

**551 Riverdale Avenue, Ottawa, ON**

**Environmental Impact Study**

**Final Report**

**July 22, 2026**

**Submitted To:**

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## List of Acronyms and Abbreviations

ANSI – Area of Natural and Scientific Interest  
BHA – Butternut Health Assessor  
CRZ – Critical Root Zone  
DBH – Diameter at Breast Height  
DFO – Fisheries and Oceans Canada  
ECCC – Environment and Climate Change Canada  
EIS – Environmental Impact Study  
ELC – Ecological Land Classification  
ESA – Endangered Species Act  
ESC – Erosion and Sediment Control  
FWCA – *Fish and Wildlife Conservation Act*  
HDFA – Headwater Drainage Feature Assessment  
KAL – Kilgour & Associates Ltd.  
MBCA – *Migratory Birds Convention Act*  
MECP – Ministry of the Environment, Conservation and Parks  
MMAH – Ministry of Municipal Affairs and Housing  
MNR – Ministry of Natural Resources  
MNRF – Ministry of Natural Resources and Forestry  
NHIC – Natural Heritage Information Centre  
OP – Official Plan  
PPS – Provincial Planning Statement  
RVCA – Rideau Valley Conservation Authority  
SAR – Species at Risk  
SARA – *Species at Risk Act*  
SCA – *Species Conservation Act*  
SPC – Site Plan Control  
SWH – Significant Wildlife Habitat  
TCR – Tree Conservation Report  
UNF – Urban Natural Feature  
ZBA – Zoning By-law Amendment



## 1.0 INTRODUCTION

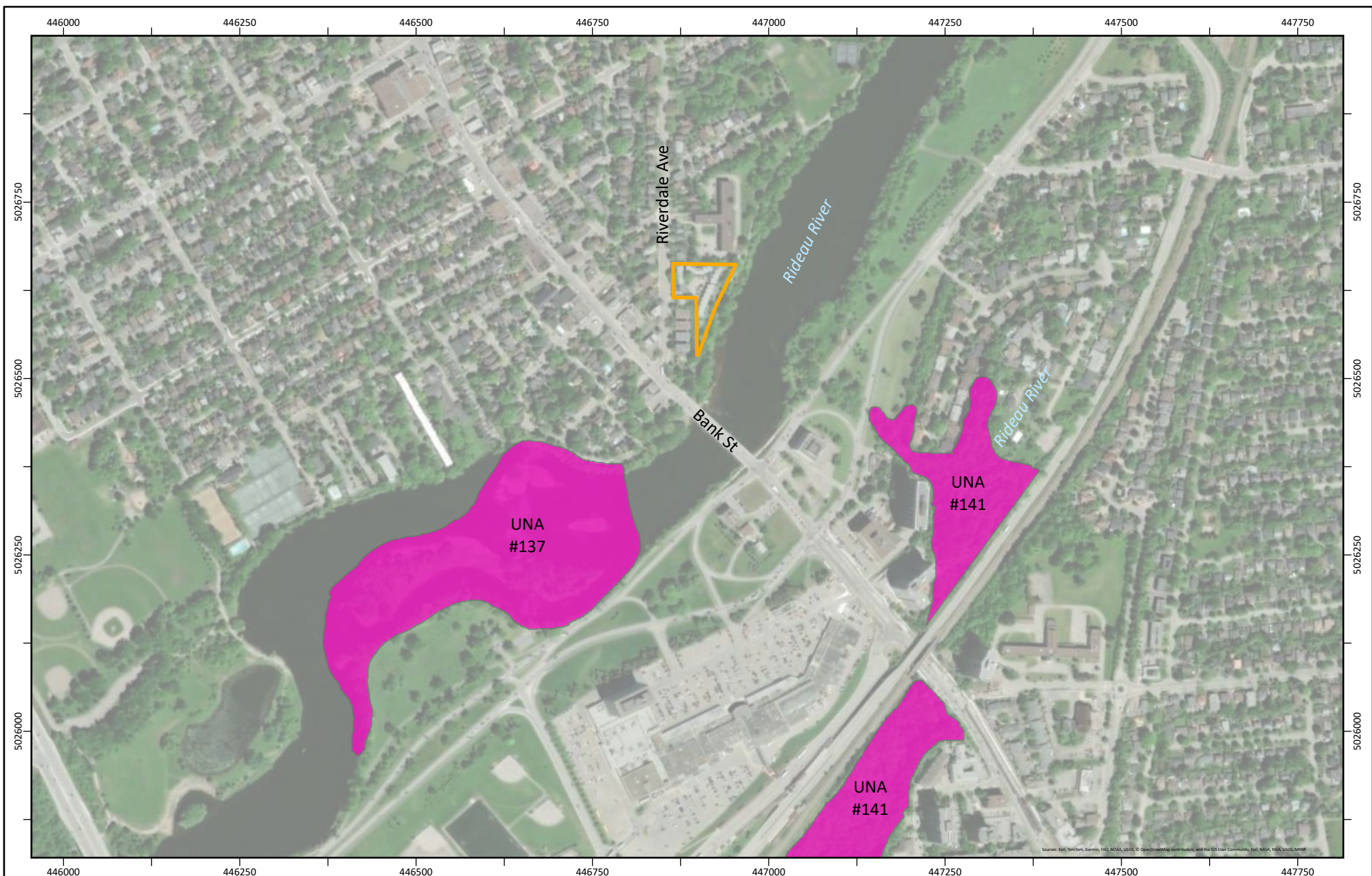
This report is an Environmental Impact Study (EIS) prepared by Kilgour & Associates Ltd. (KAL; Appendix A) on behalf of JSS Riverdale Holdings Inc. in support of Site Plan Control (SPC) and Zoning By-law Amendment (ZBA) applications for the proposed redevelopment of the property at 551 Riverdale Avenue, Ottawa, Ontario (the “Site”; Figure 1). The Site currently supports residential townhomes, and the proposed redevelopment would support a single multi-unit residential building.

In the City of Ottawa, an EIS is required when development or site alteration is proposed in or adjacent to natural heritage features, as outlined in Section 4.8 of the Official Plan (City of Ottawa, 2022a). For this EIS, natural heritage considerations include the proximity of the Site to the Rideau River and the potential for the Site and adjacent riparian areas to support species at risk (SAR).

The purposes of an EIS are to:

1. Identify natural heritage features on or adjacent to the Site;
2. Assess potential impacts of the proposed development to existing features;
3. Recommend mitigation measures to minimize or eliminate identified impacts (including follow-up monitoring); and
4. Provide a professional opinion on the likelihood or nature of residual impacts on natural heritage and their overall significance.



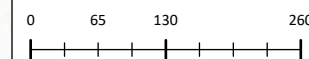


## Legend

- Site Boundary
- UNA



**Figure 1. Site context**



Spatial Reference:  
PCS: WGS 1984 UTM Zone 18N  
Map Units: Meter

Project: JSSR 1965  
Map File Name: JSSR 1965  
Date Exported: 7/14/2026 2:22 PM



## **2.0 ENVIRONMENTAL POLICY CONTEXT**

Natural heritage policies and legislation relevant to the proposed EIS are outlined below.

### **2.1 Federal Regulations**

#### **2.1.1 Species at Risk Act, 2002**

The federal *Species at Risk Act* (SARA; (Government of Canada, 2002) is administered by Environment and Climate Change Canada (ECCC) and provides direction to protect and ensure the survival of wildlife species in Canada. The purpose of the SARA is to prevent populations of wildlife from becoming Extirpated, Endangered, or Threatened, provide recovery for Endangered or Threatened species, and manage other species to prevent them from becoming Endangered or Threatened.

All species listed on Schedule 1 of SARA are afforded protection on federal lands. Aquatic species and species of migratory birds protected by the *Migratory Birds Convention Act* (MBCA; Government of Canada, 1994) and listed as Endangered, Threatened, or Extirpated under Schedule 1 of SARA are protected wherever they occur in Canada, regardless of land ownership. SARA protections do not typically apply for other species groups on non-federal properties. However, the Federal Minister of ECCC can impose SARA protections on private projects where habitat is deemed “...necessary for the survival or recovery of the species...” in the area of concern.

#### **2.1.2 Fisheries Act, 1985**

The federal *Fisheries Act* (Government of Canada, 1985b) is administered by Fisheries and Oceans Canada (DFO) and provides protections to fish, fish habitat, and fisheries. Specifically, the *Fisheries Act* in its current version provides protection for all fish and fish habitat, and prohibits the harmful alteration, disruption, or destruction of fish habitat.

Projects with a scope that does not fall within DFO’s defined standards and codes of practice require submission of a request for review to DFO.

#### **2.1.3 Migratory Birds Convention Act, 1994**

Nesting migratory birds are protected under the *Migratory Birds Convention Act* (Government of Canada, 1994). No work is permitted that would result in the destruction of active nests or the wounding or killing of bird species protected under the MBCA and/or associated regulations (e.g., SARA). 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 that are not primarily focused on taking migratory birds (e.g., economic development) where no permits otherwise exist. These prohibitions apply throughout the year. The Government of Canada has compiled nesting calendars that apply across Canada that can be used to greatly reduce the risk of harming/destroying active nests by ensuring works that may impact nests are performed outside of the nesting period.



## **2.1.4 Department of Transport Act, 1985**

The *Department of Transport Act* (Government of Canada, 1985a) gives the Minister of Transport the power to manage and control all matters involving shipping, railways, and other transportation systems, including canals such as the Rideau Canal system. Per the Historic Canals Regulations (SOR/93-220) under this Act, management, maintenance, proper use, and protection of the Rideau Canal system are administered by the Parks Canada Agency. The reach of the Rideau River adjacent to the Site, however, is not considered part of the canal system per se and thus is not subject to oversight by Parks Canada.

## **2.2 Provincial Regulations**

### **2.2.1 Planning Act**

The Ontario *Planning Act* (Government of Ontario, 1990b) establishes the legislative framework for land use planning and development in Ontario and governs how development applications are reviewed and approved by municipalities. Under the Act, all planning decisions must have regard for matters of provincial interest and be consistent with the Provincial Planning Statement, which is issued under Section 3 of the Act and provides province-wide direction on growth, infrastructure, housing, and the protection of natural heritage resources. The *Planning Act* authorizes municipalities to regulate development through Official Plans, zoning by-laws, plans of subdivision, consents, minor variances, and site plan control, and requires that development applications conform to these instruments. It also sets out procedural requirements for public notice, consultation, decision-making, and appeals, ensuring that development proposals are reviewed in a transparent, coordinated, and policy-led manner that balances local decision-making with provincial oversight.

### **2.2.2 Provincial Planning Statement, 2024**

The Provincial *Policy Statement*, previously issued under Section 3 of the *Planning Act* (MMAH, 2020), was updated to become the Provincial *Planning Statement* (PPS) on August 20, 2024. The PPS came into effect on October 20, 2024 (MMAH, 2024). Under the PPS, natural features are afforded protection through Section 4. The included protections address the maintenance, restoration, and improved function of diversity, connectivity, ecological function, and biodiversity of natural heritage systems. These protections restrict development and site alteration in significant natural areas (e.g., woodlands, wetlands, wildlife habitat) except where it can be demonstrated that there will be no negative effects on the features and ecological functions of those natural areas. Technical guidance for implementing the natural heritage policies of the PPS is found within the second edition of the *Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005* (MNR, 2005). This manual recommends the approach and technical criteria for protecting natural heritage features and areas in Ontario.

### **2.2.3 Species Conservation Act, 2025**

The provincial *Species Conservation Act* (SCA; [Government of Ontario, 2025](#)) is administered by the Ministry of Environment, Conservation, and Parks (MECP) and provides protection for species at risk (SAR) and their habitat. It replaces the previous *Endangered Species Act* (ESA; Government of Ontario, 2007). As such, existing policies and guidance documents that remain in force and refer to the ESA for the management and/or protection of SAR may generally be interpreted as applicable to the SCA.



Under the SCA, it is illegal to kill, harm, possess, transport, buy, or sell Extirpated, Endangered, or Threatened species, whether living or dead. It is also illegal to harm the habitat of a species listed as Extirpated, Endangered, or Threatened. Under the SCA, habitat is defined as areas on which any member of the species directly depends in order to carry on its life processes. For animals, this includes areas essential for breeding, rearing, staging, wintering or hibernating; for vascular plant species, habitat is defined as the critical root zone surrounding the species.

The SCA includes provisions that may authorize development activities to proceed where the impacts of such development on protected species and/or their habitat would otherwise be prohibited. The SCA focuses on a “registration-first” approach. While some activities will still require a formal permitting process with the MECP, the registration-first approach effectively authorizes most land development projects upon the submission of a project-specific Conservation Plan. The Conservation Plan, which must be written by a qualified professional, must:

- Detail all potential impacts, required mitigation measures, and conservation measures to (such as creating new, suitable habitat).
- Include record-keeping provisions for tracking the implementation of indicated mitigations.
- Define monitoring programs to review the effectiveness of mitigation and compensation measures.
- Identify mechanisms to update the registration where necessary.
- Detail all potential impacts, required mitigation measures, and conservation measures to (such as creating new, suitable habitat).

## **2.2.4 Conservation Authorities Act, 1990**

Conservation Authorities were created to address erosion, flooding, and drought concerns regionally by managing at the watershed level. Conservation Authorities were given the ability to regulate under Section 28 of the *Conservation Authorities Act* (Government of Ontario, 1990a). The Act obliges Conservation Authorities to implement Ontario Regulation (O.Reg.) 41/24, Prohibited Activities, Exemptions and Permits (formerly O.Reg. 174/06, Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses) under Section 28.1 of the *Conservation Authorities Act* for relevant works. This project falls under the jurisdiction of the Rideau Valley Conservation Authority (RVCA).

The *More Homes Built Faster Act* (Bill 23), which was passed on November 28, 2022, and received Royal Assent the same day, introduced a series of legislative and proposed regulatory changes affecting conservation authorities. Among the changes under the Act, the definition of “watercourse” was updated from an identifiable depression to a defined channel, having a bed, and banks or sides.

## **2.2.5 Fish and Wildlife Conservation Act, 1997**

The provincial *Fish and Wildlife Conservation Act* (FWCA; Government of Ontario, 1997) governs the hunting and trapping of a variety of wildlife, including mammals, birds, reptiles, amphibians, and fish in Ontario, thereby facilitating the protection of wildlife and their habitat. The FWCA outlines the prohibition of hunting or trapping specially protected species and the requirement for provincially issued licenses for the hunting or trapping of “furbearing” or “game” animals. Examples of specifically protected animals include Southern



Flying Squirrel (*Glaucomys volans*), Northern Harrier (*Circus cyaneus*), American Kestrel (*Falco sparverius*), Blue Jay (*Cyanocitta cristata*), Midland Painted Turtle (*Chrysemys picta marginata*), Northern Watersnake (*Nerodia sipedon*), and Gray Treefrog (*Hyla versicolor*). In particular, raptors that are not protected under the MBCA (including Peregrine Falcon) are protected under the FWCA.

## 2.3 Municipal/Local Regulations

### 2.3.1 The City of Ottawa Official Plan (2021)

The City of Ottawa Official Plan (OP; City of Ottawa, 2021) was updated and approved by the Ministry of Municipal Affairs and Housing as part of a comprehensive review. Pursuant to subsections 17(36.5) and (38.1) of the *Planning Act*, the decision of the Minister of Municipal Affairs and Housing regarding an official plan adopted in accordance with Section 26 of the *Planning Act* is final and not subject to appeal. Accordingly, the new City of Ottawa Official Plan, as approved with modifications by the Minister, came into effect on November 4, 2022. The OP provides a vision for the future growth of the city and a policy framework to guide the city's physical development. With respect to natural heritage considerations addressed under an EIS, the OP provides a framework through which species at risk and other wildlife (and their habitats), forested areas, wetlands and surface water features must be reviewed. Key portions of the OP to be considered include:

**OP Section 4.8.1** - under which the City recognizes the following natural heritage features, as defined in Ottawa's Environmental Impact Study Guidelines:

- a) Significant wetlands;
- b) Habitat for endangered and threatened species;
- c) Significant woodlands;
- d) Significant valleylands;
- e) Significant wildlife habitat;
- f) Areas of Natural and Scientific Interest;
- g) Urban Natural Features;
- h) Natural Environment Areas;
- i) Natural linkage features and corridors;
- j) Groundwater features;
- k) Surface water features, including fish habitat; and
- l) Landform features.

**OP Section 4.9.3** – which provides policies for development and site alteration near surface water features through the provision of minimum setbacks and directives to retain wetland areas and the requirement to complete headwater drainage feature assessments (HDFA) to provide management recommendations for headwater features.

**OP Schedule C11** – which identifies Natural Heritage Features and Natural Heritage System Core Areas and Linkages as an overlay.



### 2.3.2 Other City of Ottawa Planning Documents

- **The Environmental Impact Study Guidelines**

The City of Ottawa's *Environmental Impact Study Guidelines* (City of Ottawa, 2025a) outline the process and content required for the completion of an EIS under the policies of the City's OP.

- **Significant Woodlands: Guidelines for Identification, Evaluation, and Impact Assessment**

The *Significant Woodlands: Guidelines for Identification, Evaluation, and Impact Assessment* (City of Ottawa, 2022c) identifies that wooded areas within the urban boundary, that are > 0.8 hectares (ha) and have been continuously forested for > 60 years, are designated as "Significant Woodland".

- **Protocol for Wildlife Protection during Construction**

The *Protocol for Wildlife Protection during Construction* (City of Ottawa, 2022b) identifies best management practices to be employed through construction to reduce the direct impacts of development on wildlife.

- **Bird-Safe Design Guidelines**

The City of Ottawa's *Bird-Safe Design Guidelines* (City of Ottawa, 2020) are intended to inform building, landscape and lighting design at the planning stage of private or public development projects to minimize the threat of bird collisions.

### 2.3.3 City of Ottawa Site Alteration By-law

The City of Ottawa *Site Alteration By-law* (By-law No. 2024-448) regulates activities such as the placement or removal of fill, alteration of grades, and the clearing or stripping of vegetation in order to protect agricultural resources, natural heritage features, and existing drainage patterns, and to prevent adverse impacts to neighbouring properties. The by-law applies broadly across the City, except in areas regulated by Conservation Authorities, and establishes requirements to avoid erosion, sedimentation, and drainage impacts during site alteration activities. In the context of development applications, the by-law operates alongside the *Planning Act* approval process by requiring that site alteration associated with development be undertaken in accordance with approved plans and municipal standards, including the implementation of erosion and sediment control measures and adherence to setback and notification requirements where applicable. Compliance with the *Site Alteration By-law* is typically addressed during development review and construction, and does not replace the need for planning approvals, but rather provides additional controls to manage site works in a manner that protects the natural and built environment.

### 2.3.4 City of Ottawa Tree Protection By-law

The City of Ottawa *Tree Protection By-law* regulates the injury and removal of trees to protect the City's urban forest, natural areas, and tree canopy during development and other land-altering activities. Under the by-law, permits are required for the removal or injury of City-owned trees and for private trees that meet specified size thresholds, including trees 10 cm or greater in diameter on properties subject to a *Planning Act* application and larger "distinctive trees" on private lands. In the context of development applications, the



by-law requires proponents to identify protected trees, assess potential impacts, and demonstrate how trees will be retained, protected, or appropriately replaced through supporting arborist studies and approved tree conservation measures. Compliance with the Tree Protection By-law is addressed alongside planning approvals and construction permitting, which provides an additional mechanism to manage tree impacts without replacing or superseding the broader *Planning Act* review process. Additionally, the *Tree Protection By-law* identifies the elements required by the City for inclusion in Tree Information Reports and Tree Conservation Reports.

### 3.0 PROPERTY IDENTIFICATION

The Site is approximately 0.5 ha in size and is located at 551 Riverdale Avenue, Ottawa, Ontario (Lat: 45.391055°N, Long: 75.678309°W; Figure 1). The Site currently supports an urban townhome complex, with residences, surface parking, and driveway access to Riverdale Avenue. The Site is predominantly developed but supports scattered tree cover and associated landscaping and garden space on the east side of the Site. Occasional trees are present in interior yard areas, with additional treed fencerows situated adjacent to the west and north Site boundaries. The Site is zoned Neighbourhood Zone 4 (N4B).

The Rideau River is located approximately 23 m east of the east Site boundary, separated by a multi-use path and a forested corridor, forming a buffer of natural vegetation between the Site and the Rideau River. The Site falls within the RVCA's regulated area associated with the Rideau River, and the majority of the Site is situated within an Area of Reduced Flood Risk, per RVCA mapping (RVCA, 2025).

The Site (Figure 1) is bordered by:

- Residential communities and the Rideau Canal to the north;
- Green space, the Rideau River, and Riverside Drive to the east;
- Green space, the Rideau River, and Riverside Drive to the south; and
- Riverdale Avenue, residential communities, and Carleton University to the west.



## 4.0 METHODOLOGY

### 4.1 Desktop and Background Data Review

#### 4.1.1 General Records Review

Background information was obtained from online databases and geographic information system mapping applications to review relevant information. Aerial imagery from Google Earth (Google LLC, 2026), the RVCA Geoportal (Rideau Valley Conservation Authority, 2024) and the City's geoOttawa system (City of Ottawa, 2025b) was used to identify existing features and confirm information found in the background review.

Existing data on soils in the vicinity of the Site were obtained from the Ontario AgMaps (Ontario Agriculture, Food and Agribusiness, 2025) and the Ontario Geotechnical Boreholes Dataset (Ontario Ministry of Mines, 2012). These data were supplemented by soil cores taken in the field using a 120 cm soil auger in natural communities on and adjacent to the Site.

#### 4.1.2 Species at Risk Screening

The review of existing information included a preliminary SAR screening for species listed under the federal SARA and provincial SCA having some record of occurrence within the broader vicinity of the Site. The screening was completed following the draft *Client's Guide to Preliminary Screening for Species at Risk* (Ministry of Environment, Conservation, and Parks (MECP, 2023). The results of the preliminary screening process inform the list of species considered in the context of this EIS in the assessment of potential development impact(s) to SAR or SAR habitat (Appendix B).

The preliminary screening considered data sources including:

- Species at Risk Public Registry (Government of Canada, 2026);
- Natural Heritage Information Centre (NHIC; Ministry of Environment, Conservation and Parks, 2026);
- Aquatic Species at Risk Map (Fisheries and Oceans Canada (DFO), 2026);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2026);
- Ontario Breeding Birds Atlas (Birds Canada et al., 2026);
- Ontario Butterfly Atlas (Toronto Entomologists' Association, 2026);
- eBird (Cornell Lab of Ornithology, 2026);
- iNaturalist (California Academy of Sciences & National Geographic Society, 2026);
- Bumble Bee Watch (Wildlife Preservation Canada et al., 2026);
- Recovery Strategy for the Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Ontario (Humphrey & Fotherby, 2019);
- Recovery Strategy for the Eastern Small-footed Myotis (*Myotis leibii*) in Ontario (Humphrey, 2017); and
- Fish ON-Line (Ministry of Natural Resources, 2026).



### 4.1.3 Agency Consultation

The Site is located within the jurisdictions of the City of Ottawa and the RVCA. The City of Ottawa's primary natural history consideration for the Site is the setback from the Rideau River. Appropriate setback considerations have been discussed with the City as part of the preconsultation for the proposed development. At present, the existing townhomes encroach into the 30 m setback. While the proposed development would be considered to have a pre-existing right to reconstruct within the footprint of the existing buildings, appropriate watercourse setbacks for the proposed development will be addressed through the SPC and ZBA process.

## 4.2 Field Surveys

### 4.2.1 Site Work Summary

Field surveys in support of this EIS included an Ecological Land Classification (ELC) and SAR vegetation survey. The ELC focuses on the Site and immediately adjacent areas.

**Table 1: Field study dates**

| Date         | Purpose                                                                                           | Conditions                                                                                                                                      | Personnel                                                         |
|--------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| June 5, 2026 | <ul style="list-style-type: none"> <li>Ecological Land Classification, SAR tree search</li> </ul> | <ul style="list-style-type: none"> <li>29°C</li> <li>50% cloud cover</li> <li>Wind 2 on the Beaufort Scale</li> <li>No precipitation</li> </ul> | <ul style="list-style-type: none"> <li>Kesia Miyashita</li> </ul> |

### 4.2.2 Surface Water Characterization

Aerial imagery and public databases were reviewed to identify surface water features in the vicinity of the Site (City of Ottawa, 2025b; Ministry of Environment, Conservation and Parks, 2026; Rideau Valley Conservation Authority, 2024). The presence of wetland communities, if present, would be confirmed through the Ecological Land Classification exercise described below. The Rideau River east of the Site was thoroughly described through the relevant subwatershed and catchment reports (RVCA, 2012a, 2012b)

### 4.2.3 Vegetation

#### 4.2.3.1 Ecological Land Classification

Vegetation communities on the Site were determined based on standard ELC methods for Ontario (Lee, 2008; Lee et al., 1998). A desktop review of available aerial imagery and preliminary field visits informed how the Site is generally divided into vegetation communities based on variation in land cover, topography, and vegetation structure. During the field visit, the dominant plant species were recorded within each proposed ecosite to further divide ecosites into vegetation types (the finest resolution in ELC), where possible. Within natural communities, soil samples were taken using a 120 centimeter (cm) long soil auger to characterize community substrates. Soil samples were not taken from manicured garden beds or paved areas. Representative photos of each ELC unit on the Site were taken and are included with the community descriptions in this report.

The detailed tree inventory for the site was provided by James B. Lennox & Associates Inc. (2026).



## 5.0 RESULTS

### 5.1 Landforms, Soils, and Geology

The Site is located within the Ottawa Valley Clay Plains physiographic region (Ontario Agriculture, Food and Agribusiness, 2025; Schut & Wilson, 1987). The physiography of this region is characterized by clay plains and bedrock uplands. Soils on the Site are mapped in Report No. 58 of the Ontario Institute of Pedology, *The Soils of the Regional Municipality of Ottawa-Carleton* as Urban (ZUR; Schut & Wilson, 1987). Boreholes drilled in the vicinity of the Site report sand, silt, and gravel over limestone bedrock (Ontario Ministry of Mines, 2012). Bedrock depths are approximately 10 m (Ontario Ministry of Mines, 2012). During the site visit on June 5, 2026, soil samples were taken from natural communities using a 120 cm hand-held soil auger. Soil samples indicated silt and silty loam over sand. The Site overall is relatively flat. Beyond the east site boundary, the land slopes eastward toward the Rideau River.

### 5.2 Ecological Land Classification

Three distinct landcovers or ELC units were delineated on or immediately adjacent to the Site (Figure 2). The Site is characterized as Low Density Residential (CVR\_1), supporting residential townhomes and associated infrastructure. A natural deciduous forest community (FODM6-5) is situated offsite, adjacent to the east site boundary and extending east to the Rideau River. Fencerows (TAGM5) of predominantly deciduous trees are situated along the west and north edges of the Site, abutting the rear yards of adjacent properties to the west and a City easement to the north.

#### 5.2.1 Low Density Residential (CVR\_1)

The majority of the Site is characterized as a Low Density Residential unit (CVR\_1; Figure 2). The area is characterized by two rows of townhomes surrounding a central, paved parking area (Figure 3). Portions of the townhome units and the existing parking area currently fall within the 30 m setback from the Rideau River. The townhome units support yard spaces with a variety of horticultural plantings. A paved sidewalk and manicured greenspace are situated on the east side of the units, supporting mowed Kentucky Bluegrass (*Poa pratensis*) and large perennial garden beds (Figure 4). Planted trees in this green space include Sugar Maple (*Acer saccharum*), Crabapple (*Malus* sp.), Little-leaf Linden (*Tilia cordata*), Manitoba Maple (*Acer negundo*), and Eastern White Pine (*Pinus strobus*). A Bur Oak (*Quercus macrocarpa*) situated adjacent to the northeast corner of the Site had a diameter at breast height (DBH) of approximately 80 cm, representing the largest tree in this unit.







**Figure 3 Central paved parking area surrounded by townhomes in the Low Density Residential (CVR\_1) unit (photo taken June 5, 2026)**



**Figure 4 Landscaped area at the east edge of the Low Density Residential (CVR\_1) unit, supporting grass, planted beds, and occasional trees (photo taken June 5, 2026)**



### 5.2.2 Fresh – Moist Sugar Maple – Hardwood Deciduous Forest Type (FODM6-5)

A Fresh – Moist Sugar Maple – Hardwood Deciduous Forest Type (FODM6-5) is situated adjacent to the east site boundary and forms a forest community buffer along the banks of the Rideau River (Figure 2). The canopy is characterized by Sugar Maple, with Manitoba Maple, Silver Maple (*Acer saccharinum*), Basswood (*Tilia americana*), and occasional White Spruce (*Picea glauca*; Figure 5). Average DBH measurements for canopy trees are approximately 30-40 cm. Occasional notable trees (i.e., those of larger size than average in a forested community, or a unique species) include Basswood, Silver Maple, Manitoba Maple, Green Ash (*Fraxinus pennsylvanica*), and Bur Oak trees with DBH measurements between 58 and 104 cm. The subcanopy is characterized by Manitoba Maple, Green Ash and White Ash (*Fraxinus americana*), and occasional Black Locust (*Robinia pseudoacacia*), American Hackberry (*Celtis occidentalis*), and Black Walnut (*Juglans nigra*). Dominant shrubs include Common Buckthorn (*Rhamnus cathartica*) and Pagoda Dogwood (*Cornus alternifolia*). Dominant groundcover species include Orchard Grass (*Dactylis glomerata*), Smooth Brome (*Bromus inermis*), Virginia Creeper (*Parthenocissus quinquefolia*), Common Buckthorn seedlings, Lesser Burdock (*Arctium minus*), Garlic Mustard (*Alliaria petiolata*) and Dog-strangling Vine (*Vincetoxicum nigrum*).



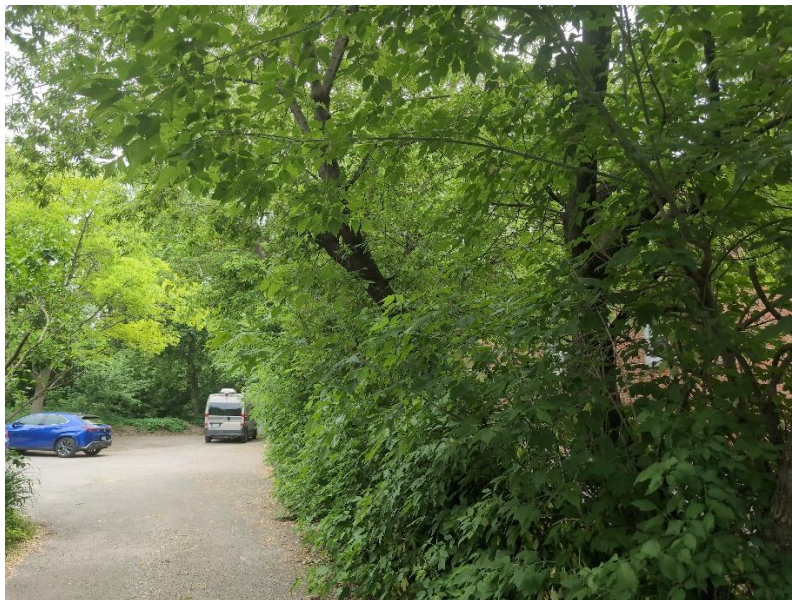
**Figure 5 Fresh – Moist Sugar Maple – Hardwood Deciduous Forest Type (FODM6-5) at the east edge of the Site (photo taken June 5, 2026)**

### 5.2.3 Fencerow (TAGM5)

Deciduous fencerows (TAGM5) are situated along portions of the west and north site boundary (Figure 2). Dominant canopy trees in the west fencerow include Manitoba Maple, with typical DBH measurements of 15-20 cm, with occasional White Spruce, Basswood, and Siberian Elm (*Ulmus pumila*; Figure 6). The fencerow comprised approximately 26 mature trees, of which half are situated in the rear yards of the adjacent properties, and half are situated on the Site itself.



Dominant canopy trees in the north fencerow include American Elm (*Ulmus americana*), Eastern White Cedar (*Thuja occidentalis*), Basswood and Crabapple, with typical DBH measurements of 15 to 25 cm. The majority of trees in the north fencerow are situated on City of Ottawa land adjacent to the Site.



**Figure 6 Deciduous Fencerow (TAGM5) at the west side of the Site (photo taken June 6, 2026)**

### **5.3 Surface Water, Groundwater and Fish Habitat**

The Site is situated approximately 23 m from the Rideau River, separated from the river by a multi-use path and a naturally vegetated (i.e., forested) setback between the river and the east site boundary. The Site does not support any surface water features (e.g., wetlands or headwater drainage features).

The Site is located within the Rideau River watershed and the Lower Rideau River subwatershed (RVCA, 2012a). The Site is located within the Rideau River – Rideau Falls catchment (RVCA, 2012b). The Rideau River – Rideau Falls catchment is a highly urbanized reach located entirely within Ottawa’s urban area. The river corridor typically supports a 30 m wide riparian buffer, comprising woodlands, with settlement areas, transportation infrastructure, and wetlands. Through much of the catchment, development has been set back from the river and its banks, although areas of historic development encroach into the riparian zone (RVCA, 2012b).

The catchment drains approximately 28 km<sup>2</sup> of land (approximately 3.7% of the Lower Rideau Subwatershed; (RVCA, 2012b). Water quality in the catchment is generally considered fair, and the river supports a warm / cool water fishery with 40 fish species (RVCA, 2012b).



## 5.4 Species at Risk

Species listed provincially as Extirpated, Endangered, and Threatened are afforded species and habitat protection under the SCA. Protections under SARA are in force for federally listed species of fish and migratory birds. For species of other species groups, SARA normally only applies on federal lands or on projects having some level of participation with or oversight by the federal government. However, SARA-based protections can be imposed by ministerial order on a case-by-case basis in situations where provincial-level protections are deemed inadequate to otherwise protect a species. Such additional SARA protections are not expected to apply to the Site.

The Preliminary SAR Screening identified a total of 48 SAR with some potential to occur within the broader vicinity of the Site (Appendix B). The initial SAR assessment in Appendix B considered whether:

- the existing site conditions could provide suitable habitat;
- the presence of individuals was likely or feasible, given conditions in the broader area; and
- individuals or habitat could interact with the project, considering the intrinsic project approach and/or timing (but not considering mitigations that may still need to be prescribed).

Of the 48 species screened for review in the EIS, six (6) were initially assessed to have some potential to occur on the Site, have protected habitat on the site, and/or to interact with the project (Table 2; Appendix B).

**Table 2 SAR initially assessed for further study on the Site**

| Common Name                 | Taxonomic Name                   | SCA Status<br>(O.Reg.<br>60/26) | SARA Status<br>(Schedule 1) | Observed On Site                                                   | Assessed Potential to Interact<br>with Project                                                                                                                                                                                                                                                                                    |
|-----------------------------|----------------------------------|---------------------------------|-----------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Birds</b>                |                                  |                                 |                             |                                                                    |                                                                                                                                                                                                                                                                                                                                   |
| Common Nighthawk            | <i>Chordeiles minor</i>          | Not Listed                      | Special Concern             | No incidental observations onsite; targeted surveys not undertaken | No evidence of ground nests onsite during site visit. Potential for project interaction is Negligible.                                                                                                                                                                                                                            |
| <b>Mammals</b>              |                                  |                                 |                             |                                                                    |                                                                                                                                                                                                                                                                                                                                   |
| Eastern Red Bat             | <i>Lasiurus borealis</i>         | Endangered                      | Not Listed                  | Targeted acoustic monitoring not undertaken                        | Scattered trees on the Site may provide transient roosting opportunities, and open areas may provide foraging habitat. The adjacent forest likely provides roosting habitat.<br><br>Standard best practices / mitigations for construction are recommended; with measures in place, the potential for project interaction is Low. |
| Eastern Small-footed Myotis | <i>Myotis leibii</i>             | Endangered                      | Not Listed                  |                                                                    |                                                                                                                                                                                                                                                                                                                                   |
| Hoary Bat                   | <i>Lasiurus cinereus</i>         | Endangered                      | Not Listed                  |                                                                    |                                                                                                                                                                                                                                                                                                                                   |
| Little Brown Myotis         | <i>Myotis lucifugus</i>          | Endangered                      | Endangered                  |                                                                    |                                                                                                                                                                                                                                                                                                                                   |
| Northern Myotis             | <i>Myotis septentrionalis</i>    | Endangered                      | Endangered                  |                                                                    |                                                                                                                                                                                                                                                                                                                                   |
| Silver-haired Bat           | <i>Lasionycteris noctivagans</i> | Endangered                      | Not Listed                  |                                                                    |                                                                                                                                                                                                                                                                                                                                   |
| Tri-colored Bat             | <i>Perimyotis subflavus</i>      | Endangered                      | Endangered                  |                                                                    |                                                                                                                                                                                                                                                                                                                                   |
| <b>Reptiles</b>             |                                  |                                 |                             |                                                                    |                                                                                                                                                                                                                                                                                                                                   |



| Common Name                 | Taxonomic Name                     | SCA Status<br>(O.Reg.<br>60/26) | SARA Status<br>(Schedule 1) | Observed On Site                                                          | Assessed Potential to Interact<br>with Project                                                                                                                                                                                                                                                                   |
|-----------------------------|------------------------------------|---------------------------------|-----------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eastern Milksnake           | <i>Lampropeltis<br/>triangulum</i> | Not Listed                      | Special<br>Concern          | No incidental<br>observations onsite;<br>targeted surveys not<br>required | No potential hibernacula<br>onsite. Potential for presence<br>on the Site is Low.<br><br>Potential for project interaction<br>is Low.                                                                                                                                                                            |
| Arthropods                  |                                    |                                 |                             |                                                                           |                                                                                                                                                                                                                                                                                                                  |
| American Bumble<br>Bee      | <i>Bombus<br/>pensyvanicus</i>     | Not Listed                      | Special<br>Concern          | No incidental<br>observations onsite;<br>targeted surveys not<br>required | Limited Common Milkweed on<br>the Site to support Monarchs.<br>Other insect species here are<br>habitat generalists. With no<br>part of the Site more suitable<br>than the broader vicinity, the<br>potential for occurrence<br>directly on the site is Low.<br><br>Potential for project interaction<br>is Low. |
| Monarch                     | <i>Danaus plexippus</i>            | Not Listed                      | Endangered                  |                                                                           |                                                                                                                                                                                                                                                                                                                  |
| Yellow-banded<br>Bumble Bee | <i>Bombus terricola</i>            | Not Listed                      | Special<br>Concern          |                                                                           |                                                                                                                                                                                                                                                                                                                  |
| Vascular Plants             |                                    |                                 |                             |                                                                           |                                                                                                                                                                                                                                                                                                                  |
| Butternut                   | <i>Juglans cinerea</i>             | Endangered                      | Endangered                  | No individuals<br>observed on or near<br>the Site                         | Negligible                                                                                                                                                                                                                                                                                                       |

Of the protected SAR studied, none were determined to demonstrate a moderate to high potential for interaction with the proposed project. General considerations for at-risk bats and Monarch are provided below.

#### 5.4.1 SAR Bats

Roosting habitat for SAR bats includes buildings, rock crevices, exfoliating tree bark, foliage, and cavities and crevices in trees (Humphrey & Fotherby, 2019). These species generally forage over clearings adjacent to forests, and over water. The forested buffer situated between the Site and the Rideau River may provide roosting habitat, with some potential for trees onsite and in the adjacent fencerows to provide transient roosting habitat. Open and landscaped areas onsite may provide foraging habitats for SAR bats. No snags, significant exfoliating bark, large cavities, or trees with high potential for bat roosting were observed on or adjacent to the Site; therefore, the Site and its immediately surrounding area are unlikely to provide opportunity for bat maternity colonies but may provide non-maternal roosting and foraging habitat.

Bat hibernacula generally include subterranean openings, including caves, abandoned mines, wells, and tunnels (Environment Canada, 2015; MNRF, 2017). Potential underground structures for bat hibernation were not observed on or adjacent to the Site.

#### 5.4.2 Monarch

The Monarch Butterfly is listed as Endangered under SARA. Monarchs almost exclusively require Milkweed (*Asclepias* sp.) plant species for breeding and feeding. Adult Monarchs also use other wildflowers for nectar, especially when milkweeds are not in bloom; alternate species include goldenrods (*Solidago* spp.), asters (*Doellingeria* spp., *Eurybia* spp., *Oclemena* spp., *Symphytrichum* spp., *Virgulus* spp.), Purple Loosestrife (*Lythrum salicaria*), and clovers (*Trifolium* spp. and *Melilotus* spp.). Occasional Common Milkweed is noted



to occur on and adjacent to the Site. Numerous other wildflowers and cultivated flowering plants in garden areas onsite have potential to be used by Monarchs.

## **5.5 Significant Natural Heritage Features**

### **5.5.1 Significant Woodlands**

The City of Ottawa's (2022c) Significant Woodland Policy defines Significant Woodlands within the urban boundary as any area 0.8 hectares in size or larger, supporting woodland 60 years of age and older at the time of evaluation. The forested area situated on the east side of the Site and comprising the riparian forest adjacent to the Rideau River does not meet the criteria for a Significant Woodland.

### **5.5.2 Significant Wildlife Habitat**

The Significant Wildlife Habitat (SWH) Criteria Schedule for Ecoregion 6E (MNRF, 2015a) identifies four main types of significant wildlife habitat: seasonal concentration areas, rare vegetation communities, specialized habitat for wildlife and habitats of Species of Conservation Concern.

#### **5.5.2.1 Seasonal Concentration Areas**

Seasonal concentration areas include stopover and staging areas for waterfowl, shorebirds, landbirds and butterflies, wintering areas for raptors, bat hibernacula, bat maternity colonies, wintering areas for turtles, reptile hibernacula, breeding habitats for colonially-nesting birds, and deer yarding and congregation areas.

The Site itself does not provide SWH for seasonal concentration areas. The forested community east of the Site meets the criteria for candidate SWH for Bat Maternity Colonies, as the forest unit supports occasional mature, large-diameter trees; however, no snags were noted in the forest along the edge of the Site or on immediately adjacent lands. While the Site itself is unlikely to support bat habitat, bats may transiently use features on the Site.

The Rideau River meets the criteria for candidate SWH for Turtle Wintering, as a variety of turtle species may use habitats along the Rideau River in proximity to the Site. The Site itself does not support SWH for turtles.

#### **5.5.2.2 Rare Vegetation Communities**

Rare vegetation communities typically include those that have developed on cliff and talus slopes, sand barrens, shallow soils over limestone bedrock (alvar), old growth forests, savannahs, and tallgrass prairies. No rare vegetation communities were observed on the Site.

#### **5.5.2.3 Specialized Wildlife Habitat**

Specialized Wildlife Habitat includes waterfowl nesting areas, Bald Eagle and Osprey nesting, foraging and perching habitat, woodland raptor nesting habitat, turtle nesting areas, seeps and springs, woodland amphibian breeding habitat, amphibian wetland breeding habitat, and woodland area-sensitive bird breeding habitat.



The forest buffer along Rideau River meets the criteria for candidate SWH for Bald Eagle and Osprey Nesting, Foraging and Perching Habitat and Turtle Nesting SWH. The Site itself does not meet the criteria for candidate SWH.

#### 5.5.2.4 Habitats of Species of Conservation Concern

Habitats of Species of Conservation Concern with potential to occur in proximity to the Site include marsh bird breeding habitat, and special concern and rare wildlife species. Habitats of Species of Conservation Concern do not include habitats of Endangered or Threatened species as identified by the SCA. Due to the relatively small area of potentially suitable habitat on the Site for marsh bird breeding habitat, the Site does not meet the criteria for candidate SWH for marsh bird breeding habitat.

The Site meets the criteria for candidate SWH for special concern and rare wildlife species, as Common Nighthawk was previously detected 250 m from the Site in 2024 (Cornell Lab of Ornithology, 2026); however, due to the fragmented nature of suitable open areas to provide habitat for Common Nighthawk on and adjacent to the Site and proximity to human activity (multi-use path, roadways, surface parking), the Site is unlikely to meet the criteria for confirmed SWH for Common Nighthawk.

### 5.5.3 Other Natural Heritage Features

The Site does not contain Significant Woodlands, significant wetlands, or Areas of Natural and Scientific Interest (ANSIs) (Ministry of Environment, Conservation and Parks, 2026). The Site itself does not contain Urban Natural Features (UNFs), Natural Heritage System Core Areas or Linkage Areas, or Urban Greenspace, as defined in the Official Plan (City of Ottawa, 2022a). The nearest designated Urban Greenspace is Windsor Park, approximately 250 m north of the Site.

The nearest UNFs are UNF 137 (Rideau River Islands) and UNF 141 (Sawmill Creek Woods), approximately 240 m west and 300 m east of the Site, respectively. UNF 137 is characterized as undeveloped alluvial islands on limestone bedrock in the Rideau River. The feature is scored as High in Muncaster Environment Planning Inc. and Brunton Consulting Services (2005) and supports a high coefficient of conservation rating for native flora. Open water near the islands provides habitat for wintering diving duck populations. Forested communities on the islands support exceptionally large trees, including Butternuts, in the eastern portion of the islands. UNF 141 is characterized as a fragmented deciduous riparian woodland along Sawmill Creek. The feature is scored as Moderate and supports moderate native biodiversity, with considerable presence of invasive plant species, edge effects, and informal trails and litter from human activity throughout (Muncaster Environment Planning Inc. & Brunton Consulting Services, 2005).

## 6.0 DESCRIPTION OF THE PROPOSED PROJECT

The proposed residential development would comprise a four-storey residential building, with a total of 92 residential units (Figure 7). The proposed development includes one level of underground parking, accessed by a ramp on the east side of the building. The ground level includes outdoor amenity spaces, landscaped plantings, and a new walkway connection to the existing multi-use path on the east side of the Site.

The existing townhomes and a portion of the paved parking area currently encroach into the Rideau River's 30 m setback. Per the Official Plan, the proposed development would be considered to have a pre-existing



right to reconstruct within the footprint of the existing buildings; however, the proposed structure is being developed such that the main building will be situated outside the 30 m setback. Eight ground-level patios with balconies above on upper levels will encroach into (i.e. above) the 30 m setback by an average of 1.5 m. The proposed development will require placement of fill within the 30 m setback to raise grades and sufficiently address the Area of Reduced Flood Risk onsite. Fill placement will follow the direction of an RVCA permit and would be permitted within the setback under City of Ottawa Official Plan Policies 4.9.3 (6 and 7).

Existing trees on the Site are concentrated in deciduous fencerows to the west and north sides of the Site, with landscaped planting along the east side of the Site and occasional trees in yard areas in the interior of the townhome complex. All trees in the interior portion of the Site, adjacent to Riverdale Avenue, and in the west fencerow will be removed to accommodate Site development (James B. Lennox & Associates Inc., 2026). All trees in the north hedgerow (i.e., predominantly City-owned trees) will be retained, with appropriate mitigation measures to protect trees and their critical root zones during construction. The majority of planted trees on the east side of the Site will be retained and incorporated into the new Site landscaping. In particular, the mature, City-owned Bur Oak (80 cm DBH), adjacent to the northwest corner of the Site, will be retained. The proposed project works are not anticipated to impact the FODM6-5 forest unit on the Rideau River bank offsite. Landscaping will include additional trees along Riverdale Avenue and along the east side of the Site, and areas of native shrubs, ornamental grasses, and lawn areas (James B. Lennox & Associates Inc., 2026). It is anticipated that the 40-year canopy for the Site will exceed the City of Ottawa canopy coverage target of 40% (James B. Lennox & Associates Inc., 2026).



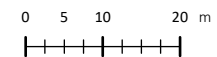


### Legend

- Site Boundary
- Tree
- 30 m Watercourse Setback
- Top of Bank



### Figure 7. Development Plan



Spatial Reference:  
PCS: WGS 1984 UTM Zone 18N  
Map Units: Meter

Project: JSSR 1965  
Map File Name: JSSR 1965  
Date Exported: 7/14/2026 1:57 PM



## 7.0 IMPACT ASSESSMENT AND MITIGATION

The following assessment of impacts is based on the proposed development compared to existing Site conditions as observed in 2026.

### 7.1 Surface Water

The proposed development of the main building footprint on the Site will adhere to a setback of 30 m from the top of bank of the Rideau River. The main structure will be situated outside the 30 m setback; however, minor encroachments and re-grading into the setback (average 1.5 m) of patio and balcony areas are anticipated. To effectively protect the Rideau River adjacent to the Site, an erosion and sediment control (ESC) plan will be required. The ESC plan should include:

- A multi-faceted approach to provide ESC.
- Silt fence paired with sturdy construction fence along the project perimeter. This fencing can also act as a wildlife exclusion measure for smaller and less mobile animals that may occupy or traverse along the shoreline habitats, such as amphibians, turtles, and snakes.
- Regularly inspecting and maintaining the ESC measures during all phases of the project. Inspections should take place once per week and after major storm events.
- Keeping the ESC measures in place until all disturbed ground has been permanently stabilized.
- Removing all exposed non-biodegradable ESC materials once the Site is stabilized.
- Limiting the duration of soil exposure and phasing project works.
- Limiting the size of disturbed areas by minimizing nonessential clearing and grading.
- Minimizing the total slope length and the gradient of disturbed areas.
- Refueling of machinery should occur >30 m from surface water features and all machinery will remain on the project-side of silt and construction fence.
- Storing/stockpiling materials >30 m away from surface water features.
- Ensuring stockpiled material (<150 millimetre gravel) is within a properly fenced area (e.g., silt fence and construction fence) during the turtle nesting period (late May to early July ) (MNR, 2015b).
- Regularly inspecting the Site for signs of sedimentation during all phases of work and taking corrective action if required.
- Developing a response plan to be implemented immediately in the event of a spill of a deleterious substance.
- Keeping an emergency spill kit on the Site.
- Stopping work and containing deleterious substances to prevent dispersal.
- Reporting any spills of sewage, oil, fuel, or other deleterious material whether near or directly into a surface water feature.



## 7.2 Vegetation/Trees

Vegetation situated in the interior portion of the Site (CVR\_1 unit), as well as trees along the west Site boundary (west TAGM5 unit) and along Riverdale Avenue will be cleared to allow for site grading and redevelopment (James B. Lennox & Associates Inc., 2026). No Black Ash or Butternut trees were observed on the Site. Trees along the north fencerow (TAGM5) and east portion of the Site (CVR\_1) will be retained (James B. Lennox & Associates Inc., 2026). Proposed project works are not anticipated to impact the forest community offsite to the east.

The following general protection measures are recommended during site preparation and construction to limit impacts to vegetation.

- Limit tree removal onsite to the greatest extent possible and only remove trees necessary to accommodate construction and development. Tree removal onsite can only be completed under a tree removal permit to be obtained from the City.
- Ensure equipment is clean prior to vegetation removal to avoid introducing invasive species to the Site, and clean equipment prior to leaving Site to avoid spreading the aforementioned invasive species elsewhere.

The following mitigation measures are recommended to minimize impacts on trees being retained on and adjacent to the Site:

- Erect a fence beyond the critical root zone (CRZ; i.e., 10x the diameter at breast height) of trees to be retained. The fence should be highly visible (orange construction fence) and paired with erosion control fencing. Pruning of branches is recommended in areas of potential conflict with construction equipment.
- Signage attached to the CRZ fence every 6.0 m indicating:
  - The fencing is to protect the tree's CRZ; and
  - The fence must not be permanently removed during construction.
- Do not raise or lower the existing grade within the CRZ of trees without approval.
  - If approval is granted, CRZ fencing may be temporarily removed to accommodate work but must be immediately reinstalled.
- Do not place any material or equipment within the CRZ of trees.
- Do not attach any signs, notices, or posters to any trees.
- Tunnel or bore when digging within the CRZ of a tree.
- Do not damage the root system, trunk, or branches of any remaining trees.
- Ensure that exhaust fumes from all equipment are not directed toward any tree's canopy.

The proposed works will adhere to the landscape plan provided by the Client (James B. Lennox & Associates Inc., 2026). All planting and design elements will be implemented in accordance with the landscape plan.



Trees planted in compensation on the Site must be non-invasive species and must be a minimum of 50 mm in diameter measured no less than 15 cm above ground level for deciduous trees, and no less than 30 cm in height as measured from the ground level to midway between the tip of the leader and the uppermost whorl.

### **7.3 Species at Risk**

A total of 48 species subject to protections as SAR under the SCA and/or SARA were initially considered to have a moderate to high potential to occur on the Site and/or interact with the Project (Table 9). No SAR were observed on the Site or were subsequently assessed as having a moderate or high potential to interact with future development. The Site and its surrounding area may provide suitable conditions for SAR bats and Monarch. The implementation of suitable mitigation measures (Sections 7.6) would minimize the risk of adverse impacts to SAR.

### **7.4 Significant Wildlife Habitat**

While adjacent portions of the Rideau River and its forested shoreline meet the criteria for candidate SWH for Turtle Wintering and Bald Eagle and Osprey Nesting, Foraging and Perching, the Site itself does not contain areas that meet the criteria for confirmed SWH. The proposed development is not anticipated to impact the adjacent shoreline areas and therefore, no impacts to candidate SWH are anticipated.

### **7.5 Other Natural Heritage Features**

The Site does not contain Significant Woodlands, significant wetlands, or Areas of Natural and Scientific Interest (ANSIs) (Ministry of Environment, Conservation and Parks, 2026). The Site itself does not contain Urban Natural Features (UNFs), Natural Heritage System Core Areas or Linkage Areas, or Urban Greenspace, as defined in the Official Plan (City of Ottawa, 2022a). The nearest designated Urban Greenspace is Windsor Park, approximately 250 m north of the Site. The nearest UNFs are UNF 137 (Rideau River Islands) and UNF 141 (Sawmill Creek Woods), approximately 240 m west and 300 m east of the Site, respectively.

As there are no natural heritage features directly on the Site, no development impacts on natural heritage features in the vicinity are anticipated.

### **7.6 General Wildlife Mitigation**

The following mitigation measures shall be implemented during future construction to generally protect wildlife, SAR, and potential SWH areas:

- Areas shall not be altered or cleared during sensitive times of year for wildlife unless mitigation measures are implemented and/or the habitat has been inspected by a qualified Biologist;
  - Clearing of trees and/or vegetation should not take place April 1 to November 30 inclusive unless a qualified Biologist has determined that no birds are nesting or suitable bat roosting trees are present. The bird nest sweep would be valid for five days:
    - The MBCA protects the nests and young of migratory breeding birds in Canada. The timing of nesting for birds in the area spans April 1 to August 31 (Government of Canada, 1994);



- The Site contains suitable foraging and day roosting habitat for bats. To eliminate and mitigate any possibility of impacts to at-risk bats directly, tree clearing is recommended to take place outside of the roosting season (April 1 to November 30 inclusive).
- In southern Canada, it is recommended that land management activities (e.g., mowing) be conducted when Monarch are absent from the region (generally October 5 to May 15) to avoid potential impacts to Monarchs at any life stage (Canadian Wildlife Federation, 2022).
- Temporary exclusion fence (e.g., silt fence) should be installed prior to the turtle active season (April through October) (MECP, 2021a) and should follow recommendations in Reptile and Amphibian Exclusion Fencing: Best Practices (MECP, 2021b). Temporary exclusion fence (e.g., silt fence) may be paired with ESC measures and should be installed along the perimeter of the project area.
- Develop an ESC plan. Install sediment control fence and inspect/maintain it weekly and after each rain event to ensure its integrity and continued function.
- Ensure that a qualified biologist develops a wildlife management plan for the construction process and delivers environmental compliance and biodiversity training to all site workers to implement the plan. The plan should include (but not be limited to) requirements to:
  - Utilize silt fence paired with sturdy construction fence along the project perimeter and around soil stockpiles to serve as a wildlife exclusion measure to prevent smaller animals from accessing/utilizing temporary habitats on the Site (e.g., prevent turtles from nesting in stockpiles on the Site);
  - Check the entire work site for wildlife prior to beginning work each day;
  - Do not harm, feed, or unnecessarily harass wildlife;
  - Manage waste to prevent attracting wildlife to the work site. Effective mitigation measures include litter prevention and keeping all trash secured in wildlife-proof containers and promptly removing it from the work site, especially during warm weather; and
  - Manage stockpiles and equipment at the work site to prevent wildlife from being attracted to artificial habitat. Cover and contain any piles of soil, fill, brush, rocks, and other loose materials and cap ends of pipes where necessary to keep wildlife out. Ensure that trailers, bins, boxes, and vacant buildings are secured at the end of each workday to prevent access by wildlife.

### **7.6.1 Bird-safe Design Guidelines**

It is recommended that, as best practice, the proposed building and associated landscaping follow the City of Ottawa Bird-Safe Design Guidelines (City of Ottawa, 2020). Specific bird-safe guidelines will be reviewed during subsequent stages of design.



## 8.0 CONCLUSION

This report provides a set of mitigation measures for employment in the design and construction of the proposed development. The assessment of the potential for impacts to the natural heritage system is based on the implementation of these mitigation measures. Based on our professional opinion, the proposed development is not expected to have negative impacts on existing natural features or ecological functions if the recommended mitigation measures provided in this report are implemented.

## 9.0 CLOSURE

This report was prepared for exclusive use by JSS Riverdale Ltd. and may be distributed only by JSS Riverdale Ltd. Questions relating to the data and interpretation can be addressed to the undersigned.

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## **Appendix A Qualifications of Report Authors**



**Kesia Miyashita, MSc**

Ms. Miyashita has over six years of experience in environmental consulting and more than ten seasons of field experience in ecosystems in Alberta and British Columbia. During her career in environmental consulting, Ms. Miyashita has completed environmental assessments for a variety of major infrastructure projects and urban developments. Her expertise is in vascular and non-vascular plant ecology, with experience in both terrestrial and wetland ecosystems; she has performed vegetation community inventories, rare plant surveys, and weed surveys in a variety of natural environments, including native forest, urban nature preserves, grasslands, and wetlands. Ms. Miyashita joined Kilgour & Associates Ltd. in May of 2021 and has since contributed to numerous Environmental Impact Study and tree conservation reports, delineation of natural heritage features and SAR surveys. Ms. Miyashita is a Professional Biologist with the Alberta Society of Professional Biologists and a Qualified Wetland Science Practitioner in the province of Alberta.

**Maren Nielsen, B.E.S., EMA**

Maren is a Senior Biologist and Project Manager with professional experience and expertise in terrestrial and aquatic ecology, natural heritage policy, and impact assessment. She has worked extensively in the environmental sector with government agencies and private industry, guiding land development, ecological restoration, Species at Risk, and fisheries permitting and approvals processes, delivering adaptive solutions and ensuring compliance with key environmental regulations. She carries out field programs for the collection, analysis, and monitoring of water, fish, benthos, sediment, and soils as well as a variety of vegetation, wetland, Species at Risk, and wildlife surveys, and construction monitoring.

Since joining Kilgour & Associates Ltd. in 2023, Maren has supported the delivery of high-quality assessments, including environmental impact studies, federal and municipal environmental assessments, Species at Risk assessments, headwater drainage feature assessments, community design plans and environmental constraints analyses. Maren is a certified wetland evaluator under the Ontario Wetland Evaluation System (OWES).



## **Appendix B Species at Risk Assessment**



| Species Name   | Taxonomic Name               | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site                        | General Habitat Requirements                                                                                                                                                                                                                                                                               | Site Suitability                                                                                                                                                                                | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
|----------------|------------------------------|-----------------|----------------------------|-----------------|--------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------|--------------------------------------------------------------------------|
|                |                              |                 |                            |                 |                          |                                                              |                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                 | Habitat                                       | Individuals |                                                                          |
| Birds          |                              |                 |                            |                 |                          |                                                              |                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                 |                                               |             |                                                                          |
| Bank Swallow   | <i>Riparia riparia</i>       | Threatened      | Not Listed                 | Threatened      | Threatened               | 100 m from Site in 2026 (Cornell Lab of Ornithology, 2023)   | Colonial nester, breeding in colonies ranging from several pairs to a few thousand (COSEWIC, 2013a).<br><br>Breeds in a variety of natural and artificial sites with vertical banks including lake bluffs, stream/river banks, sand and gravel pits, roadcuts, and human-made sand piles (COSEWIC, 2013a). | The Site itself does not provide suitable habitat; however, the banks of the Rideau River adjacent to the Site could provide suitable habitat and may facilitate transient activity on the Site | Low                                           | Low         | Low                                                                      |
| Barn Swallow   | <i>Hirundo rustica</i>       | Special Concern | Not Listed                 | Special Concern | Not Listed               | 100 m from Site in 2026 (Cornell Lab of Ornithology, 2023)   | Nests on barns and other structures. Forages in open areas for flying insects. Lives in close association with humans and prefers to nest on structures such as open barns, under bridges, and in culvert (COSEWIC, 2021a).                                                                                | Buildings on Site may provide suitable habitat                                                                                                                                                  | Low                                           | Low         | Low                                                                      |
| Black Tern     | <i>Chlidonias niger</i>      | Endangered      | Endangered                 | Not at Risk     | Not Listed               | 1.75 km from Site in 1973 (Cornell Lab of Ornithology, 2023) | Build floating nests in loose colonies in shallow marshes with abundant emergent vegetation, especially in cattails (COSSARO, 2024).                                                                                                                                                                       | The site does not provide suitable habitat                                                                                                                                                      | Negligible                                    | Negligible  | Negligible                                                               |
| Bobolink       | <i>Dolichonyx oryzivorus</i> | Threatened      | Not Listed                 | Special Concern | Threatened               | 2 km from Site in 2025 (Cornell Lab of Ornithology, 2023)    | Breeds in hayfields, pastures, alvars, agricultural fields, abandoned fields with tall grass that are ≥5 ha, and preferably >30 ha, and even sedge and grass meadows of marshes and bogs. Less common in dry shorter-grasslands, intensively grasses pastures, and alfalfa fields (COSEWIC, 2022a).        | The site does not provide suitable habitat                                                                                                                                                      | Negligible                                    | Negligible  | Negligible                                                               |
| Canada Warbler | <i>Cardellina canadensis</i> | Special Concern | Not Listed                 | Special Concern | Threatened               | 900 m from Site in 2025 (Cornell Lab of Ornithology, 2023)   | Prefers moist forests with dense shrub layers. Nests located on or near the ground on mossy logs or roots, along stream banks or on hummocks. Area-sensitive species that usually require a minimum of 30 ha of continuous forest for breeding habitat (COSEWIC, 2020c).                                   | The site does not provide suitable habitat                                                                                                                                                      | Negligible                                    | Negligible  | Negligible                                                               |



| Species Name           | Taxonomic Name               | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site                       | General Habitat Requirements                                                                                                                                                                                                                                                                                                                                                   | Site Suitability                                                                                 | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
|------------------------|------------------------------|-----------------|----------------------------|-----------------|--------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------|--------------------------------------------------------------------------|
|                        |                              |                 |                            |                 |                          |                                                             |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                  | Habitat                                       | Individuals |                                                                          |
| Cerulean Warbler       | <i>Setophaga cerulea</i>     | Threatened      | Not Listed                 | Endangered      | Endangered               | 2.2 km from Site in 1978 (Cornell Lab of Ornithology, 2023) | Prefers mature deciduous forests. Found in both wet bottomland forests and upland areas. Area-sensitive species that require large forests (>100 ha) (COSEWIC, 2010)                                                                                                                                                                                                           | The site does not provide suitable habitat                                                       | Negligible                                    | Negligible  | Negligible                                                               |
| Chimney Swift          | <i>Chaetura pelagica</i>     | Threatened      | Not Listed                 | Threatened      | Threatened               | 100 m from Site in 2026 (Cornell Lab of Ornithology, 2023)  | Nests in traditional-style open brick chimneys (and rarely in hollow trees). Associated with urban and rural areas where chimneys and similar structures are available. Tends to stay close to water (COSEWIC, 2018a).                                                                                                                                                         | Chimneys on buildings on and adjacent to the Site are capped and do not provide suitable habitat | Negligible                                    | Negligible  | Negligible                                                               |
| Common Nighthawk       | <i>Chordeiles minor</i>      | Special Concern | Not Listed                 | Special Concern | Special Concern          | 250 m from Site in 2024 (Cornell Lab of Ornithology, 2023)  | Nests in a wide variety of open sites, including beaches, fields, bogs, and gravel rooftops with little to no ground vegetation. They also nest in cultivated fields, orchards, urban parks, mine tailings and along gravel roads/railways, but tend to occupy more natural sites (COSEWIC, 2018b).                                                                            | Parks and landscaped areas on and adjacent to the Site may provide suitable habitat              | Moderate                                      | Moderate    | Moderate                                                                 |
| Eastern Meadowlark     | <i>Sturnella vulgaris</i>    | Threatened      | Not Listed                 | Threatened      | Threatened               | 2 km from Site in 2020 (Cornell Lab of Ornithology, 2023)   | Breeds in grasslands, hayfields, pastures, agricultural fields, and abandoned fields with tall grass that are ≥5 ha, and preferably >30 ha (COSEWIC, 2011).                                                                                                                                                                                                                    | The site does not provide suitable habitat                                                       | Negligible                                    | Negligible  | Negligible                                                               |
| Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | Special Concern | Not Listed                 | Special Concern | Threatened               | 2 km from Site in 2026 (Cornell Lab of Ornithology, 2023)   | Suitable breeding habitats generally include open and half treed areas and often exhibit a scattered distribution of treed and open space with little ground cover. Lays eggs directly on the forest floor. Roosts are typically located in forest habitat on a low branch or directly on the ground. Home range size varies from 20 to 500 ha (mean 136 ha) (COSEWIC, 2022b). | The Site does not provide suitable habitat                                                       | Negligible                                    | Negligible  | Negligible                                                               |
| Eastern Wood-pewee     | <i>Contopus virens</i>       | Special Concern | Not Listed                 | Special Concern | Special Concern          | 350 m from Site in 2025 (Cornell Lab of Ornithology, 2023)  | Woodland species often found in the mid-canopy layer near clearings and edges of intermediate age and mature deciduous and mixed forests with little understory (COSEWIC, 2012b).                                                                                                                                                                                              | Forested buffer between the Site and the Rideau River may provide suitable habitat and may       | Low                                           | Low         | Low                                                                      |



| Species Name          | Taxonomic Name                    | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site                       | General Habitat Requirements                                                                                                                                                                                                                                                                                                                            | Site Suitability                                                                                                                     | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
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|                       |                                   |                 |                            |                 |                          |                                                             |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                      | Habitat                                       | Individuals |                                                                          |
|                       |                                   |                 |                            |                 |                          |                                                             |                                                                                                                                                                                                                                                                                                                                                         | facilitate transient activity on the Site                                                                                            |                                               |             |                                                                          |
| Evening Grosbeak      | <i>Coccothraustes vespertinus</i> | Special Concern | Not Listed                 | Special Concern | Special Concern          | 100 m from Site in 2020 (Cornell Lab of Ornithology, 2023)  | Nests in trees or large shrubs. Prefers mature coniferous forests (fir and/or spruce dominated), but will also use deciduous forests, parklands, and orchards. Its abundance is strongly linked to the cycle of Spruce Budworm (COSEWIC, 2016b).                                                                                                        | Forested buffer between the Site and the Rideau River may provide suitable habitat and may facilitate transient activity on the Site | Low                                           | Low         | Low                                                                      |
| Golden Eagle          | <i>Aquila chrysaetos</i>          | Endangered      | Endangered                 | Not at Risk     | Not Listed               | 1.1 km from Site in 2026 (Cornell Lab of Ornithology, 2023) | Nests in remote, undisturbed areas, usually building their nests on ledges on a steep cliff/riverbank or large trees if needed. Most hunting is done near open areas such as large bogs or tundra. Migration only; no reported nests in Ottawa (COSSARO, 2022).                                                                                         | The site does not provide suitable habitat                                                                                           | Negligible                                    | Negligible  | Negligible                                                               |
| Golden-winged Warbler | <i>Vermivora chrysoptera</i>      | Special Concern | Not Listed                 | Threatened      | Threatened               | 2 km from Site in 2013 (Cornell Lab of Ornithology, 2023)   | Ground-nests in areas of young shrubs surrounded by mature forest. Often found in areas that have recently been disturbed such as field edges, hydro or utility right-of-ways, and logged areas. Requires >10 ha of habitat (COSEWIC, 2006).                                                                                                            | The site does not provide suitable habitat                                                                                           | Negligible                                    | Negligible  | Negligible                                                               |
| Grasshopper Sparrow   | <i>Ammodramus savannarum</i>      | Special Concern | Not Listed                 | Special Concern | Not Listed               | 2 km from Site in 2024 (Cornell Lab of Ornithology, 2023)   | Lives in large open grassland areas (> 5 ha) with well-drained sandy soil. Will also nest in hayfields and pastures, as well as alvars, prairies, and occasionally grain crops such as barley. It prefers areas that are sparsely vegetated, and its nests are well hidden in the field, woven from grasses in a small cup-like shape (COSEWIC, 2013b). | The site does not provide suitable habitat                                                                                           | Negligible                                    | Negligible  | Negligible                                                               |
| Horned Grebe          | <i>Podiceps auritus</i>           | Special Concern | Not Listed                 | Special Concern | Special Concern          | 100 m from Site in 2023 (Cornell Lab of Ornithology, 2023)  | Nest in small ponds, marshes, and shallow bays that contain areas of open water and emergent vegetation. Migrant only; no reported nests in Ottawa (COSEWIC, 2023b).                                                                                                                                                                                    | The site does not provide suitable habitat                                                                                           | Negligible                                    | Negligible  | Negligible                                                               |
| Hudsonian Godwit      | <i>Limosa haemastica</i>          | Threatened      | Threatened                 | Threatened      | Not Listed               | 1.75 km from Site in 2023                                   | They use a wide variety of habitats during migration, such as freshwater marshes, saline                                                                                                                                                                                                                                                                | The site does not provide suitable habitat                                                                                           | Negligible                                    | Negligible  | Negligible                                                               |



| Species Name                                                               | Taxonomic Name               | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site                        | General Habitat Requirements                                                                                                                                                                                                                                                  | Site Suitability                                                                   | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
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|                                                                            |                              |                 |                            |                 |                          |                                                              |                                                                                                                                                                                                                                                                               |                                                                                    | Habitat                                       | Individuals |                                                                          |
|                                                                            |                              |                 |                            |                 |                          | (Cornell Lab of Ornithology, 2023)                           | lakes, flooded fields, shallow ponds, coastal wetlands, and mudflats. Migrant only; breeds sub-Arctic wetlands (COSEWIC, 2019).                                                                                                                                               |                                                                                    |                                               |             |                                                                          |
| Least Bittern                                                              | <i>Botaurus exilis</i>       | Special Concern | Not Listed                 | Special Concern | Threatened               | 1.45 km from Site in 1982 (Cornell Lab of Ornithology, 2023) | Found in a variety of wetland habitats but strongly prefers cattail marshes with a mix of open pools and channels. They prefer larger marshes >5 ha in size and are intolerant of loss of habitat and human disturbance (COSEWIC, 2024).                                      | The site does not provide suitable habitat                                         | Negligible                                    | Negligible  | Negligible                                                               |
| Lesser Yellowlegs                                                          | <i>Tringa flavipes</i>       | Threatened      | Threatened                 | Threatened      | Not Listed               | 1.45 km from Site in 2026 (Cornell Lab of Ornithology, 2023) | Breeds in boreal wetlands. Nests on dry ground or forest openings near peatlands, marshes, and ponds in the boreal forest and taiga. Migrant only; nests in far north (COSEWIC, 2020a).                                                                                       | The site does not provide suitable habitat                                         | Negligible                                    | Negligible  | Negligible                                                               |
| Loggerhead Shrike                                                          | <i>Lanius ludovicianus</i>   | Endangered      | Not Listed                 | Not Listed      | Not Listed               | 3.6 km from Site in 1971 (Cornell Lab of Ornithology, 2023)  | Prefers grazed pastures or other grasslands with scattered low trees and shrubs, especially hawthorns. Lives in fields or alvars (areas of exposed bedrock) with short grass, which makes it easier to spot prey (COSSARO, 2014).                                             | The site does not provide suitable habitat                                         | Negligible                                    | Negligible  | Negligible                                                               |
| Olive-sided Flycatcher                                                     | <i>Contopus cooperi</i>      | Special Concern | Not Listed                 | Special Concern | Special Concern          | 2 km from Site in 2024 (Cornell Lab of Ornithology, 2023)    | Found along coniferous or mixed forest edges and openings. Will use forests that have been logged or burned if there are ample tall snags and trees to use for foraging perches, and mature stands with edges near wet areas such as rivers, bogs or swamps (COSEWIC, 2018d). | Forested buffer between the Site and the Rideau River may provide suitable habitat | Moderate                                      | Moderate    | Moderate                                                                 |
| Red Knot rufa Subspecies (Northeastern South America wintering population) | <i>Calidris canutus rufa</i> | Special Concern | Not Listed                 | Special Concern | Special Concern          | 2.6 km from Site in 1953 (Cornell Lab of Ornithology, 2023)  | Nests in barren habitat in the Arctic. On migration, they prefer open beaches, mudflats, and coastal lagoons where they feast on molluscs, crustaceans, and other invertebrates. Migrant only; nests in far north (COSEWIC, 2020b).                                           | The site does not provide suitable habitat                                         | Negligible                                    | Negligible  | Negligible                                                               |
| Red-headed Woodpecker                                                      | <i>Melanerpes</i>            | Endangered      | Not Listed                 | Endangered      | Endangered               | 3.1 km from Site in 1973 (Cornell                            | Lives in open woodland and woodland edges and is often found in a variety of treed habitat                                                                                                                                                                                    | Riparian habitat associated with the Rideau River adjacent                         | Low                                           | Moderate    | Moderate                                                                 |



| Species Name         | Taxonomic Name              | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site                       | General Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                            | Site Suitability                                                                                                                     | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
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|                      |                             |                 |                            |                 |                          |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                      | Habitat                                       | Individuals |                                                                          |
|                      | <i>erythrocephalus</i>      |                 |                            |                 |                          | Lab of Ornithology, 2023)                                   | such as parks, golf courses, cemeteries, riparian forests, wetlands, beaver ponds, and burned areas. These areas typically have many dead trees or snags, which the birds use for nesting and perching (COSEWIC, 2018e).                                                                                                                                                                                | to the Site may provide suitable habitat and may facilitate transient activity on the Site                                           |                                               |             |                                                                          |
| Red-necked Phalarope | <i>Phalaropus lobatus</i>   | Special Concern | Not Listed                 | Special Concern | Special Concern          | 3.3 km from Site in 2006 (Cornell Lab of Ornithology, 2023) | Lives in coastal and inland marshes where it feeds in shallow ponds and lakes, and nests on the grassy edges. Always near water during migration. Migrant only; breeds in sub-Arctic wetlands near freshwater ponds, lake, or streams (COSEWIC, 2014b).                                                                                                                                                 | The site does not provide suitable habitat                                                                                           | Negligible                                    | Negligible  | Negligible                                                               |
| Rusty Blackbird      | <i>Euphagus carolinus</i>   | Special Concern | Not Listed                 | Special Concern | Special Concern          | 150 m from Site in 2025 (Cornell Lab of Ornithology, 2023)  | Prefers wet wooded or shrubby areas. Nests at edges of boreal wetlands and coniferous forests. These areas include slow-moving streams, bogs, marshes, and beaver ponds. Primarily associated with wooded wetlands (COSEWIC, 2017).                                                                                                                                                                     | The site does not provide suitable habitat                                                                                           | Negligible                                    | Negligible  | Negligible                                                               |
| Short-eared Owl      | <i>Asio flammeus</i>        | Threatened      | Threatened                 | Threatened      | Special Concern          | 3 km from Site in 2025 (Cornell Lab of Ornithology, 2023)   | Prefer a mosaic of grasslands and wetlands. Lives in open areas such as grasslands, marshes, and tundra where it nests on the ground and hunts for small mammals. Breeds in open landscapes of at least 50-100 ha in area, and nest on the ground near clumps of tall vegetation. Roosts in conifers adjacent to open areas or on the ground in the shelter of tall grasses and forbs (COSEWIC, 2021b). | The site does not provide suitable habitat                                                                                           | Negligible                                    | Negligible  | Negligible                                                               |
| Wood Thrush          | <i>Hylocichla mustelina</i> | Special Concern | Not Listed                 | Threatened      | Threatened               | 100 m from Site in 2023 (Cornell Lab of Ornithology, 2023)  | Lives in mature deciduous and mixed forests. They seek moist stands of trees with well-developed undergrowth and tall trees for singing and perching. Prefers nesting in large forest mosaics but will also use fragmented forests. Usually build nests in Sugar Maple or                                                                                                                               | Forested buffer between the Site and the Rideau River may provide suitable habitat and may facilitate transient activity on the Site | Low                                           | Low         | Low                                                                      |



| Species Name                | Taxonomic Name                    | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site                       | General Habitat Requirements                                                                                                                                                                                                                                                                                                                                     | Site Suitability                                                                                                                                               | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
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|                             |                                   |                 |                            |                 |                          |                                                             |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                | Habitat                                       | Individuals |                                                                          |
|                             |                                   |                 |                            |                 |                          |                                                             | American Beech (COSEWIC, 2012d).                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                |                                               |             |                                                                          |
| Yellow Rail                 | <i>Coturnicops noveboracensis</i> | Special Concern | Not Listed                 | Special Concern | Special Concern          | 3.5 km from Site in 1985 (Cornell Lab of Ornithology, 2023) | Lives deep in the reeds, sedges, and marshes of shallow wetlands (generally 0-12 cm water depth), where they nest on the ground. The marshy areas used by Yellow Rails have an overlying dry mat of dead vegetation that is used to make roofs for nests. Can be found in damp fields and meadows and on the floodplains of rivers and streams (COSEWIC, 2023c). | The site does not provide suitable habitat                                                                                                                     | Negligible                                    | Negligible  | Negligible                                                               |
| <b>Mammals</b>              |                                   |                 |                            |                 |                          |                                                             |                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                |                                               |             |                                                                          |
| Eastern Red Bat             | <i>Lasiurus borealis</i>          | Endangered      | Endangered                 | Endangered      | Not Listed               | Humphrey & Fotherby (2019) – in region                      | During the day they roost in the foliage of trees and occasionally shrubs in deciduous and coniferous forests of any age class. Forage habitats include wetlands, open areas, and edge or gaps in habitats in forested landscape (COSEWIC, 2023a).                                                                                                               | Forested buffer between the Site and the Rideau River may provide suitable habitat. Trees on the Site may provide sites for day roosting and foraging habitat. | Low                                           | Low         | Low                                                                      |
| Eastern Small-footed Myotis | <i>Myotis leibii</i>              | Endangered      | Endangered                 | Not Listed      | Not Listed               | Humphrey (2017) – in region                                 | In the spring and summer, Eastern Small-footed Myotis will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. Overwinters in caves and abandoned mines (COSSARO, 2013).                                                                                            | Forested buffer between the Site and the Rideau River may provide suitable habitat. Trees on the Site may provide sites for day roosting and foraging habitat. | Low                                           | Low         | Low                                                                      |
| Hoary Bat                   | <i>Lasiurus cinereus</i>          | Endangered      | Endangered                 | Endangered      | Not Listed               | Humphrey & Fotherby (2019) – in region                      | Typically roost among foliage, selecting areas that have overhead foliage for cover and open flight space below. Use both deciduous and coniferous forests of any age class. Maternity roosts tend to be in large diameter, tall trees (COSEWIC, 2023a).                                                                                                         | Forested buffer between the Site and the Rideau River may provide suitable habitat. Trees on the Site may provide sites for day roosting and foraging habitat. | Low                                           | Low         | Low                                                                      |
| Little Brown Myotis         | <i>Myotis lucifugus</i>           | Endangered      | Endangered                 | Endangered      | Endangered               | Humphrey & Fotherby (2019) – in region                      | During the day they roost in trees and buildings. They often select attics, abandoned buildings, and barns for summer colonies where they can raise their young. They can squeeze through very tiny spaces (as small as six                                                                                                                                      | Forested buffer between the Site and the Rideau River may provide suitable habitat. Trees on the Site may provide sites                                        | Low                                           | Low         | Low                                                                      |



| Species Name      | Taxonomic Name                   | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site  | General Habitat Requirements                                                                                                                                                                                                                                                                                                               | Site Suitability                                                                                                                                               | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
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|                   |                                  |                 |                            |                 |                          |                                        |                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                | Habitat                                       | Individuals |                                                                          |
|                   |                                  |                 |                            |                 |                          |                                        | millimetres across) allowing them access to many different roosting areas (COSEWIC, 2013c).                                                                                                                                                                                                                                                | for day roosting and foraging habitat.                                                                                                                         |                                               |             |                                                                          |
| Northern Myotis   | <i>Myotis septentrionalis</i>    | Endangered      | Endangered                 | Endangered      | Endangered               | Humphrey & Fotherby (2019) – in region | Associated with deciduous and mixed forests, choosing to roost under loose bark and in the cavities of trees. They forage along and within forests as well as in hayfields and pastures adjacent to mixed forests (COSEWIC, 2013c).                                                                                                        | Forested buffer between the Site and the Rideau River may provide suitable habitat. Trees on the Site may provide sites for day roosting and foraging habitat. | Low                                           | Low         | Low                                                                      |
| Silver-haired Bat | <i>Lasionycteris noctivagans</i> | Endangered      | Endangered                 | Endangered      | Not Listed               | Humphrey & Fotherby (2019) – in region | Typically roost under bark and in tree cavities, typically in large, decaying coniferous and deciduous trees. May roost in or on buildings (COSEWIC, 2023a).                                                                                                                                                                               | Forested buffer between the Site and the Rideau River may provide suitable habitat. Trees on the Site may provide sites for day roosting and foraging habitat. | Low                                           | Low         | Low                                                                      |
| Tri-coloured Bat  | <i>Perimyotis subflavus</i>      | Endangered      | Endangered                 | Endangered      | Endangered               | Humphrey & Fotherby (2019) – in region | Roosts mainly in trees during summer; overwinters in caves and mines along with other species, but often uses deeper parts of the hibernaculum. Foraging occurs in forested riparian areas, over water, and within gaps in forest canopies (COSEWIC, 2013c).                                                                               | Forested buffer between the Site and the Rideau River may provide suitable habitat. Trees on the Site may provide sites for day roosting and foraging habitat. | Low                                           | Low         | Low                                                                      |
| <b>Reptiles</b>   |                                  |                 |                            |                 |                          |                                        |                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                |                                               |             |                                                                          |
| Blanding's Turtle | <i>Emydoidea blandingii</i>      | Threatened      | Threatened                 | Endangered      | Endangered               | < 5 km of Site (MNR, 2023a)            | 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. Females nest in a variety of substrates including sand, organic soil, gravel, cobblestone, and soil-filled crevices of rock outcrops (COSEWIC, 2016a). | The Rideau River adjacent to the Site may provide suitable habitat and may facilitate transient turtle use of the Site                                         | Low                                           | Low         | Low                                                                      |
| Eastern Milksnake | <i>Lampropeltis triangulum</i>   | Not Listed      | Not Listed                 | Special Concern | Special Concern          | < 5 km of Site (MNR, 2023a)            | Found in a variety of open and edge habitats, including meadows, rocky outcrops, and forest edges. They can also inhabit forests. Further, they are often associated with human-made structures such as barns,                                                                                                                             | Park and landscaped areas, forest edges, and buildings on and adjacent to the Site may provide suitable habitat.                                               | Moderate                                      | Moderate    | Moderate                                                                 |



| Species Name           | Taxonomic Name                   | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site | General Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                      | Site Suitability                                                                                                       | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
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|                        |                                  |                 |                            |                 |                          |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                        | Habitat                                       | Individuals |                                                                          |
|                        |                                  |                 |                            |                 |                          |                                       | sheds and houses in rural landscapes (COSEWIC, 2014a).                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                        |                                               |             |                                                                          |
| Eastern Musk Turtle    | <i>Sternotherus odoratus</i>     | Special Concern | Not Listed                 | Special Concern | Special Concern          | < 5 km of Site (MNRF, 2023a)          | Highly aquatic species found in littoral zones of lakes, ponds, rivers, bays, streams and swamps with slow to no current, have abundant emergent vegetation and muddy bottoms that they burrow into for winter hibernation (COSEWIC, 2012a).                                                                                                                                                                                                      | The Rideau River adjacent to the Site may provide suitable habitat and may facilitate transient turtle use of the Site | Low                                           | Low         | Low                                                                      |
| Midland Painted Turtle | <i>Chrysemys picta marginata</i> | Not Listed      | Not Listed                 | Special Concern | Special Concern          | < 5 km of Site (MNRF, 2023a)          | Inhabits slow moving, relatively shallow and well-vegetated wetlands (swamps, marshes, ponds, dens, bogs) and waterbodies that have a soft bottom and provide abundant basking sites and aquatic vegetation. Often bask on shorelines or on logs and rocks that protrude from the water. They are semi-tolerant of human-altered landscapes and may be found occupying urban ponds, impoundments and water treatment facilities (COSEWIC, 2018c). | The Rideau River adjacent to the Site may provide suitable habitat and may facilitate transient turtle use of the Site | Low                                           | Low         | Low                                                                      |
| Northern Map Turtle    | <i>Graptemys geographica</i>     | Special Concern | Not Listed                 | Special Concern | Special Concern          | < 5 km of Site (MNRF, 2023a)          | Lives in rivers and lakeshores where it basks on emergent rocks and fallen trees throughout the spring and summer. Prefers shallow, soft-bottomed aquatic habitat. In winter, they hibernate on the bottom of deep, slow-moving sections of river (COSEWIC, 2012c).                                                                                                                                                                               | The Rideau River adjacent to the Site may provide suitable habitat and may facilitate transient turtle use of the Site | Low                                           | Low         | Low                                                                      |
| Snapping Turtle        | <i>Chelydra serpentina</i>       | Special Concern | Not Listed                 | Special Concern | Special Concern          | < 5 km of Site (MNRF, 2023a)          | Spend most of their lives in the water. Prefer shallow slow-moving waters with a soft mud bottom and dense aquatic vegetation. They hide under the soft mud and leaf litter with only their noses exposed to the surface to breathe. Females generally nest on sand or gravel banks along waterways (COSEWIC, 2008).                                                                                                                              | The Rideau River adjacent to the Site may provide suitable habitat and may facilitate transient turtle use of the Site | Low                                           | Low         | Low                                                                      |
| <b>Arthropods</b>      |                                  |                 |                            |                 |                          |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                        |                                               |             |                                                                          |



| Species Name                                                       | Taxonomic Name                | COSSARO Status  | SCA Status (O. Reg. 60/26) | COSEWIC Status  | SARA Status (Schedule 1) | Closest Occurrence Record to the Site                               | General Habitat Requirements                                                                                                                                                                                                                                                                                       | Site Suitability                                                    | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
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|                                                                    |                               |                 |                            |                 |                          |                                                                     |                                                                                                                                                                                                                                                                                                                    |                                                                     | Habitat                                       | Individuals |                                                                          |
| American Bumble Bee                                                | <i>Bomus pensylvanicus</i>    | Special Concern | Not Listed                 | Special Concern | Special Concern          | < 5 km of Site (MNRF, 2023a)                                        | Habitat generalist. Requires a variety of habitat throughout its life stages. Often found in or adjacent to open fields and meadows, grasslands, farmlands, and other undisturbed open habitats (COSSARO, 2021a).                                                                                                  | The Site may provide suitable habitat                               | Moderate                                      | Moderate    | Moderate                                                                 |
| Monarch                                                            | <i>Danaus plexippus</i>       | Special Concern | Not Listed                 | Endangered      | Endangered               | < 10 of Site (Toronto Entomologists' Association, 2023)             | Milkweeds are the sole food plant for Monarch caterpillars. These plants predominantly grow in open and periodically disturbed habitats such as roadsides, fields, wetlands, prairies, and open forests (COSSARO, 2020).                                                                                           | If Milkweed is present on the Site, suitable habitat may be present | Moderate                                      | Moderate    | Moderate                                                                 |
| Yellow-banded Bumble Bee                                           | <i>Bombus terricola</i>       | Special Concern | Not Listed                 | Special Concern | Special Concern          | 580 m from Site in 2015 (Wildlife Preservation Canada et al., 2023) | This species is a forage and habitat generalist, able to use a variety of nectaring plants and environmental conditions. Can be found in mixed woodlands, particularly for nesting and overwintering, as well as a variety of open habitat such as native grasslands, farmlands, and urban areas (COSSARO, 2016c). | The Site may provide suitable habitat                               | Moderate                                      | Moderate    | Moderate                                                                 |
| <b>Fish</b>                                                        |                               |                 |                            |                 |                          |                                                                     |                                                                                                                                                                                                                                                                                                                    |                                                                     |                                               |             |                                                                          |
| Northern Sunfish (Great Lakes - Upper St. Lawrence population)     | <i>Lepomis microlophus</i>    | Special Concern | Not Listed                 | Special Concern | Special Concern          | 1 km from Site (DFO, 2023)                                          | Lives in shallow vegetated areas of quiet, slow flowing rivers and streams, as well as warm lakes and ponds with sandy banks or rocky bottoms (COSSARO, 2016b).                                                                                                                                                    | The Site does not provide suitable habitat                          | Negligible                                    | Negligible  | Negligible                                                               |
| Silver Lamprey (Great Lakes - Upper St. Lawrence River population) | <i>Ichthyomyzon unicuspis</i> | Special Concern | Not Listed                 | Special Concern | Special Concern          | 1 km from Site (DFO, 2023)                                          | Requires clear water where they can find fish hosts, relatively clean stream beds of sand and organic debris for larvae to live in, and unrestricted migration routes for spawning. Larvae live 4-7 years in burrows (prefer soft substrates); filter-feed on plankton (COSSARO, 2021b).                           | The Site does not provide suitable habitat                          | Negligible                                    | Negligible  | Negligible                                                               |
| <b>Vascular Plants</b>                                             |                               |                 |                            |                 |                          |                                                                     |                                                                                                                                                                                                                                                                                                                    |                                                                     |                                               |             |                                                                          |
| Butternut                                                          | <i>Juglans cinerea</i>        | Endangered      | Endangered                 | Endangered      | Endangered               | 100 m from Site (California Academy of Sciences a                   | Commonly found in riparian habitats but is also found on rich, moist, well-drained loams and well-drained gravels, especially those of limestone origin (COSSARO, 2017).                                                                                                                                           | The Site may provide suitable habitat                               | Moderate                                      | Moderate    | Moderate                                                                 |



| Species Name      | Taxonomic Name        | COSSA RO Status | SCA Status (O. Reg. 60/26) | COSEWIC Status | SARA Status (Schedule 1) | Closest Occurrence Record to the Site | General Habitat Requirements                                                                                                                                                                                                                                                                           | Site Suitability                                                                   | Potential for Protected Elements <sup>1</sup> |             | Potential for Negative Interactions with Protected Elements <sup>2</sup> |
|-------------------|-----------------------|-----------------|----------------------------|----------------|--------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------|-------------|--------------------------------------------------------------------------|
|                   |                       |                 |                            |                |                          |                                       |                                                                                                                                                                                                                                                                                                        |                                                                                    | Habitat                                       | Individuals |                                                                          |
|                   |                       |                 |                            |                |                          | nd National Geographic Society, 2023) |                                                                                                                                                                                                                                                                                                        |                                                                                    |                                               |             |                                                                          |
| <b>Lichens</b>    |                       |                 |                            |                |                          |                                       |                                                                                                                                                                                                                                                                                                        |                                                                                    |                                               |             |                                                                          |
| Black-foam Lichen | <i>Anzia colpodes</i> | Not Listed      | Not Listed                 | Threatened     | Threatened               | < 5 km of Site (MNR, 2023a)           | Grows on the trunks of mature deciduous trees growing on level or sloped land where high humidity is supplied by nearby wetlands, lakes, or streams. The most common host is Red Maple but it also occurs on White Ash, Sugar Maple, Red Oak, and very occasionally on other species (COSSARO, 2016a). | Forested buffer between the Site and the Rideau River may provide suitable habitat | Moderate                                      | Moderate    | Moderate                                                                 |

