



BURNSIDE

Scoped Environmental Impact Study

60 Dundas Street East, Mississauga

Almega Asset Management

**R.J. Burnside & Associates Limited
292 Speedvale Avenue West Unit 20
Guelph ON N1H 1C4 CANADA**

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1.0 Introduction

R.J. Burnside & Associates Limited (Burnside) has been retained by Almega Asset Management (Almega) to complete a scoped Environmental Impact Statement (EIS) for Subject Property located at 60 Dundas Street East in the City of Mississauga (hereafter referred to as “the City”). The Credit Valley Conservation Authority (CVC) is requiring the preparation of the EIS as the Subject Property as there are CVC-regulated lands on the Subject Property associated with Cooksville Creek, found to the east of the site.

Almega is proposing three new apartment buildings that will replace the existing commercial building that will include residential units and ground floor retail.

The purpose of this investigation is to delineate and assess the natural heritage features and functions within and adjacent to the Subject Property, as well as determine impacts and mitigation as needed within the context of the proposed development.

The Terms of Reference (TOR) for this EIS were provided to the CVC for their review and comment. The TORs and responses to the TOR by the CVC are provided in Appendix A.

2.0 Policy and Legislative Framework

The following sections identify the federal, provincial, Conservation Authority, Region and City policies and legislation that apply to the proposed expansion.

2.1 Migratory Birds Convention Act, 1994

The *Migratory Birds Convention Act, 1994* (MBCA) and the *Migratory Bird Regulations* (MBR) are federal legislative requirements that are binding on members of the public and all levels of government, including federal and provincial governments. The legislation protects certain species¹, controls the harvest of others, and prohibits the commercial sale of all species.

One key responsibility under the MBCA is described in Section 6 of the associated MBR:

Subject to subsection 5(9), no person shall

- *Disturb, destroy or take a nest, egg, nest shelter, eider duck shelter or duck box of a migratory bird, or*

¹ Bird species not regulated under the Act include: Rock Dove, American Crow, Brown-headed Cowbird, Common Grackle, House Sparrow, Red-winged Blackbird, and European Starling. In addition, raptors are not regulated under the MBCA. However, they are protected under provincial legislation which restricts and regulates the taking or possession of eggs and nests. Furthermore, if the species identified is protected under Ontario's Endangered Species Act, 2007 or the federal Species at Risk Act, additional restrictions may apply.

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- *Have in his possession a live migratory bird, or a carcass, skin, nest or egg of a migratory bird except under authority of a permit therefore.*

The “incidental take” of migratory birds and the disturbance, destruction, or taking of the nest of a migratory bird is prohibited. “Incidental take” is the killing or harming of migratory birds due to actions, such as economic development, which are not primarily focused on taking migratory birds. No permit can be issued for the incidental take of migratory birds or their nest or eggs as a result of economic activities. These prohibitions apply throughout the year. Environment Canada and the Canadian Wildlife Service have compiled nesting calendars that show the variation in nesting intensity, by habitat type and nesting zone, within broad geographical areas distributed across Canada. While this does not mean nesting birds will not nest outside of these periods, the calendars can be used to greatly reduce the risk of encountering a nest. Environment Canada advises avoidance as the best approach.

2.2 Federal Fisheries Act (1985)

The federal *Fisheries Act, 1985* is administered by Fisheries and Oceans Canada (DFO) and provides protection for fish habitat across Canada. Section 35 of the Act prohibits: “*the carrying out of a work, undertaking or activity that results in serious harm to fish that are part of or support a commercial recreational or Aboriginal fishery.*”

“Serious harm to fish” is defined in the Act as “*the death of fish or the permanent alteration to, or destruction of, fish habitat,*” with fish habitat defined as “*spawning grounds and any 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.*”

Cooksville Creek is present adjacent to the development limits. In-water work is not included in the scope of work for this project.

2.3 Provincial Policy Statement (2020)

The PPS (MMAH, 2014) provides general policies on land use patterns, resources, and public health and safety that guide development across Ontario. As stated in Section 2.1.1 of the PPS, “*Natural features and areas shall be protected for the long term*”. This statement is interpreted as the main goal of development should be to prevent additional degradation, reduction, or removal of onsite and adjacent natural heritage features and functions.

Additionally, Section 2.1.2 states that “*The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and groundwater features*”. This statement supports the previous section where natural feature preservation should be partnered with management, restoration, and enhancement of the feature(s) and the connections of the feature(s) within a greater natural heritage system.

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Specifically related to this location is the requirement to identify natural heritage systems (NHS) in southern Ontario (Ecoregions 6E and 7E), Policy 2.1.3. This report will address Section 2.1 (Natural Heritage).

Specifically, Section 2.1.4 identifies that development and site alteration shall not be permitted within:

- a) *Significant wetlands in Ecoregions 5E, 6E, and 7E; and*
- b) *Significant coastal wetlands;*

Also, Section 2.1.5 identifies that development and site alteration shall not be permitted within:

- a) *Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E, and 7E;*
- b) *Significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River);*
- c) *Significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and St. Mary's River);*
- d) *Significant wildlife habitat;*
- e) *Significant areas of natural and scientific interest; and*
- f) *Coastal wetlands in Ecoregions 5E, 6E, and 7E that are not subject to policy 2.1.4(b) unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.*

Sections 2.1.6 and 2.1.7 identify two additional natural features where development and site alteration are not permitted except in accordance with provincial and federal requirements.:

- a) *Fish habitat except in accordance with provincial and federal requirements; and*
- b) *Habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.*

According to Section 2.1.8, development and site alteration are not permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6, unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

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2.4 Endangered Species Act, 2007

The *Endangered Species Act, 2007* (ESA), provides protection for species at risk (SAR) and their habitat. The ESA was administered by the Ministry of Natural Resources and Forestry (MNR), but is now the jurisdiction of Ministry of Environment, Conservation and Parks (MECP). The Act presents policies for the protection of extirpated, endangered, and threatened species, as well as species of special concern. These four categories of species form the Species at Risk in Ontario (SARO) List, which are classified by the Committee on the Status of Species at Risk in Ontario (COSSARO). COSSARO is also responsible for maintaining criteria for assessing and classifying SAR.

The ESA helps protect species (Section 9) and their habitat (Section 10). Section 9(1)(a) of the ESA states,

No person shall kill, harm, harass, capture or take a living member of a species that is listed on the SARO list as Extirpated, Endangered and Threatened.

Section 10(1)(a) of the ESA states,

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

2.5 Credit Valley Conservation Authority (O. Reg. 160/06)

The CVC administers Ontario Regulation 160/06: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. Through this regulation, the CVC has the ability to:

- Prohibit, regulate or require the permission of the authority for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland.
- Prohibit, regulate or require the permission of the authority for development, if in the opinion of the authority, the control of flooding, erosion, dynamic beaches, or pollution or the conservation of land may be affected by the development.

Based on online CVC Regulation mapping, a portion of the Subject Property is located within the CVC's regulatory limits and will therefore require consent and a permit from the CVC once the development envelope is determined (Figure 3).

The EIS provides recommendations to ensure that natural heritage features and functions are not negatively impacted and, where applicable, recommends mitigation measures.

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2.6 The Region of Peel Official Plan (2018)

The Region of Peel Official Plan (hereafter referred to as the Regional OP) was first adopted by the Regional Council on July 11, 1996 before being approved by the Municipal Affairs and Housing, on October 22, 1996. The intent of the Regional OP is to provide the Region of Peel with a “*long-term regional strategic policy framework for guiding growth and development in Peel while having regard for protecting the environment*”. The most recent Regional OP consolidation is in effect as of September 10, 2021.

The Regional OP was also consulted to determine land use designations and the location of the Subject Property relative to the Core Greenlands Systems. As per Schedule D of the Regional OP, the Subject Property and surrounding lands are classified as an Urban Growth Center. As per the Regional OP,

“Urban growth centres and the Regional Intensification Corridor, as shown on Schedule D, 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”

The Subject Property and adjacent lands not fall within the *Core Areas of the Greenlands Systems in Peel* or any of the other environmental protection areas.

2.7 The City of Mississauga Official Plan (October 21, 2021)

The intent of the City of Mississauga Official Plan (hereafter referred to as the Municipal OP) is to provide a “*policy framework to protect, enhance, restore and expand the Natural Heritage System, to direct growth to where it will benefit the urban form, support a strong public transportation system, and address the long-term sustainability of the city*”. The most recent consolidation of the Municipal OP is in effect as of October 21, 2021 and includes the Ontario Land Tribunal (OLT) decisions and approved Official Plan amendments made up until this date.

The Official Plan was consulted to determine land use designations and the location of the Subject Property relative to the Natural Heritage System (NHS), including Significant Natural Areas (SNAs), site and area specific policies, and special policy areas. As per Schedule 10 of the Municipal OP, the Subject Property are designated as mixed-used and are located within an intensification corridor. The adjacent land uses include High-density Residential to the south, Mixed-Use to the north and west, and Greenlands / Hazard Lands to the east in association with Cooksville Creek. Additionally, the Municipal OP designates the Cooksville Creek corridor as a Green System (Schedule 1A), a Natural Heritage System - Significant Natural Area (SNA, Schedule 3), a Natural Green Space (Schedule 3) and an Open Public Space (Schedule 4).

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2.7.1 Natural Heritage System

The City of Mississauga's NHS is comprised of the following features:

- Significant Natural Areas;
- Natural Green Spaces;
- Special Management Areas;
- Residential Woodlands; and
- Linkages

As discussed above, the adjacent lands are classified as Significant Natural Areas and Natural Green Space.

Significant Natural Areas

As per the Section 6.3.12 of the Municipal OP, SNAs are areas that meet at least one of the following criteria:

- *provincially or regional significant life science areas of natural and scientific interest (ANSI);*
- *environmentally sensitive or significant areas;*
- *habitat of threatened species or endangered species*
- *fish habitat*
- *significant wildlife habitat*
- *significant woodlands*
- *Significant wetlands*
- *Significant valleylands*

Policy 6.3.27 of the Municipal OP requires that site development will not be permitted in or adjacent to a SNA “*unless all reasonable alternatives have been considered and any negative impacts minimized*” or “*negative impact(s) that cannot be avoided will be mitigated through restoration and enhancement to the greatest extent possible*”. This should be demonstrated through the completion of an EIS.

Natural Green Spaces

As per Section 6.3.14 of the Municipal OP, Natural Green Spaces are classified as areas that meet at least one of the following criteria:

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- *woodlands greater than 0.5 hectares that do not fulfill the requirements of a significant woodland;*
- *wetlands that do not fulfill the requirements of a significant wetland;*
- *watercourses that do not fulfill the requirements of a significant valleyland, even if they are predominantly engineered; and*
- *all natural areas greater than 0.5 hectares that have vegetation that is uncommon in the city.*

Policy 6.3.32 of the Municipal OP does not permit development within or adjacent to Natural Green Space unless an EIS demonstrates that there will be no negative impacts to the natural heritage feature or its functions and opportunities for “*protection, restoration, enhancement, and expansion have been identified*”.

2.7.2 EIS Requirements

Policy section 6.3.33 of the Municipal OP states that an EIS will

“delineate the area to be analysed, describe existing physical conditions, identify environmental opportunities and constraints, and evaluate the ecological sensitivity of the area in relation to a proposal.”

The EIS should also describe opportunities to protect, enhance, restore, and / or expand the NHS and its associated ecological functions.

2.7.3 Natural Hazard Lands

As per Section 3.6 of the Municipal OP, Natural Hazard Lands are features that are associated with watercourses (i.e. valley lands and floodplains), or the shoreline of Lake Ontario. Generally, these areas cannot be developed due to risk associated with flooding and erosion. Hazard Lands are also considered Significant Natural Areas as they form a critical component of the Municipality’s natural heritage system (City of Mississauga, 2021). The Cooksville Creek corridor is classified as Natural Hazard Lands.

2.8 City of Mississauga Private Tree By-law (By-law No. 254-2012) and Draft Public Tree By-law

The Private Tree By-law Tree describes the rules that govern tree ownership in Mississauga and the responsibility of tree maintenance, including administration and enforcement. The Private Tree By-law seeks to preserve trees on private property in Mississauga, to help sustain and maintain the city’s tree canopy.

The first Public Tree By-law was developed to regulate the planting, maintenance and protection of trees and shrubs on City-owned and maintained lands in Mississauga.

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City-owned trees include street trees, park trees and those in natural areas like forests, woodlands and trails. The by-law also regulates the pruning, trimming, removal or damaging of city-owned trees. A draft Public Tree By-law was developed in response to recommendations made in the City's Future Directions Master Plan, Urban Forest Management Plan and Natural Heritage & Urban Forest Strategy.

There are 2 private trees found on the site (2 Norway Maples). Publicly-owned trees are located at the west limit of the site (along Shepard Avenue) within the road right-of-way (ROW), east of the trail on public lands, and on private lands to the south.

3.0 Background Information Review

The following documents were reviewed to assess the environmental constraints and opportunities for the development at 60 Dundas Street East:

- Aerial photography;
- The Ministry of Natural Resources and Forestry (MNRF) Natural Heritage Information Centre (NHIC) database to identify records of rare wildlife species on, and in the vicinity of, the Site;
- The Ministry of Natural Resources and Forestry (MNRF) Aquatic Resources Area database;
- The Ontario Breeding Bird Atlas (OBBA), 2001-2005 for records of birds breeding in the area;
- The Ontario Reptile and Amphibian Atlas (ORAA), for records of reptiles and amphibians in the area;
- CVC's Regulation 160/06 Mapping;
- Region of Peel Official Plan (2018);
- City of Mississauga Official Plan;
- City of Mississauga Natural Areas System Mapping (2020) and Natural Areas Surveys (2017); and
- Cooksville Creek Watershed Study and Impact Monitoring Characterization Report.

The results of the background data review are presented in Table 31. Based on the review, the following features are, or may be, present within 120 m of the Site:

- A SNA;
- Candidate Habitat of Species of Conservation Concern; and
- Habitat of endangered and threatened species.

Records of avifauna, reptiles and amphibians in the broad region are provided in Appendix C.

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Table 3-1: Potential Natural Heritage Features in Vicinity of the Site

Feature	Existing Records	Data Source
Features of Provincial Significance		
Significant Wetlands Ecoregion 7E	No records identified	NHIC, CVC mapping, MNRF data package ,
Significant Woodlands	Present	City of Mississauga OP, MNRF Woodlands Mapping
Significant Valleylands	No records identified	City of Mississauga OP, CVC mapping
Significant Wildlife Habitat Ecoregion 7E	Seasonal Concentrations of Animals: <ul style="list-style-type: none"> • No records identified Rare Vegetation Communities <ul style="list-style-type: none"> • No records identified Specialized Habitat for Wildlife: <ul style="list-style-type: none"> • No records identified Habitats for Species of Conservation Concern: <ul style="list-style-type: none"> • Records of several provincially rare species¹ were identified. Animal Movement Corridors: <ul style="list-style-type: none"> • No records identified. 	NHIC, OBBA
Significant Areas of Natural and Scientific Interest	No records identified	NHIC
Habitat of Endangered and Threatened Species	Records identified for Threatened and Endangered species: <ul style="list-style-type: none"> • Little Brown Myotis (<i>Myotis lucifugus</i>) (END) • Tri-colored Bat (<i>Perimyotis subflavus</i>) (END) • Northern Myotis (<i>Myotis septentrionalis</i>) (END) • Butternut (<i>Juglans cinerea</i>) (END) • Nine-spotted Lady Beetle (<i>Coccinella novemnotata</i>) (END) • Barn Swallow (<i>Hirundo rustica</i>) (THR) 	NHIC, OBBA, ORAA, and MNRF data package

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Feature	Existing Records	Data Source
Features of Other Significance		
Significant Natural Areas	Present in association with Cooksville Creek	City of Mississauga Official Plan, City of Mississauga 2020 Natural Areas System

3.1 Natural Heritage Information Centre database

The NHIC was accessed to search for records of provincially significant plants, vegetation, communities and all forms of wildlife within the Subject Property and the surrounding areas. The database provides data for 1 km x 1 km blocks. The Subject Property and the vicinity (i.e., within 120 m of the site) falls within two (2) 1 km squares (square no. 17PJ1226 and 17PJ1126). The search revealed two (2) records for Henslow's Sparrow (*Ammodramus henslowii*), one (1) record of Nine-spotted Lady Beetle, and one (1) record for Butternut which are all designated as endangered on the Species at Risk list for Ontario (O. Reg. 230/08) and COSEWIC. Each species is ranked as possibly extirpated (SHB), in the cases of Henslow's Sparrow and Nine-spotted Lady Beetle, and Imperiled (S2).

3.2 Aquatic Resources Area (ARA) Mapping

Burnside's Aquatic Ecology team reviewed the following sources of information to determine historical aquatic habitat conditions in the vicinity of the proposed construction:

- Aerial Imagery;
- Ministry of Natural Resources and Forestry (MNR) Aquatic Resources Area (ARA) mapping (2017);
- Department of Fisheries and Oceans (DFO) Species at Risk (SAR) mapping (2021); and
- Natural Heritage Information Centre Mapping (2022).

Cooksville Creek, which flows east of subject, is classified as a warm-water tributary. The watercourse flows from north to south beneath Dundas Street and King Street East. In-water work is not required for this project. However, construction activities will be taking place within the immediate vicinity of the watercourse.

Table 3-2. Species Documented Within Cooksville Creek

Species Name	Scientific Name	Thermal Regime Preference
Blacknose Dace	<i>Rhinichthys atratulus</i>	Cool
Common Carp	<i>Cyprinus carpio</i>	Warm
Creek Chub	<i>Semotilus atromaculatus</i>	Cool
Longnose Dace	<i>Rhinichthys cataractae</i>	Cool

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3.3 Ontario Breeding Birds Atlas

A review of the Ontario Breeding Bird Atlas (OBBA) square 17PJ12 identified records of 102 bird species in the vicinity of the site. The relative rarity² of each species is identified in Table 3-2.

Table 3-3: Provincial S-Ranks of Bird Species Recorded in the Vicinity³ of the Site

Rarity Ranking (SRank)*	Number of Species
S3 (S3, S3B)	5
S4 (S4, S4B, S4S5B)	33
S5 (S5, S5B)	58
SNA	6

*S1- Critically Imperiled
S2- Imperiled
S3- Vulnerable
S4- Apparently Secure
S5- Secure
SNA- Not applicable, not suitable for conservation activities

The majority of bird species in the area are ranked as S5 and are considered to be common, secure, and not at risk. Species ranked S4 are considered to be apparently secure while species listed as S3 are considered to be vulnerable. Of the species listed above, nine (9) are listed under the Endangered Species Act either as Special Concern, Threatened, or Endangered, ranking from S4 to S3B. Of the twenty species listed, suitable habitat is present for one threatened or endangered species, Barn Swallow. It should be note that suitable nesting habitat for Barn Swallow is located within the culverts located outside of the Subject Property and will not be impacted by this project.

Suitable habitat was also present within the woodlands adjacent to the Subject Property for two (2) species of special concern, specifically:

- Eastern Wood-pewee (*Contopus virens*) – Special Concern; and
- Wood Thrush (*Hylocichla mustelina*) – Special Concern.

Further information regarding the habitat requirements for each species is discussed in greater detail in Section 10.2.

OBBA records are provided in Appendix C.

3.4 Ontario Reptile and Amphibian Atlas

A review of the Ontario Reptiles and Amphibian Atlas square 17NH06 identified records of twelve (12) different species of reptiles and amphibians within the vicinity of the site. The relative rarity² of each species is identified in Table 3-4.

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Table 3-4: Reptiles and Amphibians Documented in the Vicinity of the Site

Common Name	# of Records	Earliest Yr	Latest Yr	SRANK	COSSARO	COSEWIC
Reptiles						
Blanding's Turtle	2	1982	2018	S3	THR	END
Eastern Musk Turtle	1	1969	1969	S3	SC	SC
Midland Painted Turtle	19	1927	2019	S4	NAR	SC
Northern Map Turtle	8	1969	2014	S3	SC	SC
Red-eared Slider	15	2000	2019	SNA		
Snapping Turtle	24	1969	2019	S4	SC	SC
Dekay's Brownsnake	17	1927	2019	S5	NAR	NAR
Eastern Gartersnake	23	1927	2018	S5		
Milksnake	16	1886	2017	S4	NAR	SC
Northern Watersnake	9	1927	2012	S5	NAR	NAR
Red-bellied Snake	1	1969	1969	S5		
Northern Ring-necked Snake	2	1969	1987	S4		
Smooth Greensnake	2	1943	1969	S4		
Amphibians						
American Bullfrog	3	1927	1995	S4		
Gray Treefrog	4	1924	2012	S5		
Green Frog	18	1926	2017	S5		
Northern Leopard Frog	21	1926	2012	S5		
Pickerel Frog	1	1969	1969	S4		
Spring Peeper	2	1969	1969	S5		
Western Chorus Frog	3	1989	1989	S4	NAR	THR
Wood Frog	2	1969	1997	S5		
American Toad	46	1968	2017	S5		
Red-spotted Newt	2	1923	1969	S5		
Eastern Red-backed Salamander	15	1923	2018	S5		
Jefferson Salamander	4	1999	2005	S2	END	END
Mudpuppy	4	1931	2007	S4	NAR	NAR
Spotted Salamander	2	1969	1990	S4		

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Of the 27 species listed above, two species, Jefferson Salamander and Blanding's Turtle, are listed as threatened or endangered. Three (3) species are classified as special concern specifically Eastern Musk Turtle, Northern Map Turtle, and Snapping Turtle were found within the site vicinity. There is no potential for any species of special concern or threatened / endangered species within the Subject Property.

3.5 CVC Conservation Authority Mapping

The CVC online mapping was used to identify regulated areas, including hazard lands, floodplains, watercourses, and wetland systems within the Property. Approximately half of the Subject Property falls within lands regulated by the CVC due to the site's proximity to Cooksville Creek.

3.6 City of Mississauga Natural Areas System Mapping (2020) and Natural Areas Surveys (2017)

The 2020 Natural Areas Survey (NAS) for the City of Mississauga was initially completed in 1996 by North-South Environmental to identify the best remaining natural heritage features within the City. Additional updates have been made since the initial survey, the most recent of which occurred in 2020. The intent of these surveys is to provide an up-to-date description of the ecological conditions found within these natural areas including the flora and fauna species that occur within the limits, the site boundaries, site topography, soils, surficial geology, as well as any future management considerations (City of Mississauga, 2011).

The Subject Property occurs adjacent to Site CV10. Site CV10 is located in association with Cooksville Creek and occurs from King Street East to Queensway East. Within CV10, there are 166 flora species and 38 faunal species, including one species of special Concern, Eastern Wood-Peewee, within the area. Six (6) ELC communities occur within the site including the following:

- Fresh-moist ash lowland deciduous forest type (FOD7-2);
- Fresh-moist willow lowland deciduous forest type (FOD7-3);
- Fresh-moist black walnut lowland deciduous forest type (FOD7-4);
- Dry-fresh deciduous forest ecosite (FOD4);
- Mineral cultural woodland ecosite (CUW1); and
- Dry-moist old field meadow type (CUM1-1).

Overall, the condition of Site CV10 is poor due to extensive disturbances including encroachment and channelization. Invasive species represent a significant portion of the flora species within Site CV10, accounting for 43% of the species present. The native FQI (Floristic Quality Index) and native mean coefficient were found to be 30.36 and 3.31 respectively, which are 'medium' vegetation quality.

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Based on Burnside's assessment, site conditions appear to have remained consistent with the 2020 assessment.

3.7 Cooksville Creek Watershed Study and Impact Monitoring Characterization Report

Cooksville Creek provides a hydrological and ecological corridor that connects remnant natural areas in the watershed. Overall, watershed functioning is impaired due to the high level of urbanization in the area. As of 2011, only 9.6 % of the watershed land use is classified as natural area, with forests and wetlands comprising 2.2 % and 0.2 % of the land use within the watershed respectively. Generally, remnant natural areas are heavily fragmented and lack connectivity throughout the watershed corridor as a result of heavy urbanization. Specific to wooded areas, interior forest conditions are rarely present throughout the watershed and remaining wooded areas are fragmented by trail systems, human disturbance, and encroachment.

4.0 Field Methodologies

Field investigations were conducted by a Burnside ecologist on February 7, 2022, according to the schedule listed in Table 4-1. The purpose of field investigations was to identify any natural heritage features, natural hazard features, and functions present in and adjacent to the Subject Property.

All field investigations were conducted according to the parameters provided in the Terms of Reference submitted to the CVC in January 2022.

Findings are summarized in Sections 6.0, 7.0 and 8.0.

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Table 4-1: Field Study Methodology

Field Study	Methodology	Staff Involved	Date	Time	Weather Conditions		
					Precipitation / Cloud Cover	Temperature (°C)	Wind (Beaufort Wind Scale) ¹
Ecological Land Classification	Ecological Land Classification for Southern Ontario (Lee <i>et al.</i> , 1998) of entire property.	S. Yoshida, Ecologist	February 7, 2022	1410 – 1540	No precipitation, 100% cloud cover	5°C on arrival 4°C on departure	0
Search for potential wildlife habitats	Meandering survey throughout property. Search for features such as: Reptile hibernacula, turtle nesting areas, raptor nests, and waterfowl nesting areas.	S. Yoshida, Ecologist	February 7, 2022	1410 – 1540	No precipitation, 100% cloud cover	5°C on arrival 4°C on departure	0
Incidental flora and fauna observations	<ul style="list-style-type: none"> Wandering transect surveys Visual observations of animals, tracks or scat and compilation of a plant inventory during all site visits.	S. Yoshida, Ecologist	February 7, 2022	1410 – 1540	No precipitation, 100% cloud cover	5°C on arrival 4°C on departure	0

¹ Beaufort Wind Scale 0 = calm, smoke rises vertically (0-2 km/hr); 1 = light air movement, smoke drifts (3-5); 3 = gentle breeze, wind felt on face; leaves rustle (6-11); 4 = moderate breeze, small branches moving, raises dust & loose paper (20-30); 5 = fresh breeze, small trees begin to sway (31-39); 6 = strong breeze, large branches in motion (40-50)

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5.0 Existing Conditions

5.1 Site Description

The surrounding land use is mixed-use commercial and high-density residential except for Cooksville Creek and its associated riparian corridor southeast of the Subject Property.

Cooksville Creek is a part of the City of Mississauga's NHS. This natural area is heavily altered, as evidenced by the pervasiveness of invasive species throughout all the vegetation layers. The site is also subject to frequent disturbance such as dumping and frequent flooding (Aquafor Beech, 2011). The watercourse is channelized, and the banks have been hardened using concrete retaining walls and gabion baskets throughout this reach of the watercourse.



Photo 1. Condition of the Watercourse, Facing Southward from Dundas Street Bridge (February 7, 2022)

The Burnside investigation identified four ecosites within and immediately adjacent to the proposed development area.

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5.2 Physiography

5.2.1 Soils and Topography

The City of Mississauga Natural Areas Survey described the soils within Site CV10 as well-drained Fox Sand associated with the Lake Iroquois shallow water deposits. These soils are underlain by grey shales of the Georgian Bay Formation (City of Mississauga, 2020).

The site generally has a flat topography, with a considerable drop in elevation adjacent to Cooksville Creek where a concrete retaining wall is present. South of the Subject Property the topography slopes very gradually towards the south. The site drainage patterns are discussed in greater detail below and within the Stormwater Management Brief.

The top of bank / limit of natural feature was not staked in time for this submission. Burnside will work with CVC to establish this limit for future coordination.

5.2.2 Site Surface Drainage Pattern

The site currently has hard surfaces (building and driveway) with stormwater management through catchbasins. It is not known by the project team if the stormwater outlets to Cooksville Creek and it has been assumed that the site drains to Dundas Street before entering the watercourse.

5.3 Vegetation

5.3.1 Ecological Land Classification

Assignment of ELC codes on vegetation communities that are heavily influenced by disturbance and management can be difficult and may result in subjectivity associated with the classification. A description of each community is provided below. The locations and extent of the ELC communities present within the Subject Property and adjacent natural areas can be found in Figure 2.

Business Sector (CVC_1)

This community represents the entirety of the Subject Property. This ecosite is comprised of a small strip mall, paved parking area, and several Norway Maples (*Acer platanoides*) planted along the boulevard in conjunction with ornamental shrubs.

This community also represents the areas north of Dundas Street and east of Shepard Avenue.

High Density Residential (CVR_2)

This community represents the area south of the Subject Property and east of Cooksville Creek. The ecosite is comprised of manicured turfgrass, landscape trees, ornamental shrubs, and a mid-rise retirement residence.

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Inclusion: Fencerow TAGM5

This community represents the community immediately east of the Subject Property and is comprised of Siberian Elm (*Ulmus pumila*), Manitoba Maple, and Austrian Pine. All trees within this area are open grown with manicured turfgrass beneath. No shrubs or native understory are present (Photo 2).



Photo 2. TAGM5 community (February 7, 2022)

Fresh-Moist Willow Lowland Deciduous Forest Type (FODM7-3)

This community is located northeast of the proposed development area extends offsite to the northeast (Photo 3 and Photo 4). It is moderately disturbed as evidenced by the presence of household waste adjacent to the slope and the prevalence of non-native and invasive tree and understory species throughout the community.

The canopy is dominated by mature White Willow (*Salix alba*) with lesser associates of mid-aged Siberian Elm, and Manitoba Maple (*Acer negundo*). The subcanopy is dominated by Manitoba Maple (*Acer negundo*) followed by Siberian Elm, and White Willow. Other tree species present included Green Ash (*Fraxinus pennsylvanica*), Black Ash (*Fraxinus nigra*), Chokecherry (*Prunus virginiana*), Black Walnut (*Juglans nigra*), and Silver Maple (*Acer saccharinum*).

There is moderately dense regeneration of shrubs and vines within this community, primarily consisting of Red-osier Dogwood, Multiflora Rose (*Rosa multiflora*), Ash and Manitoba Maple regeneration, as well as Wild Grape (*Vitis riparia*). Other understory species present include

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Tartarian Honeysuckle (*Lonicera tatarica*), Staghorn Sumac (*Rhus typhina*), European Spindletree (*Euonymus europaeus*), and *Juniperus* sp.

Visibility of the groundlayer was limited due to heavy snow cover at the time of site investigations and could not be accurately assessed. Visible species typically found in disturbed urban settings included Garlic Mustard (*Alliaria petiolata*), Goldenrod (*Solidago* sp.), Wild Carrot (*Daucus carota*), Reed Canary Grass (*Phalaris arundinacea*), Smooth Bedstraw (*Galium* cf. *mollugo*), Common Burdock (*Arctium* cf. *minus*), and cool season grasses. It is assumed that the groundlayer community has remained consistent with conditions described in the City of Mississauga Natural Areas Survey (City of Mississauga, 2020).

The wooded areas north of Dundas Street East were also classified as FODM7-3 during the Natural Areas Survey (City of Mississauga, 2020). It is assumed that the vegetation community within this area is comparable to the wooded areas south of the Subject Property (Photo 5).



Photo 3. FODM7-3 community, west bank of Cooksville Creek. Photo taken facing north (February 7, 2022)

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Photo 4. FODM7-3 community, east bank of Cooksville Creek. Photo taken facing north (February 7, 2022)



Photo 5. FODM7-3 community for the treed area associated with Cooksville Creek north of Dundas St East. Photo taken facing north (February 7, 2022)

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5.4 Wildlife

5.4.1 Incidental Wildlife

No targeted surveys for reptiles (i.e., amphibians, snakes, turtles) were conducted as part of this study. However, a background review of agency records and the NHIC database, a desktop review of aerial photography, and confirmation of ELC communities within the Subject Property and adjacent lands during site investigations assisted in screening for the potential habitat of these species.

Incidental wildlife seen within the Cooksville Creek corridor during the site investigations is limited to Black-capped Chickadee (*Poecile atricapillus*), Grey Squirrel (*Sciurus carolinensis*), Mallard (*Anas platyrhynchos*), Northern Cardinal (*Cardinalis cardinalis*), Canada Geese (*Branta canadensis*), European Starling (*Sturnus vulgaris*), and Rock Doves (*Columba livia*). Evidence of Eastern coyote (*Canis latrans*) or Eastern Fox was also recorded (prints).

It is anticipated that other tolerant mammals including Raccoon (*Procyon lotor*), American Skunk (*Mephitis mephitis*), and Virginia Opossum (*Didelphis virginiana*), use the site for foraging.

6.0 Natural Heritage Features

6.1 Provincially Significant Wetlands

No provincially significant wetlands are found within the site limits or adjacent to the Subject Property.

6.2 Significant Woodlands

Policy 6.3.12 of the Municipal OP defines Significant Woodlands as woodlands greater than 0.5 ha that meet one or more of the following criteria:

- *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;*

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The woodland adjacent to the Subject Property is greater than 0.5 ha and is located within 30 meters of a watercourse, Cooksville Creek. On this basis, the adjacent woodland is Significant as per the Municipal OP.

The woodlands adjacent to the Subject Property are unlikely to be directly impacted by future development activities. The woodland areas are located beyond the development envelope on publicly owned lands on that have been urbanized for decades. These areas may be subject to indirect effects associated with construction during the short-term. Potential indirect impacts are discussed in further detail below in Table 9-1.

The wooded areas located to the north of Dundas Street East are not considered Significant Woodlands.

6.3 Significant Valleylands

Policy 6.3.12 of the Municipal OP defines Significant Valleylands as valleylands that are

“associated with the main branches, major tributaries and other tributaries and watercourse corridors draining directly to Lake Ontario including the Credit River, Etobicoke Creek, Mimico Creek and Sixteen Mile Creek”.

On this basis, the valleylands associated with Cooksville Creek adjacent to the Subject Property is not considered to be significant.

6.4 Significant Areas of Natural and Scientific Interest

There are no Areas of Natural and Scientific Interest on or within 120 m of the site.

6.5 Significant Wildlife Habitat

According to the Natural Heritage Reference Manual (MNR, 2010) and Significant Wildlife Habitat Technical Guide (MNR, 2000), there are four types of Significant Wildlife Habitat (“SWH”), as follows:

- Habitats of Seasonal Concentrations of Animals.
- Rare Vegetation Communities / Specialized Habitats.
- Habitats of Species of Conservation Concern.
- Animal Movement Corridors.

Significant Wildlife Habitat (SWH) is designated at the local planning level (i.e., municipality). Local designations occur because conditions and features vary widely between municipalities, and what is important and unique in one area may be common and secure in another.

SWH has not been identified on schedule mapping, though the OP does identify that SWH has the potential to be found in Natural Heritage Systems. The assessment completed as a part

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of the study will use broad habitat descriptions from the Significant Wildlife Habitat Technical Guide (SWHTG) and the SWHTG Ecoregion 7E Criterion Schedule (MNR, 2015).

Based on the existing conditions and background information collections, there is only one (1) candidate SWH feature is present on the Site, specifically Habitat for Species of Conservation Concern – Special Concern and Rare Wildlife Species. Due to the scope of this EIS, no additional studies were carried out to confirm SWH features within the Site.

6.5.1 Habitat for Species of Conservation Concern – Special Concern and Rare Wildlife Species

Eastern Wood-pewee and Wood Thrush

Suitable habitat for Eastern Wood-pewee and Wood Thrush is present within the FODM7-3 ecosites located adjacent to the Subject Property. Eastern Wood-pewee often nests near forest edges, clearings, roadways, and water but does not require large swaths of continuous forest. Wood Thrush are also known to nest in woodlands of varying size, from woodlots as small as 3 ha to large, contiguous swaths of forests. Typical habitat requirements for Wood Thrush include the presence of tall trees and a thick understory layer.

Breeding bird studies were not carried out by Burnside staff during site investigations and is assumed to have low potential to provide suitable habitat for both species as the forest patch size does not span 3 ha, but both species have been documented to occupy smaller forest patches. The woodland areas adjacent to the Subject Property will not be altered during site development as it is located outside of the property limits. As such, impacts to potential Eastern Wood-pewee and Wood Thrush habitat are not anticipated.

6.6 Significant Habitat of Endangered and Threatened Species

Burnside's background review revealed the potential for SAR in the site and vicinity. Under the ESA, species listed as Threatened and Endangered are afforded species and habitat protection. Although species of Special Concern are not afforded individual protection, or habitat protection, management plans and, in some cases, recovery strategies are completed. As part of the SAR screening table, the potential for Special Concern species and their habitat was evaluated within the site.

All findings can be found in the SCC and SAR screening table in Appendix B of this report. No SAR are confirmed to inhabit the site based on the findings of the surveys completed. The table below summarizes the Endangered, Threatened and Species of Special Concern found to have candidate habitat within the site.

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Table 6-1: Historical Species at Risk and Species of Special Concern with Habitat Present on the Site

Species	Scientific Name	Status	Habitat
Barn Swallow	<i>Hirundo rustica</i>	THR	Offsite Culvert
Eastern Wood-pewee	<i>Contopus virens</i>	SC	FODM7-3
Wood Thrush	<i>Hylocichla mustelina</i>	SC	FODM7-3
Little Brown Myotis	<i>Myotis lucifugus</i>	END	FODM7-3
Tri-colored Bat	<i>Perimyotis subflavus</i>	END	FODM7-3
Northern Myotis	<i>Myotis septentrionalis</i>	END	FODM7-3
Butternut	<i>Juglans cinerea</i>	END	FODM7-3
Nine-spotted Lady Beetle	<i>Coccinella novemnotata</i>	END	FODM7-3

Habitat for the remaining SAR identified in Appendix B are not present within the Subject Property or adjacent natural areas. Note that federally listed species that are not listed as SAR under the ESA are not included within Table 6-1 but are included in Appendix E.

Barn Swallow

Barn Swallows are often found farmland, lake/river shorelines, wooded clearings, urban populated areas, rocky cliffs, and wetlands. In urban areas, Barn Swallows often nests inside or on exterior of buildings, under bridges, and in road culverts.

Although surveys for Barn Swallow were not included within the scope of this EIS, direct impacts to Barn Swallow nesting habitat or foraging habitat will not occur as a result of this project. The Subject Property is unlikely to contain suitable nesting habitat as the area is currently occupied by several businesses and would be subject to frequent human disturbance. Additionally, suitable foraging habitat is not located in the adjacent within the adjacent lands. It is more likely that suitable nesting habitat occurs within the culverts along Cooksville Creek at the Dundas Street East and King Street crossing.

SAR Bats (Little Brown Myotis, Northern Myotis, and Tri-colored Bat)

In Ontario, there are four species of bats now listed as Endangered under the *Endangered Species Act*, including:

- Eastern Small-footed Myotis, *Myotis leibii*;
- Little Brown Myotis, *Myotis lucifugus*;
- Northern Long-eared Myotis, *Myotis septentrionalis*; and
- Tri-colored Bat, *Perimyotis subflavus*.

The three myotis species prefer to roost in large trees within mature forest using tree cavities or loose peeling bark as roosting sites. Tri-colored bat prefers to roost in live or dead leaf foliage, preferably within oak trees.

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Suitably large trees (i.e., DBH >22cm) to support SAR bat roosting were present with the TAGM5 inclusion and boulevard trees along Shepard Avenue associated with the Subject Property. However, none of the candidate trees within this ecosite were found to have characteristics of typical bat roost trees including peeling bark or cavities. The FODM7-3 ecosite may contain suitable roosting habitat; however, leaf-off tree surveys were not conducted within this ecosites as this ecosite will not be directly impacted by the proposed development. Direct impacts to potential SAR bats habitat are not anticipated.

Butternut

Butternut was not observed within the Subject Property or adjacent areas during the February field investigation. A follow-up investigation completed during the growing season will determine if Butternut is present with 50 metres of the property limit. A Butternut Health Assessment will be completed and determination of impacts and compensation will be coordinated with MECP if required.

Nine-spotted Lady Beetle

Surveys for Nine-spotted Lady Beetle were not included within the scope of this EIS. As this species was last recorded in Ontario in 1987, it is presumed to be absent in the Subject Lands and the adjacent natural areas. It should be noted that potential Nine-spotted Lady Beetle habitat, ecosite FODM7-3, will not be directly impacted by the proposed development.

6.7 Summary of Natural Heritage Features

Overall, the Subject Property provides no ecological value to the overall landscape and is only likely to provide limited foraging habitat for tolerant, urban wildlife. This is largely to do with the fact that the Subject Property is already developed and contains little in terms of vegetation beyond landscape plantings and manicured lawn. The ecological function the Subject Property is unlikely to change as a result of development activities.

Cooksville Creek and its associated riparian area located off site provides hydrological, biological and physical linkages that facilitate the movement of fish and wildlife through the green spaces in the City. This area may also provide habitat for SAR and species of special concern. It is important to note that this area will not be impacted by the proposed development.

7.0 Proposed Development

The proposed development will result in the replacement of the existing retail strip mall and extensive parking lot with three new apartment buildings that will include residential units and ground floor retail. There will also be 3 levels of underground parking and outdoor amenity space.

Stormwater from the site will be directed toward a filter system such as a Jellyfish or equivalent that will eventually go into Cooksville Creek, improving the overall water quality.

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No encroachment into the valley, located on adjacent public land is proposed. The existing asphalt pedestrian trail that separates the existing and proposed development from the valley will be retained. This trail is located on partially on private land (the Subject Property) and partially on public lands and extends from Dundas Street East to King Street East.

A consistent development buffer associated with the valley or public lands is not proposed but a setback from the topographic top of bank varies between 0.5 metres and 8 metres that is consistent with the property limit. It is understood that CVC typically requires a 10 metre limit of development setback from the greatest of site constraints (e.g. staked natural feature, top of bank) which is not being achieved with the proposed development. An overall post-construction improvement will be achieved following the construction of the underground parking and reinstatement of the onsite areas closest to the valley with amenity and landscaping areas.

8.0 Constraints and Opportunities Plan

The Constraints and Opportunities Plan (Figure 3) illustrates the proposed development, designations and the opportunities for enhancement within the footprint of the property. The Subject Property is currently impervious with asphalt and the building and there is not any onsite support of natural heritage features and functions. The new development provides opportunities for enhancement from the conditions on the site which will benefit the adjacent Cooksville Creek valley.

These enhancement opportunities are:

1. Install native species of trees and shrubs within the proposed amenity area to enhance the valley corridor.
2. Install native species of trees and shrubs within the landscape areas adjacent to the valley corridor.

These plantings may help with delineating the Subject Property from public lands (i.e. the pedestrian trail) to allow for some privacy and separation for amenity space and landscape areas. The plantings will have the additional benefit of enhancing urban tree canopy around the ravine and provide additional habitat for beneficial wildlife such as birds and pollinators. Additional plantings within onsite and streetscaping areas should focus on native plant species as well. Species selected must be consistent with the CVC Plant Selection Guidelines and the sites must be prepared according to the CVC Healthy Soils Guidelines.

3. Consider bird-friendly window coverings and treatments that are promoted in municipalities such as the City of Toronto should be considered in the design for the lower levels where the building at the southeast portion of the site faces the valley.
4. Time the removals of trees, required within the ROW at the west limit and offsite to the south of the site to avoid the nesting period of migratory birds that is generally April 1 to August 31. A qualified biologist should review the trees for nests if this nesting period

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cannot be accommodated. The review should occur within 3 days of the removal of the trees.

5. Design lighting in a way that is sensitive to trespass into the valley. Light standards already present on public lands, east of the trail, are anticipated to impact natural heritage functions but the proposed lighting for the Subject Property should be designed to prevent additional trespass.

9.0 Potential Ecological Impacts and Mitigation Measures

The proposed development has the potential to impact the natural heritage features summarized in Section 5.0 and 6.0 of this report.

Potential impacts to these features can be categorized as:

- Direct (within the footprint of the development); or
- Indirect (adjacent to the development but affected by spin-off effects).

Impacts are anticipated to be mainly low and mitigation has been proposed for all impacts to prevent or reduce impacts to result in an overall improved condition for the adjacent valley.

Effects on natural features that may occur that are further discussed:

- Disturbance to migratory birds or their nests, wildlife habitat as a result of adjacent development activities
- Construction impacts, including erosion / sedimentation, dust, and unintentional encroachment into the retained natural features
- Effects on wildlife as a result of lighting
- Effects on wildlife from noise
- Encroachment of residential activities, yard waste, and dumping into natural areas
- Wildlife impacts – bird strikes

9.1 Significant Woodlands – City of Mississauga Official Plan

The Significant Woodlands located south of the Subject Property are unlikely to be directly impacted by the development at the site as they are outside of the development envelope. These areas still may be subject to indirect effects associated with construction during the short-term. Potential indirect impacts are discussed in further detail below in Table 9-1.

9.2 Significant Wildlife Habitat – Habitat for Species of Conservation Concern - Special Concern and Rare Wildlife Species

No direct effects on Habitat for Species of Conservation Concern are anticipated as it is located outside of the development envelope. No woodland vegetation clearing is required associated with Cooksville Creek and the existing setback between the valley and the urban

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uses will be maintained through the separation by the walkway. Potential indirect impacts to wildlife are assessed in further detail in Table 9-1 below.

9.3 Endangered Species & Species of Special Concern

No direct effects to Species at Risk, threatened species, or their habitats, if present are anticipated as suitable habitats are present outside of the development envelope. Potential indirect impacts to wildlife are assessed in further detail in Table 10-1 below.

9.4 Summary of Potential Impacts to Natural Heritage Features & Proposed Mitigation Measures and Monitoring Activities

Potential impacts, proposed mitigation and monitoring activities are presented and summarized below in Table 9-1.

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Table 9-1: Summary of Potential Negative Impacts and Recommended Mitigation

Activity	Potential Impact	Duration (D), Geographic Extent (GE) and Magnitude (M) of the Impact	Proposed Mitigation
Land Clearing within the Development Envelope	Loss of or disturbance to migratory birds or their nests.	<p>D: Short-term, occurring only once.</p> <p>GE: Limited to street trees and landscape outside of the valley.</p> <p>M: Low, bird habitat in the development envelope is minimal and restricted to <20 landscape trees along the margins of the Subject Property; Tree removal will not affect birds at the population level; however, disturbance of bird nests is in contravention of the MBCA.</p>	<p>Vegetation clearing should be completed outside of the breeding bird season (Nesting Zone C2 core breeding window, or when 41-100% are predicted to be nesting for all habitat types, is approximately April 1 to August 31).</p> <p>If this is not possible, a bird specialist should survey the site prior to clearing to confirm that no active nests of migratory birds are present. Any active nests should be fenced and left undisturbed until young have fledged, as determined by a qualified biologist.</p> <p>All tree pruning and removals, if required, should be carried out by a qualified tree service under the direction of a certified arborist.</p> <p>Opportunities for planting native species of trees and shrubs that support birds should be considered for the amenity space and landscaped areas.</p> <p>Bird-friendly window coverings and treatments should be considered for the lower levels of the building facing the valley.</p>
	Loss of wildlife habitat including Significant Wildlife Habitat	<p>D: Short-term, occurring only once.</p> <p>GE: Limited to the development envelope.</p> <p>M: Low for urban tolerant wildlife. The Subject Property (building and parking area) provide poor quality habitat for wildlife.</p>	<p>All vegetation removal or pruning to occur through fall, winter and early spring months (i.e., September 1 to March 31) to avoid impacts to nesting migratory birds overseen by a qualified biologist. No removal of woodland vegetation supporting roosting bats is proposed.</p> <p>Opportunities for planting native species of trees and shrubs that support beneficial wildlife should be considered for the amenity space and landscaped areas.</p>
Clearing and Construction Activities	Potential erosion / sedimentation and encroachment beyond the development envelope due to grading and works within areas of exposed soil.	<p>D: Short-term during construction phase only.</p> <p>GE: Impacts could extend beyond the development envelope.</p> <p>M: Low. The existing trail curb should prevent erosion from leaving the Subject Lands.</p>	<p>Erosion and sediment control fencing will be placed adjacent to the stable toe of slope along the limit of disturbance to prevent siltation of protected areas. The fencing will act to delineate the construction exclusion zone that will protect retained natural features. Fencing should be continuous across the entire length of the work zone to avoid gaps where sediment could escape into the natural feature. Fencing should be maintained and regularly monitored for the duration of construction and until disturbed lands are re-vegetated and stabilized (e.g., sodded).</p> <p>All stockpiles, equipment and work areas should be maintained outside of the fenced area.</p>
Dust	Dust impacts to wildlife	<p>D: Short-term</p> <p>GE: Impacts could extend beyond the development envelope.</p>	<p>Dust levels should be regularly monitored for the duration of construction by an Environmental Monitor. As required, dust from the work area will be controlled using suppressants.</p>

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Activity	Potential Impact	Duration (D), Geographic Extent (GE) and Magnitude (M) of the Impact	Proposed Mitigation
		M: Low as construction will be limited to seven additional houses and will be limited to the duration of the construction activities.	
Alterations to Soil Moisture Regimes through Creation of Impervious Surfaces and Water Quality from Urban Stormwater	The watercourse feature may be impacted by altered stormwater contributions, altering the soil moisture regime or lower quality stormwater inputs	D: Long-term. GE: Impacts could extend beyond the development envelope. M: Low. Contribution of stormwater to the site to Cooksville Creek is unknown.	Stormwater management is addressed within the Functional Servicing Report prepared by Crozier Consulting Engineers. The stormwater is proposed to be managed through a filtering system (Jellyfish or equivalent) to improve the overall quality.
Lighting	Lighting on buildings may cause potential disruption wildlife and function of Significant Woodland	D: On-going in evening. GE: Could potentially extend into natural areas, affecting the patterns of nocturnal wildlife. M: Low as there is lighting from the existing lights along the trail, adjacent properties and the urban environment.	Lighting on the new condominium building should be directed downwards and away from the Cooksville Creek corridor to the east. The design should consider Best Practices Effective Lighting (2017) companion book to Bird Friendly Development Guidelines (Toronto) found at: https://www.toronto.ca/wp-content/uploads/2018/03/8ff6-city-planning-bird-effective-lighting.pdf
Noise	Impacts of construction noise on wildlife	D: Short term, during construction phase only. GE: Impacts confined to areas within direct vicinity of site. M: Low, noise anticipated to occur during daylight hours. Wildlife is likely accustomed to loud noise the site is located within a highly urbanized area adjacent to a major arterial roads, commercial areas, and high-density residential areas.	Environmental noise will be reduced through the standard operating practices and conformity with noise by-law requirements. The Environmental Inspector will ensure that all operational plans and construction timing associated with noise reduction are being followed. Wildlife in the area is anticipated to be habituated to the noise of the existing residential land use and the proposed work is not anticipated to add significantly to it.
Encroachment of Residential Activities, yard waste, etc., into Natural Areas	Disturbance to natural heritage features and function of Significant Woodland	D: Long-term throughout the life of the development. GE: Typically affects edge areas in close proximity to development. M: Low. The residents and landscape contractors are unlikely to dump waste in the visible area adjacent to a public trail.	The existing chain link fence adjacent to Cooksville Creek will remain in place which will prevent building occupants from dumping garbage into the adjacent green space. Landscape contractors will be required to remove yard waste from the site.
Building Design	Wildlife Impacts – Bird Strikes	D: Long term following construction and in perpetuity. GE: Impacts confined to areas within direct vicinity of site. M: Low to medium	Long-term protection of birds may be accomplished through the implementation the Bird Friendly Guidelines such as those found at https://birdsafecan.ca/workplaces-safe-for-birds/ or created by the City of Toronto and City of Markham.

February 2022

10.0 Monitoring and Mitigation

Monitoring is required to be carried out by various personnel throughout construction. Table 9.1 outlines the required monitoring to occur at stages of the construction.

The Erosion and Sediment Control (ESC) plan will identify that the ESC measures must be checked and maintained on a regular basis and inspected after each rainfall. The environmental monitor who will be responsible for this monitoring must be informed that the fencing is also intended to protect the adjacent protected natural feature.

Monitoring, maintenance and contractor's responsibility to implement the mitigation treatments will be provided in the restoration plan.

Table 10-1: Summary of Monitoring & Maintenance Requirements

Monitoring Type	Personnel Responsible	Frequency	Maintenance
Prior to Construction			
Erosion control measures	Environmental monitor	Weekly or after significant weather events, as specified by the ESC plan	Fix any deficiencies in ESC measures as they arise. The contractor will be responsible for ensuring that sediment and erosion control measures are in place and are maintained in working condition until lands have been revegetated and are stable.
During Construction			
Plantings (damage)	Environmental monitor	As needed, when adjacent construction	Replace plantings following damage
Erosion control measures	Environmental monitor	Weekly or after significant weather events, as specified by the ESC plan	Fix measures immediately
Post Construction			
Plantings (workmanship and establishment)	Project landscape architect	Once, following substantial completion. One year follow substantial completion.	Replace plantings or reseed as required

February 2022

11.0 Compliance with Applicable Policies

Table 11-1 demonstrates how the proposed development predominantly complies with applicable federal, provincial, CVC, and municipal policies respecting natural heritage and natural hazard features. In cases where compliance is not feasible based on the interpretation of the policies, discussion on how concessions may be applied are provided to accommodate the proposed development.

February 2022

Table 11-1: Compliance of Proposed Development with Policies

Feature	Applicable Policies	Policy Intent	How Addressed
Migratory Birds	Migratory Birds Convention Act, 1994	Migratory birds and their nests should not be killed or disturbed.	Removal of trees is limited to trees within the road ROW and landscape trees that are south of the site. Removal must occur outside of the breeding season, which generally occurs April 1 to August 31, in order to avoid disturbance to nests. If this is not possible, a pre-construction nest survey will be completed by a qualified biologist no greater than three days prior to the proposed site preparation and clearing activities. If active nests are found, an appropriate species-specific buffer will be applied until the nest is no longer active.
Fish and Fish Habitat	The Fisheries Act, 1985	The <i>Fisheries Act</i> prohibits causing Harmful Alteration, Disruption, or Destruction (HADD) of fish habitat as well as death of fish by means other than fishing.	Appropriate ESC measures will be installed prior to construction. A detailed description of mitigation measures is provided in table 10.1.

February 2022

Feature	Applicable Policies	Policy Intent	How Addressed
Significant Woodland	PPS – Significant Wildlife Habitat, Section 2.1.5 City of Mississauga Official Plan, Chapter 6	Development is not permitted within in significant woodland unless it can be demonstrated that no negative impact will result to the feature or its ecological function.	The woodland is located outside of the construction envelope and will not be impacted by the proposed project due to the existing urban context. Potential indirect impacts are addressed within the mitigation section.
Candidate Significant Wildlife Habitat <ul style="list-style-type: none"> • Habitat for Eastern Wood-pewee and Wood Thrush 	PPS – Significant Wildlife Habitat, Section 2.1.5	Development is not permitted in significant wildlife habitat unless it can be demonstrated that no negative impact will result to the feature or its ecological function.	These habitats are located outside of the construction envelope and will not be impacted by the proposed project due to the existing urban context. Potential indirect impacts are addressed within the mitigation section.
Protection of Habitat of Endangered Species and Threatened Species	Section 2.1.7 of the Provincial Policy Statement (2020)	Development and site alteration not to be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.	No endangered or threatened species were observed; however, there is potential for the woodland to support SAR bat species. No clearing of the treed portion of the site containing potential roosting habitat is proposed and the treed area is protected beyond the existing property limits.
Species at Risk	Endangered Species Act, 2007	No impacts to SAR or their habitat	No endangered or threatened species were observed; however, there is potential for the woodland area to support SAR bat species. No clearing

February 2022

Feature	Applicable Policies	Policy Intent	How Addressed
			of the treed area is proposed. Additionally, erosion and sediment control fences will deter wildlife away from site.
Conservation Authority Regulated Lands	CVC Ontario Regulation 160/06	CVC regulates a portion of the Subject Property (associated with Cooksville Creek)	A permit will be acquired by the proponent to carry out work within the regulated lands.
Regional OP	Region of Peel Official Plan (September 2021 Consolidation)	N/A	As the Subject Property are not located within the Peel Region Core Greenlands or any other environmental regulation areas, an EIS is not required by the region.
Municipal OP	City of Mississauga Official Plan (October 21, 2021)	Policy 6.3.32 of the Municipal OP does not permit development within or adjacent to an SNA or Natural Green Space unless an EIS demonstrates that there will be no negative impacts to the natural heritage feature or its functions.	The findings of this EIS demonstrate that the SNA / Natural Greenspace or its functions will not be directly impacted by the proposed development as it is located outside of the development envelop. Mitigation measures for potential indirect impacts including lighting, noise, encroachment, and wildlife strikes will prevent negative impacts to the natural heritage features and its functions.

February 2022

Feature	Applicable Policies	Policy Intent	How Addressed
Trees – private, shared and offsite publicly owned	Private Tree By-law 254-2012 and draft Public Tree By-law	Tree removal is regulated to promote urban tree canopy	An arborist report and tree preservation plan prepared by Kuntz Forestry documents preservation measures, impacts and removals. Requirements for compensation trees will coordinated with landscape plan for the amenity space and streetscaping.

February 2022

12.0 Future Commitments

The following tasks will be completed as part of future submission of the EIS:

- Stake the natural feature and top of bank CVC and City staff for inclusion into the EIS and other development plans.
- Complete a growing season inventory (late May to mid-September) to further characterize vegetation and determine if Butternut or other SAR vegetation species are present within the adjacent valley that may impact setbacks or permitting.
- Coordinate with the stormwater engineers regarding the contribution of the onsite stormwater to Cooksville Creek to ensure quality is being improved and quantity will remain unchanged post-development.

13.0 Recommendations and Conclusions

Impacts to the adjacent Cooksville Creek and its associated valley and vegetation are not anticipated due to the existing urban uses on the Subject Property. An overall improvement to natural heritage features and functions of the valley will result from the increase in onsite landscaped areas and implementation of the monitoring and mitigation recommendations of this EIS.

February 2022

14.0 References

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Ministry of Natural Resources (MNR). March 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005 (NHRM). Second Edition. Toronto: Queen's Printer for Ontario. 248 pp.

Ministry of Natural Resources and Forestry (MNRF). Natural Heritage Information Centre (NHIC). Screening completed January 31, 2022. Screening of atlas squares for Species at Risk.

Ministry of Natural Resources and Forestry. January 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E





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Figures



-  Subject Property
-  Parcel Layer

Sources:

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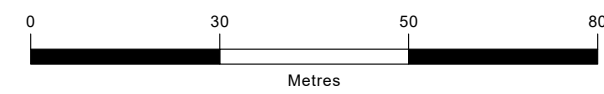
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Datum: North American 1983 CSRS	
Coord. System: NAD 1983 CSRS UTM Zone 17N	
Projection: Transverse Mercator	
Central Meridian: 81°0'0.00"W	
False Easting: 500,000m	False Northing: 0m
Page Orientation: 51°	Scale Factor: 0.99960



Grid North



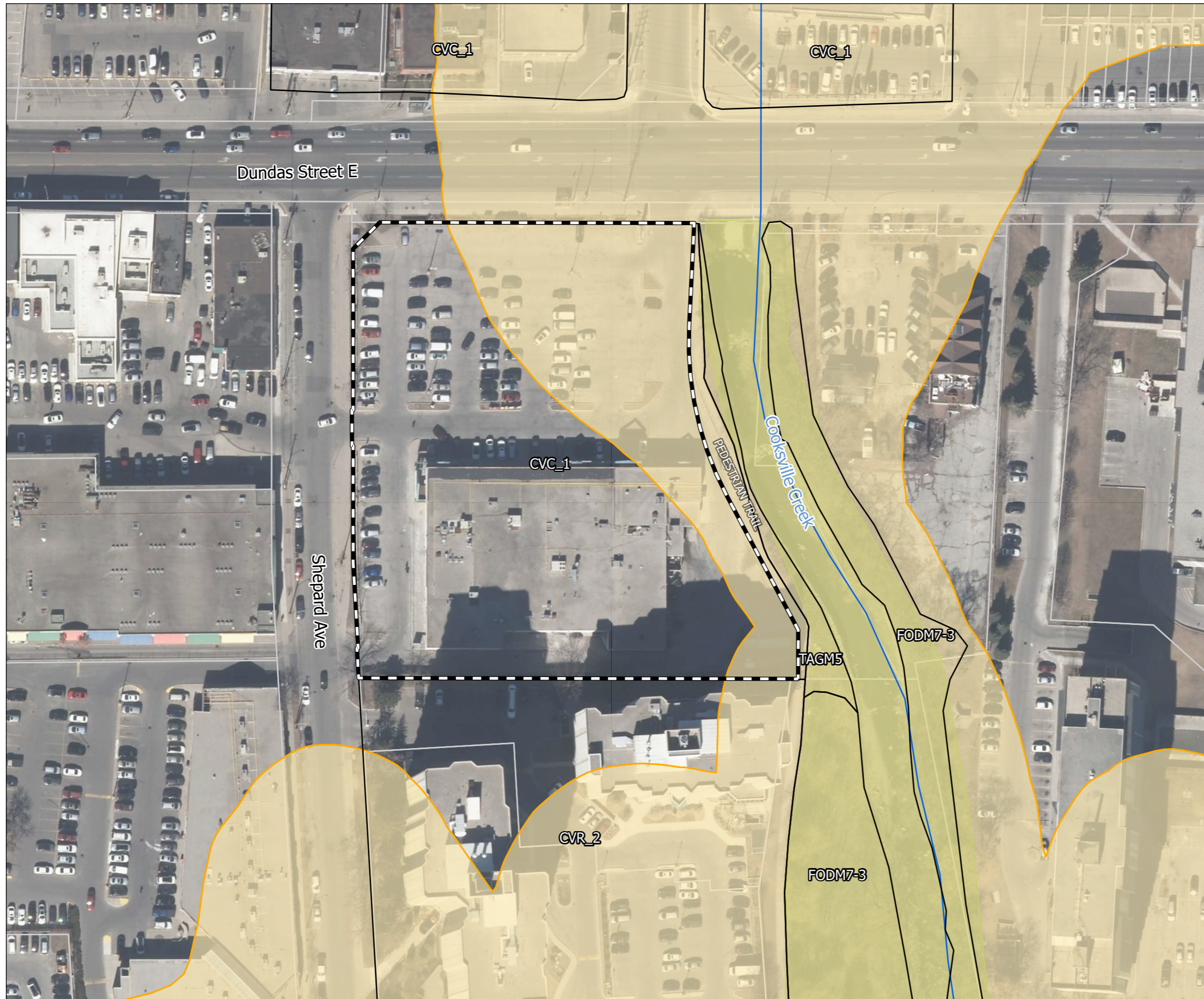
Client

ALMEGA ASSET MANAGEMENT

Figure Title

**60 DUNDAS STREET EAST EIS
MISSISSAUGA
STUDY AREA**

Drawn	Checked	Date	Figure No. 1
SV	SY	2022/02/22	
Scale	Project No.		
1:1,000	300053263		



- ELC
- Watercourse
- Subject Property
- Significant Natural Areas (City of Mississauga)
- CVC Regulation Limit
- Parcels

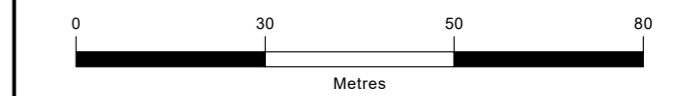
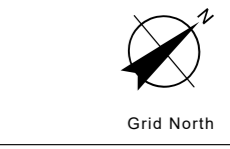
ELC Code	Description
CVC_1	Business Sector
CVR_2	High Density Residential
FODM7-3	Fresh-Moist Willow Lowland Deciduous Forest
TAGM5	Fencerow

Sources:
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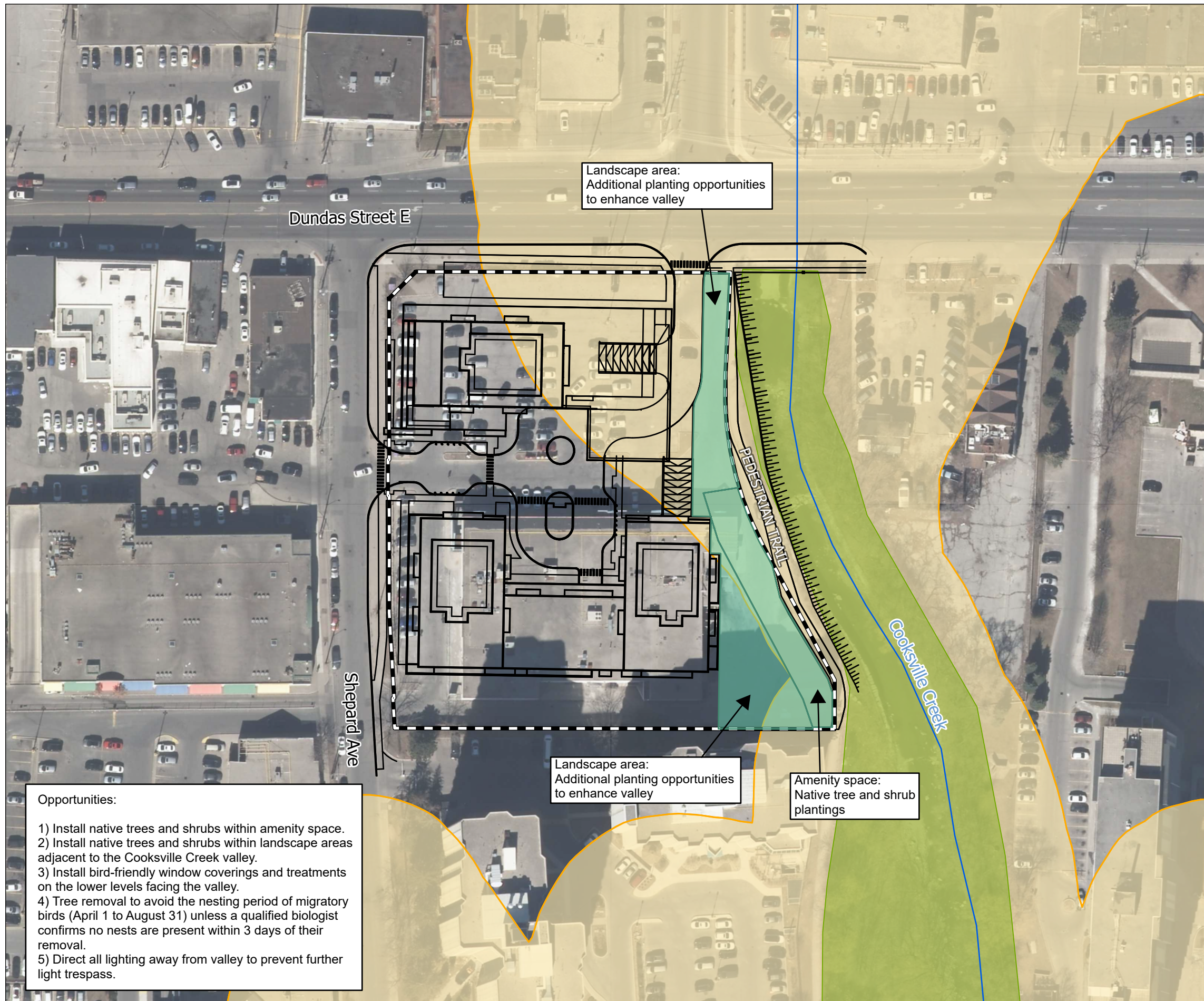
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 Coord. System: NAD 1983 CSRS UTM Zone 17N
 Projection: Transverse Mercator
 Central Meridian: 81°0'0.00"W
 False Easting: 500,000m False Northing: 0m
 Page Orientation: 51° Scale Factor: 0.99960



Client
ACLP - DUNDAS STREET E

Figure Title
**60 DUNDAS STREET EAST EIS
 MISSISSAUGA
 ENVIRONMENTAL DESIGNATIONS AND
 ECOLOGICAL LAND CLASSIFICATION**

Drawn	Checked	Date	Figure No. 2
SV	SY	2022/02/22	
Scale	Project No. 300053263		
H 1:1,000			



- Watercourse
- Subject Property
- Significant Natural Areas (City of Mississauga)
- CVC Regulation Limit
- Proposed Development
- Parcels

Sources:

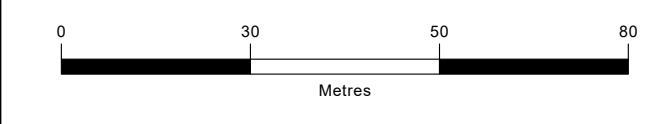
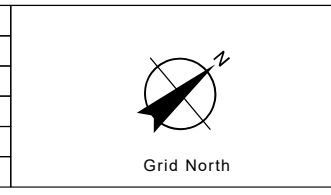
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 False Easting: 500,000m False Northing: 0m
 Page Orientation: 51° Scale Factor: 0.99960



Client
ALMEGA ASSET MANAGEMENT

Figure Title
**60 DUNDAS STREET EAST EIS
 MISSISSAUGA**
 CONSTRAINTS AND OPPORTUNITIES

Drawn	Checked	Date	Figure No.
SV	SY	2022/02/22	3
Scale	Project No.		
H 1:1,000		300053263	

- Opportunities:**
- 1) Install native trees and shrubs within amenity space.
 - 2) Install native trees and shrubs within landscape areas adjacent to the Cooksville Creek valley.
 - 3) Install bird-friendly window coverings and treatments on the lower levels facing the valley.
 - 4) Tree removal to avoid the nesting period of migratory birds (April 1 to August 31) unless a qualified biologist confirms no nests are present within 3 days of their removal.
 - 5) Direct all lighting away from valley to prevent further light trespass.

Landscape area:
 Additional planting opportunities
 to enhance valley

Amenity space:
 Native tree and shrub
 plantings



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Appendix A

**EIS Terms of Reference Agency Response to EIS
Terms of Reference**



January 26, 2022

Via: Email (lisa.hosale@cvc.ca)

Ms. Lisa Hosale
Planning & Development Services Planner
Credit Valley conservation Authority
1255 Old Derry Rd
Mississauga, ON L5N 6R4

Dear Ms. Hosale,

**Re: EIS Terms of Reference - Scoped Environmental Impact Statement
60 Dundas Street East, Mississauga
Project No.: 300053263.0000**

Introduction

R.J. Burnside & Associates Limited (Burnside) has been retained by Almega Asset Management to complete a Scoped Environmental Impact Statement (EIS) for the Subject Lands at 60 Dundas Street East in the City of Mississauga.

This study is required by the Credit Valley Conservation Authority to accompany the development application. The following Terms of Reference (TOR) have been prepared in accordance with the Credit Valley Conservation (CVC) Authority's *Environmental Impact Study Terms of Reference (2007)* and the *City of Mississauga Environmental Impact Studies Terms of Reference (2002)*. Additionally, the City of Mississauga OP designates Cooksville Creek as a Significant Natural Area (Schedule 3).

This TOR document, once approved, will be appended to the combined EIS to assist the agency staff in their review.

Understanding of the Project

The Subject Lands are currently occupied by a retail plaza along the southern portion of the property and a parking in the north. The adjacent land uses are primarily commercial with some high density residential. A Natural Area, CV10, associated with Cooksville Creek corridor is located directly east of the Subject Lands and is regulated by the CVC.

Figure 1 below, from the CVC online mapping illustrates the property limits and the extents of the CVC regulation limit. Figure 2 below from the City of Mississauga online mapping illustrates the property limits and extent of the Significant Natural Area.



Figure 1: The Subject Lands (indicated in blue) relative to the extent of CVC Regulation (indicated in orange) in reference to the Subject Lands.

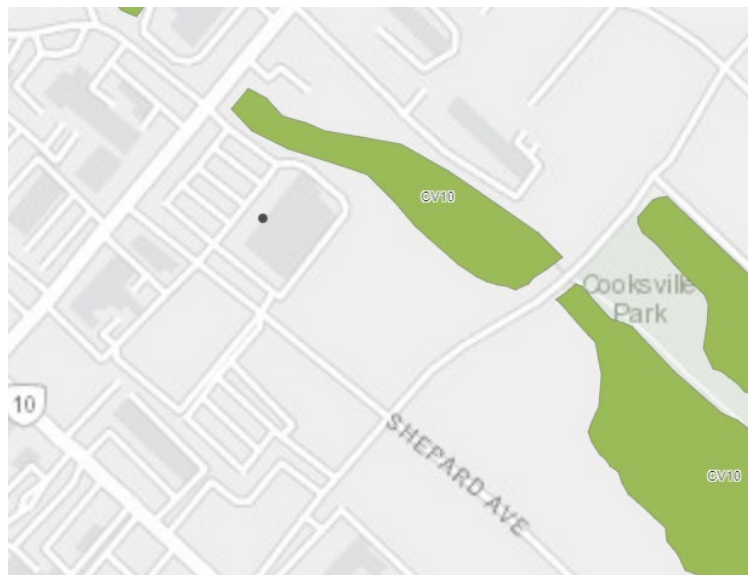


Figure 2: The location of the Subject Lands indicated by the black point and the location of the City of Mississauga SNA are indicated in green.

A Site Plan Application is proposing a three-story tower residential development.

An EIS is required as part of the submission by the development team as a portion of the Subject Lands have been identified as a regulated area by the CVC. As such, the CVC is requiring that an investigation of the natural heritage features, natural hazard features, and functions is completed to ensure conformity with the City of Mississauga, CVC, and Provincial policies. The City of Mississauga also requires an EIS due the Subject Lands' proximity to a Significant Natural Area.

The findings of this investigation will inform the development team and the agencies of the existing constraints and how the development will work within or mitigate those constraints. The EIS will demonstrate that the ecological considerations are being incorporated into the proposed design.

EIS Framework

The EIS will be comprised of the following sections, subject to input from the City and CVC.

Executive Summary

This section will provide a brief summary of the EIS including existing conditions, a biophysical inventory and analysis, proposed development, potential impacts to natural heritage features, policy conformity, mitigation and monitoring.

1.0 Introduction

The study area will be defined and mapped, and the rationale for its boundaries provided. The study area will encompass the subject site and include adjacent lands that might reasonably be directly or indirectly affected by the proposed development.

1.1 Background Information Review

A review of available information on the history of the site and adjacent lands will be completed. Local policy documents such as the *City of Mississauga Official Plan (2021)*, the *Region of Peel Official Plan (2018)*, and the *City of Mississauga Natural Areas System 2018 update*, and the *Peel-Caledon Significant Woodland and Significant Wildlife Habitat Study (2009)* will be reviewed to assist with site's context within the greater natural heritage features, functions and characteristics.

2.0 Policy Review

This section will identify opportunities and constraints to development within the subject property based on relevant land use policies established by the Province, the Region of Peel, the City of Mississauga, and regulatory agencies including CVC. Policies to be addressed include the following:

- The Federal *Fisheries Act (1985)*;
- Migratory Birds Convention Act (1994);
- Ontario *Endangered Species Act (2007)*.
- Provincial Policy Statement (2020);
- The Region of Peel Official Plan (2018)

- The City of Mississauga Official Plan (October 21, 2021);
- City of Mississauga Private Tree By-law (By-law No. 254-12); and
- Ontario Regulation 160/06 and other CVC policies.

3.0 Field Inventory Methodology

This section will identify the methods used to characterize the natural heritage features and functions of the subject site and on lands immediately adjacent.

- A Species at Risk screening will review information from the Natural Heritage Information Centre (NHIC) database, as well as information from the Ministry of Environment Climate and Parks. This information will help to inform if field surveys beyond those studies listed below;
- Due to the urban context of the natural heritage features and the lower likelihood of the subject land supporting high quality natural heritage features and sensitive fauna, a winter season vegetation inventory is proposed (February);
- Delineation and categorization of vegetation communities using the methodology of the Ecological Land Classification for Southern Ontario: First Approximation and Its Application (Lee et al. 1998) to be completed as part of the vegetation inventory;
- Incidental wildlife and wildlife habitat observations documented during field investigations (this would include any reptile); and
- Significant Wildlife Habitat (SWH) Screening to be completed based on the Ministry of Natural Resources and Forestry (MNR) SWH Criteria Schedule 7E.

Details of dates, weather and other fieldwork conditions will be provided within a summary table that documents the personnel and their expertise that completed the inventory components.

Cooksville Creek is present immediately adjacent to the subject lands as no in-water or near-water is required and no wetlands are present, we are recommending that no amphibian surveys or fisheries surveys are necessary for this investigation.

4.0 Existing Conditions

A description of the subject site and the adjacent lands will be provided based on the background desktop investigation and materials provided by agency staff, included Nature Counts site summaries (if available for the subject site).

4.1 Site Description

This section will provide details of the subject site the following components:

4.1.1 Physiography

A brief description of soils will be provided based on historical soils mapping. Topography will be described based on the site investigation and topographic survey.

4.1.2 Vegetation

4.1.2.1 Ecological Land Classification

Vegetation communities within the study area will be described according to Ecological Land Classification for Southern Ontario (ELC), where possible. A discussion of the natural heritage features and functions will be provided within the description of the communities.

Butternut (*Juglans cinera*) are known to occur within the vicinity of the Subject Lands. Butternut is a provincially listed endangered tree species. Individual trees and their habitat are protected under the Ontario *Endangered Species Act* (2007). If any Butternut are found within the Study Area during the winter field investigations, a Butternut Health Assessment may be required.

4.1.3 Wildlife

4.1.3.1 Breeding Birds

No breeding bird surveys have been included in the scope of this EIS. Incidental bird observations during site surveys will be noted and included in the final EIS.

Background information from the OBBA will also be provided.

All bird observations will be listed with federal, provincial and local rankings.

4.1.3.2 Incidental Wildlife

Incidental wildlife recorded during site visits and anticipated wildlife species will be listed and discussed.

All wildlife will be listed with federal, provincial, and local rankings.

4.1.4 Species at Risk Screening

A Species at Risk (SAR) screening will be completed by reviewing the MNRF Natural Heritage Information Centre (NHIC) database and using the MNRF's municipal list.

Our NHIC screening of the area indicated that there are three (3) potential Species at Risk in the area, Henslow's Sparrow (*Ammodramus henslowii*), Nine-spotted Lady Beetle (*Coccinella novemnotata*), and Butternut (*Juglans cinera*). Nine-spotted Lady Beetle may be found within the Study Area. However, as the development will not encroach into the natural areas and due to the timing of field investigations, Burnside biologists will instead note and investigate any potential habitat during site surveys. Survey requirements for Butternut are discussed above in Section 4.1.2.

5.0 Description of Development Proposal

The proposed development plan will be described that illustrates that the natural heritage features and linkages, requirements, and opportunities, including the application of adequately sized buffers / setbacks to protect features and functions.

6.0 Constraints and Opportunities Plan

A constraints and opportunities plan will be developed based on the findings of natural heritage studies and their significance.

7.0 Description and Assessment of Impacts

All anticipated impacts to natural heritage features and their functions on the subject site and on adjacent lands will be presented. Impacts will be qualified as short or long term, and direct, indirect, and cumulative. A table summarizing these impacts will be provided at the end of this section.

7.1 Mitigation Measures

Potential impacts identified in the EIS will be analyzed for the appropriateness of mitigation / restoration / enhancement strategies and technologies that may minimize, eliminate, or offset direct impacts or other detrimental effects to the subject site and surrounding lands.

Measures such as mitigation plantings, if feasible, will be provided as guidelines to be detailed within landscape plans. The effectiveness of mitigation measures in reducing environmental impacts to the subject site and the surrounding landscape will be discussed, and recommended strategies (timing windows, development setbacks, etc.) will be justified.

8.0 Monitoring Plan

Monitoring requirements to ensure that mitigation measures are effective will be provided. Personnel responsible, frequency of monitoring and potential maintenance will be assigned to each monitoring type. Each monitoring type will be divided into one of the following sections: prior to construction, during construction and post-construction.

9.0 Policy and Legislative Framework

Conformity of the development within policies of Peel Region, the City of Mississauga, the CVC, and Province of Ontario will be discussed further within this section and will be summarized within a table. These include but are not limited to:

- The Federal *Fisheries Act* (1985);
- Migratory Birds Convention Act (1994);
- Ontario *Endangered Species Act* (2007).
- Provincial Policy Statement (2020);
- The Region of Peel Official Plan (2018)
- The City of Mississauga Official Plan (October 21, 2021);
- City of Mississauga Private Tree By-law (By-law No. 254-12); and
- Ontario Regulation 160/06 and other CVC policies.

Findings from the natural heritage inventories will be assessed and considered during the policy and legislative framework discussion.

10.0 Recommendations and Conclusions

A professional opinion of the development, based on the EIS, that indicates that the application is maintaining or enhancing the natural heritage features and functions described in the document.

11.0 Appendices

Data and supporting documentation by project team members will be included in the appendices, as needed.

12.0 Figures

Figures will illustrate findings of the site investigation, ELC, linkage and vegetation units, wildlife records, regulatory limits (CVC regulated areas), and buffers required to protect and enhance the natural features. The figures will also illustrate proposed development and the recommended mitigation guidelines.

Please advise that these Terms of Reference are acceptable to initiate our investigation and reporting on the site.

Yours truly,

R.J. Burnside & Associates Limited



Sarah Yoshida, B.Sc. (Env). EG. Cert. E.R.
Ecologist

SY:js

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Appendix B

Agency Correspondence

Kevin Butt

From: Hosale, Lisa <Lisa.Hosale@cvc.ca>
Sent: Thursday, February 03, 2022 6:10 PM
To: Sarah Yoshida
Cc: jleung@bousfields.ca; Kevin Butt
Subject: RE: [External] EIS Terms of Reference for CVC Review - 60 Dundas Street East

Hi Sarah,

Good afternoon, thank you for sending this. We have circulated it to our ecologist for review which (due to currently high volumes) is running about 4 weeks turnaround time. In the meantime, I can point you to some of our ecology-related comments from the DARC review (21-495) copied below. Also, if you are very pressed for time please feel free to stat with the background work/studies (which tend to be pretty standard) which can be added to (if needed) once we send comments in about 4 weeks.

ECOLOGY: The proposed works need to be appropriately setback from the Cooksville Creek corridor (Mississauga NAS-Natural Site, Valleyland), typically 10m from the staked Top of Bank/limit of the Natural Feature. Please demonstrate this on the Site Grading Plan. The 10m naturalized buffer will need to be planted and restored per CVC plant selection guidelines/ CVC healthy soils guidelines. If any reductions to the 10m buffer are proposed, please clearly document the proposed reductions in the Planning Act submittal and provide appropriate rationale / compensation / offsetting through the environmental document (i.e. Scoped EIS).

CVC CONTACT: Also, please contact the CVC planner to arrange a site visit with CVC technical staff, including ecology and engineering and to stake the Top of Bank/limit of the Natural Feature if needed.

CONSTRAINTS MAP: Please ensure that the Site Grading Plan includes constraints mapping, including the floodplain, slope and/or erosion hazards, top of bank, and limit of the natural feature, etc. Delineate the Limit of Development (LOD) as a bold contour line, encompassing all proposed development, structures, grading, servicing, etc. Demonstrate that the LOD is appropriately setback (10m) from the greatest of the site constraints, or if reductions to the 10m buffer are proposed, please address the proposed reductions (as discussed above) and submit the rationale for CVC review. Further, demonstrate that the LOD is appropriately enclosed by ESC measures.

Best wishes,
Lisa

I'm working remotely. The best way to reach me is by email, mobile phone or Microsoft Teams.

Lisa Hosale | M.A., M.Sc., AICP | she/her/hers
Senior Planner (Acting), Planning and Development Services | Credit Valley Conservation
905-670-1615 ext 268 | M: 437-881-1737
lisa.hosale@cvc.ca | cvc.ca



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From: Sarah Yoshida <Sarah.Yoshida@rjburnside.com>
Sent: Wednesday, January 26, 2022 2:00 PM
To: Hosale, Lisa <Lisa.Hosale@cvc.ca>
Cc: jleung@bousfields.ca; Kevin Butt <Kevin.Butt@rjburnside.com>
Subject: [External] EIS Terms of Reference for CVC Review - 60 Dundas Street East

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Good afternoon Lisa,

Please see the attached copy of the Terms of Reference for the Subject Lands located as 60 Dundas Steet East in the City of Mississauga for you review.

Please let us know if you have any questions regarding our submission.

We look forward to hearing from you,

Sarah



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Appendix C

NHIC, ORAA, and OBBA Data

OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
1017360	SPECIES	Henslow's Sparrow	<i>Ammodramus henslowii</i>	SHB	END	END	17PJ1226	
1017360	SPECIES	Eastern Milksnake	<i>Lampropeltis triangulum</i>	S4	NAR	SC	17PJ1226	
1017350	SPECIES	Nine-spotted Lady Beetle	<i>Coccinella novemnotata</i>	SH	END	END	17PJ1126	
1017350	SPECIES	Transverse Lady Beetle	<i>Coccinella transversoguttata</i>	S1		SC	17PJ1126	
1017350	SPECIES	Henslow's Sparrow	<i>Ammodramus henslowii</i>	SHB	END	END	17PJ1126	
1017350	SPECIES	Eastern Milksnake	<i>Lampropeltis triangulum</i>	S4	NAR	SC	17PJ1126	
1017350	SPECIES	Butternut	<i>Juglans cinerea</i>	S2	END	END	17PJ1126	

Species	Breeding Evidence	S Rank	COSSARO	COSEWIC
Canada Goose	AE	S5	NAR	NAR
Mute Swan	NE	SNA	NAR	NAR
Wood Duck	FY	S5B, S3N	NAR	NAR
Gadwall	FY	S4B, S4N, S5M	NAR	NAR
American Black Duck	FY	S4	NAR	NAR
Mallard	NE	S5	NAR	NAR
Blue-winged Teal	H	S3B, S4M	NAR	NAR
Hooded Merganser	P	S5	NAR	NAR
Ring-necked Pheasant	H	SNA	NAR	NAR
Red-necked Grebe	NU	S3	NAR	NAR
Green Heron	H	S4B	NAR	NAR
Turkey Vulture	H	S5B, S3N	NAR	NAR
Northern Harrier	H	S5B, S4N	NAR	NAR
Sharp-shinned Hawk	NY	S5	NAR	NAR
Cooper's Hawk	H	S4	NAR	NAR
Red-tailed Hawk	CF	S5	NAR	NAR
American Kestrel	CF	S4	NAR	NAR
Peregrine Falcon	NY	S4	SC	NAR
Virginia Rail	P	S4S5B	NAR	NAR
Sora	A	S5B	NAR	NAR
Killdeer	NE	S4B	NAR	NAR
Rock Pigeon	NY	SNA	NAR	NAR
Spotted Sandpiper	FY	S5B	NAR	NAR
American Woodcock	S	S4B	NAR	NAR
Ring-billed Gull	H	S5	NAR	NAR
Mourning Dove	NE	S5	NAR	NAR
Yellow-billed Cuckoo	H	S4B	NAR	NAR
Black-billed Cuckoo	S	S4S5B	NAR	NAR
Eastern Screech-Owl	FY	S4	NAR	NAR
Great Horned Owl	AE	S5	NAR	NAR
Common Nighthawk	P	S4B	THR	SC
Chimney Swift	AE	S3B	THR	THR
Ruby-throated Hummingbird	T	S5B	NAR	NAR
Belted Kingfisher	CF	S5B, S4N	NAR	NAR

Red-bellied Woodpecker	H	S5	NAR	NAR
Yellow-bellied Sapsucker	P	S5B, S3N	NAR	NAR
Downy Woodpecker	AE	S5	NAR	NAR
Hairy Woodpecker	FY	S5	NAR	NAR
Northern Flicker	CF	S5	NAR	NAR
Pileated Woodpecker	FY	S5	NAR	NAR
Eastern Wood-Pewee	CF	S4B	SC	SC
Alder Flycatcher	S	S5B	NAR	NAR
Willow Flycatcher	CF	S4B	NAR	NAR
Least Flycatcher	S	S5B	NAR	NAR
Eastern Phoebe	CF	S5B	NAR	NAR
Great Crested Flycatcher	CF	S5B	NAR	NAR
Eastern Kingbird	NY	S4B	NAR	NAR
Warbling Vireo	CF	S5B	NAR	NAR
Red-eyed Vireo	CF	S5B	NAR	NAR
Blue Jay	CF	S5	NAR	NAR
American Crow	FY	S5	NAR	NAR
Horned Lark	H	S4	NAR	NAR
Purple Martin	NY	S3B	NAR	NAR
Tree Swallow	NY	S4S5B	NAR	NAR
Northern Rough-winged Swallow	AE	S4B	NAR	NAR
Bank Swallow	CF	S4B	THR	THR
Cliff Swallow	NY	S4S5B	NAR	NAR
Barn Swallow	AE	S4B	THR	THR
Black-capped Chickadee	CF	S5	NAR	NAR
Tufted Titmouse	T	S3	NAR	NAR
Red-breasted Nuthatch	AE	S5	NAR	NAR
White-breasted Nuthatch	T	S5	NAR	NAR
Carolina Wren	NY	S4	NAR	NAR
House Wren	AE	S5B	NAR	NAR
Blue-gray Gnatcatcher	FY	S4B	NAR	NAR
Veery	P	S5B	NAR	NAR
Wood Thrush	CF	S4B	THR	THR
American Robin	NY	S5	NAR	NAR
Gray Catbird	CF	S5B, S3N	NAR	NAR

Northern Mockingbird	NY	S4	NAR	NAR
Brown Thrasher	CF	S4B	NAR	NAR
European Starling	CF	SNA	NAR	NAR
Cedar Waxwing	FY	S5	NAR	NAR
Nashville Warbler	S	S5B	NAR	NAR
Yellow Warbler	NE	S5B	NAR	NAR
Chestnut-sided Warbler	T	S5B	NAR	NAR
Pine Warbler	CF	S5B, S3N	NAR	NAR
American Redstart	P	S5B	NAR	NAR
Northern Waterthrush	H	S5B	NAR	NAR
Mourning Warbler	T	S5B	NAR	NAR
Common Yellowthroat	CF	S5B, S3N	NAR	NAR
Eastern Towhee	H	S4B, S3N	NAR	NAR
Chipping Sparrow	CF	S5B, S3N	NAR	NAR
Field Sparrow	S	S4B, S3N	NAR	NAR
Savannah Sparrow	CF	S5B, S3N	NAR	NAR
Song Sparrow	CF	S5	NAR	NAR
Swamp Sparrow	A	S5B, S4N	NAR	NAR
White-throated Sparrow	S	S5	NAR	NAR
Scarlet Tanager	H	S5B	NAR	NAR
Northern Cardinal	CF	S5	NAR	NAR
Rose-breasted Grosbeak	FY	S5B	NAR	NAR
Indigo Bunting	A	S5B	NAR	NAR
Bobolink	S	S4B	THR	THR
Red-winged Blackbird	NE	S5	NAR	NAR
Eastern Meadowlark	CF	S4B, S3N	THR	THR
Common Grackle	NY	S5	NAR	NAR
Brown-headed Cowbird	FY	S5	NAR	NAR
Orchard Oriole	FY	S4B	NAR	NAR
Baltimore Oriole	CF	S4B	NAR	NAR
House Finch	CF	SNA	NAR	NAR
American Goldfinch	FY	S5	NAR	NAR
House Sparrow	NY	SNA	NAR	NAR

Species list in taxonomic order for square

17PJ12

All species

Common Name	# of Records	Earliest Yr	Latest Yr	SRANK	COSSARO	COSEWIC
Reptiles						
Blanding's Turtle	2	1982	2018	S3	THR	END
Eastern Musk Turtle	1	1969	1969	S3	SC	SC
Midland Painted Turtle	19	1927	2019	S4	NAR	SC
Northern Map Turtle	8	1969	2014	S3	SC	SC
Red-eared Slider	15	2000	2019	SNA		
Snapping Turtle	24	1969	2019	S4	SC	SC
Dekay's Brownsnake	17	1927	2019	S5	NAR	NAR
Eastern Gartersnake	23	1927	2018	S5		
Milksnake	16	1886	2017	S4	NAR	SC
Northern Watersnake	9	1927	2012	S5	NAR	NAR
Red-bellied Snake	1	1969	1969	S5		
Northern Ring-necked Snake	2	1969	1987	S4		
Smooth Greensnake	2	1943	1969	S4		
Amphibians						
American Bullfrog	3	1927	1995	S4		
Gray Treefrog	4	1924	2012	S5		
Green Frog	18	1926	2017	S5		
Northern Leopard Frog	21	1926	2012	S5		
Pickerel Frog	1	1969	1969	S4		
Spring Peeper	2	1969	1969	S5		
Western Chorus Frog	3	1989	1989	S4	NAR	THR
Wood Frog	2	1969	1997	S5		
American Toad	46	1968	2017	S5		
Red-spotted Newt	2	1923	1969	S5		
Eastern Red-backed Salamander	15	1923	2018	S5		
Jefferson Salamander	4	1999	2005	S2	END	END
Mudpuppy	4	1931	2007	S4	NAR	NAR
Spotted Salamander	2	1969	1990	S4		



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Appendix D

SAR Screening Table

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK ¹	Provincial SARO Status ²	COSEWIC ³	Federal SARA Status ³	Federal SARA Schedule ⁴	Habitat Description	Habitat Present in Study Area?	Species Observed?
Amphibians									
Western Chorus Frog (Great Lakes/St. Lawrence - Canadian Shield population)	<i>Pseudacris triseriata</i>	S3	No status	THR	THR		1 Inhabits forest openings around woodland ponds but can also be found in or near damp meadows, marshes, bottomland swamps, and temporary ponds in open country, or even urban areas. Breeds in almost any fishless pond with at least 10 cm of water, including quiet, shallow, temporary waterbodies with vegetation that is submerged or protrudes from the water, especially in rain-flooded meadows and ditches, and in temporary ponds on floodplains.14	No potential. Subject lands are largely developed and do not contain and wetland features or ponds. Cooksville Creek is unlikely to support Western Chorus Frog breeding habitat.	N/A
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	S2	END	END	END	1	Inhabits deciduous and mixed deciduous forests with suitable breeding areas which generally consist of ephemeral (temporary) bodies of water that are fed by spring runoff, groundwater, or springs.14	No potential. Suitable habitat not present on subject lands.	N/A
Anthropods									
Nine-spotted Lady Beetle	<i>Somatochlora linearis</i>	SH	END	END	No status	No schedule	Lives in a wide variety of areas including agricultural areas, suburban gardens, parks, coniferous forests, deciduous forests, prairie grasslands, meadows, riparian areas and isolated natural areas. There have been no records of this species in Ontario since the mid-1990s however it is still possible that individuals or small populations have been overlooked in parts of its range.10	Low potential. FODM7-3 ecosite may provide suitable habitat. Historical accounts of the species within the immediate vicinity of the site based on NHC records.	No. Note that targeted surveys were not completed. Treed areas will not be directly impacted by the proposed development.
Birds									
Bank Swallow	<i>Riparia riparia</i>	S4B	THR	THR	THR		1 Prefers open habitats including, farmland, lake/river shorelines, grasslands, and wetlands. Nests in exposed earthen banks along shorelines and in artificial sites such as gravel pits.7	No potential. No exposed earthen banks	N/A
Barn Swallow	<i>Hirundo rustica</i>	S4B	THR	THR	THR		1 Prefers farmland, lake/river shorelines, wooded clearings, urban populated areas, rocky cliffs, and wetlands. Nests inside or on exterior of buildings; under bridges and in road culverts; on rock faces, and in caves, etc.8	Low potential. Dundas Street East or King Street East culverts could provide nesting habitat. However, suitable foraging habitat is limited to small open greenspaces upstream of the Dundas Road east Crossing.	No. Note that targeted surveys were not completed.
Bobolink	<i>Dolichonyx oryzivorus</i>	S4B	THR	THR	THR		1 Generally prefers open grasslands and hay fields for nesting, typically featuring relatively tall vegetation. Sometimes uses large fields of winter wheat and rye in southwestern Ontario. Sensitive to vegetation structure and composition. Positively associated with high grass-to-forb ratios; moderate litter depth; tolerate wetter portions of fields compared to Eastern Meadowlark (EAME) and more likely to nest closer to field centres rather than field margins. Lower tolerance to presence of patches of bare ground. Appear to prefer larger fields than EAME.9	No potential. Suitable nesting habitat not present within property limits.	N/A
Chimney Swift	<i>Chaetura pelagica</i>	S4B,S4N	THR	THR	THR		1 Historically nested in large hollow trees, other tree cavities and cracks in cliffs. Currently, most are found in developed areas in large, uncapped chimneys. Proximity to lakes is also a preferred habitat feature as they will forage for flying insects close to water.7	No potential. No chimneys visible on buildings in the study areas.	N/A

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK ¹	Provincial SARO Status ²	COSEWIC ³	Federal SARA Status ³	Federal SARA Schedule ⁴	Habitat Description	Habitat Present in Study Area?	Species Observed?
Common Nighthawk	Chordeiles minor	S4B	SC	SC	THR		1 Nests in open habitats, in forests and in urban areas. It prefers rock outcrops, alvars, sand barrens, bogs, fens, and in forests, openings created by clearcuts and burns. In southern Ontario, grasslands, agricultural fields, gravel pits, prairies, and alvars and at airports. In cities, it nests mostly on flat, graveled roofs but occasionally on railways and footpaths. ⁷	No potential. No suitable habitat, area is entirely paved, roof is metal.	N/A
Eastern Meadowlark	Sturnella magna	S4B	THR	THR	THR		1 Generally prefers grassy pastures, meadows and hay fields. Prefers moderately tall grass with abundant litter cover, a high proportion of grass cover, moderate forb density, low proportions of shrub and woody vegetation cover, and low percent of bare ground. Prefers to nest in drier sites and frequently nests around field margins. ⁹	No potential. No suitable habitat present within subject lands or surrounding area.	N/A
Eastern Wood-Pewee	Contopus virens	S4B	SC	SC	SC		1 Prefers open space near the nest in the form of forest edges, clearings, roadways, and water. Does not require large areas of woods but occurs less frequently in woodlots surrounded by development than in those without. ⁷	Low potential. FODM7-3 ecosite may provide suitable habitat but wooded area spans > 3 ha and surrounding areas are heavily developed.	No. Note that targeted surveys were not completed. Treed areas will not be directly impacted by the proposed development.
Peregrine Falcon	Falco peregrinus	S3B	SC	NAR	SC		1 Nests on cliffs near water bodies, or at urban sites such as tall buildings, bridges, and smokestacks. ⁷	Moderate potential. Adjacent condo building south of the subject lands and businesses may provide suitable nesting habitat. NHIC records for Peregrine Falcon within the	No. Note that targeted surveys were not completed.
Wood Thrush	Hylocichla mustelina	S4B	SC	THR	THR		1 Inhabits and breeds in woodlands ranging from small (3 ha) and isolated to large and contiguous. The presence of tall trees and a thick understory are usually prerequisites for site occupancy. ⁷	Very Low potential. FODM7-3 ecosite has a moderate thick understory that may provide suitable habitat but wooded area spans > 3 ha and surrounding areas are heavily developed. Trees within this	No. Note that targeted surveys were not completed. Treed areas will not be directly impacted by the proposed development.

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK ¹	Provincial SARO Status ²	COSEWIC ³	Federal SARA Status ³	Federal SARA Schedule ⁴	Habitat Description	Habitat Present in Study Area?	Species Observed?
Mammals									
Little brown Myotis	Myotis lucifugus	S4	END	END	END		1 Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh). ¹⁵	Very Low Potential. Existing buildings on property are occupied and will not provide suitable roosting habitat for bats. FODM7-3 ecosite site may also provide suitable roosting habitat. The adjacent rail corridor and vegetated areas adjacent provide limited foraging habitat.	No. Note that targeted surveys were not completed.
Eastern Small-footed Myotis	Myotis leibii	S2S3	END	END	No status	No schedule	Overwintering habitat: Caves and abandoned mines. According to the Recovery Strategy for the Eastern Small-footed Myotis in Ontario, summer / roosting habitats used by the species in Ontario are poorly understood, but elsewhere in its range it primarily roosts in open, sunny rocky habitats, and, occasionally, in buildings. Summer roosts for this species are believed to be located in close proximity to their hibernacula (i.e., less than 100 m). The species' preference for rocky habitats in summer may limit an individual's home range to those rocky areas which also contain hibernacula (i.e., karst areas and Canadian Shield areas containing abandoned mines with adits). ¹⁶	Very low potential. Existing buildings on property are occupied and will not provide suitable roosting habitat for bats. FODM7-3 ecosite site may also provide suitable roosting habitat. The adjacent rail corridor and vegetated areas adjacent provide limited foraging habitat.	No. Note that targeted surveys were not completed.
Tri-colored Bat	Perimyotis subflavus	S3?	END	END	END		1 Overwintering habitat: Deepest parts of caves and mines where temperature is the least variable. Maternal Roosts: Less is known about roosts of Tri-colored Bats. Most roost sites found within forested habitats. May roost in clumps of dead foliage and lichens. In more anthropogenically modified landscapes, maternity roosts may be barns or similar human-made structures. ¹⁵	Very low Potential. Existing buildings on property could be used as roosting habitat. FODM7-3 ecosite site may also provide suitable roosting habitat. The adjacent rail corridor and vegetated areas adjacent provide limited foraging habitat.	No. Note that targeted surveys were not completed.
Northern Myotis	Myotis septentrionalis	S3	END	END	END		1 Overwintering habitat: Caves and mines that remain above 0 Maternal Roosts: Often associated with cavities of large diameter trees (25-44 cm dbh). Occasionally found in structures (attics, barns etc.). ¹⁵	Very low potential. Typically found in the interior of the forest and only one documented case of roosting in structures in Ontario. Existing buildings on property are occupied and will not provide suitable roosting habitat for bats. FODM7-3 ecosite site may also provide suitable roosting habitat. The adjacent rail corridor and vegetated areas adjacent provide limited foraging habitat.	No. Note that targeted surveys were not completed.
Reptiles									
Blanding's Turtle	Emydoidea blandingii	S3	THR	END	THR		1 Generally occur in freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes and swamps. They prefer shallow water that is rich in nutrients, organic soil and dense vegetation. Adults are generally found in open or partially vegetated sites, and juveniles prefer areas that contain thick aquatic vegetation including sphagnum, water lilies and algae. They dig their nest in a variety of loose substrates, including sand, organic soil, gravel and cobblestone. Overwintering occurs in permanent pools that average about one metre in depth, or in slow-flowing streams. ²⁰	No potential. Suitable habitat is not present within close proximity to the subject lands.	N/A
Eastern Musk Turtle	Sternotherus odoratus	S3	SC	SC	SC		1 Inhabit a wide variety of permanent waters, including ponds, lakes, marshes, sloughs, and rivers. Most common in clear lakes or ponds with marl, sand, or gravel bottoms and a moderate growth of aquatic plants. Prefer slow current. Highly aquatic and rarely wander far from water. Typically nests within 45 m of water. ¹⁹	No potential. Suitable habitat is not present within close proximity to the subject lands.	N/A

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK ¹	Provincial SARO Status ²	COSEWIC ³	Federal SARA Status ³	Federal SARA Schedule ⁴	Habitat Description	Habitat Present in Study Area?	Species Observed?
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S4	NAR	SC	NAR	No schedule	Generally prefers waterbodies such as ponds, marshes, lakes and slow moving creeks that have a soft bottom and provide abundant basking sites and aquatic vegetation. ¹⁴	No potential. Suitable habitat is not present within close proximity to the subject lands.	N/A
Northern Map Turtle	<i>Graptemys geographica</i>	S3	SC	SC	SC	1	Highly aquatic. Inhabit slow moving water in larger lakes, rivers, reservoirs, oxbow sloughs, and open marshes, including some of the bays and inlets of the Great Lakes themselves with soft mud to sand, gravel, or marl bottom substrates. Less common in smaller lakes and streams; juveniles may reside in small ponds. Require high-quality water that supports the female's mollusc prey. ¹⁹	No potential. Suitable habitat is not present within close proximity to the subject lands.	N/A
Snapping Turtle	<i>Chelydra serpentina</i>	S3	SC	SC	SC	1	Generally inhabit shallow waters where they can hide under the soft mud and leaf litter. Nesting sites usually occur on gravelly or sandy areas along streams. Snapping Turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dams and aggregate pits. ¹⁰	No potential. Suitable habitat is not present within close proximity to the subject lands.	N/A
Vegetation									
Butternut	<i>Juglans cinerea</i>	S2?	END	END	END		1 Butternut grows best in rich, moist and well-drained soils or limestone gravel sites. They are less commonly found in dry, rocky and sterile soils. They generally grow alone or in small groups in deciduous forests that are commonly comprised of Basswood, Black Cherry, Beech, Black Walnut, Elm, Hemlock, Hickory, Oak, Red Maple, Sugar Maple, Poplar, White Ash and Yellow Birch. ⁶ In Ontario, they can be found throughout the southern Ontario, south of the Canadian Shield. ¹⁰	Low Potential. May be present within wooded areas.	Not observed during vegetation inventory. It should be noted that vegetation inventories were carried out in the winter, outside of the Butternut survey window.

Project Name: 60 Dundas Street East, Mississauga - SAR Screening Table
 Project Number: 300053263

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK ¹	Provincial SARO Status ²	COSEWIC ³	Federal SARA Status ³	Federal SARA Schedule ⁴	Habitat Description	Habitat Present in Study Area?	Species Observed?
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¹S-Ranks (provincial)

Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario. (Provincial Status from MNR Biodiversity Explorer September 2012)

- 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.

²SARO *Endangered Species Act, 2007*

(provincial status from MNR December 2014)

The provincial review process is implemented by the MNR's Committee on the Status of Species at Risk in Ontario (COSSARO).

EXT Extinct - A species that no longer exists anywhere.

EXP Extirpated - A species that no longer exists in the wild in Ontario but still occurs elsewhere.

END Endangered - A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's Endangered Species Act (ESA) (END-R designations are no longer relevant as species are covered under new ESA April 2009)

THR Threatened - A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.

SC Special Concern (formerly Vulnerable) - A species with characteristics that make it sensitive to human activities or natural events.

NAR Not at Risk - A species that has been evaluated and found to be not at risk.

DD Data Deficient (formerly Indeterminate) - A species for which there is insufficient information for a provincial status recommendation.

³SARA (Federal Species at Risk Act) Status and Schedule (includes COSEWIC Status)

The Act establishes Schedule 1, as the official list of wildlife species at risk. It classifies those species as being either Extirpated, Endangered, Threatened, or a Special Concern. Once listed, the measures to protect and recover a listed wildlife species are implemented.

EXT Extinct - A wildlife species that no longer exists.

EXP Extirpated - A wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild.

END Endangered - A wildlife species that is facing imminent extirpation or extinction.

THR Threatened - A wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

SC Special Concern - A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

⁴SARA Schedule

Schedule 1: is the official list of species that are classified as extirpated, endangered, threatened, and of special concern.

Schedule 2: species listed in Schedule 2 are species that had been designated as endangered or threatened, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.

Schedule 3: species listed in Schedule 3 are species that had been designated as special concern, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.

The Act establishes Schedule 1 as the official list of wildlife species at risk. However, please note that while Schedule 1 lists species that are extirpated, endangered, threatened and of special concern, the prohibitions do not apply to species of special concern.

Species that were designated at risk by COSEWIC prior to October 1999 (Schedule 2 & 3) must be reassessed using revised criteria before they can be considered for addition to Schedule 1 of SARA. After they have been assessed, the Governor in Council may on the recommendation of the Minister, decide on whether or not they should be added to the List of Wildlife Species at Risk.

⁵Habitat Present on Site

Determination of suitability of the site to support each species based on 'Key Habitats Used By Species'.

Yes - Specific habitat present and species and / or evidence observed;

Likely - The whole study area or portions of it contain conditions that could support the species;

Unlikely - Few similarities between study area conditions and preferred habitat exist;

No - Specific habitat not present and species and / or evidence not observed

⁶Species Observed

Reported sighting of species during fall field investigations by RJB biologists

Project Name: 60 Dundas Street East, Mississauga - SAR Screening Table
 Project Number: 300053263

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK ¹	Provincial SARO Status ²	COSEWIC ³	Federal SARA Status ³	Federal SARA Schedule ⁴	Habitat Description	Habitat Present in Study Area?	Species Observed?
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Additional Sources:

Sources:

⁷ Cadman, M.D., et al. (eds). 2007. *Atlas of the Breeding Birds of Ontario, 2001-2005*. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto, xxii + 706 pp

⁸ Species at Risk Public Registry <http://www.sararegistry.gc.ca>

⁹ McCracken, J.D. et al. 2013. Recovery Strategy for the Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario, viii + 88 pp.

¹⁰ MNR SARO List Species Descriptions (http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/MNR_SAR_CSSR_SARO_LIST_EN.html)

¹¹ COSEWIC Species Assessment Report

¹² Naughton, Donna. 2012. *The Natural History of Canadian Mammals*. Canadian Museum of Nature and University of Toronto Press, Toronto, + 784 pp

¹³ Farrar, John Laird, 2017. *Trees in Canada*. Natural Resources Canada | Canada Forest Services, and, Fitcherry & Whiteside Limited, pp.238 - 239

¹⁴ Ontario Nature Reptile and Amphibian Atlas (<https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/species/>)

¹⁵ Environment Canada. 2015. Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tri-colored Bat (*Perimyotis subflavus*) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. ix + 110 pp.

¹⁶ Humphrey, C. 2017. Recovery Strategy for the Eastern Small-footed Myotis (*Myotis leibii*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario, vii + 76 pp.

¹⁷ Department of Fisheries and Oceans (DFO) Aquatic Species at Risk found online at: <http://www.dfo-mpo.gc.ca/species-especes/sara-lep/identify-eng.html>.

¹⁸ Paulson, D. 2011. *Dragonflies and Damselflies of the East*. Princeton University Press, Princeton, NJ.

¹⁹ Harding, J.H., 1997. *Amphibians and Reptiles of the Great Lakes Region*. The University of Michigan Press. Ann Arbor, Michigan

²⁰ MNRF. 2018. City of Niagara Falls Species at Risk Table. Guelph District.

²¹ Michigan Flora found online at <https://michiganflora.net/search.aspx>

²² Natural Heritage Information Centre (<https://www.ontario.ca/page/get-natural-heritage-information>)

²³ McKnight, K.B. et al. 2013. *Common Mosses of the Northeast and Appalachians*. Princeton University Press. Princeton, New Jersey.