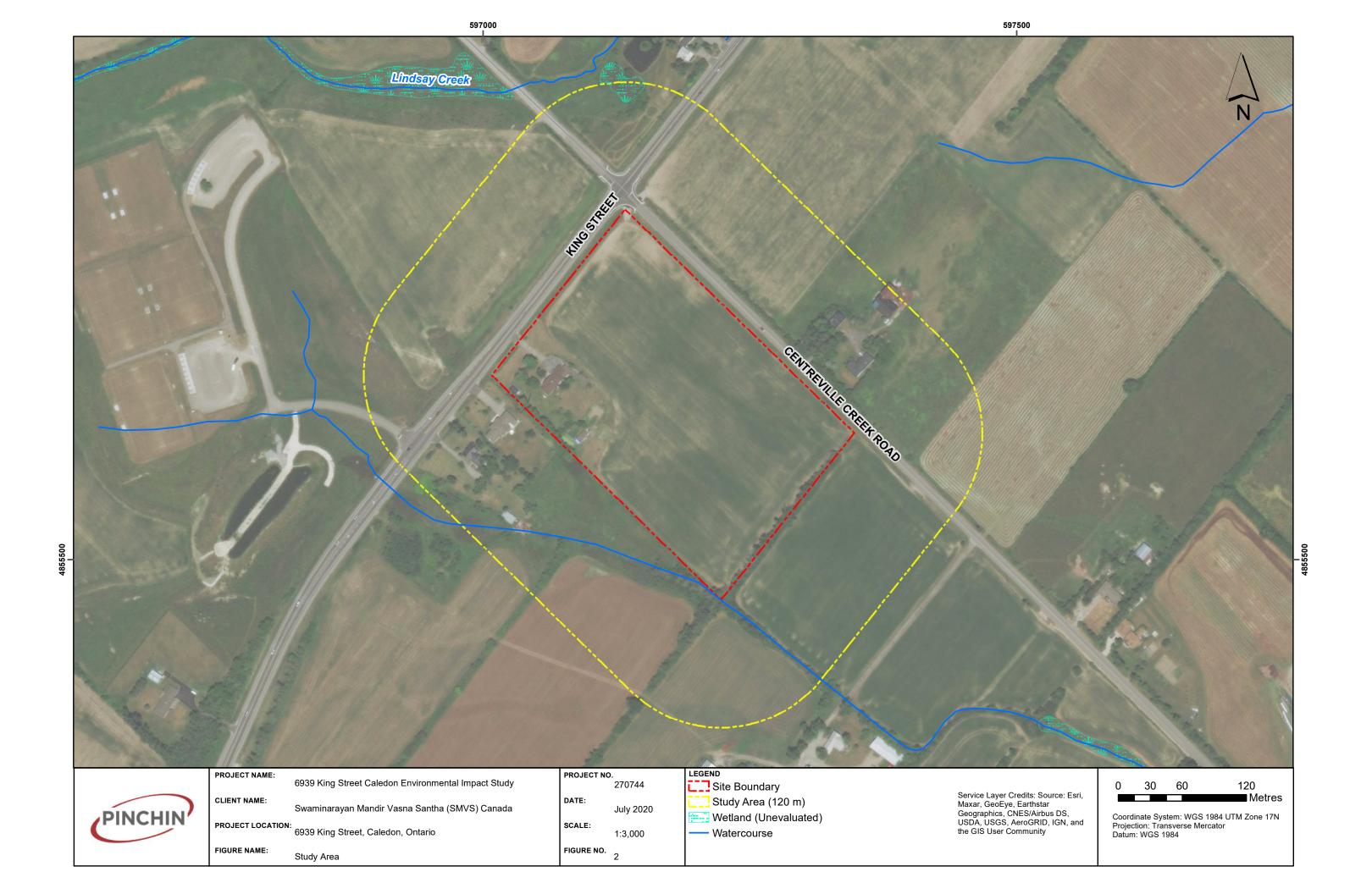
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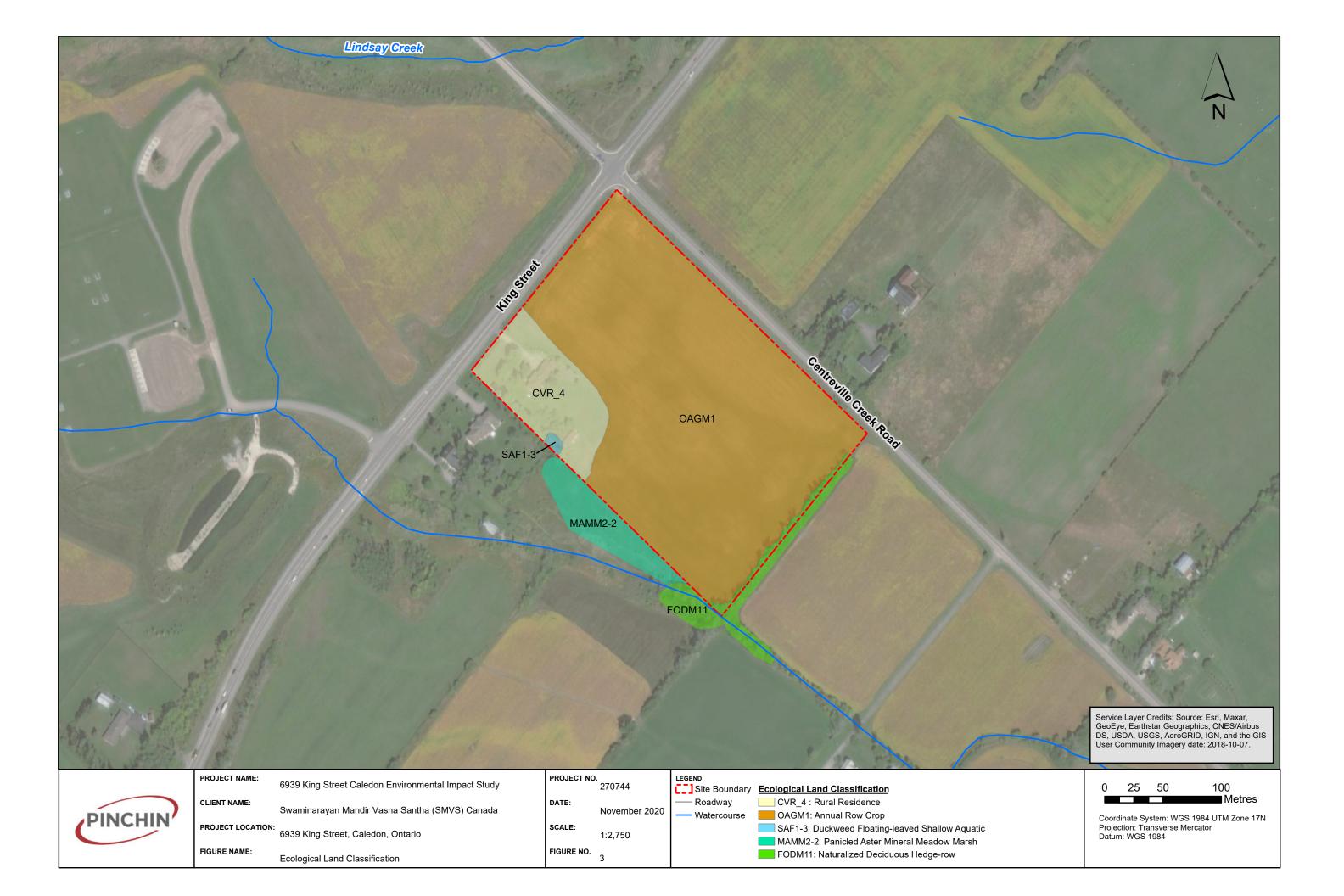


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APPENDIX A FIGURES







APPENDIX B AGENCY CONSULTATION

Courtney Butler

From: Rocky Yao

Sent: Monday, August 31, 2020 4:05 PM

To: Jason Wagler

Cc: Steven Pham; Kevin Bechard; Rasik Patel

Subject: RE: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Thanks Jason for your acceptance of the TOR.

For item 1, we will provide a brief summary of those reports and reference them in the EIS. For item 2, the contiguous vegetation as a riparian area will be delineated through the ELC mapping and associated descriptions in the EIS.

Regards,

Rocky Yao, M.Sc, CISEC, EP

Regional Practice Lead, Biologist, Environmental Science

Pinchin Ltd. | T: 365.873.0355 | C: 289.971.7821

From: Jason Wagler < Jason.Wagler@trca.ca>
Sent: Monday, August 31, 2020 12:53 PM
To: Rocky Yao < ryao@Pinchin.com>

Cc: Steven Pham <spham@westonconsulting.com>; Kevin Bechard <kbechard@westonconsulting.com>; Rasik Patel

<rmpatel@ca.smvs.org>

Subject: RE: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

EXTERNAL EMAIL

Good Afternoon Rocky,

TRCA staff have reviewed the TOR and we offer the following comments:

- 1. Please ensure that the EIS summarizes the results of the meander belt assessment, site water balance, Stormwater and Low Impact Development strategy, and includes a discussion regarding ecologically justified siting of infrastructure in support of the SWM strategy.
- 2. TRCA staff will also require the delineation of contiguous vegetation associated with the stream corridor.

Provided the two comments are incorporated into the EIS, we find the TOR acceptable.

Regards,

Jason Wagler, MCIP RPP

Senior Planner

Development Planning and Permits | Development and Engineering Services

T: <u>(416) 661-6600</u> x5370 E: jason.wagler@trca.ca

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



From: Rocky Yao < ryao@Pinchin.com>
Sent: Tuesday, August 11, 2020 12:02 PM
To: Jason Wagler < Jason.Wagler@trca.ca>

Cc: Steven Pham <spham@westonconsulting.com>; Kevin Bechard <kbechard@westonconsulting.com>; Rasik Patel

<rmpatel@ca.smvs.org>

Subject: RE: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Importance: High

Good afternoon Jason,

Please find attached the EIS Terms of Reference (TOR) for your review. Note a summer field survey on the site has been planned for the Scoped EIS as indicated in the TOR.

Feel free to contact me if you have any questions.

Thanks,

Rocky Yao, M.Sc, CISEC, EP

Regional Practice Lead, Biologist, Environmental Science Pinchin Ltd. | T: 365.873.0355 | C: 289.971.7821

From: Rocky Yao

Sent: Tuesday, July 21, 2020 4:21 PM **To:** Jason Wagler < <u>Jason.Wagler@trca.ca</u>>

Cc: Steven Pham <spham@westonconsulting.com>; Kevin Bechard <kbechard@westonconsulting.com>; Chirag-Flora

<chirag@floradesigns.net>

Subject: RE: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Hi Jason,

A Terms of Reference (TOR) for the Environmental Impact Study for the site is being prepared by Pinchin. Once complete I will be able to send this TOR to you for review.

Kind regards,

Rocky Yao, M.Sc. CISEC, EP

Regional Practice Lead, Environmental Science Project Manager, Biologist

Pinchin Ltd.

80 Tiverton Court, Suite 101, Markham, ON L3R 0G4 T: 365.873.0355 | C: 289.971.7821 | pinchin.com

From: Steven Pham < spham@westonconsulting.com>

Sent: Wednesday, July 15, 2020 11:32 AM

To: Jason Wagler < <u>Jason.Wagler@trca.ca</u>>

<chirag@floradesigns.net>

Subject: Re: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

EXTERNAL EMAIL

Good morning Jason,

The erosion analysis is being completed by our civil engineer. I've cc'd our environmental consultant (Pinchin) and the civil engineer (Flora) in this email so that you may coordinate with them to ensure that we're all on the same page.

Please let us know if there are any questions or concerns.

Kind regards,

Steven Pham

Planner

*Please be advised that summer hours (office closure at 12 PM on Fridays) are in effect July 3rd – September 8th *

I will be off on July 3rd, July 10th, July 17th, July 24th, and July 31 for the month of July



Vaughan office: T. 905.738.8080 ext. 312 | 201 Millway Ave, Suite 19, Vaughan, ON. L4K 5K8

Toronto office: T: 416.640.9917 ext. 312 | 268 Berkeley Street, Toronto, ON. M5A 2X5

1-800.363.3558 | F: 905.738.6637 | spham@westonconsulting.com | www.westonconsulting.com

From: Jason Wagler < Jason. Wagler@trca.ca>

Sent: July 15, 2020 11:27 AM

To: Steven Pham < <u>spham@westonconsulting.com</u>> **Cc:** Kevin Bechard < kbechard@westonconsulting.com>

Subject: RE: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Hi Steven,

It would be beneficial to see the scope/terms of reference for their study to ensure we're on the right track. Are they also completing the erosion analysis?

Thanks,

Jason Wagler, MCIP RPP

Senior Planner

Development Planning and Permits | Development and Engineering Services

T: <u>(416) 661-6600</u> x5370 E: jason.wagler@trca.ca

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



From: Steven Pham < spham@westonconsulting.com>

Sent: Wednesday, July 15, 2020 11:26 AM **To:** Jason Wagler < <u>Jason.Wagler@trca.ca</u>>

Cc: Kevin Bechard < kbechard@westonconsulting.com>

Subject: Re: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Good morning Jason,

Thank you for the clarification. Our environmental consultant is undertaking an Environmental Impact Assessment which will involve the delineation of these hazards lands. Would you like me to put you in touch with our consultant for the purposes of delivering a coordinated product? We will include the area in our ZBA.

Kind regards,

Steven Pham

Planner

*Please be advised that summer hours (office closure at 12 PM on Fridays) are in effect July 3rd – September 8th *

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1-800.363.3558 | F: 905.738.6637 | spham@westonconsulting.com | www.westonconsulting.com

From: Jason Wagler < <u>Jason.Wagler@trca.ca</u>>

Sent: July 15, 2020 11:13 AM

To: Steven Pham < <u>spham@westonconsulting.com</u>> **Cc:** Kevin Bechard < kbechard@westonconsulting.com>

Subject: RE: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Hi Steven,

Thank you for sending the plan. If a rezone/OPA is proposed for the entire property, we'll need to delineate the limits of the hazard (long-term erosion limits) lands/ecological buffer associated with the watercourse that runs along the west property line at the rear of the property. The feature delineation is necessary to properly zone the EPA area on the lands.

The checklist adequately lists TRCA's requirements. For stormwater management, just ensure that the proposal meets TRCA's 2012 SWM guidelines.

Hope this helps Steven,

Jason

Jason Wagler, MCIP RPP

Senior Planner

Development Planning and Permits | Development and Engineering Services

T: <u>(416) 661-6600</u> x5370 E: jason.wagler@trca.ca

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



From: Steven Pham <spham@westonconsulting.com>

Sent: Tuesday, July 14, 2020 11:09 AM **To:** Jason Wagler < <u>Jason.Wagler@trca.ca</u>>

Cc: Kevin Bechard < kbechard@westonconsulting.com >

Subject: Re: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Good morning Jason,

Please find attached the Site Plan for your review. The engineering plans are in progress. We are expecting to receive an approximate area for the size of the septic field which will be located at the rear of the property in the near future.

We'd like to clarify whether the TRCA will request any deliverables that are not listed in the DART Checklist we received from the Town, or if there's any specific info/data that you'd like for us to include in our reports/studies.

We would prefer to avoid another formal meeting/call for the sake of time if possible.

Kind regards,

Steven Pham

Planner

*Please be advised that summer hours (office closure at 12 PM on Fridays) are in effect July 3rd – September 8th *

I will be off on July 3rd, July 10th, July 17th, July 24th, and July 31 for the month of July



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1-800.363.3558 | F: 905.738.6637 | spham@westonconsulting.com | www.westonconsulting.com

From: Jason Wagler < <u>Jason.Wagler@trca.ca</u>>

Sent: July 14, 2020 10:55 AM

To: Steven Pham < spham@westonconsulting.com **Cc:** Kevin Bechard sheetard@westonconsulting.com

Subject: RE: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Hi Steven,

Could you send a site plan and any engineering plans that you have? I would like to review the proposal at quick glance first. Is there anything specific that you wish to discuss or just have a better idea of the TRCA's requirements?

Thanks,

Jason Wagler, MCIP RPP

Senior Planner

Development Planning and Permits | Development and Engineering Services

T: <u>(416) 661-6600</u> x5370 E: jason.wagler@trca.ca

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



From: Steven Pham < spham@westonconsulting.com>

Sent: Thursday, July 09, 2020 2:05 PM **To:** Jason Wagler < Jason. Wagler@trca.ca>

Cc: Kevin Bechard < kbechard@westonconsulting.com>

Subject: Pre-Application Consultation Inquiry - 6939 King Street, Caledon

Good afternoon Jason,

Weston Consulting is the planning consultant on behalf of Swaminarayan Mandir, the owner of the lands known as 6939 King Street in the Town of Caledon. Our client wishes to construct a place of worship on the subject property.

It must be noted that we've already had a DART meeting with the Town (PRE 18-142) and that we've received their application requirements (see attached chart). The application requirements already indicate what is required from the TRCA. However, we were instructed by the Town planner to seek further consultation with yourself. Our DART Checklist was recently extended until August 31, 2020.

Given that application requirements from the TRCA are outlined within the chart, we wanted to ask you whether it is necessary to schedule a PAC meeting with yourself to discuss specific application requirements to facilitate the proposed development?

We look forward to hearing from you.

Kind regards,

Steven Pham

Planner

*Please be advised that summer hours (office closure at 12 PM on Fridays) are in effect July 3rd – September 8th *

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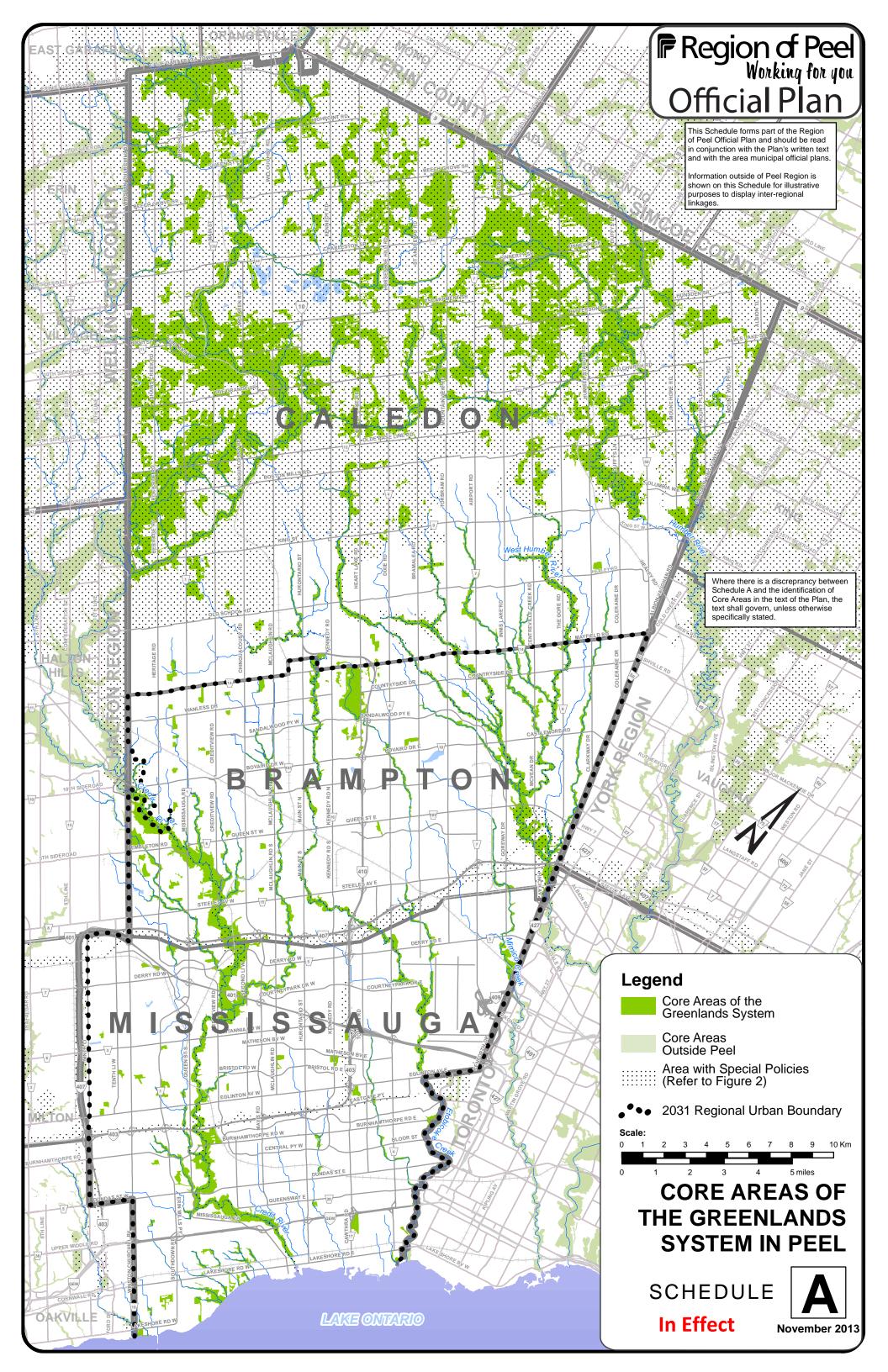
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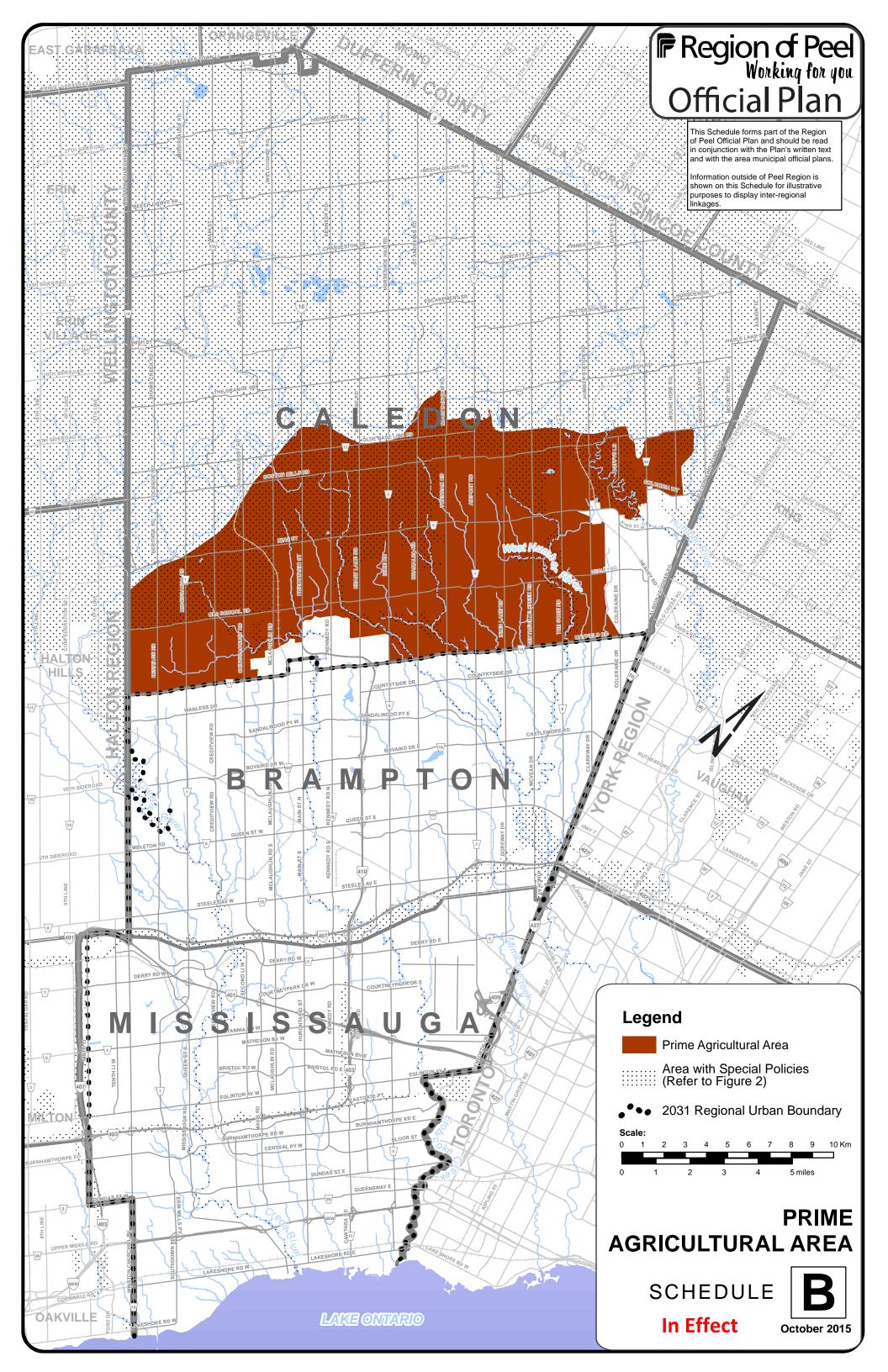
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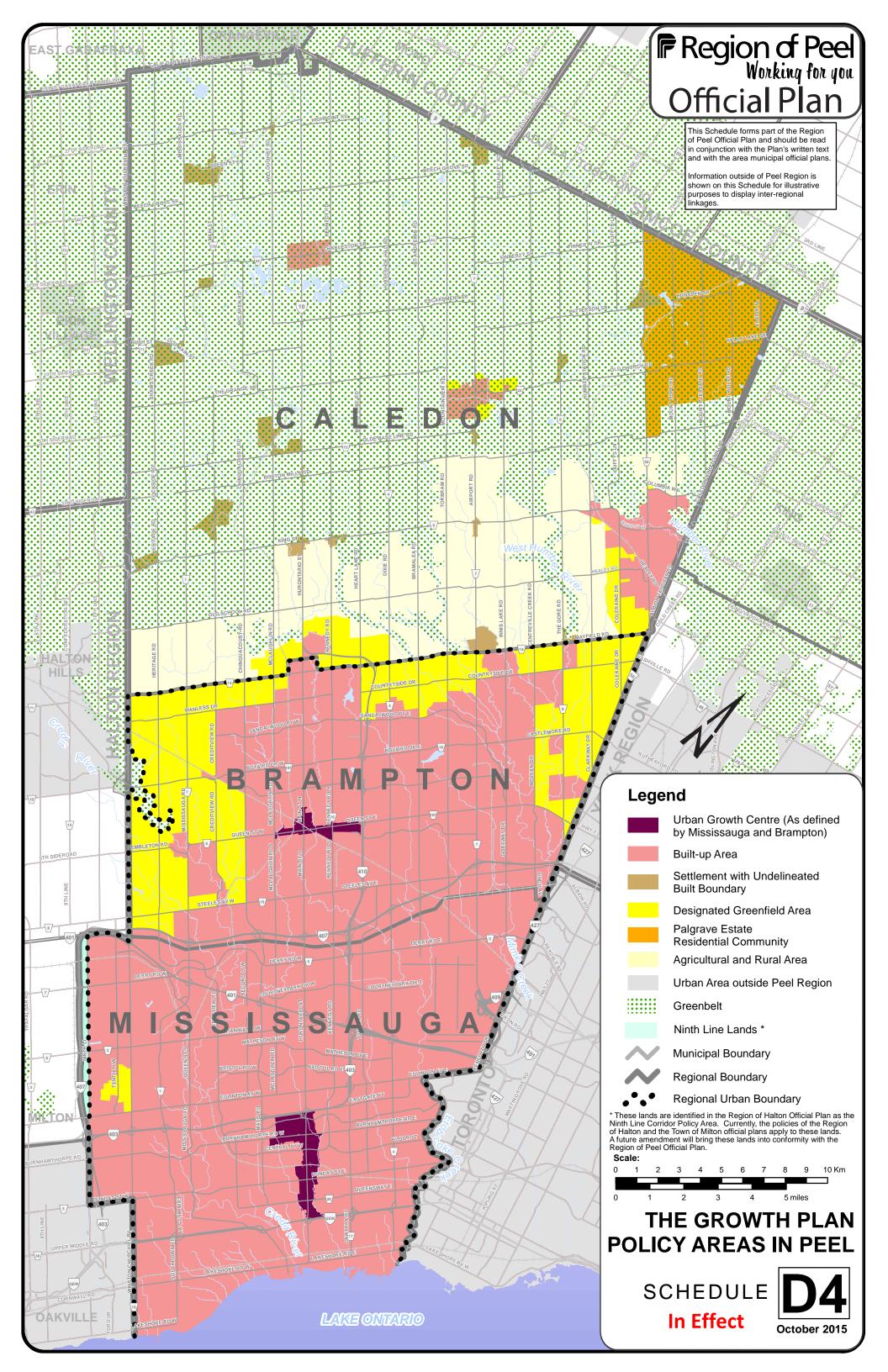
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APPENDIX C SUPPLEMENTARY INFORMATION







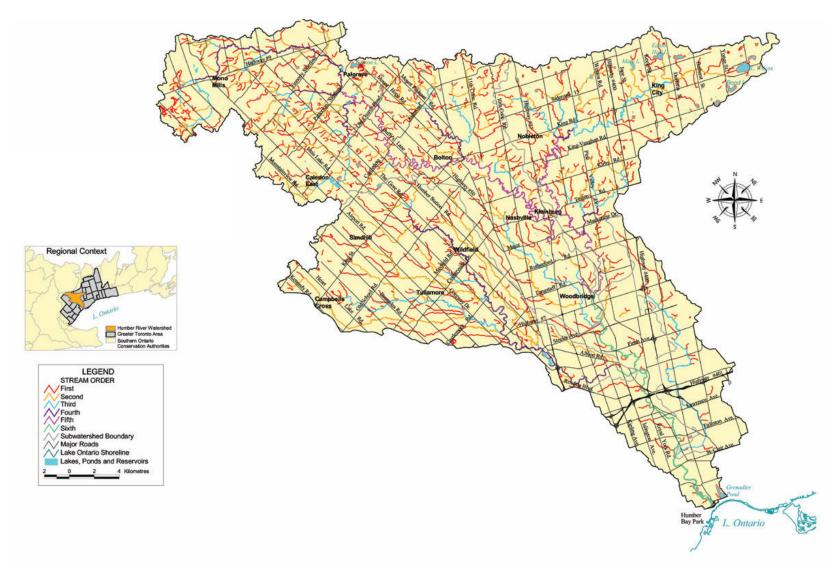


Figure 2. Stream Order for the Humber River Watershed

APPENDIX D VASCULAR PLANT LIST

Table 1: Plant List for the Study Area

Scientific Name	Common Name	S-Rank	СС	CW
Acer negundo	Manitoba Maple	S5	0	0
Acer saccharinum	Silver Maple	S5	5	-3
Ambrosia artemisifolia	Common Ragweed	S5	0	3
Betula papyrifera	White Birch	S5	2	3
Bidens frondosa	Devil's Beggarticks	S5	3	-3
Carex cristatella	Crested Sedge	S5	3	-3
Carex vulpinoidea	Fox Sedge	S5	3	-5
Cornus sericea	Red Osier Dogwood	S5	2	-3
Echinocystis lobata	Wild Mock-cucumber	S5	3	-3
Geum canadense	White Avens	S5	3	0
Lemna minor	Lesser Duckweed	S5?	5	-5
Oxalis stricta	Upright Yellow Wood-sorrel	S5	0	3
Phalaris arundinacea	Reed Canary Grass	S5	0	-3
Plantago rugelii	Rugel's Plantain	S5	1	0
Potentilla simplex	Old-field Cinquefoil	S5	3	3
Prunus virginiana	Choke Cherry	S5	2	3
Ribes cynosbati	Prickly Gooseberry	S5	4	3
Rubus idaeus	Common Red Raspberry	S5	2	3
Rubus occidentalis	Black Raspberry	S5	2	5
Schoenoplectus tabernaemontani	Soft-stemmed Bulrush	S5	5	-5
Solidago gigantea	Giant Goldenrod	S5	4	-3
Symphyotrichum lanceolatum	Panicled Aster	S5	3	-3
Thuja occidentalis	Eastern White Cedar	S5	4	-3
Typha latifolia	Broad-leaved Cattail	S5	1	-5
Ulmus americana	American Elm	S5	1	-3
Vitis riparia	Riverbank Grape	S5	0	0

APPENDIX E SELECTED SITE PHOTOGRAPHS

SELECTED SITE PHOTOGRAPHS

(All photos taken August 12, 2020)



Photo 1 – View of Residential property from western edge



Photo 2 - View of small wetland pond (SAF1-3) to the southwest of the residence



Photo 3 – View of Hedgerow along the southern border



Photo 4 - View of marsh on adjacent property

APPENDIX F SPECIES AT RISK SCREENING

Table 1. Species at Risk Screening for the Study Area

Table 11 speci	es at Kisk Screenin		7 11 0 0					Background Information Source							
Туре	Common Name	Scientific Name	Srank	SARO Status	COSEWIC Status	Last Obs Date	NHIC 17NJ9554 & 17NJ9656	Atlas of Ontario Mammals (Dobbyn 1994)	Atlas of the Breeding Bird of Ontario (Cadman 2009)	Ontario Reptile and Amphibian Atlas (ON 2018)	Ontario Butterfly Atlas (Macnaighton 2018)	Rare Vascular Plants of Ontario (Oldham & Brinker, 2009)	Notes on Preferred Habitat ¹	Observed in the Field	Suitable Habitat on Site
	American Ginseng	Panax quinquefolius	S 2	END	END							*	Rich, undisturbed, mature sugar maple-dominated forest. Often on moist, yet well-drained, soil, often on limestone or marble bedrock		No, no mature forests are present
	American Hart's-tongue Fern	Asplenium scolopendrium var. americanum	\$3	SC	SC							•	Calcium rich substrate and only found on mossy, limestone outcrops, boulders or shallow soil overlying limestone. Typically found under canopy openings of hardwood forests on moderatly moist north facing slopes	No	No, no limestone outcrops or hardwood forests present
	Butternut	Juglans cinerea	S2?	END	END							•	Grows along or in small groups in deciduous forests. Prefers moist, well-drained soil and is often found along streams.	NO	No, no deciduous forests present on Site
PLANTS	Dense Blazing-star	Litaris spicata var. spicata	S2	THR	THR							•	Most Ontario populations tend to occur in tallgrass prairies, although observations of this species have also been in Oak Savannahs, dune woodlands, inter-dunal meadows, roadsides and along railways and hydro corridors	NO	No, tallgrass prairies or Oak Savannahs present on Site
	Hill's Pondweed	Potamogeton hillii	S2S3	SC	SC							•	Cold, clear, alkaline water. Can be found in channels in open wetlands, small slow moving streams, ponds and beaver ponds with muddy substrates.	NO.	No, no coldwater streams present on Site
	Smooth Yellow False Foxglove	Aureolaria flava	S2?		THR							•	Dry, sandy, open woodlands and savannas composed of Oak (Particularly White Oak) often with associations of hickory and pine		No, no open woodlands or savannash present on Site

								Вас	kground Informa	tion Source					
Туре	Common Name	Scientific Name	Srank	SARO Status	COSEWIC Status	Last Obs Date	NHIC 17NJ9554 & 17NJ9656	Atlas of Ontario Mammals (Dobbyn 1994)	Atlas of the Breeding Bird of Ontario (Cadman 2009)	Ontario Reptile and Amphibian Atlas (ON 2018)	Ontario Butterfly Atlas (Macnaighton 2018)	Rare Vascular Plants of Ontario (Oldham & Brinker, 2009)	Notes on Preferred Habitat ¹	Observed in the Field	Suitable Habitat on Site
	Grasshopper Sparrow	Ammodramus savannarum	S4B	sc	sc	2001-2005			•				Utilizes grasslands, hay fields and pastures as its primary habitat. It prefers well-drained sandy soils, as well as alvars and prairies. It prefers areas that are sparesly vegetated.		No, no grasslands or hayfields present on Site
	Prothanatary Warbler	Protonotaria citrea	S1B	END	END	2001-2005			•				Utilizes small, shallow holes found low on tree trunks that are dead or dying, standing near woodlands or swamps. They prefer Silver Maple, Ash and Yellow Birch trees.	No	Yes, dead standing trees are present on Site, however none of the prefered species are found
BIRD	Bobolink	Dolichonyx oryzivorus	S4B	THR	THR	2001-2005	•		•				Can be found in tallgrass prairie, open meadows, hayfields, and dense grasses. They build their nests on the ground amongst the dense vegetation .	No	No, no meadows, hayfields or dense grasses present on Site
	Bank Swallow	Riparia riparia	S4B	THR	THR	2001-2005			•				Nest in burrows in natural and human- made settings where there are vertical faces in silt and sand deposits. Many nests are on river banks, but can be found in sand and gravel pits.	No	No, no vertical faces of silt and sand present
	Chimney Swift	Chaetura pelagica	S4B, S4N	THR	THR	2001-2005			•				Historically have nested on cave walls and in hollow trees, but are more likely to be found un urban settlements nesting in chimneys and manmade structures. They tend to stay close to water where flying insects congregate for foraging.	No	No, no chimneys or similar structures present on Site

								Вас	Background Information Source						
Туре	Common Name	Scientific Name	Srank	SARO Status	COSEWIC Status	Last Obs Date	NHIC 17NJ9554 & 17NJ9656	Atlas of Ontario Mammals (Dobbyn 1994)	Atlas of the Breeding Bird of Ontario (Cadman 2009)	Ontario Reptile and Amphibian Atlas (ON 2018)	Ontario Butterfly Atlas (Macnaighton 2018)	Rare Vascular Plants of Ontario (Oldham & Brinker, 2009)	Notes on Preferred Habitat ¹	Observed in the Field	Suitable Habitat on Site
	Eastern Wood-Pewee	Contopus virens	S4B	sc	sc	2001-2005			•				Live in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundandtly found in intermediate-age mature forest stands with little understory vegetation.		No, no forests present on Site
	Wood Thrush	Hylocichla mustelina	S4B	SC	THR	2001-2005	•		•				Lives in mature deciduous and mixed forests, seeking moist stands of trees with well-developed undergrowth and tall trees for perching. They prefer large forests, but will also use smaller stands of trees, building their nests in saplings, trees or shrubs, usually of Sugar Maple or American Beech.	No	No, no mature forests are present
BIRD	Barn Swallow	Hirundo rustica	S4B	THR	THR	2001-2005			•				Nest along human-made structures such as open barns, under bridges and in culverts. Attracted to open structures to build their nests, including ledges. They prefer rough-cut wood structures as the mud nests adheres better.	No	Yes, human structres are present on Site
	Eastern Meadowlark	Sturnella magna	S4B	THR	THR	2001-2005			•				Breed primarily in moderately tall grasslands such as pastures, hayfields and weedy borders of croplands, roadsides and other open areas.	No	No, no tall grasslands present on Site
	Red-headed Woodpecker	Melanerpes erythrocephalus	S4B	THR	END	2001-2005			•				Lives in open woodlands and woodland edges, often found in parks, golf courses and cemeteries with dead trees that are used for nesting and perching.		No, no open woodlands present on Site

								Background Information Source							
Туре	Common Name	Scientific Name	Srank	SARO Status	COSEWIC Status	Last Obs Date	NHIC 17NJ9554 & 17NJ9656	Atlas of Ontario Mammals (Dobbyn 1994)	Atlas of the Breeding Bird of Ontario (Cadman 2009)	Ontario Reptile and Amphibian Atlas (ON 2018)	Ontario Butterfly Atlas (Macnaighton 2018)	Rare Vascular Plants of Ontario (Oldham & Brinker, 2009)	Notes on Preferred Habitat ¹	Observed in the Field	Suitable Habitat on Site
INSECT	Monarch	Danaus plexippus	S4B	SC	SC	2019					•		Caterpillars feed on milkweed plants and are confined to meadows and open areas where milkweed grows. Adults forage on a variety of wildflowers and milkweed.	No	Yes, milkweed and other wildflowers are present on Site
	Snapping Turtle	Chelydra serpentina	\$3	SC	SC	2019				*			Shallow waters with soft mud and leaf litter. Can be found in gravelly or sandy areas along streams or roads during nesting season.		Yes, a small pond is present on Site, however it is likely too small for Snapping Turtles
REPTILE	Midland Painted Turtle	Chrysemys picta marginata	S4	SC	SC	2018				*			Inhabit waterbodies such as ponds, marshes, lakes and slow-moving creeks that have a soft bottom and provide basking sites with aquatic vegetation.	No	Yes, a small pond is present on Site.
	Little Brown Bat	Myotis lucifuga	S4	END	END	·		•					Roost in trees and buildings such as attics, abandoned builings and barns. Generally found in coniferous or deciduous forests along edge habitat, foraging in clearings near sources of water.	No	Yes, human structres are present on Site
MAMMAL	Eastern Small-footed Myotis	Myotis leibii	S2S3	END	END	-		*					Roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines or hollow trees	No	Yes, human structres are present on Site
	Northern Myotis	Myptis septentrionalis	S3	END	END	-		*					Roost under loose bark and in cavities of trees. Hibernate from October/November to March/April most often in caves or abandoned mines	No	Yes, human structres are present on Site

									Вас	ckground Informa	ation Source					
1	Гуре	Common Name	Scientific Name	Srank	SARO Status	COSEWIC Status	Last Obs Date	17NJ9554 &	Atlas of Ontario Mammals (Dobbyn 1994)	of Ontario	Atlas (ON	Butterfly Atlas (Macnaighton	Rare Vascular Plants of Ontario (Oldham & Brinker, 2009)	Notes on Preferred Habitat ¹	Observed in the Field	Suitable Habitat on Site
MA	MMAL	Tri-coloured Bat	Pipistrellus subflavus	\$3	END	END	-		•					Forms day roosts and maternity colonies in older forests but can also be found in barns or other structures. Forage over water along streams in the forest. Overwinter in caves from October-April.	No	Yes, human structres are present on Site

SARO	Species at Risk Ontario (O. Reg. 230/08)	NHIC Srank (Subr	national) Legend
COSEWIC	Committee on the Status of Endangered Wildlife in Canada	S1	Critically imperiled, at very high risk of extirpation.
<u>Definitions</u>		S2	Imperiled, at high risk of extirpation.
Endangered (END)	Species facing imminent extirpation or extinction	S3	Vulnerable, at moderate risk of extirpation.
Threatened (THR)	Species likely to become endangered if nothing is done to reverse the factors leading to their extirpation or extinction	S4	Apparently secure, at fairly low risk of extirpation.
Special Concern (SC)	Species that may become threatened or endangered because of a combination of biolodical characteristics and identified threats	S5	Secure, at low or no risk of extirpation.
Extirpated (EXR)	Species which no longer exist in the wild in Ontario, but exist elsewhere in the world	В	Conservation status refers to breeding population.
DD	Data defficient	N	Conservation status refers to non-breeding population
References			

- 1 Ministry of Natural Resources (MNR). 2000. Significant Wildlife Habitat Technical Guide. Peterborough: Queen's Printer for Ontario.
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- 4 Government of Canada. 2018. Species at Risk Act: COSEWIC Assessments and Status Reports. Accessed December 2018. https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports.html
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- Butterflies and Moths of North America. 2018. Species Search. Accessed February 2019. https://www.butterfliesandmoths.org/species_search.

APPENDIX G SITE PLAN

