Environmental Impact Study
37 Wildpine Court, Stittsville, Ottawa

Updated Report
Version 4

September 4, 2026

Submitted To:

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Version History

Version	Date	Description of revisions
1: Initial EIS	August 10, 2021	Original version
2: Updated EIS	April 4, 2024	Integrate revised site plan and updated TCR
3: Updated EIS	February 5, 2026	Integrate SAR feedback from MECP
4: Updated EIS	September 4, 2026	Integrate City comments and provide updated policy components (e.g., *Species Conservation Act* implications)

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List of Acronyms and Abbreviations

cm – centimetres
COSEWIC – Committee on the Status of Endangered Wildlife in Canada
DBH – Diameter at Breast Height
DFO – Department of Fisheries and Oceans (Fisheries and Oceans Canada)
ECCC – Environment and Climate Change Canada
e.g. – *exempli gratia*
EIS – Environmental Impact Statement
ELC – Ecological Land Classification
ESA – *Endangered Species Act*
ESC – Erosion and sediment control
FWCA – *Fish and Wildlife Conservation Act*
i.e. – *id est*
IGF – Information Gathering Form
GIS – Geographic Information System
ha – hectare
HDFA – Headwater Drainage Features Assessment
KAL – Kilgour & Associates Ltd.
km – kilometre
LIO – Land Information Ontario
m – metre
MBCA – *Migratory Birds Convention Act*
MECP – Ministry of Environment, Conservation and Parks
Mississippi Valley Conservation Authority - MVCA
MNR – Ministry of Natural Resources
MNRF – Ministry of Natural Resources and Forestry
NHIC – Natural Heritage Information Centre
NHRM – Natural Heritage Reference Manual
PPS – Provincial Policy Statement
SAR – Species at risk
SARA – *Species at Risk Act*
SARO – Species at Risk in Ontario
SCA – Species Conservation Act
SWH – Significant Wildlife Habitat
SWM – Stormwater Management
TCR – Tree Conservation Report

1.0 INTRODUCTION

This Environmental Impact Study (EIS) was prepared by Kilgour & Associates Ltd. (KAL; Appendix A) on behalf of Wildpine Trails Inc. in support of their proposed residential development at 37 Wildpine Court in Stittsville, Ottawa (herein "the Site"; Figure 1). This Version 4 report provides further updates to the EIS completed on February 5, 2026, which was largely based on prior EIS versions. This Version 4 update addresses 1) comments received during the City of Ottawa's review; 2) an updated stormwater infrastructure design for the Site; and 3) an updated policy context (i.e., implications from the recent implementation of the *Species Conservation Act*). Updated sections are indicated in red text.

The Site is approximately 2 hectares (ha) in size and under the 2026 Zoning By-law is currently zoned as Neighbourhood Zone 3 (N3B) and Neighbourhood Zone 4 (N4B) and is therefore intended for residential development. An Open Space Facility Zone (FAC) is present near the rear of the Site. At the time of writing this report, the Site was dominated by wooded areas including portions of the Stittsville Wetland Complex (not a provincially significant wetland). It also contained open lawn space, a paved cul de sac, a single detached home with a separate garage and shed, a small portion of Poole Creek, and regulated floodplain of Poole Creek.

The Site is surrounded by:

- A shopping plaza, a stormwater management pond, and the Stittsville Wetland Complex to the north.
- Poole Creek and the Stittsville Wetland Complex to the east.
- Residential properties on Wildpine Court to the south.
- Residential properties on Ravenscroft Court to the west.

In the City of Ottawa (hereafter referred to as "the City"), an EIS is required when development or site alteration is proposed in or adjacent to natural heritage features (City of Ottawa, 2015a). The purposes of this EIS are to identify 1) natural heritage features on or adjacent to the Site, 2) potential impacts of the proposed development to those features, and 3) mitigation measures to minimize or eliminate those impacts.

Legend

- Property Boundary
- Proposed Property Line

Figure 1. Site context

0 37.5 75 150 m

N W E S

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

Project: HEAFEY 989.5
Map File Name: HEAFEY 989.5
Date Exported: 8/14/2026 12:47 PM

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2.0 ENVIRONMENTAL POLICY CONTEXT

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

2.1 The Provincial Policy/ Planning Statement, 2020/2024

The Provincial *Policy* Statement (PPS) under which this project was initiated was issued under Section 3 of the *Planning Act* (Government of Ontario, 2020) and came into effect May 1, 2020 (Government of Ontario, 2020). Natural features are afforded protection under the PPS including 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) unless it can be demonstrated that there will be no negative effects on the features and ecological functions of those natural areas. The PPS also calls for the restriction of development and site alteration on sensitive surface water features. 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 (NHRM; Ministry of Natural Resources (MNR, 2010)).

Subsequently, the Province approved the updated Provincial *Planning* Statement 2024 OMMAH, 2024; herein also "PPS"), which came into effect on October 20, 2024. As such, the 2024 edition is the relevant planning document going forward. While the revised PPS is intended to simplify and integrate existing policies to achieve housing objectives while providing tools for municipalities to deliver on housing objectives, the portions of the document related to Natural Heritage considerations have only been renumbered; they have not otherwise been meaningfully changed. Therefore, the revision of the PPS does not impose any relevant changes with respect to Natural Heritage considerations from a policy perspective; for the purposes of this EIS, both PPS documents are effectively equivalent.

2.2 City of Ottawa Official Plan

The City of Ottawa Official Plan (2021) provides direction for future growth in the City and is a policy framework to guide physical development to 2031. The Official Plan (OP) was developed in accordance with the PPS (and relevant provincial legislation). The City of Ottawa reviews development applications within its boundaries, which must be in accordance with the OP.

2.3 *Species at Risk Act*, 2002

The federal *Species at Risk Act*, 2002 (SARA) 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 SARA is to prevent populations of wildlife from becoming Extirpated, Endangered, or Threatened, provide recovery strategies for Endangered and Threatened species, and to 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*, 1994 and listed as Endangered, Threatened, or Extirpated under Schedule 1 of SARA are protected wherever they occur in Canada, regardless of land ownership.

2.4 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 replaced the previous *Endangered Species Act* (ESA; Government of Ontario, 2007) as of March 26, 2026. 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.
- 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.

2.5 *Fisheries Act*, 1985

The federal *Fisheries Act,* 1985 is administered by Fisheries and Oceans Canada (DFO) and provides protections to fish, fish habitat, and fisheries. Specifically, the *Fisheries Act* provides:

- Protection for all fish and fish habitat.
- Prohibition against the "harmful alteration, disruption or destruction of fish habitat".
- Prohibition against causing "the death of fish by means other than fishing".

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

2.6 *Migratory Birds Convention Act*, 1994

The *Migratory Birds Convention Act*, 1994 (MBCA) is legislation administered by ECCC that provides protection for migratory birds listed under the Act. The disturbance, destruction, take, and killing of

migratory birds, their eggs, and their nests are prohibited under the Act. The "incidental take" and work 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) is prohibited.

2.7 *Fish and Wildlife Conservation Act,* 1997

The provincial *Fish and Wildlife Conservation Act*, 1997 (FWCA) 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 of specially protected species and the requirement for provincially issued licenses for the hunting or trapping of "fur-bearing" or "game" animals.

2.8 *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, 1990). 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 MVCA.

Bill 23, the *More Homes Built Faster Act*, which was passed on November 28, 2022, 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.

3.0 METHODS

3.1 Desktop and Background Data Review

3.1.1 Agency Consultation

The Site is located within the jurisdictions of the Kemptville District of the MECP and Mississippi Valley Conservation Authority (MVCA). A request for confirmation of SAR potential related to the Site was submitted to the MECP. The MECP response did not indicate a potential for any SAR beyond those already considered in this report.

The proponent has engaged in ongoing consultation with MVCA regarding surface water features on the Site. KAL attended an on-site meeting with MVCA on June 23, 2020, to review natural heritage features on the Site and to confirm the boundaries of the wetland on the Site. The City has also been involved in discussions regarding setbacks from Poole Creek.

The proposed development will not impact Poole Creek and therefore no Request for Review was submitted to DFO for this project. Existing fish habitat information was utilized to complete this EIS.

3.1.2 Records Review

Colour digital aerial photographs from geoOttawa (City of Ottawa, 2020a) and Google Earth Pro (Google LLC, 2026) were used to initially identify natural environment features in the area through a desktop review. Additional background information in this report was obtained from a combination of studies and reports performed within the general area of the Site to review relevant information and to guide field studies. The review of existing information also included a desktop assessment of species listed under SARA and the ESA having some potential to occur in the broader area. Existing information was obtained from online sources, which include but are not limited to:

- Natural Heritage Information Centre (NHIC; MNRF, 2020a)
- Land Information Ontario Provincially Tracked Species Grid Detail (MNRF, 2020b)
- Species at Risk in Ontario (SARO) List (MECP, 2019a)
- Species at Risk Public Registry (Government of Canada, 2020)
- Aquatic Species at Risk Map (DFO, 2019)
- Atlas of the Breeding Birds of Ontario 2001-2005 (Bird Studies Canada et al., 2009)
- Herp Atlas (Ontario Nature, 2019)
- Atlas of the Mammals of Ontario (AMO; Dobbyn, 1994)
- Bat Conservation International Species Profiles (BCI, 2016)
- MVCA Regulation Public Mapping Browser (MVCA, 2020)
- Official Plan Schedules (City of Ottawa, 2003)
- Soils of the Regional Municipality of Ottawa-Carleton (Marshall et al., 1987)

3.2 Field Studies

Detailed field studies were performed throughout the spring and summer of 2020 to document existing ecological conditions of the Site (Table 1). Additional studies were undertaken in 2023 and 2026.

Table 1 Summary of field visits, 2020-2026

Date	Purpose	Average Weather Conditions
2020-05-05	• Anuran survey #1	8°C, 5% cloud cover, no precipitation, wind: 1-2 on Beaufort scale[1]
2020-05-21	• Anuran survey #2	18-20°C, 0-10% cloud cover, no precipitation, wind: 0 on Beaufort scale

Date	Purpose	Average Weather Conditions
2020-05-22	• Delineation of top of bank of Poole Creek • Wetland boundary delineation • HDFA[2] survey #1 • Bat habitat suitability assessment and identification of suitable maternity roost trees	N/A
2020-06-03	• Bird survey #1 • Wetland boundary delineation (continued) • Vegetation survey #1 • HDFA survey #2	13°C, 90-100% cloud cover, no precipitation, wind: 1 on the Beaufort scale
2020-06-12	• Install bat acoustic monitors	N/A
2020-06-19	• Bird survey #2 • Tree inventory • Butternut health assessment • Anuran survey #3	24°C, 0-10% cloud cover, no precipitation, wind: 1-2 on Beaufort scale
2020-06-23	• Confirm wetland boundaries with MVCA	N/A
2020-06-25	• Uninstall bat acoustic monitors	N/A
2020-07-15	• Vegetation survey #2 • HDFA survey #3	N/A
2023-11-24	• Tree Survey Update	N/A
2026-07-30	• Tree Survey Update (boundary trees)	N/A

Table Notes: [1] The Beaufort Wind Force Scale is an empirical measure that relates wind speed to observed conditions at sea or land. The scale is as follows: **0**: calm, smoke rises vertically, wind speed <1km/hr; **1**: light air, smoke drift indicates wind direction, leaves and wind vanes are stationary, wind speed = 1.1-5.5km/hr; **2**: light breeze, wind felt on exposed skin, leaves rustle, wind vanes begin to move, wind speed = 5.6-11km/hr, **3**: gentle breeze, leaves and small twigs constantly moving, light flags extended, wind speed = 12-19km/hr.
[2]HDFA = Headwater Drainage Features Assessment

3.2.1 Surface Water Features

3.2.1.1 Headwater Drainage Features Assessment / Wetland Delineation

A Headwater Drainage Features Assessment (HDFA) was completed for the Site following the "Standard" survey type (Toronto and Region Conservation Authority and Credit Valley Conservation (TRCA and CVC), 2014; Appendix B). This included surveying for surface water features on and adjacent to the Site during the spring, delineating the boundaries of the wetland on the Site, and characterizing surface water levels in the wetland during the spring and summer. The boundaries of the portion of the wetland that falls on the Site were delineated following techniques used in the Ontario Wetland Evaluation System (OWES;

MNR, 2014a) to determine where appropriate setbacks for the wetland may fall. Preliminary wetland boundaries on the Site were determined via desktop using aerial imagery and topographic mapping and confirmed in the field based on plant species composition and soils.

An assessment of fish habitat was not performed for Poole Creek since the creek is known to contain a variety of fish species (e.g., MVCA, Rideau Valley Conservation Authority (RVCA), & South Nation Conservation Authority (SNC), 2019; MVCA, 2009).

3.2.1.2 Poole Creek Delineation

The top of bank of Poole Creek adjacent to the Site (i.e. the western bank of Poole Creek along the eastern edge of the Site) was delineated in the field to determine where appropriate setbacks for the creek may fall (City of Ottawa, 2008). The top of bank in this study was defined as "*the maximum point to which water can rise within the channel before spilling across the adjacent land"* (City of Ottawa, 2020b). For the portion of Poole Creek that was investigated for this study, the top of bank corresponded with the normal high-water mark, which is defined as "*a visible demarcation mark made by the action of water under natural conditions on the bank of a body of water which action has been so common and usual and so long continued or that it has created a difference between the character of the vegetation or soil on one side of the mark and the character of the vegetation or soil on the other side of the mark"* (MNRF, 2019). The top of bank/normal high-water mark was delineated in the field using a handheld GPS.

3.2.2 Vegetation

3.2.2.1 Ecological Land Classification

Vegetation communities on the Site were documented using standard Ecological Land Classification (ELC) methods for southern Ontario (Lee et al., 1998). ELC provides a consistent approach to identify, describe, name, and map vegetation communities or physiographic features on the landscape based on plant species and soil composition. This method results in a standardized description of each vegetation community to determine the natural diversity and variability of communities within a site, and to provide insight into available habitat and the type of species that may be present. More specifically, the classifications from ELC provide a basis for determining whether potential habitat for a given SAR or other ecological value (e.g., Significant Wildlife Habitat) may be present. Where possible, communities were mapped to the most detailed ELC level of "vegetation type". In some cases, where a suitable "vegetation type" did not exist, or mapping to this level did not provide a great deal of additional or appropriate information, communities are described using the higher ELC level of "ecosite".

Desktop reviews of available aerial imagery (Google Earth Pro; City of Ottawa, 2020a) and preliminary field visits informed how the Site may be divided into vegetation communities based on variation in land cover, topography, and vegetation structure. The dominant plant species were recorded within each proposed ecosite in the field to further divide ecosites into vegetation types (the finest resolution in ELC), where possible. Soil samples were taken using a 120 cm long soil auger to characterize community substrates. Representative photos of each ELC unit on Site were taken and are included with the community descriptions in this report.

3.2.2.2 Vascular Plant Survey

During the visits to each vegetation community in 2020, a detailed vegetation survey of vascular plants was developed. Where identification was uncertain, specimens were collected and identified later using

conventional taxonomic literature and detailed examination as required. Species and communities of significance (i.e. federal, provincial, or regional) were determined using accepted status lists and publications, including the federal Species at Risk Public Registry (Government of Canada, 2020), the SARO list (MECP, 2019a), NHIC (MNRF, 2020), and *Appendix A – Vascular Plants of the City of Ottawa, with the Identification of Significant Species* (Brunton, 2005).

3.2.2.3 Tree Inventory

A detailed tree inventory was performed for the entire Site following TCR guidelines (Appendix C; City of Ottawa, 2018a):

- Clusters and hedgerows of trees of the same species were demarcated as such. The number of individuals within a cluster/hedgerow was counted and the size range in diameter at breast height (DBH) of trees within a cluster/hedgerow was determined.
    - "Distinctive" trees (i.e. those with DBH ≥ 50 cm), uncommon species, and protected species that occurred within a cluster or hedgerow were individually mapped and not counted in the aggregate metrics for the cluster/hedgerow.
- All other trees (i.e. not in clusters or hedgerows of all the same species) with DBH ≥ 10 cm were individually mapped.
- Butternut (*Juglans cinerea*) trees (listed as Endangered under the SCA and SARA) that fell within 50 m of the proposed development footprint were assessed by a qualified Butternut Health Assessor[1].

3.2.3 Birds

Breeding bird surveys were performed via point count surveys following the *Ontario Breeding Bird Atlas Guide for Participants* (Bird Studies Canada et al., 2001). Breeding bird surveys are to be completed from survey stations that, combined, provide suitable viewing of all habitats on a site on calm weather days with light wind (less than 3 on the Beaufort scale) and no precipitation.

Breeding bird surveys must take place between sunrise and five hours after sunrise between May 24 and July 10, with a minimum of 15 days between survey dates (Bird Studies Canada et al., 2001). This protocol calls for two surveys per year during the breeding bird window. The two rounds of surveys were conducted from three survey stations (BBS-1 through BBS-3; Figure 2).

The designation of regionally rare bird species based on "Hill's Site Regions" (now ecoregions; Cadman et al., 1987).

[1] For most activities that would involve killing or harming a Butternut, eligibility for an exemption under Ontario Regulation 242/08 under the ESA is dependent on the category to which a tree is assigned following a Butternut health assessment and the details of the proposed activity (e.g., the number of trees to be affected; MNR, 2014b).

Figure 2 Locations of breeding bird and anuran survey stations and bat acoustic monitors

Legend

Property Lines

Wildlife Survey Stations

- Anurans
- Bats
- Birds

N

0 50 m

Map File: 37 Wildpine5
MTM Zone 9
(NAD 83)
Printed on: 2020-12-18

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3.2.4 Amphibians

Aural amphibian surveys were performed following the Marsh Monitoring Program (Bird Studies Canada et al., 2008). This protocol calls for multiple survey stations at a site to capture spatial and habitat variability. Amphibian surveys were performed from two stations (MMP-1 and MMP-2; Figure 2). The Marsh Monitoring Program advises that each station be visited a minimum of three times at night, no less than 15 days apart, during the spring and early summer.

Following this protocol, the timing of the three frog surveys is based on nighttime air temperature:

- Early breeders (Wood Frog, Western Chorus Frog, Spring Peeper): above 5°C.
- Mid-season breeders (Mink Frog, American Toad, Gray Treefrog): above 10°C.
- Late breeders (Green Frog, Bullfrog): above 17°C.

Amphibian surveys began one half hour after sunset and ended before 01:00 am on evenings with appropriate temperatures and light winds.

Any incidental observations of amphibians were recorded during other Site visits. Rocks, fallen wood, and other debris were turned over to check for salamanders throughout the field campaign.

3.2.5 Reptiles

Specific surveys to confirm the presence/absence of turtles on and adjacent to the Site were not conducted since the Stittsville Wetland Complex is known to provide habitat for at-risk turtles based on previous work completed in the vicinity (KAL, 2017).

Incidental observations of reptiles on Site were recorded. Rocks, fallen wood, and other debris on Site were turned over to check for snakes during field visits. Potential basking sites and/or hibernacula for snakes were also noted.

3.2.6 Bats and Other Mammals

Bat surveys were conducted following the *Survey Protocol for Species at Risk Bats within Treed Habitats* (MNRF, 2017a). This is currently the recommended protocol for confirming the presence/absence of bat species where it is determined that potentially suitable habitat for the establishment of maternity roosts is present.

Following MNRF (2017a), KAL undertook a preliminary bat habitat suitability assessment and survey to identify suitable maternity roost trees (i.e. trees with dead/dying leaf clusters; trees with cracks, crevices, hollows, cavities, and/or loose or naturally exfoliating bark). Two acoustic monitors (AM-N and AM-S; Figure 2) were installed on Site in locations that would maximize the probability of detecting bats based on the presence of suitable maternity roost trees, the presence of nearby open foraging areas, and the echolocating behaviour of bats (Figure 2). Bats use echolocation more frequently in cluttered environments (Falk et al., 2014), so installing monitors along the edges of treed areas containing suitable maternity roost trees rather than in the middle of treed areas likely increased bat detectability. The monitors were placed just outside of the cluttered environment as the distinguishability of call among

species diminishes within such locations (National Park Service, 2016). Acoustic monitors were set to commence recordings at dusk and continue for five hours from June 12 until June 24, 2020.

Incidental observations of other mammals were collected during field visits. Mammal observations were limited to sightings of scat, tracks, dens, and in some cases, direct observations.

4.0 DESCRIPTION OF THE SITE AND THE NATURAL ENVIRONMENT

4.1 Landforms, Soils, and Geology

The Site is primarily flat around the existing house, lawn, and cul de sac area, with a decline in elevation towards the floodplain of Poole Creek and the Stittsville Wetland Complex. This elevational change is mostly gradual but is relatively steep in some places where greater amounts of fill were previously added along the edges of the wetland.

Soil mapping shows the Site is predominantly underlain by organic soils of the Huntley association with 160 cm or more of moderately well-decomposed forest peat over loamy or sandy material. Soils of the Huntley association have poor to very poor drainage. The Goulbourn association is also a significant soil land type unit on the Site, with similar soils to those of the Huntley association (40-160 cm of moderately to well-decomposed forest peat over loamy or sandy material; poor to very poor drainage; Marshall et al., 1987).

4.2 Surface Water Features

The only surface water features identified on the Site are Poole Creek and the Stittsville Wetland Complex (Appendix B).

4.2.1 Wetland Delineation

The boundaries of the portion of the wetland that falls on the Site were determined through field and desktop methods and in consultation with MVCA (Figure 3). The boundaries of the wetland were clear in the field based on the transition between wetland and upland vegetation and elevational change. The upland edge of the wetland also contained a considerable amount of fill (which has since naturalized with vegetation) that divided the wetland from upland areas. The fill that was historically placed over central portions of the Site forms a raised, relatively-flat tableland with its leading edge extending roughly from the northwestern to southeastern corners of the property. From the edge of the tableland, the fill slopes down to the edge of the wetland on the Site over a span of approximately 12 m (the built-up slope has a maximum width of 15 m). The total wetland area on the Site is approximately 0.6 ha and consists of several types of wetland: meadow marsh, cattail marsh, deciduous thicket (tall shrub) swamp, mixed swamp, and deciduous swamp.

Figure 3 Delineation of wetland and Poole Creek

Legend

Property Lines

Aquatic Habitat

Poole Creek

Wetland Boundary

N

0 50 m

Map File: 37 Wildpine6
MTM Zone 9
(NAD 83)
Printed on: 2020-12-21

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4.2.2 Poole Creek Delineation

The top of bank/normal high-water mark of Poole Creek was mapped in the field within 30 m of the eastern property line (Figure 3). Further than 30 m from the Site, Poole Creek is presented based on City of Ottawa (2020a) data.

4.3 Vegetation

4.3.1 Ecological Land Classification

Ten distinct landcover units (i.e. ELC ecosites, vegetation types, or other) were delineated on the Site (Figure 5). Five of these units are terrestrial communities and five are wetland communities. Each unit and the dominant vegetation therein is described in detail below.

4.3.1.1 Terrestrial Communities

Fresh – Moist Bitternut Hickory Deciduous Forest Type (FODM9-5)

The FODM9-5 vegetation type makes up the wooded area in the northwestern portion of the Site (Figure 5). It is lower lying than the open lawn and residential area of the Site and is located upland of the adjacent wetland. It is dominated by Bitternut Hickory (*Carya cordiformis*) followed by American Elm (*Ulmus americana*) and Black Ash (*Fraxinus nigra*; Figure 5). The understory is dominated by Glossy Buckthorn (*Rhamnus frangula*). Groundcover here includes Glossy Buckthorn saplings, Ostrich Fern (*Matteuccia struthiopteris*), and Sensitive Fern (*Onoclea sensibilis*).

Figure 4 Fresh – Moist Bitternut Hickory Deciduous Forest Type (FODM9-5)

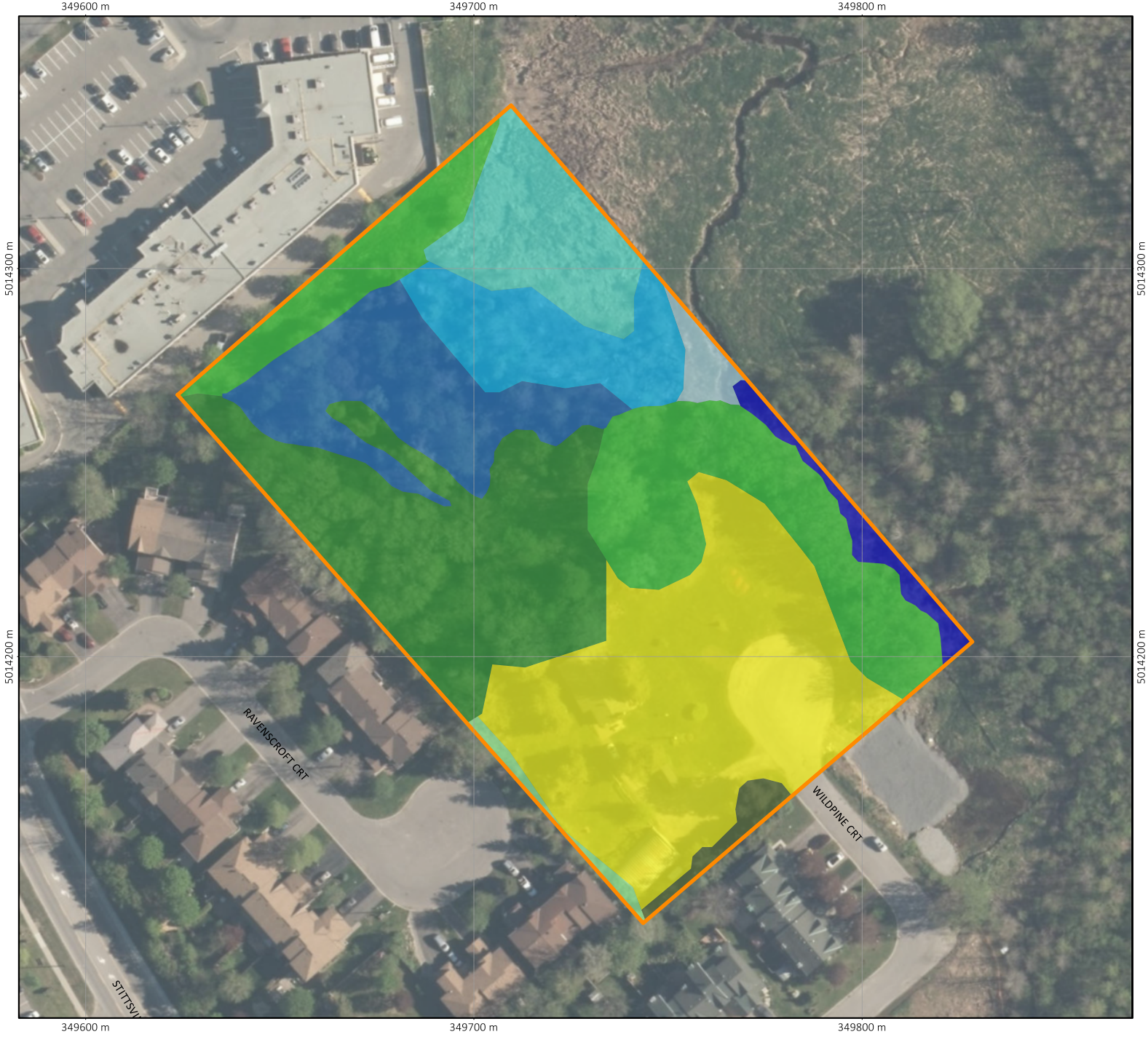

Figure 5 Ecological Land Classificationfor the Site

Legend

Property Lines

ELC

- FODM11
- FODM4-5
- FODM9-5
- Cedar Hedge
- Lawn
- MASO1-4
- MAS3-1
- SWT3-2
- SWM4-1
- SWD6

N

0 50 m

Map File: 37 Wildpine5
MTM Zone 9
(NAD 83)
Printed on: 2020-12-18

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Dry – Fresh Manitoba Maple Deciduous Forest Type (FODM4-5)

This vegetation type is located adjacent to the riparian corridor of Poole Creek on the eastern edge of the Site and slightly extends west at the interface of the open lawn/residential area of the Site and the wetland (Figure 5. The FODM4-5 community also occurs along the northwestern edge of the Site. These locations are dominated by Manitoba Maple (*Acer negundo;* Figure 6). The understory is relatively open and in most places is primarily composed of Glossy Buckthorn. Ground cover is dominated by non-native and/or invasive species such as Bull Thistle (*Cirsium vulgare*), Common Burdock (*Arctium minus*), Dame's Rocket (*Hesperis matronalis*), Garlic Mustard (*Alliaria petiolata*), and Wormseed Mustard (*Erysimum cheiranthoides*). These communities are heavily disturbed, with the FODM4-5 community near Poole Creek effectively demarcating the location of fill that was previously added along the edge of the wetland on the Site (Figure 7). The FODM4-5 community on the northwestern edge of the Site is directly south of the plaza northwest of the Site and has several signs of disturbance such as informal footpaths and trash.

Figure 6 Dry – Fresh Manitoba Maple Deciduous Forest Type (FODM4-5) from a distance

Figure 7 Fill along the edge of the wetland in the southeastern corner of the Site within the FODM4-5 community

Naturalized Deciduous Hedgerow Ecosite (FODM11)

There is a hedgerow along the southwestern edge of the Site, west of the open lawn/residential area, that is dominated by Manitoba Maple and includes Eastern White Cedar (*Thuja occidentalis*), Glossy Buckthorn, and Tartarian Honeysuckle (*Lonicera tatarica*; Figure 5; Figure 8).

Figure 8 Naturalized Deciduous Hedgerow Ecosite (FODM11)

Open Lawn/Residential Area

This ELC unit is used to describe the area on the Site with open manicured lawn, a paved cul de sac, and a single detached home with a separate garage and shed (Figure 5; Figure 9). There are flower gardens around the house with garden cultivar escapees along the edges of adjacent ELC units. Around the house and shed there are mature trees and shrubs in low density.

Figure 9 Open lawn/residential area

Cedar Hedge

There is a hedgerow dominated by Eastern White Cedar in the southern corner of the Site along the driveway near the shed and the house (Figure 5; Figure 10).

Figure 10 Cedar hedge next to the driveway

4.3.1.2 Wetland Communities

Maple Organic Deciduous Swamp Ecosite (SWD6)

The SWD6 ecosite makes up the treed corridor of Poole Creek along the eastern edge of the Site (Figure 5). Note that SWD6 is typically used to describe organic swamps dominated by Red Maple (*Acer rubrum*), Silver Maple (*Acer saccharinum*), and/or Freeman's Maple (*Acer freemanii*), but this swamp is dominated by Manitoba Maple followed by Crack Willow (*Salix fragilis*; Figure 11). The dominant shrub species is Speckled Alder (*Alnus incana*) and ground cover is dominated by Spotted Jewelweed (*Impatiens capensis*).

Figure 11 Maple Organic Deciduous Swamp Ecosite (SWD6)

Cattail Organic Shallow Marsh Type (MAS3-1)

The northeastern corner of the Site consists of the MAS3-1 community and is dominated by a near-homogenous cover of Broad-leaved Cattail (*Typha latifolia*; Figure 5; Figure 12).

Figure 12 Cattail Organic Shallow Marsh Type (MAS3-1)

Reed Canary Grass Organic Shallow Marsh Type (MASO1-4)

The riparian corridor of Poole Creek north of the SWD6 ecosite on the Site consists of meadow marsh dominated by Reed Canary Grass (*Phalaris arundinacea*; Figure 5; Figure 13).

Figure 13 Reed Canary Grass Organic Shallow Marsh Type (MASO1-4)

Willow Organic Thicket Swamp Type (SWT3-2)

Southwest of the MAS3-1 community is a thicket (tall shrub) swamp dominated by Peachleaf Willow (*Salix amygdaloides*) followed by Glossy Buckthorn (Figure 5; Figure 14).

Figure 14 Willow Organic Thicket Swamp Type (SWT3-2)

White Cedar – Hardwood Organic Mixed Swamp Type (SWM4-1)

The northwestern to southeastern edge of the wetland on the Site is a treed swamp co-dominated by Black Ash, Eastern White Cedar, and Manitoba Maple (Figure 5; Figure 15). The understory is dominated by Glossy Buckthorn and the ground cover is dominated by Spotted Jewelweed.

Figure 15 White Cedar – Hardwood Organic Mixed Swamp Type

4.3.2 Vascular Plant Inventory

A comprehensive list of vascular plants encountered on the Site was compiled (Appendix D). A summary of vascular plant species of federal, provincial, and regional significance and those that are uncommon in Ottawa were identified (Table 2).

Table 2 Summary of federally, provincially, and regionally significant vascular plant species found on the Site

Federally Significant Species	Butternut (*Juglans cinerea*)
Provincially Significant Species	Butternut (*Juglans cinerea*)
Regionally Significant Species	Black Knapweed (*Centaurea nigra*), Chives (*Allium schoenoprasum*), Field Mustard (*Brassica rapa*), Field Thistle (*Cirsium discolor*), Garden Phlox (*Phlox paniculata*), Siberian Elm (*Ulmus pumila*), White Oak (*Quercus alba*)
Uncommon Species	Great Burdock (*Arctium lappa*), False Sunflower (*Heliopsis helianthoides*), Dame's Rocket (*Hesperis matronalis*), Field Peppergrass (*Lepidium campestre*), White Cockle (*Silene latifolia*), Crown Vetch (*Coronilla varia*), Lily-of-the-valley (*Convallaria majalis*), Black Raspberry (*Rubus occidentalis*), Peachleaf willow (*Salix amygdaloides*), Kidney-leaved Violet (*Viola renifolia*)

The vascular plant species significance was determined based on the following:

- Species of federal significance are those listed on the Species at Risk Public Registry (Government of Canada, 2020).
- Species of provincial significance are those listed on the SARO list (MECP, 2019a; updated to the Protected Species in Ontario List; MECP 2026) or are tracked on NHIC (MNRF, 2020a).
- Regionally significant species are those designated by Brunton (2005), which are known from 10 or fewer contemporary populations (post-1969) in Ottawa. This includes “rare” (five or fewer populations) and “sparse” (six to 10 populations) categories employed by Gillet and White (1978) and Brunton (1998).
- Uncommon species are those designated by Brunton (2005) and are found only occasionally within suitable habitat, often in small numbers. The habitat of uncommon species is often geographically limited.

4.3.3 Tree Inventory

A Tree Conservation Report was produced for the Site in 2020 (and updated in 2023) and includes a comprehensive tree inventory and determination of the fate of trees on the Site (Appendix C). In general, 197 trees with DBH ≥ 10 cm were identified on the Site, with the most dominant species being Manitoba Maple, Eastern White Cedar, and Bitternut Hickory. The City defines “distinctive” trees as those with a DBH ≥ 50 cm (City of Ottawa, 2018a); the Site has 11 distinctive trees.

4.4 Wildlife

4.4.1 Birds

A total of 26 bird species were observed on the Site (Table 3). One SAR was observed: Eastern Wood-pewee (*Contopus virens*; Special Concern under ESA and SARA). No regionally rare bird species (Cadman et al., 1987) were observed.

Table 3 Summary of bird observations for the Site

Common Name	Scientific Name	Station(s) Observed	Date(s) Observed (2020)
American Crow	*Corvus brachyrhynchos*	BBS-1, BBS-3	June 3
American Goldfinch	*Spinus tristis*	BBS-1, BBS-2, BBS-3	June 3, June 19
American Redstart	*Setophaga ruticilla*	BBS-3	June 19
American Robin	*Turdus migratorius*	BBS-1, BBS-2, BBS-3	May 20 (inc.)[1], May 22 (inc.), June 3, June 19
American Tree Sparrow	*Spizella arborea*	BBS-1	June 19
Black-capped Chickadee	*Poecile atricapillus*	BBS-2	June 19
Canada Goose	*Branta canadensis*	BBS-1	May 20 (inc.)
Common Grackle	*Quiscalus quiscula*	BBS-1, BBS-2, BBS-3	June 3, June 18
Common Raven	*Corvus corax*	BBS-3	June 19
Common Yellowthroat	*Geothlypis trichas*	BBS-1, BBS-2, BBS-3	June 3, June 19
Eastern Wood-pewee	*Contopus virens*	BBS-3	May 22 (inc.), June 3
European Starling	*Sturnus vulgaris*	BBS-2, BBS-3	June 19
Gray Catbird	*Dumetella carolinensis*	BBS-1, BBS-3	May 20 (inc.), June 3, June 19
House Finch	*Haemorhous mexicanus*	BBS-2, BBS-3	June 19
Mallard	*Anas platyrhynchos*	BBS-1	June 3
Mourning Dove	*Zenaida macroura*	BBS-1, BBS-3	June 3, June 19
Northern Cardinal	*Cardinalis cardinalis*	BBS-3	June 3, June 19
Red-eyed Vireo	*Vireo olivaceus*	BBS-1, BBS-3	June 19
Red-winged Blackbird	*Agelaius phoeniceus*	BBS-1, BBS-2, BBS-3	May 20 (inc.[1]), May 22 (inc.), June 3, June 19
Ring-billed Gull	*Larus delawarensis*	BBS-1, BBS-3	May 20 (inc.), June 3, June 19
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	BBS-3	June 19
Scarlet Tanager	*Piranga olivacea*	N/A	May 22 (inc.)
Song Sparrow	*Melospiza melodia*	BBS-1, BBS-2, BBS-3	May 20 (inc.), June 3, June 19
Swamp Sparrow	*Melospiza georgiana*	BBS-1	June 3
Warbling Vireo	*Vireo gilvus*	BBS-2, BBS-3	June 3, June 19
Yellow Warbler	*Setophaga petechia*	BBS-2	May 22 (inc.), June 3, June 19

Table Notes: [1]Incidental observation made outside of breeding bird surveys.

4.4.2 Amphibians

No anurans were observed during evening aural surveys or during other visits to the Site. No salamanders were incidentally observed.

4.4.3 Reptiles

Specific surveys for reptiles were not conducted. An Eastern Gartersnake (*Thamnophis sirtalis sirtalis*) was incidentally observed on the Site on May 22, 2020.

4.4.4 Bats and Other Mammals

Three species of bats were recorded on the two acoustic monitors installed on the Site (Table 4). The majority of recorded echolocations were made by Silver-haired Bats (*Lasionycteris noctivagans*). Big Brown Bats (*Eptesicus fuscus*) and Hoary Bats (*Lasiurus cinereus*) were also recorded. Hoary Bat and Silver-haired Bat are listed as Endangered under the SCA.

Table 4 Summary of results of bat acoustic monitoring for the Site

Date	Big Brown Bat		Hoary Bat		Silver-haired Bat	
Monitor	AM-N	AM-S	AM-N	AM-S	AM-N	AM-S
2020/06/12						
2020/06/13			1		3	
2020/06/14						1
2020/06/15	1	2	1	1	5	4
2020/06/16	1				11	5
2020/06/17	2	2	2	4	55	6
2020/06/18	3	3	3	8	16	10
2020/06/19	4		5	4	4	5
2020/06/20			4	2	20	2
2020/06/21		1	1		10	8
2020/06/22			3	2	29	1
2020/06/23			5		19	10
2020/06/24			6		27	4
2020/06/25			2		1	3
Sum	**11**	**8**	**33**	**21**	**200**	**59**
	19		**54**		**259**	

In addition to the acoustic data, two bats were seen foraging over the open lawn area on the Site on the evening of May 20, 2020.

4.5 Species at Risk

The potential for SAR to interact with the proposed development of the Site was assessed based on our review of existing information, ELC communities (habitat classification), and field surveys (Appendix E).

Species assessed as having a moderate to high potential to interact with the proposed development are considered further in the discussion (Table 5).

Table 5 Summary of species at risk assessed as having a moderate to high potential to interact with the proposed development

Species Name (*Taxonomic Name*)	Status under SCA	Status under Schedule 1 of SARA	Potential to Interact with Development of the Site
Birds			
Barn Swallow (*Hirundo rustica*)	No Status	Threatened	Moderate
Eastern Wood-pewee (*Contopus virens*)	No Status	Special Concern	High
Rusty Blackbird (*Euphagus carolinus*)	No Status	Special Concern	Moderate
Wood Thrush (*Hylocichla mustelina*)	No Status	Threatened	Moderate
Reptiles			
Blanding's Turtle (*Emydoidea blandingii*)	Threatened	Endangered	High
Eastern Milksnake (*Lampropeltis triangulum*)	No Status	Special Concern	Moderate
Snapping Turtle (*Chelydra serpentina*)	No Status	Special Concern	Moderate
Mammals			
Eastern Red Bat (*Lasiurus borealis*)	Endangered	Not Listed	Moderate
Eastern Small-footed Myotis (*Myotis leibii*)	Endangered	Not Listed	Moderate
Hoary Bat (*Lasiurus cinereus*)	Endangered	Not Listed	High
Little Brown Myotis (*Myotis lucifugus*)	Endangered	Endangered	Moderate
Northern Myotis (*Myotis septentrionalis*)	Endangered	Endangered	Moderate
Silver-haired Bat (*Lasionycteris noctivagans*)	Endangered	Not Listed	High
Tri-colored Bat (*Perimyotis subflavus*)	Endangered	Endangered	Moderate
Arthropods			
Monarch (Danaus *plexippus*)	Special Concern	Special Concern	Moderate
Vascular Plants			

Species Name (*Taxonomic Name*)	Status under SCA	Status under Schedule 1 of SARA	Potential to Interact with Development of the Site
Butternut (*Juglans cinerea*)	Endangered	Endangered	High
Black Ash (*Fraxinus nigra*)	Endangered	Not Listed	High

4.5.1 At-risk Birds

Barn Swallow, Rusty Blackbird, and Wood Thrush were not observed during 2020 field surveys but were still assessed as having a moderate potential to interact with the proposed development due to previous observation records of the species in the general area and the presence of potentially suitable habitat on the Site. An Eastern Wood-pewee was observed in the FODM9-5 community in 2020 (

Figure 16). The species is therefore considered to have a high potential to interact with the proposed development. None of these species, however, receive individual or habitat protections under the SCA. These bird species are subject to protection under the MBCA, which offers protection for individuals, their young, and their nests, as it does for most other bird species observed on the Site.

4.5.2 At-risk Reptiles

The Stittsville Wetland Complex was previously identified as suitable Blanding's Turtle habitat based on the occurrence of a Blanding's Turtle observation within 2 km of the feature (KAL, 2017). Blanding's Turtle inhabit shallow water, usually in large wetlands or shallow lakes. They can be found far from water bodies if searching for mates or nesting sites, which usually contain gravel, cobble, and/or sand (COSEWIC, 2005). The Stittsville Wetland Complex and Poole Creek may provide suitable habitat for Blanding's Turtle.

The Site and its adjacent areas may provide suitable habitat for Milksnake and Snapping Turtle. These species were not detected during field studies, but observation records exist for both species in the general area. Neither species receives individual or habitat protection under the SCA; however, Snapping Turtle does receive protection as a Specially Protected Reptile under the FWCA.

4.5.3 At-risk Bats

Seven species of bats are listed as SAR under the SCA. Two species were detected on the Site through acoustic monitoring, the Hoary Bat and Silver-haired Bat.

Roosting habitat for SAR bats includes buildings, rock crevices, exfoliating tree bark, foliage, and cavities and crevices in trees (Humphrey, 2017; Humphrey & Fotherby, 2019). These species generally forage over clearings adjacent to forests and over water. Treed units on the Site (i.e., FODM9-5, FODM4-5, FODM11, SWD6, SWT3-2, SWM4-1) may provide roosting 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.

Figure 16 Observations of species at risk on the Site

Legend

Property Lines

Species at Risk

Butternut

Eastern Wood-pewee

N

0 50 m

Map File: 37 Wildpine5
MTM Zone 9
(NAD 83)
Printed on: 2020-12-18

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4.5.4 At-risk Insects

Monarch 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., *Symphyotrichum* spp., *Virgulus* spp.), Purple Loosestrife (*Lythrum salicaria*), and clovers (*Trifolium* spp. and *Melilotus* spp.). This species was not observed incidentally on the Site, and no milkweed plants were documented during vegetation surveys.

4.5.5 At-risk Trees

Three Butternut trees were found on the Site (Figure 16). Two of these Butternuts were dead, and are thus not protected under the SCA. One Butternut was originally assessed in 2020 as a Category 3 tree. It was reassessed as part of the boundary tree survey on July 30, 2026 and was determined to be Category 2 (Appendix F). Under the SCA, the protected "habitat" of Butternut is identified as the critical root zone, calculated as an approximately 16 m radial distance surrounding the main stem (i.e., 18 x a conservative maximum DBH at maturity of 91 cm). Proposed works within the CRZ of a Category 2 or 3 individual would require registration under the SCA.

Nine Black Ash trees were identified along the eastern edge and in the northeast corner of the Site. Black Ash was formally subject to protection under the ESA as of January 2024. Under the SCA, the protected "habitat" of the Black Ash is identified as the critical root zone, calculated as an approximately 9 m radial distance surrounding the main stem (i.e., 18 x a conservative maximum DBH at maturity of 50 cm). Proposed works within the CRZ of a healthy individual would require registration under the SCA.

4.6 Other Significant Natural Heritage Features

The Site is not mapped as containing a Natural Heritage System on Schedule L3 of the City's Official Plan (2003). It is identified as containing floodplain associated with Poole Creek. As indicated throughout this report, the Site contains a portion of the Stittsville Wetland Complex which is not a provincially significant wetland. The Site does not contain Significant Woodland based on the City's guidelines for identification (2018b) and the NHRM (MNR, 2010). The Site does not contain Significant Valleylands, Earth/Life Science Areas of Natural and Scientific Interest, or important greenspace linkages.

4.6.1 Significant Wildlife Habitat

Based on the Significant Wildlife Habitat (SWH) Criteria Schedules for Ecoregion 6E (MNRF, 2015b), the Site meets the criteria for confirmed SWH for one type: Habitat for Special Concern and Rare Wildlife Species. This SWH is associated with the observation of Eastern Wood-pewee in the FODM9-5 community on the Site. The area of the SWH is the area of habitat to the finest ELC scale (MNRF, 2015b); therefore, the FODM9-5 community is the SWH.

The FODM11, FODM4-5, FODM9-5, SWM4-1, SWD6 and SWT3-6 communities are candidate SWH for Bat Maternity Colonies because they are treed communities in which more than 10 Big Brown Bats and five adult female Silver-Haired Bats may occur (MNRF, 2015b). Big Brown Bats and Silver-Haired Bats were detected on the Site via acoustic monitoring, but quantity and sex cannot be discerned from the acoustic

data. It is possible that SWH for Bat Maternity Colonies exists on the Site but this cannot be confirmed with the acoustic data that were collected.

Note that even though SWH is defined on a provincial level by MNRF, the protection of confirmed SWHs is a municipal matter.

5.0 DESCRIPTION OF THE PROPOSED PROJECT

The original site plan for the property included 29 townhomes. The roadway system for the development proposed provided an extension of Wildpine Court to connect with Ravenscroft Court in the adjacent residential area. The revised site plan still connects Wildpine Court to Ravenscroft Court, though the street alignment shifts somewhat (Figure 17). The updated distribution of residential units comprises a single, four-storey apartment building with 94 units, a small parking area (15 spaces), and two semi-detached homes in the southwest corner of the property.

The overall development footprint of the community is generally unchanged from the initial site plan. As previously, the developed area will respect a setback of 15 m from the adjacent Stittsville Wetland Complex on the north side of the parcel. For the setback from the top of bank of Poole Creek, the previous site plan had provided 30 m, except for the rear lot lines of four units to be located at the southeast corner of the Site. Those four units had required their rear lot lines to extend up to 2 m beyond the 30 m setback to permit the minimal supportable yard depth. As the revised site plan includes only open space in that area, the reduction in setback from the top of bank is no longer required; a 30 m setback will be fully respected. The 2 m reduction under the previous plan had been justified as it removed the existing paved edge of the cul-de-sac there. The paved area will still be removed under the new plan and the soil there will be restored and reseeded.

The updated conceptual stormwater management (SWM) servicing for the Site directs stormwater in two general directions. Firstly, the SWM solution for the apartment block consists of rooftop control and two bioretention swales. The apartment block drainage system will drain the land above the extended portion of the underground garage structure. The two bioretention swales, together with the storage on the roof of the building, will provide sufficient storage and infiltration to control flows to pre-development release rates from the Site and mimic the pre-development water balance. The bioretention swales are located within the setback limits of the Site.

Secondly, SWM for the public right-of-way and residential semi-detached units fronting the right-of-way will use the existing storm sewer on Wildpine Court. Storage will be provided by means of a superpipe in the rear yard of the residential site, which will discharge to the public storm sewer. To mitigate the impact of the increased flows on the hydraulic grade line, the downstream sewer is recommended for upsizing to a 400 mm diameter PVC sewer which will provide additional capacity for the increased flows.

Additional details for the SWP are provided in Section 6.1.

Legend

- Property Boundary
- Proposed Property Line
- Landscaped Area (grass)
- SWM Pond
- Road

Tree Fate

- Retained - Impacted
- Retained - Not Impacted
- Critical Root Zone
- Silt Fence

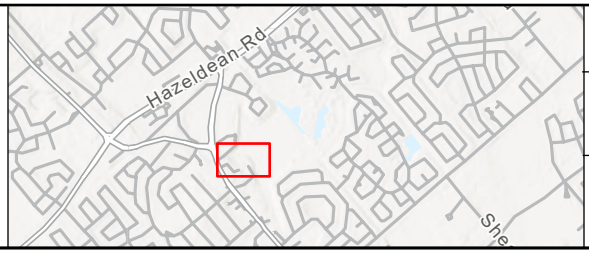

Figure 17. Proposed development and tree fate

0 12.5 25 50 m

N W E S

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

Project: HEAFEY 989.5
Map File Name: HEAFEY 989.5
Date Exported: 9/8/2026 2:55 PM

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6.0 IMPACT ASSESSMENT

6.1 Surface Water Features

The development plan fully respects City of Ottawa setback requirements for Poole Creek. A portion of the development is proposed within 30 m of the adjacent wetland feature (i.e. within the MVCA's regulatory limit), which will require formal permission from MVCA. Development within that regulatory limit, however, will be setback at least 15 m from the wetland and will be situated upon the tableland created by existing fill within areas already highly disturbed and degraded. The residential development with the proposed setbacks from the wetland and the top of bank of Poole Creek is unlikely to alter the hydrology, riparian functions, or terrestrial or aquatic habitat functions of the Stittsville Wetland Complex and Poole Creek.

The SWM mitigation measures have been proposed to approximate predevelopment runoff to the wetland and maintain infiltration rates for groundwater to the wetland. The SWM design directs storm runoff in two directions; to Poole Creek and the wetland and to the municipal storm sewer system in Wildpine Court.

Runoff from Block 2 of the apartment development, including the land above the extended portion of the underground garage structure, will discharge to Poole Creek and the wetland via a storm servicing and SWM system consisting of a storm sewer conveyance system, storage on the roof of the apartment building, a stormwater storage pipe system, and two bioretention swales. The bioretention swales are designed with a 450 mm deep surface storage basin and overflow level spreaders, underlain by filter sand and clearstone storage layers to promote both water quality treatment and infiltration. The west bioretention swale along the wetland side of the Site is 60 m long and conveys treated runoff toward the adjacent wetland, while the east bioretention swale is 30 m long and outlets to Poole Creek. Both facilities will be located more than 15 m from the wetland and more than 30 m from Poole Creek, respecting setback requirements.

Runoff for the public right-of-way (Street 1) and residential semi-detached units (Block 3) fronting the right-of-way will use the existing storm sewer on Wildpine Court. Stormwater storage for excess flow will be provided within the Block 3 rear-yard drainage system, with controlled discharge to the municipal storm sewer. Roadway catch basins will be equipped with inlet control devices (ICDs) to regulate inflows to the storm sewer network and promote temporary surface storage within the roadway sag during larger storm events. To accommodate the additional runoff generated by the development and maintain acceptable hydraulic performance within the existing Wildpine storm sewer system, it is proposed to upsize the existing outlet pipe to to a 400 mm diameter PVC sewer which will provide additional capacity for the increased flows.

Together, the proposed Storm servicing and SWM system will provide sufficient storage, treatment, and infiltration capacity to control post-development runoff rates to pre-development conditions while satisfying water balance objectives.

6.2 Vegetation and Trees

The proposed development footprint is effectively unchanged from the previous site plan. All vegetation within the proposed development footprint would still be removed, including 42 trees with DBH ≥ 10 cm.

ELC communities that would be impacted include: the FODM9-5 and FODM4-5 forest communities (with 0.2 ha of treed space to be removed from the edge of these communities), the FODM11 and cedar hedgerows in the southwestern corner of the Site, and the open lawn area.

The original specification for a minimum of 29 new trees (i.e. one tree per lot), is considered the minimum level of planting to be included in the site landscape plan; further tree planting through the open space is recommended. Protection measures as described within the EIS for retained trees remain appropriate.

6.3 Species at Risk

6.3.1 At-risk Birds

The proposed development would involve removing the house, shed, and garage on the Site which have potential to provide nesting habitat for Barn Swallow. As no individuals were observed during the 2020 field season, no impacts are currently anticipated to the species under the proposed development plan. Under the SCA, this species does not receive direct individual or habitat protections; as such, no SAR-specific mitigation measures are required.

The FODM9-5 community (and adjacent forested areas) provides habitat for Eastern Wood-pewee (Special Concern under SARA) and meets the criteria for confirmed SWH for Special Concern and Rare Wildlife Species. Approximately 0.2 ha of the contiguously forested area on the Site (i.e. forest and swamp communities not including hedgerows) will be removed under the proposed development. This would leave approximately 0.9 ha of forested habitat which is sufficient to support a nesting pair of Eastern Wood-pewees (Freemark, 1999). This species and the associated SWH are not protected under the SCA. No significant impacts to Eastern Wood-pewee are anticipated.

6.3.2 At-risk Reptiles

The Stittsville Wetland Complex and Poole Creek may provide suitable habitat for Blanding's Turtle. All of the proposed development areas on the Site, however, are situated within the raised fill area, outside the wetland and creek. These areas are not considered to be functionally supportive of turtle life processes (e.g. feeding, mating, thermoregulation, etc.; MECP 2019b). The proposed development zone also directly abuts existing areas of development on the south and west sides. As such, it is unlikely to provide corridor functionality for access to other wetlands. The proposed development is not anticipated to negatively impact the ability of the wetland area on and/or adjacent to the Site to support Blanding's Turtles.

Blanding's Turtles and/or other at-risk reptiles that may be present in the Stittsville Wetland Complex have the potential to be harmed during site preparation and construction if they are able to access the Site. The potential for Site access by such fauna either during or following construction, however, can be mitigated through the appropriate use of exclusion measures (e.g. fencing).

6.3.3 At-risk Bats

Potential impacts to individual at-risk bats directly can be mitigated by clearing trees outside of the roosting season (April 1 to November 30, inclusive, (MECP, personal communication, 2026)). Following this tree clearing window would also avoid potential interactions with birds and bird nests protected under the MBCA.

Two species of SAR bats were detected on the Site. Due to the potential for the Site to provide maternity roosting habitat, it is recommended the Client confirm the requirement for a registration under the SCA prior to clearing the Site to address potential loss of bat maternity roosting habitat.

6.3.4 At Risk Trees

The reassessed Category 2 Butternut is situated outside the proposed development area; however, its critical root zone (CRZ) extends by a maximum of 8.6 m onto the Site. Proposed stormwater components are anticipated to encroach into the CRZ of this Butternut.

Black Ash trees onsite are all located more than 30 m from proposed construction works and/or structural elements within the site plan. As such, no negative impacts are anticipated to Black Ash trees.

Restorative tree planting within the wetland area outside of the CRZ of Black Ash or Butternuts would not negatively impact those trees.

6.4 Other Significant Natural Heritage Features

In addition to impacting SWH for Special Concern and Rare Wildlife Species (Eastern Wood-pewee), the proposed development would impact candidate SWH for Bat Maternity Colonies because it requires the removal of some or all trees from the following treed ELC communities: FODM11, FODM4-5, FODM9-5, SWM4-1, and SWD6.

7.0 MITIGATION MEASURES

7.1 Surface Water Features

The project must implement City- and MVCA-approved setbacks from Poole Creek and the wetland, respectively, and fulfill any obligations that may be associated with a permit from MVCA to alter areas within 30 m of the wetland. The project must be carefully designed to ensure that surface water flows do not alter water temperature, quality, and quantity within Poole Creek.

Minor increases in overland hydration of the wetland are anticipated. The concern with such increases would typically be for possible changes (i.e. losses) of tree structure within a wetland feature with mature trees potentially succumbing to water levels to which they are unaccustomed. Tree/canopy structure within the wetland, however, has been already significantly altered/reduced in recent years by the combined effects of EAB, which decimated mature Green Ash within the swamp, and severe blowdown during the 2021 derecho event to mature trees of the remaining species. The prerogative to fully maintain hydrological conditions to support the now previously existing tree community is thus considered somewhat moot. It is the recommendation of this EIS instead that the replacement of lost trees is of greater importance to the overall health of the wetland. Replanting efforts within the swamp (discussed in Section 7.2 below) must consider species appropriate for the (potentially) slightly wetter conditions.

The project will require standard erosion and sediment control (ESC) measures to protect the Stittsville Wetland Complex and Poole Creek. The ESC plan must be developed to the satisfaction of the City and MVCA and should include:

- A multi-faceted approach to provide ESC.

- Silt fence paired with sturdy construction fence along the project perimeter.
- Retention of existing vegetation and stabilization of exposed soils with vegetation where possible.
- 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 the wetland and Poole Creek and all machinery will remain on the project-side of silt and construction fence.
- Maintaining overland sheet flow and avoiding concentrated flows.
- Storing/stockpiling materials >30 m away from the wetland and Poole Creek.

The proponent must also develop and provide a Homeowner Awareness Manual to residents to encourage responsible stewardship and appreciation for adjacent natural heritage features.

7.2 Vegetation / Trees

7.2.1 Construction-Phase Tree Protection

To effectively minimize the impacts on the site trees, the following mitigation measures must be applied during site preparation and construction (City of Ottawa, 2018a; City of Ottawa, 2015):

- Tree removal should be limited to that which is necessary to accommodate construction.
    - Trees that occur on the property boundary or on adjacent lands will be retained to the extent possible.
- Tree and vegetation clearing should not take place during sensitive times of the year for wildlife (see Section 7.4 below).
- To minimize impacts to remaining trees during development:
    - Erect a fence beyond the critical root zone (CRZ; equivalent to ten times the diameter of the trunk) of retained trees that have roots that may extend into the project area. The fence should be highly visible (orange construction fence) and paired with erosion and sediment control fencing. Pruning of branches is recommended in areas of potential conflict with construction equipment;
    - Do not place any material or equipment within the CRZ of trees unless otherwise approved;
    - Do not attach any signs, notices, or posters to any trees unless otherwise approved;

- Do not raise or lower the existing grade within the CRZ of trees unless otherwise approved;
- Do not extend any hard surface or significantly change landscaping within the CRZ of trees unless otherwise approved;
- Do not damage the root system, trunk, or branches of any remaining trees unless otherwise approved;
- Ensure that exhaust fumes from equipment are not directed toward any tree's canopy.

7.2.2 Tree Planting Recommendations

Per Schedule B of the City of Ottawa Tree Protection By-Law (No. 2020-340), compensatory tree planting should be at a 1:1 replacement ratio for private properties in the urban area over 1 ha in size. Replacement tree planting should be on the same property in the vicinity of the work area.

Within the development area, a total of 42 trees are scheduled to be removed, these include one American Elm, one Basswood, six Bitternut Hickory, thirty-one Eastern White Cedar, one Siberian Elm, one White Oak, and one White Spruce. A minimum of 42 trees are thus required to be planted in association with the development area, with specific planting details and locations to be prescribed by the site landscaping plan. Replacement trees of comparable species should be selected where feasible and appropriate, however, all species ultimately selected must be indigenous to the Ottawa area (i.e. Siberian Elm should not be replanted). Other species that may be considered inclusion within the development area include:

Alternate-leaf Dogwood (*Cornus alternifolia*), American Beech (*Fagus grandifolia*), Balsam Poplar (*Populus balsamifera*), Black Cherry (*Prunus serotina*), Black Walnut (*Juglans nigra*), Bur Oak (*Quercus macrocarpa*), Chokecherry (*Prunus virginiana*), Pin Cherry (*Prunus pensylvanica*), Red Maple, Red Oak (*Quercus rubra*), Serviceberries (*Amelanchier* spp.), Silver Maple, Sugar Maple (*Acer saccharum*), Tamarack (*Larix laricina*), Trembling Aspen (*Populus tremuloides*), White Birch (*Betula papyrifera*), Yellow Birch (*Betula alleghaniensis*), White Oak, White Pine (*Pinus strobus*), and White Spruce (*Picea glauca*).

To improve the overall canopy cover within the swamp north of the development zone, a further 42 trees should be planted, again as prescribed by a landscape plan to be developed for the Site. In this area, species selected for planting must be appropriate for the moist soil conditions. Individuals to be planted should consist primarily of Red Maple and/or Silver Maple, but at least 12 trees should be other species including a mix of Tamarack, Balsam Fir (*Abies balsamifera*) and Bur Oak. Planted individuals are to be located in areas of relatively open canopy but not within CRZ of Black Ash or Butternuts. Buckthorn observed growing near proposed tree planting locations within the swamp must be removed prior to planting new trees.

Please note that restorative tree planting and Buckthorn removal would occur within regulated by both the MECP (as protected Blanding's Turtle habitat) and MVCA, enhancement work would require coordination with both agencies. The potential for an enhancement project could be addressed during consultations with these agencies for other regulatory processes involved with the project.

7.3 Species at Risk

The proponent has consulted with MECP with respect to potential SAR interaction and proposed mitigations for this project. This consultation resulted in a Letter of Advice (LOA) from MECP which concurs that the proposed development will not functionally impact Blanding's Turtle habitat and that an overall benefit permit (MECP, 2019b) is not required. This LOA indicates that the proposed mitigation measures related to the safety of SAR are sufficient and that no further mitigations are required. indicates that the mitigation measures proposed to protect SAR and other wildlife will be sufficient.

7.3.1 At-risk Reptiles

The following mitigation measures must be implemented to prevent impacts to Blanding's Turtles and other at-risk reptiles that may occur in the area:

- All on-site workers are to receive SAR identification and awareness training for at-risk reptiles delivered by a qualified Biologist.

- Prior to vegetation clearing, sweeps of areas to be cleared must be conducted by a qualified Biologist to ensure the absence of at-risk reptiles.

- Temporary exclusion fencing shall be installed prior to the turtle active season (April through October; MNRF, 2015c), if possible, and must follow recommendations in *Reptile and Amphibian Exclusion Fencing: Best Practices* (MNR, 2013). Temporary exclusion fencing may be paired with ESC measures and must be installed along the perimeter of the project area but outside of the wetland. Temporary exclusion measures are to be inspected weekly by a qualified Biologist during the active turtle season.

- If an at-risk reptile is encountered during project works, nearby works shall cease immediately. If the SAR is in immediate harm's way, it should be safely and humanely moved into nearby wetland habitat following *Ontario Species at Risk Handling Manual: For Endangered Species Act Authorization Holders* (https://files.ontario.ca/environment-and-energy/species-at-risk/mnr_sar_tx_sar_hnd_mnl_en.pdf). If the SAR is not in immediate harm's way, the project Biologist shall be contacted for direction. Photographs and notes (species, health, gender, behaviour, location) will be taken for all encounters.

    - The proponent must obtain a Wildlife Scientific Collector's Authorization from the MNRF to handle at-risk reptiles.

    - All encounters with Threatened and Endangered species must be reported to the MECP within 24 hours of an encounter.

7.3.2 At-risk Bats

Vegetation shall not be removed during the bat roosting season (April 1 to November 30, inclusive) to prevent impacts to at-risk bats. Similarly, the house, shed, and garage on the Site should not be altered or removed during the bat roosting season. Alternatively, these structures may be removed during the roosting season if bat emergence surveys following MNR (2014c) can demonstrate that at-risk bats are not roosting in the structures.

7.3.3 At-risk Trees

The previously-identified Category 3 Butternut on site was re-evaluated July 30, 2026 and is now determined to be Category 2. While the main stem of this Butternut is situated outside the proposed development area, its CRZ (as defined by MECP as 18 x the maximum potential DBH for this species of 91 cm) extends into the proposed work area where stormwater infrastructure will be located. Upon confirmation of anticipated impacts from the Client, the BHA (Appendix F) may be used to support a registration under the SCA.

The proponent must implement the following mitigation measures to reduce impacts to Butternut and/or Black Ash:

- A sweep shall be conducted by a qualified Biologist to check for additional Butternuts and/or Black Ash within one month prior to clearing an area. If additional live Butternuts or Black Ash are identified within the project area or with CRZs extending into the project area, their health must be assessed by a qualified Health Assessor to determine appropriate follow-up actions.

- Take reasonable steps to avoid direct damage from machinery and other development activities to retained Butternuts and/or Black Ash by maintaining a buffer around the tree's dripline using orange construction fence. The protective fence shall be inspected and adjusted or repaired as necessary to maintain tree protection for the length of the project.

- Perform all construction activities occurring within the CRZ of retained Butternut and/or Black Ash by hand or with small machinery, where possible.

- Minimize indirect damage to retained Butternut and/or Black Ash by cleanly cutting roots and mulching exposed roots to prevent further damage.

- Mitigate soil erosion by minimizing vegetation removal adjacent to retained Butternut and/or Black Ash and re-vegetate disturbed areas as soon as possible.

7.4 General Wildlife Management

The following mitigation measures shall be implemented during project works to generally protect wildlife:

- Tree and vegetation clearing should not take place during sensitive times of the year for wildlife (breeding season; early spring throughout summer) unless mitigation measures are implemented and/or the habitat has been inspected by a qualified biologist.
    - The MBCA protects migratory birds and the nests and young of migratory birds in Canada. No clearing of vegetation shall occur during the breeding bird window (between April 15 and August 15; City of Ottawa, 2015a) to prevent impacts to birds. Combining the breeding bird window with the bat roosting season (April to November), no clearing of vegetation shall occur between April 1 and November 30 inclusive to prevent impacts to both birds and bats.

- Do not harm, feed, or unnecessarily harass wildlife.

- Manage waste to prevent attracting wildlife to the Site. Effective mitigation measures include litter prevention and keeping all trash secured in wildlife-proof containers and promptly removing it from the Site, especially during warm weather.

- Drive slowly and avoid hitting wildlife.

- Manage stockpiles and equipment on 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.

- Check the entire work site for wildlife prior to beginning work each day.

- Inspect ESC measures and protective fence and/or other installed wildlife exclusion measures daily and after each rain event to ensure their integrity and continued function.

- Monitor construction activities to ensure compliance with the project-specific protocol (where applicable) or any other requirements.

- Construction and maintenance of buildings shall follow the City's *Bird-Safe Design Guidelines* (City of Ottawa, 2020c).

8.0 CONCLUSION

This report provides a set of mitigation measures for employment in the design and construction of the proposed residential community on the Site. Our assessment within this report of the potential for impacts to the natural heritage system is based on the implementation of these mitigation measures. It is our professional opinion that the proposed development will have no significant negative impacts on natural features or their ecological functions if all mitigation measures provided within this report are followed.

9.0 CLOSURE

This report was prepared for exclusive use by Wildpine Trails Inc.and may be distributed only by Wildpine Trails Inc. Questions relating to the data and interpretation can be addressed to the undersigned.

Respectfully submitted,

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Appendix A Qualifications of Report Authors

Kesia Miyashita, MSc, P.Biol.

Kesia is a biologist with 16 years of experience, including 10 years of experience in environmental consulting and extensive field experience in ecosystems in Ontario, Alberta, and British Columbia. During her career in environmental consulting, Kesia 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, tree surveys, rare plant surveys and invasive weed surveys in a variety of natural environments, including native forest, urban nature preserves, grasslands, and wetlands. She has undertaken surveys in industrial and construction sites and contributed to revegetation plans for site reclamation. Prior to joining Kilgour & Associates Ltd. in May 2021, Kesia was employed with the Canadian Wildlife Service, where she contributed to policies and guidance documents related to the interface between the Species at Risk Act and the Impact Assessment Act and developed a strong understanding of key pieces of federal legislation. Kesia is a Professional Biologist with the Alberta Society of Professional Biologists and a Qualified Wetland Science Practitioner in the province of Alberta.

Maren Nielsen, BES, 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 Headwater Drainage Features Assessment Report for the Site

Headwater Drainage Features Assessment Report
37 Wildpine Court, Stittsville, Ottawa, Ontario

December 11, 2020

KILGOUR & ASSOCIATES LTD.
www.kilgourassociates.com

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List of Acronyms and Abbreviations

CVC – Credit Valley Conservation
ELC – Ecological Land Classification
HDFA – Headwater Drainage Features Assessment
KAL – Kilgour & Associates Ltd.
MVCA – Mississippi Valley Conservation Authority
OSAP – Ontario Stream Assessment Protocol
OWES – Ontario Wetland Evaluation
TRCA – Toronto and Region Conservation Authority

1.0 INTRODUCTION

Kilgour & Associates Ltd. (KAL) was retained by Wildpine Trails Inc. to provide a Headwater Drainage Features Assessment (HDFA) report for 37 Wildpine Court in Stittsville, Ottawa, Ontario (herein "the Site"; Figure 1). This HDFA report provides a detailed description of the single headwater drainage feature on the Site. A headwater drainage feature is a non-permanently flowing drainage feature that may not have a defined bed or banks; they are first-order and zero-order intermittent and ephemeral channels, swales, and connected headwater wetlands, but do not include rills or furrows (Toronto and Region Conservation Authority (TRCA) and Credit Valley Conservation (CVC), 2014). Based on this definition, the Site only contains one headwater feature which is a headwater wetland. A headwater wetland is a wetland that is connected downstream through surface flow (TRCA and CVC, 2014). The wetland on the Site is part of the Stittsville Wetland complex (not a provincially significant wetland) and is connected downstream to Poole Creek via surface flow. Poole Creek is not considered a headwater drainage feature because it is a permanently flowing feature. As such, this HDFA report provides information on the headwater wetland's aquatic and riparian habitat and the presence of biota along with appropriate management options for the feature (TRCA & CVC, 2014).

1.1 Property Information

The Site is approximately 2 hectares (ha) and is zoned *R3XX[1046] – Residential Third Density Zone* and is therefore intended for residential development. At the time of writing this report, the Site was dominated by wooded areas including those part of the Stittsville Wetland complex. The Site also contained open lawn space, a paved cul de sac, a single detached home with a separate garage and shed, a small portion of Poole Creek, and regulated floodplain of Poole Creek.

The Site is surrounded by:

- A shopping plaza, a stormwater management pond, and the Stittsville Wetland complex to the north;
- Poole Creek and the Stittsville Wetland complex to the east;
- A residential community on Wildpine Court to the south; and
- A residential community on Ravenscroft Court to the west.

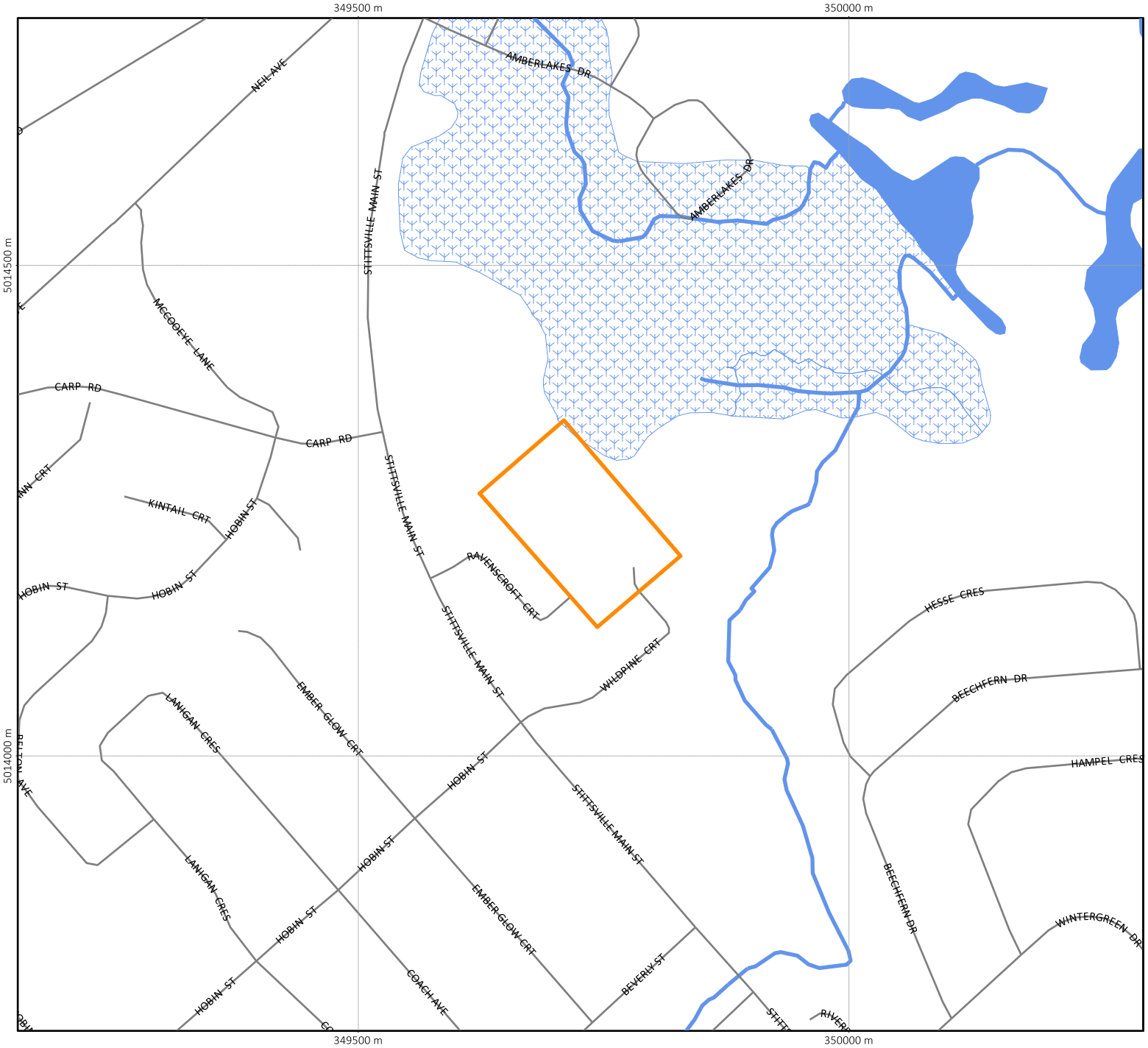

Figure 1 Map showing location context for the Site

Legend

Property Lines

Surface Water Features
(Ontarion Basemap)

Water Course

Wetland

N

0 100 m

Map File: 37 Wildpine34
MTM Zone 9
(NAD 83)
Printed on: 2020-12-09

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2.0 METHODS

Survey methods for the headwater wetland on the Site followed the "Standard" survey type for HDFAs (TRCA & CVC, 2014; Table 1).

Table 1 Data requirements for the Standard survey type for Headwater Drainage Features Assessments

Survey Type	Sensitivity, Feature Form, and Flow	Mandatory Data Requirements		Additional Data Requirements for HDF Alterations	
		Flow Condition	Riparian	Fish and Fish Habitat	Terrestrial Assessment
Standard	Sensitive species/habitat possible and/or ill-defined form, intermittent flow likely	Ontario Stream Assessment Protocol (OSAP) S4.M10 (Headwaters)	OSAP S4.M10 (Headwaters)	OSAP S3.M1	Marsh Monitoring Protocol for Amphibians; Ecological Land Classification; Ontario Wetland Evaluation System (for wetlands ≥ 0.5 ha)

Table Notes: Adapted from Toronto and Region Conservation Authority and Credit Valley Conservation (2014)

Site investigations were performed in the spring and summer of 2020 to perform anuran (frog and toad) surveys, delineate the wetland's boundaries, characterize surface water levels in the spring and summer, and document vegetation communities (Table 2). The Standard survey type for HDFAs calls for an assessment of fish habitat using OSAP S3.M1; however, since the wetland did not contain any open water or permanent standing water, fish sampling was not conducted. The adjacent Poole Creek is known to contain a variety of fish species (e.g., MVCA, RVCA, & SNC, 2019; MVCA, 2009).

Table 2 Summary of site investigations

Date	Purpose
2020-05-05	Anuran survey #1.
2020-05-21	Anuran survey #2.
2020-05-22	Delineate the wetland's boundaries and characterize surface water levels and vegetation during spring conditions.
2020-06-03	Delineate the wetland's boundaries and characterize surface water levels and vegetation during spring conditions (continued).
2020-06-19	Anuran survey #3.
2020-06-23	Confirm wetland boundaries with Mississippi Valley Conservation Authority (MVCA).
2020-07-15	Investigate the wetland's surface water levels and vegetation during summer conditions.

2.1 Anuran Surveys

Aural anuran surveys were performed following the Marsh Monitoring Program (Bird Studies Canada et al., 2008). This protocol calls for multiple survey stations at a site to capture spatial and habitat variability. Accordingly, surveys were performed from two stations ("MMP-1" and "MMP-2" on Figure 2) adjacent to the wetland on the Site. The Marsh Monitoring Program advises that each station be visited a minimum of three times at night, no less than 15 days apart, during the spring and early summer.

Following this protocol, the timing of the three anuran surveys is based on nighttime air temperature:

- Early breeders (Wood Frog, Western Chorus Frog, Spring Peeper): above 5°C;
- Mid-season breeders (Mink Frog, American Toad, Gray Treefrog): above 10°C; and
- Late breeders (Green Frog, Bullfrog): above 17°C.

Three rounds of anuran surveys were performed and began one half hour after sunset and ended before 1:00 am on evenings with appropriate temperatures and light winds.

Any additional observations of amphibians were recorded during other visits to the Site. Rocks, fallen wood, and other debris were turned over to check for salamanders throughout the broader field campaign.

Figure 2 Map showing the locations of anuran survey stations for the Site

Legend

Property Lines

Wildlife Survey Stations

Anurans

N

0 50 m

Map File: 37 Wildpine34
MTM Zone 9
(NAD 83)
Printed on: 2020-12-11

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2.2 Wetland Delineation

The boundaries of the wetland on the Site were delineated following techniques used in the Ontario Wetland Evaluation System (OWES; MNR, 2014). Wetland boundaries on the Site were determined in the field based on plant species composition and soils, and via desktop using aerial imagery and elevation mapping. A biologist from MVCA visited the Site with KAL biologists to review the wetland's boundaries and agreed with KAL's delineation. Since this wetland was previously evaluated and scored using OWES (did not rank as provincially significant), a wetland evaluation was not performed.

2.3 Ecological Land Classification

Vegetation communities on the Site were characterized following Ecological Land Classification (ELC; Lee et al., 1998). This method results in a standardized description of each vegetation community, giving information on dominant plant species and soils.

2.4 Surface Water Levels

Surface water levels in the wetland were qualitatively assessed by conducting walking surveys of wetland on the Site during the spring and summer. This involved confirming whether the wetland contained standing surface water, if it was surface-damp, or if the soil surface was dry.

3.0 RESULTS

3.1 Anuran Surveys

No anurans were observed during evening aural surveys (Table 3) or during other site visits.

Table 3 Results of anuran surveys for the headwater wetland on the Site

Date	Air Temperature (°C)	Wind (Beaufort Scale)[1]	Cloud Cover (%)	Precipitation	Anuran Species Observed
2020/05/05	8	1 to 2	5	None	None
2020/05/20	19	0	5	None	None
2020/06/19	25	1	5	None	None

Table Notes: [1]The Beaufort Wind Force Scale is an empirical measure that relates wind speed to observed conditions at sea or land. The scale is as follows: **0**: calm, smoke rises vertically, wind speed <1km/hr; **1**: light air, smoke drift indicates wind direction, leaves and wind vanes are stationary, wind speed = 1.1-5.5km/hr; **2**: light breeze, wind felt on exposed skin, leaves rustle, wind vanes begin to move, wind speed = 5.6-11km/hr, **3**: gentle breeze, leaves and small twigs constantly moving, light flags extended, wind speed = 12-19km/hr.

3.2 Wetland Delineation

The boundaries of the wetland on the Site, as determined through field and desktop methods and in consultation with MVCA, are shown in Figure 3. The boundaries of the wetland were clear in the field based on the transition between wetland and upland vegetation and elevational change. The upland edge at the wetland boundary is comprised of a considerable amount of fill material that has since naturalized with vegetation. The total wetland area on the Site is approximately 0.6 ha and consists of several types

of wetland: meadow marsh, cattail marsh, deciduous thicket (low shrub) swamp, mixed swamp, and deciduous swamp.

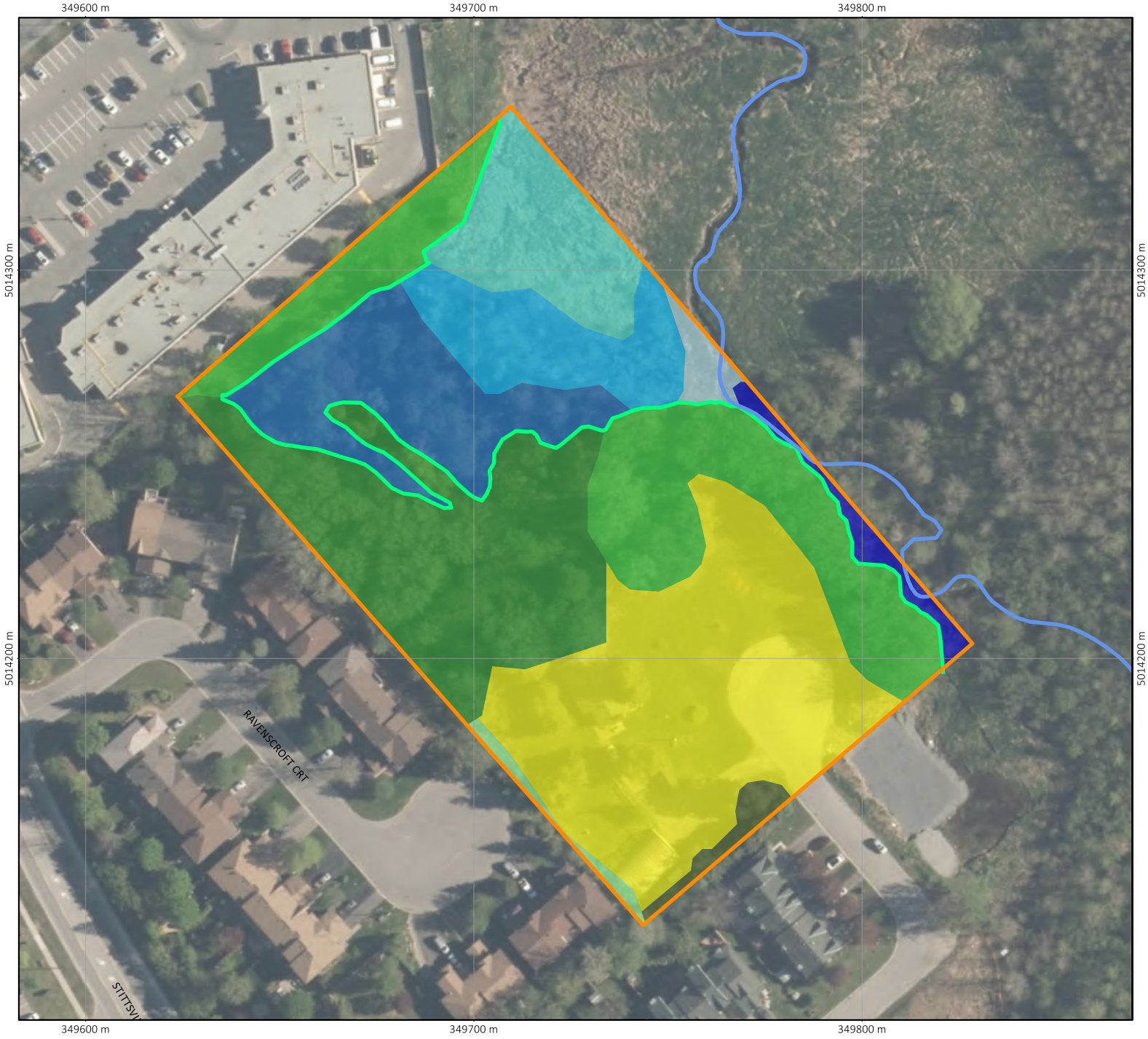

Figure 3 Map showing the boundaries and Ecological Land Classification for the portion of the headwater wetland that falls on the Site

Legend

Property Lines

Aquatic Habitat

Poole Creek

Wetland Boundary

ELC

FODM11

FODM4-5

FODM9-5

Cedar Hedge

Lawn

MASO1-4

MAS3-1

SWT3-2

SWM4-1

SWD6

N

0 50 m

Map File: 37 Wildpine34
MTM Zone 9
(NAD 83)
Printed on: 2020-12-11

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3.3 Ecological Land Classification

Five distinct vegetation communities were delineated within wetland on the Site using ELC (Figure 3). Each wetland community and the dominant vegetation therein are described below. On the Site, the wetland is fully bounded by terrestrial forest ecosites including Dry – Fresh Manitoba Maple Deciduous Forest (FODM4-5) and Fresh – Moist Bitternut Hickory Deciduous Forest (FODM9-5; Figure 3).

3.3.1 Maple Organic Deciduous Swamp Ecosite (SWD6)

The SWFD6 ecosite makes up the treed corridor of Poole Creek along the eastern edge of the Site (Figure 4). Note that SWD6 is typically used to describe organic swamps dominated by Red Maple (*Acer rubrum*), Silver Maple (*Acer saccharinum*), and/or Freeman's Maple (*Acer freemanii*). However, this swamp is dominated by Manitoba Maple (*Acer negundo*) followed by Crack Willow (*Salix fragilis*). The dominant shrub species is Speckled Alder (*Alnus incana*) and ground cover is dominated by Spotted Jewelweed (*Impatiens capensis*).

Figure 4 Photo of the Maple Organic Deciduous Swamp Ecosite (SWD6) within the headwater wetland on the Site

3.3.2 Cattail Organic Shallow Marsh Type (MAS3-1)

The northeastern corner of the Site consists of the MAS3-1 community and is dominated by a near-homogenous cover of Broad-leaved Cattail (*Typha latifolia*; Figure 5).

Figure 5 Photo of the Cattail Organic Shallow Marsh Type (MAS3-1) within the headwater wetland on the Site

3.3.3 Reed Canary Grass Organic Shallow Marsh Type (MASO1-4)

The riparian corridor of Poole Creek north of the SWD6 ecosite on the Site consists of meadow marsh dominated by Reed Canary Grass (*Phalaris arundinacea*; Figure 6).

Figure 6 Photo of the Reed Canary Grass Organic Shallow Marsh Type (MASO1-4) within the headwater wetland on the Site

3.3.4 Willow Organic Thicket Swamp Type (SWT3-2)

Southwest of the MAS3-1 community is a thicket (tall shrub) swamp dominated by Peachleaf Willow (*Salix amygdaloides*) followed by Glossy Buckthorn (*Rhamnus frangula;* Figure 7).

Figure 7 Photo of the Willow Organic Thicket Swamp Type (SWT3-2) within the headwater wetland on the Site

3.3.5 White Cedar – Hardwood Organic Mixed Swamp Type (SWM4-1)

The northwestern to southeastern edge of the headwater wetland on the Site is a treed swamp co-dominated by Black Ash (*Fraxinus nigra*), Eastern White Cedar (*Thuja occidentalis*), and Manitoba Maple (Figure 8). The understory is dominated by Glossy Buckthorn and the ground cover is dominated by Spotted Jewelweed.

Figure 8 Photo of the White Cedar – Hardwood Organic Mixed Swamp Type (SWM4-1) within the headwater wetland on the Site

3.4 Surface Water Levels

Throughout the spring, vegetation communities within the wetland on the Site had either shallow standing water or were surface damp. The SWM4-1 community was the wettest and contained scattered lower-lying pockets with a maximum water depth of approximately 20 cm. The MAS3-1, MASO1-4, and SWT3-2 communities were dry in the summer while the SWD6 and SWM4-1 communities were still surface damp.

4.0 CLASSIFICATION

Information obtained regarding anuran presence, aquatic and terrestrial habitat, and hydrology was used to apply the appropriate classification to the wetland by identifying the functions the feature provides (TRCA & CVC, 2014; Table 4). The hierarchical functions ranking for each classification type ranges from (lowest to highest): limited, contributing, valued, and important functions.

Table 4 Summary of functional classifications for the headwater wetland on the Site

Classification Type	Functions Ranking	Notes
Hydrology	Valued	Wetland with intermittent standing surface water; hydrologically connected to Poole Creek.
Riparian Conditions	Important	The feature type is a wetland.
Fish and Fish Habitat	Contributing	No spawning/rearing, feeding, cover, refuge, or migration habitat or habitat for at-risk fish species within the wetland. Likely contributes allochthonous materials to downstream fish-bearing habitat in Poole Creek.
Terrestrial Habitat	Valued	Wetland habitat but no evidence of breeding amphibians. Presence of fish in Poole Creek likely prevents amphibian presence in the wetland on the Site. May provide "stepping stone" habitat (e.g., stop-over to higher quality habitat) or suitable habitat for feeding or hydration for low mobility amphibians.

5.0 MANAGEMENT RECOMMENDATIONS

The functions rankings (classifications) identified for the hydrology, riparian conditions, fish habitat, and terrestrial habitat of the wetland form the basis of the management recommendation for the feature (Table 4; Figure 9; TRCA and CVC, 2014). .

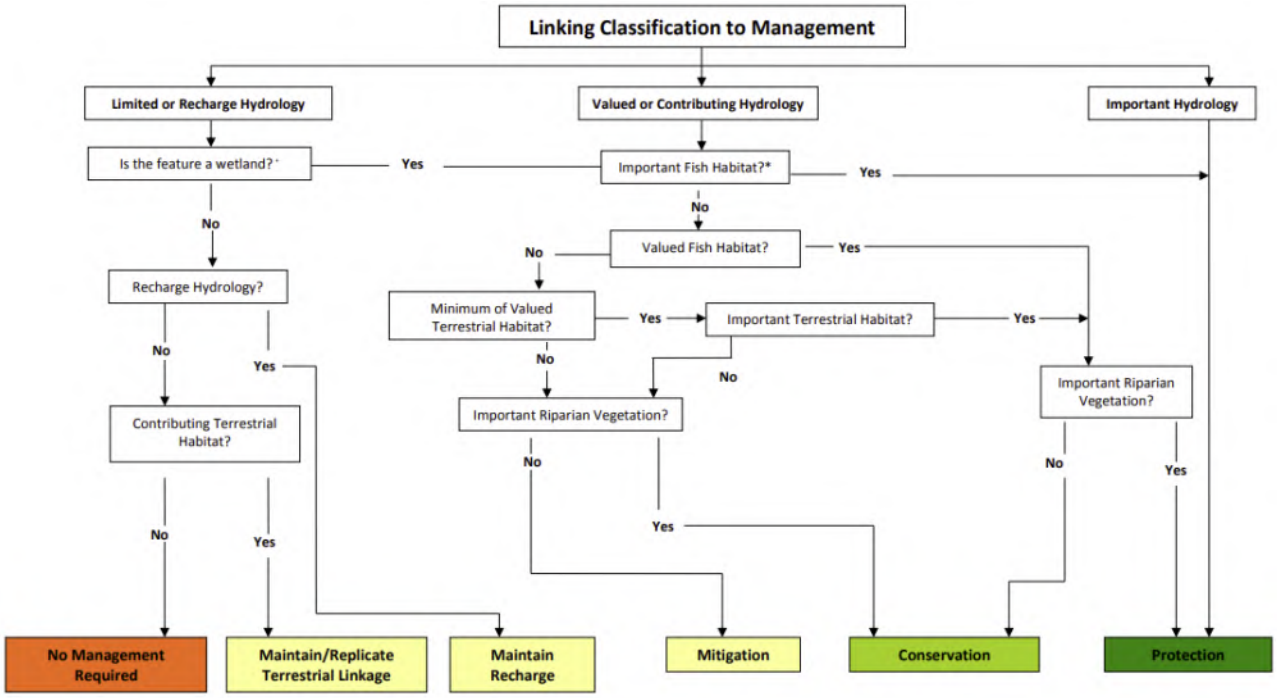

Figure 9 Flow chart providing direction on management options based on the wetland's classifications adapted from TRCA and CVC (2014)

The management recommendation for the wetland on the Site is **Conservation**. Conserving the wetland includes (TRCA & CVC, 2014):

- Maintaining and/or enhancing the feature;
- Restoring hydrological and riparian and terrestrial habitat functions that may have been lost due to the historical placement of fill along the wetland's edge, as feasible;
- Maintaining catchment flows (e.g., maintaining onsite flows through low impact development and/or natural design techniques and/or stormwater management design);
- Designing and locating the onsite stormwater management system such that impacts to the wetland (e.g., sediment loading, temperature changes) are avoided; and
- Maintaining a development setback from the wetland to prevent impacts to the feature.

Ontario Regulation 153/06 of the *Conservation Authorities Act* (1990) prohibits or restricts development and site alterations near wetlands to prevent flooding, erosion, and other hazards. A permit will be required from MVCA if site alteration is to occur within 30 m of the wetland.

The "top edge of the fill" that had been on the Site is generally situated ≤15 m beyond the current wetland edge (Figures 10 and 11). Portions of the Site beyond 15 m from the wetland edge are located within an artificially raised tableland and are indistinct from the hydrology, riparian, or terrestrial habitat functions of areas >30 m from the wetland. The 15m buffer adjacent to the wetland encompasses the transition zone from upland to wetland and should be protected accordingly. The natural character of this area,

however, has been significantly degraded. This area should be reserved as a setback from the wetland and be subject to an enhancement program including the removal of invasive species and accumulated trash, and the planting of native species that are typical of transition areas between wetland and upland habitats.

Figure 10 Photo of fill and rubble on the edge of the wetland on the Site

Figure 11 Map showing the "top edge of fill" mark around the wetland on the Site

Legend

Property Lines

Aquatic Habitat

Poole Creek

Wetland Boundary

Top Edge of Fill

N

0 50 m

Map File: 37 Wildpine34
MTM Zone 9
(NAD 83)
Printed on: 2020-12-11

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6.0 CLOSURE

This report was prepared for exclusive use by Wildpine Trails Inc. and may be distributed only by Wildpine Trails Inc. Questions relating to the data and interpretation can be addressed to the undersigned.

Respectfully submitted,

KILGOUR & ASSOCIATES LTD.

Katherine Black, MSc	Anthony Francis, PhD
Biologist	Project Director

7.0 LITERATURE CITED

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Appendix C Tree Conservation Report for the Site

HEAFEY 989.2
Tree Conservation Report
37 Wildpine Court, Stittsville, Ottawa

November 30, 2023

Submitted to: Raad Akrawi

Minor Update April 4, 2024

Reissued February 5, 2026
(red indicates updates)

KILGOUR & ASSOCIATES LTD.
www.kilgourassociates.com

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1.0 INTRODUCTION

This updated Tree Conservation Report (TCR) was prepared by Kilgour & Associates Ltd. (KAL) on behalf of Wildpine Trails Inc. in support of development of the property located at 37 Wildpine Court in Stittsville, (the "Site") per the request of the City of Ottawa. This updated version is required to highlight any report updates necessitated since the previous report dated April 4, 2024. Updates are indicated in red. There are no updates to this TCR beyond this paragraph.

A TCR is required for all Plans of Subdivision, Site Plan Control Applications, Common Elements Condominium Applications, and Vacant Land Condominium Applications where there is a tree of 10 cm in diameter at breast height (DBH) or greater on a site and/or if there is a tree on an adjacent site that has a critical root zone (CRZ) extending into the proposed work area. A "tree" is defined as any species of woody perennial plant, including its root system, which has reached or can reach a minimum height of at least 450 cm at physiological maturity. The CRZ is calculated as DBH x 10 cm.

The removal of trees on the Site cannot occur until written approval of the TCR has been granted through a tree permit as per the City of Ottawa's Tree Protection By-law. The approval of the TCR will come in the form of a letter (the tree permit) from the General Manager[1] with conditions specific to the Site, tree retention, and associated tree protection and tree removal. A copy of the report must be available on the Site during tree removal, grading, construction, or any other site alteration activities, and for the duration of construction on the Site.

2.0 PROPERTY INFORMATION

The Site is owned by Wildpine Trails Inc. It is approximately 2 ha in size and is zoned as *R3XX[1046] – Residential Third Density Zone.* At the time of writing this report the Site was dominated by wooded areas including those part of the Stittsville Wetland Complex (not a provincially significant wetland). It also contained open lawn space, a paved cul-de-sac and a separate corrugated steel garage. Portions of Poole Creek and the associated regulated floodplain of Poole Creek also occur on the Site.

The Site is surrounded by:

- A shopping plaza, a stormwater management pond, and the Stittsville Wetland Complex to the north.
- Poole Creek and the Stittsville Wetland Complex to the east.
- A residential community on Wildpine Court to the south.
- A residential community on Ravenscroft Court to the west.

[1] General Manager of the Public Works & Environmental Services Department or the General Manager of the Planning, Infrastructure and Economic Development Department of the City of Ottawa, or their designate.

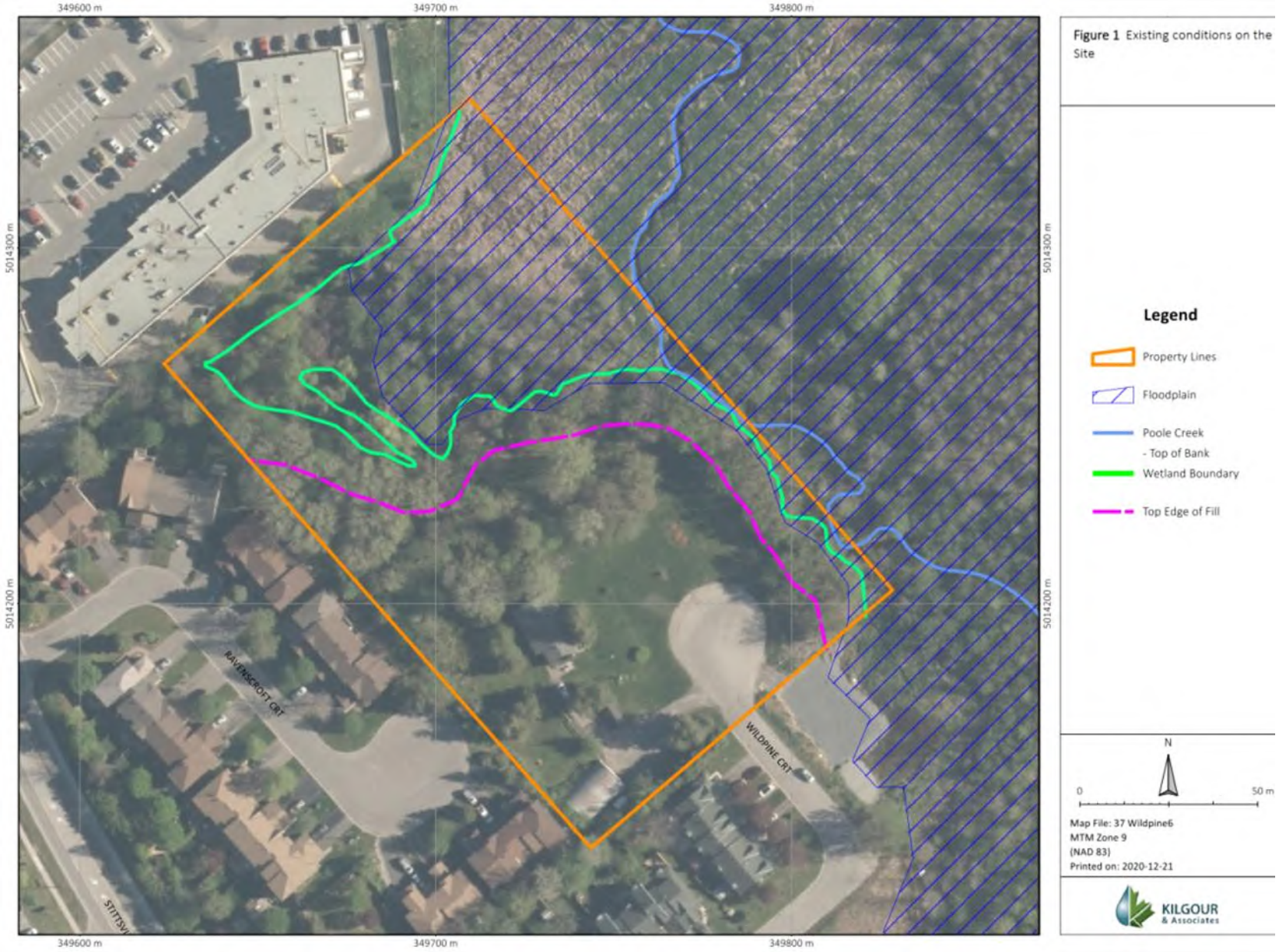


Figure 1 Existing conditions on the Site

2.1 Property Owner/Applicant and Arborist Contact Information

Table 1 Contact information for the property owner/applicant and arborist

Organization	Role	Contact Person	Phone Number	Email Address
Wildpine Trails Inc.	Proponent	Raad Akrawi Project Manager	(613) 415 9387	rakrawi@groupeheafey.com
Kilgour & Associates Ltd. 2285-C St. Laurent Blvd., Unit 16, Ottawa, ON, K1G 4Z6	Arborist	Robert Hallett, Biologist	(613) 367 5549	RHallett@KilgourAssociates.com
Kilgour & Associates Ltd. 2285-C St. Laurent Blvd., Unit 16, Ottawa, ON, K1G 4Z6	Arborist	Anthony Francis, Senior Ecologist	(613) 367 5556	AFrancis@KilgourAssociates.com

2.1.1 Qualifications of Arborist

Robert Hallett (Dipl.T) is a biologist with a broad background in monitoring terrestrial environments. Rob has worked on a wide range of projects relating to species at risk (SAR), Invasive species, terrestrial and aquatic habitat assessments, environmental effects monitoring. He has extensive experience completing collection and assessments in support of tree conservation reports. As a biologist at KAL, Rob regularly participates in the production of TCRs, Environmental Impact Statements, and Integrated Environmental Reviews for land development projects throughout the region. Rob is a certified Butternut Health Assessor (BHA #546).

Anthony Francis (Ph.D.) is a Senior Ecologist with 20 years of consulting experience to both government agencies and private industry. He has worked on a diversity of projects relating to species at risk (SAR), invasive species, terrestrial and aquatic habitat, environmental effects monitoring and mitigation, and fate/effects of contaminants. Within each of these subject areas, Dr. Francis has completed projects addressing specific site concerns and broader policy initiatives. Dr. Francis' academic background is in spatial ecology with a focus on tree species diversity. As a Senior Ecologist at KAL, he regularly completes TCRs, Environmental Impact Statements, and Integrated Environmental Reviews for land development projects throughout Ottawa and eastern Ontario. He is also a certified Butternut Health Assessor (BHA #104).

2.2 Additional Applications

Not applicable

3.0 EXISTING CONDITIONS

3.1 Tree Inventory

An inventory of trees on the Site was performed on November 24, 2023, following guidelines set forth by the City of Ottawa (2020). All trees with a DBH ≥ 10 cm having a potential to be removed under the proposed development were identified, enumerated, mapped, their DBH measured, and their general

health and condition documented (Figure 1 see Appendix A for detailed tree conditions). Trees within the forested area that are not going to be directly impacted by development were assessed for their condition and the likelihood that they could pose a risk to persons or developed property. No trees adjacent to the existing homes or proposed development were considered to pose a risk to persons or property.

3.2 Ecological Significance of Trees on Site

The site contains three Butternuts (two dead and one live) a federally and provincially significant tree species that is listed as Endangered under the *Endangered Species Act* (ESA). The live Butternut was assessed as a Category 3 Butternut in 2020. Re-evaluation of this Butternut is not required as it is more than the requisite distance from development so as not to harm it or its life function.

The Site also contains White Oak (*Quercus* alba) and one Siberian Elm (*Ulmus pumilia*), both of which are regionally rare species in the Ottawa area (Brunton, 2005), though Siberian Elm is a non-native species.

Despite the urban context of these trees, they are likely to provide some function as a vegetated buffer between Poole Creek and the Stittsville Wetland Complex and the adjacent development areas. The forested areas also provide some role in the regulation of relative humidity, sequestration of carbon and removal of pollutants, wind shielding, shading and reduction of urban heat island effects. They are also likely to provide some functions related to the filtration of dust, noise, and light pollution. The trees on the Site may provide some habitat structure in the surrounding urban landscape. However, the trees on the Site likely only provide habitat for common bird and small mammal species in the Ottawa area and not species of significance (i.e., species that are at risk, rare, or provincially or federally significant).

Given their urban context, the trees on the Site are unlikely to play a role in the regulation of relative humidity, sequestration of carbon and removal of pollutants, wind-shielding, shading and reduction of urban heat island effects, and filtration of dust, noise, and light pollution. They may provide some habitat structure in the surrounding urban landscape. However, the trees on the Site likely only provide habitat for common bird and small mammal species in the Ottawa area and not species of significance (i.e., species that are at risk, rare, or provincially or federally significant).

3.3 Other Natural Environment Elements

3.3.1 Surface Water Features

The Site includes a portion of the Stittsville Wetland Complex. The total wetland area on the Site is approximately 0.6 ha and consists of several types of wetland: meadow marsh (Ecological Land Classification code MASO1-4), cattail marsh (MAS3-1), deciduous thicket (tall shrub) swamp (SWT3-2), mixed swamp (SWM4-1), and deciduous swamp (SWD6; Figure 2). The upland edge of the wetland on the Site contains a considerable amount of fill that extends approximately 15 m out from the wetland. This upland edge of the wetland is degraded as indicated by the presence of rubble, trash, and non-native and/or invasive species.

The southeastern corner of the Site contains a small portion of the channel of Poole Creek and the eastern edge of the Site contains floodplain associated with Poole Creek.

Mitigation measures to prevent impacts to these surface water features are provided in the Environmental Impact Statement prepared for the project (KAL, 2020).

3.3.2 Steep Slopes

The Site does not contain any steep slopes, valleys, or escarpments.

3.3.3 Valued Woodlots

The Site does not contain any woodlots designated as Urban Natural Features or Natural Environment Areas, areas evaluated in the *City of Ottawa Urban Natural Areas Environmental Evaluation Study* (UNAEES; Muncaster Environmental Planning Inc. and Brunton Consulting Services, 2005), or other areas that meet the criteria used in the UNAEES.

3.3.4 Significant Woodlands

The Site does not contain any significant woodlands per *Significant Woodlands: Guidelines for Identification, Evaluation, and Impact Assessment* (City of Ottawa, 2018). Nor are any such features located within 120 m of the Site.

3.3.5 Greenspace Linkages

The Site does not contain any greenspace linkages identified in the Greenspace Master Plan (City of Ottawa, 2016) or as may occur in the larger landscape.

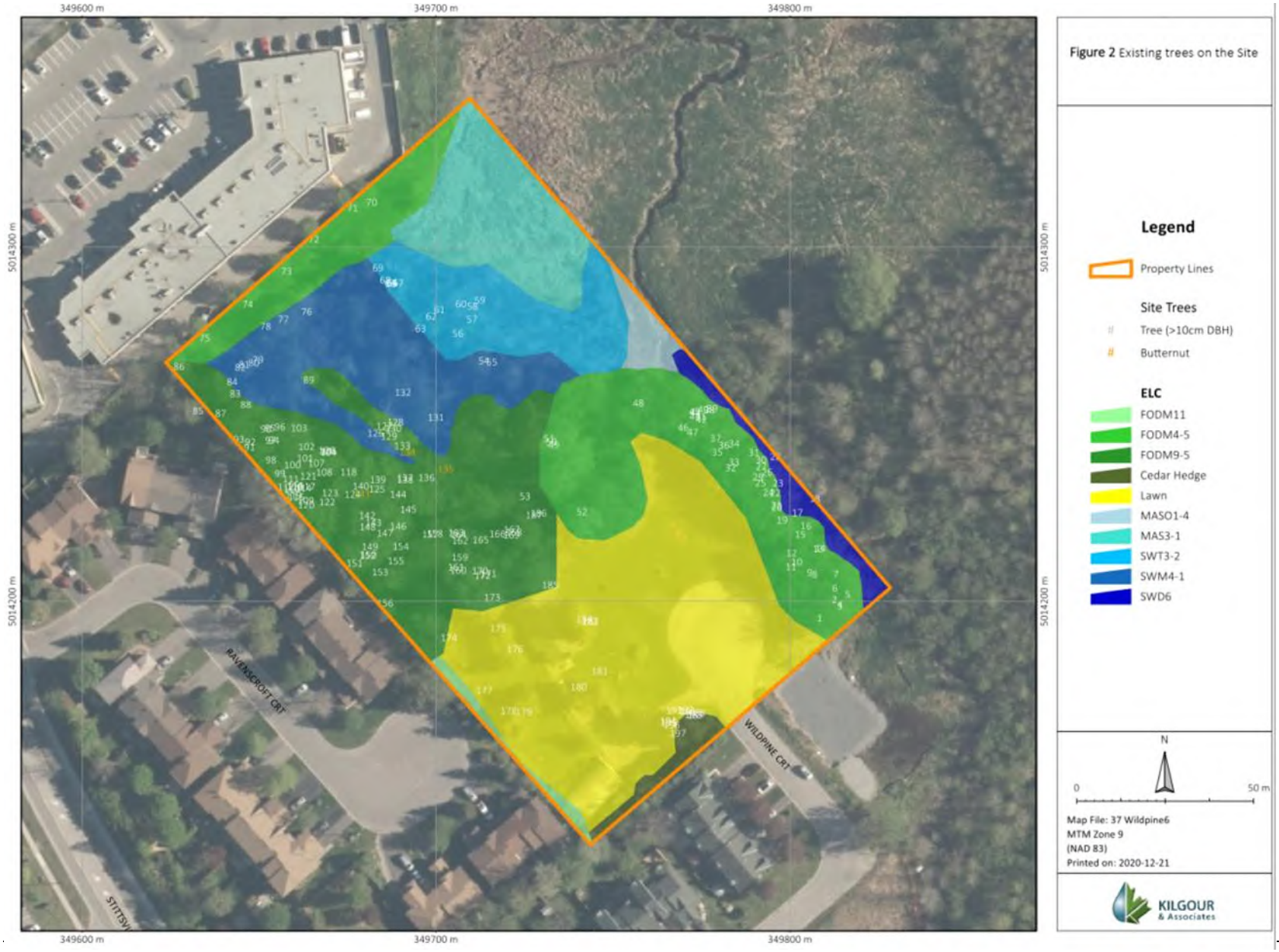
3.3.6 Distinctive Trees

The site contains 11 distinctive trees (Appendix A).

3.3.7 Unique Ecological Features

The Fresh-Moist Deciduous Bitternut Hickory Deciduous Forest (FODM9-5; Figure 2) on the Site is Significant Wildlife Habitat for Special Concern and Rare Wildlife Species (MNRF, 2015a) due to an observation of Eastern Wood-pewee (*Contopus virens*; Special Concern under ESA and SARA) here by KAL in 2020. All treed communities on-site are candidate Significant Wildlife Habitat for Bat Maternity Colonies because they are treed ecosites in which more than 10 Big Brown Bats (*Eptesicus fuscus*) and five adult female Silver-Haired Bats (*Lasionycteris noctivagans*) may occur (MNRF, 2015a). Big Brown Bats and Silver-Haired Bats were detected on the Site via acoustic monitoring by KAL in 2020, but the number and/or gender of each bat species could not be discerned from the acoustic data. It is therefore possible that Significant Wildlife Habitat for Bat Maternity Colonies exists on the Site but this cannot be confirmed with the acoustic data that were collected (KAL, 2020).

The Site does not contain other unique ecological features as may be identified in the Natural Heritage Information Centre (MNRF, 2020), Ecological Land Classification (Lee et al., 1998), or other Ministry of Natural Resources and Forestry data.


349600 m
349700 m
349800 m
5014300 m
5014200 m
RAVENSCROFT CRT
WILDPINE CRT
Figure 2 Existing trees on the Site
Legend
Property Lines
Site Trees
Tree (>10cm DBH)
Butternut
ELC
FODM11
FODM4-5
FODM9-5
Cedar Hedge
Lawn
MASO1-4
MAS3-1
SWT3-2
SWM4-1
SWD6
N
0
50 m
Map File: 37 Wildpine6
MTM Zone 9
(NAD 83)
Printed on: 2020-12-21
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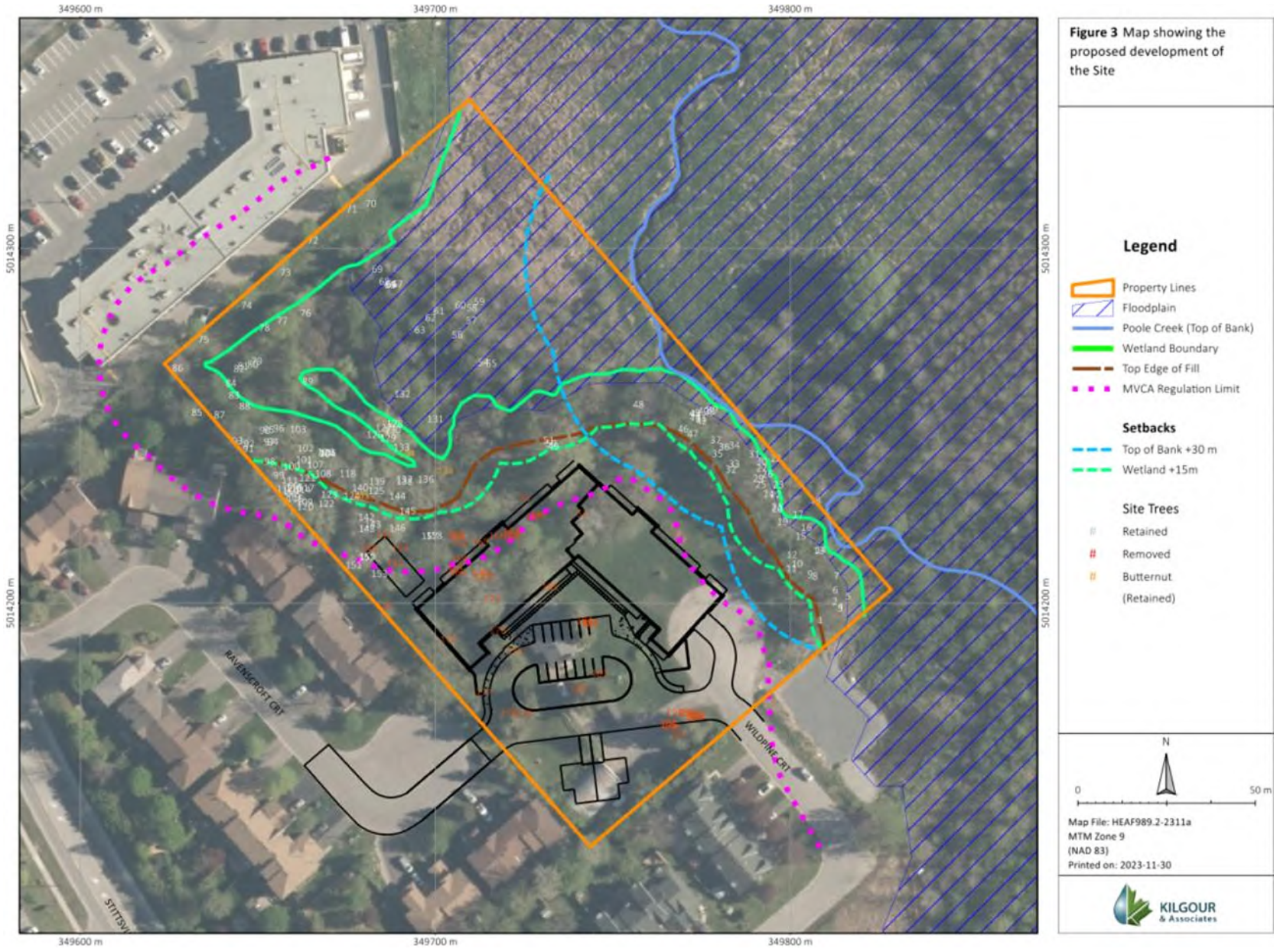

Figure 3 Map showing the proposed development of the Site

4.0 PROPOSED DEVELOPMENT

The proposed development is limited to the southern half of the Site and consist of a single four-story apartment building with 94 units and a small parking area (15 spaces), and two semi-detached homes in the southwestern corner of the Site (Figure 3).

5.0 MITIGATION MEASURES

5.1 Site Preparation and Construction

To effectively minimize the impacts on the site trees, the following mitigation measures must be applied during site preparation and construction (City of Ottawa, 2018a; City of Ottawa, 2015):

- Tree removal should be limited to that which is necessary to accommodate construction.
    - Trees that occur on the property boundary or on adjacent lands will be retained.
- Tree and vegetation clearing should not take place during sensitive times of the year for wildlife (breeding season; early spring throughout summer) unless mitigation measures are implemented and/or the habitat has been inspected by a qualified biologist.
    - The *Migratory Birds Convention Act*, 1994 protects the nests and young of migratory breeding birds in Canada. No clearing of vegetation shall occur during the breeding bird window (April 15 and August 15) to prevent impacts to birds. Combining the breeding bird window with the bat roosting season (May to September; MNRF, 2015b), no clearing of vegetation shall occur between April 15 and September 30 inclusive to prevent impacts to both birds and bats. If vegetation clearing is to occur between April 1 and 15, a pre-clearing survey for active stick nests and cavity nests must be conducted to identify and protect early-nesting owls and raptors.
- To minimize impacts to remaining trees during development:
    - Erect a fence beyond the critical root zone (CRZ; equivalent to ten times the diameter of trunk) of retained trees that have roots that may extend into the project area. The fence should be highly visible (orange construction fence) and paired with erosion and sediment control fencing. Pruning of branches is recommended in areas of potential conflict with construction equipment;
    - Do not place any material or equipment within the CRZ of trees unless otherwise approved;
    - Do not attach any signs, notices, or posters to any trees unless otherwise approved;
    - Do not raise or lower the existing grade within the CRZ of trees unless otherwise approved;

- Do not extend any hard surface or significantly change landscaping within the CRZ of trees unless otherwise approved;

- Do not damage the root system, trunk, or branches of any remaining trees unless otherwise approved;

- Ensure that exhaust fumes from equipment are not directed towards any tree's canopy.

5.2 Tree Planting Recommendations

Per Schedule B of the City of Ottawa Tree Protection By-Law (No. 2020-340), compensatory tree planting should be at a 1:1 replacement ratio for private properties in the urban area over 1 ha in size. Replacement tree planting should be on the same property in the vicinity of the work area.

Within the development area, a total of 42 trees are scheduled to be removed, these include one American Elm, one Basswood, six Bitternut Hickory, thirty-one Eastern White Cedar, one Siberian Elm, one White Oak, and one White Spruce. A minimum of 42 trees are thus required to be planted with in association with the development area, with specific planting details and locations to be prescribed by the site landscaping plan. Replacement trees of comparable species should be selected where feasible and appropriate, however, all species ultimately selected must be indigenous to the Ottawa area (i.e. Siberian Elm should not be replanted). Other species that may be considered inclusion within the development area include:

Alternate-leaf Dogwood (*Cornus alternifolia*), American Beech (*Fagus grandifolia*), Balsam Poplar (*Populus balsamifera*), Black Cherry (*Prunus serotina*), Black Walnut (*Juglans nigra*), Bur Oak (*Quercus macrocarpa*), Chokecherry (*Prunus virginiana*), Pin Cherry (*Prunus pensylvanica*), Red Maple, Red Oak (*Quercus rubra*), Serviceberries (*Amelanchier* spp.), Silver Maple, Sugar Maple (*Acer saccharum*), Tamarack (*Larix laricina*), Trembling Aspen (*Populus tremuloides*), White Birch (*Betula papyrifera*), Yellow Birch (*Betula alleghaniensis*), White Oak, White Pine (*Pinus strobus*), and White Spruce (*Picea glauca*).

To improve the overall canopy cover within the swamp north of the development zone, a further 42 trees should be planted, again as prescribed by a landscape plan to be developed for the Site. In this area, species to be planted should appropriate for the moist soil conditions. Individuals to be planted should consist primarily of Red Maple and/or Silver Maple, but at least 12 trees should be other species including a mix of Tamarack, Balsam Fir (*Abies balsamifera*) and Bur Oak. Planted individuals are to be located in areas of relatively open canopy but not within CRZ of Black Ash or Butternuts. Buckthorn observed to growing near proposed tree planting locations within the swamp must be removed prior planting new trees.

6.0 CLOSURE

This report was prepared for exclusive use by Wildpine Trails Inc. and may be distributed only by or in accordance with the express instructions of Wildpine Trails Inc. Questions relating to the data and interpretation can be addressed to the undersigned.

Respectfully submitted,

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Tree Conservation Report - Boundary Tree Addendum
37 Wildpine Court, Stittsville, Ottawa, Ontario

September 4, 2026

Final Report

Submitted to:

Raad Akrawi
Wildpine Trails Inc.
190 Lisgar St.
Ottawa, ON
K2P 0C4

KILGOUR & ASSOCIATES LTD.
www.kilgourassociates.com

Project Number: HEAFEY 989.5

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List of Acronyms and Abbreviations

CRZ – Critical Root Zone
DBH – Diameter at Breast Height
EIS – Environmental Impact Study
ELC – Ecological Land Classification
KAL – Kilgour & Associates Ltd.
MECP – Ministry of Environment, Conservation and Parks
MNRF – Ministry of Natural Resources and Forestry
SARA – Species at Risk Act
SCA – Species Conservation Act
SWM – Stormwater Management
TCR – Tree Conservation Report
UNA – Urban Natural Area

1.0 INTRODUCTION

This Tree Conservation Report (TCR) Addendum was prepared by Kilgour and Associates Ltd. (KAL) on behalf of Wildpine Trails Inc. in support of a development of the property at 37 Wildpine Court in Stittsville, Ottawa (the "Site"), per the request of the City of Ottawa. A prior TCR was prepared by KAL in 2023 and updated in 2026 (Kilgour & Associates Ltd., 2023) and a tree cut permit was issued in 2025. That TCR, however, did not address boundary trees or trees on adjacent land with potential to be directly or indirectly impacted by the proposed development. The City has requested this TCR Addendum to specifically address boundary trees.

Consistent with City of Ottawa guidance documents (City of Ottawa, 2020), a "tree" is defined as any species of woody perennial plant, including its root system, which has reached or can reach a minimum height of at least 4.5 m at physiological maturity. All trees of any size on City of Ottawa municipal lands are subject to the City of Ottawa *Tree Protection By-law* (City of Ottawa, 2020). All trees on private land with a diameter at breast height (DBH) of 10 cm or greater are also subject to the by-law. The critical root zone (CRZ) is calculated as DBH x 10 cm.

The removal of trees on the Site cannot occur until written approval of the TCR has been granted through a tree permit as per the City of Ottawa's *Tree Protection By-law*. The approval of the TCR will come in the form of a letter (the tree permit) from the General Manager with conditions specific to the Site, tree retention, and associated tree protection and tree removal. The approved TCR is a requirement for the approval of the development applications listed above. A copy of the report must be available on the Site during tree removal, grading, construction, or any other site alteration activities, and for the duration of construction on the Site.

Legend

- Property Boundary
- Proposed Property Line

Figure 1. Site context

0 37.5 75 150 m

N W E S

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

Project: HEAFEY 989.5
Map File Name: HEAFEY 989.5
Date Exported: 8/14/2026 12:47 PM

KILGOUR & Associates

2.0 PROPERTY INFORMATION

The Site is owned by Wildpine Trails Inc. The Site is approximately 2 ha and is located at 37 Wildpine Court, Stittsville, Ottawa, Ontario (Lat 45.266338°N and Long 75.926993°W; Figure 1). The Site is currently zoned as Neighbourhood Zone 4 (N4B) and Open Space Facility (FAC). At the time of writing this TCR Addendum, the Site is dominated by wooded areas, including those that form part of the Stittsville Wetland Complex (not a provincially significant wetland). It also contains open lawn space and a paved cul-de-sac. Portions of Poole Creek and the associated regulated floodplain of Poole Creek also occur on the Site.

The Site is bordered by:

- A shopping plaza, stormwater management pond, and the Stittsville Wetland Complex to the north;
- Poole Creek and the Stittsville Wetland Complex to the east;
- A residential community on Wildpine Court to the south; and
- A residential community on Ravenscroft Court to the west.

2.1 Property Owner/Applicant and arborist information

Table 1 Contact information for property owner/applicant and arborist

Organization	Role	Contact Person	Phone Number	Email Address
Wildpine Trails Inc.	Proponent	Raad Akrawi, Project Manager	613-415-9387	rakrawi@groupeheafey.com
Kilgour & Associates Ltd. 2285-C St. Laurent Blvd., Unit 16 Ottawa, ON, K1G 4Z6	Arborist	Kesia Miyashita	613-367-5546	kmiyashita@kilgourassociates.com

2.2 Qualifications of Arborist

Kesia Miyashita (MSc, P.Biol.) Kesia is a biologist with 16 years of experience, including 13 years of experience in environmental consulting and extensive field experience in ecosystems in Ontario, Alberta, and British Columbia. During her career in environmental consulting, Kesia 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, tree surveys, rare plant surveys and invasive weed surveys in a variety of natural environments, including native forest, urban nature preserves, grasslands, and wetlands. She has undertaken surveys in industrial and construction sites and contributed to revegetation plans for site reclamation. Prior to joining Kilgour & Associates Ltd. in May 2021, Kesia was employed with the Canadian Wildlife Service, where she contributed to policies and guidance documents related to the interface between the *Species at Risk Act* and the *Impact Assessment Act* and developed a

strong understanding of key pieces of federal legislation. Kesia is a Professional Biologist with the Alberta Society of Professional Biologists and a Qualified Wetland Science Practitioner in the province of Alberta.

2.3 Additional Applications

Not Applicable.

3.0 EXISTING CONDITIONS

3.1 Tree Inventory, 2023

An inventory of trees on the Site was performed on November 24, 2023, following guidelines set forth by the City of Ottawa (2020).All trees with a DBH >10 cm having potential to be removed under the proposed development were identified, enumerated, mapped, their DBH measured, and their general health and condition documented. Trees within the forested area that will not be directly impacted by development were assessed for their general condition.

3.2 Boundary Tree Update, 2026

An inventory of boundary trees was completed on July 30, 2026, using a high-resolution Trimble Catalyst DA2 GNSS Receiver. Trees along the proposed development boundary were inventoried, as the adjacent forested lands that make up the rear portion of the Site will ultimately be handed over to the City. Trees with shared ownership (i.e., trees on the proposed development line) and trees located fully on adjacent lands with a critical root zone (CRZ) extending onto the Site were recorded. All boundary trees were identified to species, measured for DBH, and assessed for general health condition.

A total of nine boundary trees were identified, representing six species: three Bitternut Hickory (*Carya cordiformis*), two Manitoba Maple (*Acer negundo*), and one each of Ironwood (*Ostrya virginiana*), Basswood (*Tilia americana*), Eastern White Cedar (*Thuja occidentalis*), and Butternut (*Juglans cinerea*). These trees are shown on Figure 2 and additional detail provided in Appendix A.

Legend

- Property Boundary
- Proposed Property Line
- Trees
- Butternut
- Critical Root Zone

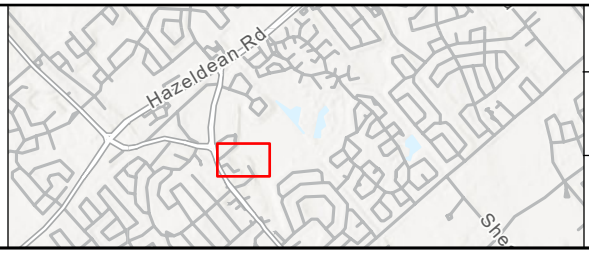

Figure 2. Boundary **trees**

0 12.5 25 50 m

N W E S

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

Project: HEAFEY 989.5
Map File Name: HEAFEY 989.5-VERONIQUE-2025

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3.3 Ecological Significant of Trees on Site

Three Butternut trees (*Juglans cinerea*; listed as Endangered under the SCA and SARA) were identified on the Site in 2023. One Butternut was confirmed to be sufficiently near the proposed development line that its CRZ (as defined by MECP as 18 x the maximum potential DBH for this species of 91 cm) may be impacted by the proposed development. The Butternut was reassessed as part of the boundary tree survey and determined to be Category 2.

Ecologically significant trees were noted within the broader Site (Kilgour & Associates Ltd., 2024, 2026); however, no other ecologically significant trees were noted along the proposed development boundary.

Within the urban context of the Site, trees are likely to provide some function as a vegetated buffer between the proposed development area and Poole Creek and the Stittsville Wetland Complex. The forested areas also contribute to humidity regulation, carbon sequestration, pollutant removal, wind shielding, shading, reduction of urban heat island effects, and filtration of dust, noise, and light pollution (Urban Forest Innovations Inc. et al., 2017). They also provide fragmented habitat structure within the surrounding residential and agricultural landscape (Urban Forest Innovations Inc. et al., 2017). Trees on and adjacent to the Site are expected to provide habitat primarily for common bird and small mammal species in the Ottawa area, rather than for species of significance (i.e., species that are at risk, or provincially or federally significant (City of Ottawa, 2026).

3.4 Other Natural Environmental Elements

3.4.1 Surface Water Features

The Site includes a portion of the Stittsville Wetland Complex. The total wetland area on the Site is approximately 0.6 ha. According to prior Ecological Land Classification (ELC) exercise, the wetland comprises several types of wetland: meadow marsh (MASO1-4), cattail marsh (MAS3-1), deciduous thicket (tall shrub) swamp (SWT3-2), mixed swamp (SWM4-1), and deciduous swamp (SWD6) (Kilgour & Associates Ltd., 2026). The upland edge of the wetland on the Site contains a considerable amount of fill that extends approximately 15 m out from the wetland. This upland edge is degraded as indicated by the presence of rubble, trash, and non-native and/or invasive species (Kilgour & Associates Ltd., 2026).

The southeastern corner of the Site contains a small portion of the channel of Poole Creek and the eastern edge of the Site contains the floodplain associated with Poole Creek.

Mitigation measures to prevent impacts to these surface water features are provided in the Environmental Impact Study prepared for the project in 2020 and updated in 2026 (Kilgour & Associates Ltd., 2026).

3.4.2 Steep Slopes

No steep slopes occur on or near the Site.

3.4.3 Valued Woodlots

The Site does not contain any valued woodlots designated as Urban Natural Features or Natural Environment Areas, areas evaluated in the City of Ottawa Urban Natural Areas Environmental Evaluation Study (Muncaster Environmental Planning Inc. & Brunton Consulting Services, 2005), or other areas that meet the criteria used in the UNAEES.

3.4.4 Significant Woodlands

No portion of the Site constitutes Significant Woodland per *Significant Woodlands: Guidelines for Identification, Evaluation, and Impact Assessment* (City of Ottawa, 2022). No significant woodlands are located within 120 m of the Site.

3.4.5 Greenspace Linkages

The Site does not contain any greenspace linkages identified in the Greenspace Master Plan (City of Ottawa, 2023).

3.4.6 High-Quality Specimen Trees

The boundary trees comprised a mix of species (Manitoba Maple, Bitternut Hickory, Ironwood, Basswood, and Eastern White Cedar), ranging in size from 15 cm to 39 cm DBH. No notable trees were identified along the proposed development boundary.

3.4.7 Hazardous Trees

A formal risk assessment for hazardous trees (e.g., Tree Risk Assessment) was not completed for the Site.

3.4.8 Unique Ecological Feature

Unique ecological features are fully identified and characterized in the EIS (Kilgour & Associates Ltd., 2026). The Fresh – Moist Deciduous Bitternut Hickory Deciduous Forest (FODM9-5) on the Site meets the criteria for confirmed Significant Wildlife Habitat (SWH) for Special Concern and Rare Wildlife Species, due to an observation of Eastern Wood-pewee (status) by KAL biologists onsite in 2020. All treed communities onsite meet the criteria for candidate SWH for Bat Maternity Colonies due to suitable roosting trees and the detection of Big Brown Bats and Silver-haired Bats during acoustic bat monitoring onsite in 2020.

The Site does not contain other unique ecological features as may be identified in the Natural Heritage Information Centre (MNRF, 2023), Ecological Land Classification (Lee, 2008; Lee et al., 1998), or other sources.

4.0 PROPOSED DEVELOPMENT

The proposed development is limited to the southern half of the Site and consists of a single four-storey apartment building with 94 units and a small parking area (15 spaces), and two semi-detached homes in the southwest corner of the Site.

The proposed development is anticipated to require tree clearing within the development limits, and a tree permit was previously issued from the City. The proposed development is also anticipated to directly or indirectly impact eight (8) boundary trees. Tree fate for existing boundary trees is shown on Figure 3 Figure 3and detailed in Appendix A.

5.0 MITIGATION MEASURES

5.1 Site Preparation and Construction

To minimize impacts on trees situated on and adjacent to the Site, the following mitigation measures are recommended during site preparation and construction:

- A landscape plan must be designed to meet the requirements of the City Forester;
- Tree removal should be limited to that which is necessary to accommodate construction;
- Trees that occur on the property outside proposed development area should be retained to the extent possible;
- To minimize impacts to remaining trees during development:
    - Install fencing beyond the CRZ of retained trees. The fencing should be highly visible, such as orange construction fencing, and paired with erosion and sediment control fencing.
        - Signage should be placed every 5 m along tree protection fencing, indicating its purpose, and that it is not to be removed until site construction has been completed;
    - Pruning of branches is recommended in areas of potential conflict with construction equipment but must be completed by a certified arborist;
    - Do not place any material or equipment within the areas protected by the construction fencing;
    - Do not attach any signs, notices, or posters to any trees;
    - Do not raise or lower the existing grade within areas protected by the construction fencing without approval;
    - Do not extend any hard surface or significantly change landscaping within the CRZ of trees unless otherwise approved;
    - Do not damage the root system, trunk, or branches of any remaining trees;
    - Ensure that exhaust fumes from all equipment are not directed towards any tree's canopy; and

Legend

- Property Boundary
- Proposed Property Line
- Landscaped Area (grass)
- SWM Pond
- Road

Tree Fate

- Retained - Impacted
- Retained - Not Impacted
- Critical Root Zone

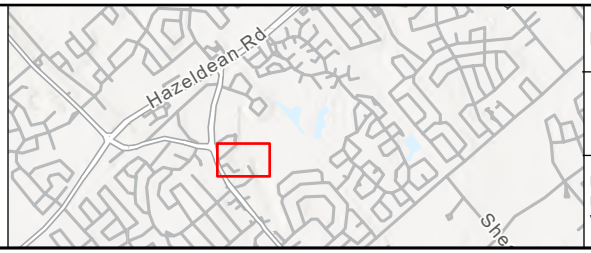

Figure 3. Proposed development and tree fate

0 12.5 25 50 m

N W E S

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

Project: HEAFEY 989.5
Map File Name: HEAFEY 989.5-VERONIQUE-2025

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- Tree and vegetation clearing should not take place during sensitive times of the year for wildlife (breeding season; early spring throughout summer) unless mitigation measures are implemented and/or the habitat has been inspected by a qualified biologist.

    - The *Migratory Bird Convention Act* (1994) protects the nests and young of migratory breeding birds in Canada. No clearing of vegetation shall occur during the breeding bird window (April 15 to August 15) to prevent impacts to birds. Combining the breeding bird window with the bat roosting season (March 15 to November 30; (MECP, personal communication, 2026)), no clearing of vegetation shall occur between March 15 and November 30 inclusive to prevent impacts to both birds and bats.

The Category 2 Butternut is situated outside the proposed development area; however, its CRZ (as defined by MECP as 18 x the maximum potential DBH for this species of 91 cm) extends into the proposed work area where stormwater infrastructure will be located. Upon confirmation of anticipated impacts from the Client, a registration under the SCA may be required.

5.2 Tree Planting Recommendations

Per Schedule B of the City of Ottawa Tree Protection By-Law (No. 2020-340; City of Ottawa, 2020)), compensatory tree planting should be at a 1:1 replacement ratio for private properties in the urban area over 1 ha in size. Replacement tree planting should be on the same property in the vicinity of the work area.

Within the development area, a total of 42 trees are scheduled to be removed; these include one American Elm, one Basswood, six Bitternut Hickory, 31 Eastern White Cedar, one Siberian Elm, one White Oak, and one White Spruce. A minimum of 42 trees are thus required to be planted in association with the development area, with specific planting details and locations to be prescribed by the site landscaping plan. Replacement trees of comparable species should be selected where feasible and appropriate; however, all species ultimately selected must be indigenous to the Ottawa area (i.e., Siberian Elm should not be replanted). Other species that may be considered for inclusion within the development area include:

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To improve the overall canopy cover within the swamp north of the development zone, a further 42 trees should be planted, again, as prescribed by a landscape plan to be developed for the Site. In this area, species to be planted should be appropriate for moist soil conditions. Individuals to be planted should consist primarily of Red Maple and/or Silver Maple, but at least 12 trees should be other species, including a mix of Tamarack, Balsam Fir (*Abies balsamea*), and Bur Oak. Planted individuals are to be located in

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Respectfully submitted,

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Appendix A Tree Data

Tree ID	Species	Number of Stems	DBH (cm)	Trunk Health	Canopy Health	Decay Class	Evidence of EAB	Location	Tree Ownership	Tree fate
T 1	Manitoba Maple	6	15	1-Good: tree displays less than 15% deficiency	1-Good: tree displays less than 15% deficiency	1: Healthy Live tree	No	45° 16.0460242,-75° 55.6798201'	City-owned	Retained – Not Impacted
T 2	Manitoba Maple	2	24	1-Good: tree displays less than 15% deficiency	1-Good: tree displays less than 15% deficiency	1: Healthy Live tree	No	45° 16.0408279,-75° 55.6788404'	City-owned	Retained - Impacted
T 3	Bitternut Hickory	1	27	1-Good: tree displays less than 15% deficiency	1-Good: tree displays less than 15% deficiency	1: Healthy Live tree	No	45° 16.0320243,-75° 55.6793283'	City-owned	Retained - Impacted
T 4	Ironwood	2	22	1-Good: tree displays less than 15% deficiency	1-Good: tree displays less than 15% deficiency	1: Healthy Live tree	No	45° 16.0156629,-75° 55.6869208'	City-owned	Retained - Impacted
T 5	Bitternut Hickory	1	37	1-Good: tree displays less than 15% deficiency	1-Good: tree displays less than 15% deficiency	1: Healthy Live tree	No	45° 16.0078560,-75° 55.6842092'	City-owned	Retained - Impacted
T 6	Basswood	1	25	1-Good: tree displays less than 15% deficiency	1-Good: tree displays less than 15% deficiency	1: Healthy Live tree	No	45° 16.0125987,-75° 55.6660737'	City-owned	Retained - Impacted
T 7	Bitternut Hickory	1	39	1-Good: tree displays less than 15% deficiency	1-Good: tree displays less than 15% deficiency	1: Healthy Live tree	No	45° 16.0082058,-75° 55.6661188'	City-owned	Retained - Impacted
T 8	Eastern White Cedar	2	33	1-Good: tree displays less than 15% deficiency	1-Good: tree displays less than 15% deficiency	1: Healthy Live tree	No	45° 15.9980549,-75° 55.6707594'	City-owned	Retained - Impacted
T 9	Butternut	1	65	3-Poor: tree displays greater than 40% deficiency	2-Fair: tree displays 15-40% deficiency	2: Declining live tree, part of canopy lost	No	45° 16.0460242,-75° 55.6798201'	City-owned	Retained - Impacted

Appendix D Vascular Plant Inventory for the Site

Family Name	Species Scientific Name	Species Common Name	Global Rank	Provincial Rank	SARA Status	ESA Status	Brunton (2005)
Aceraceae	*Acer negundo* L.	Manitoba Maple	G5	S5	-	-	Common
Aceraceae	*Acer saccharinum* L.	Silver Maple	G5	S5	-	-	Common
Aceraceae	*Acer saccharum* Marsh.	Sugar Maple	G5	S5	-	-	Common
Aceraceae	*Acer rubrum* L.	Red Maple	G5	S5	-	-	Common
Aceraceae	*Acer spicatum* Lam.	Mountain Maple	G5	S5	-	-	Common
Agavaceae	*Yucca filamentosa* L.	Yucca (garden cultivar)	G5	-	-	-	-
Anacardiaceae	*Toxicodendron rydbergii* (Rydb.) Greene	Poison-ivy	G5	S5	-	-	Common
Anacardiaceae	*Rhus typhina* L.	Staghorn Sumac	G5	S5	-	-	Common
Apiaceae	*Daucus carota* L.	Wild Carrot	GNR	SNA	-	-	Common
Apocynaceae	*Asclepias syriaca* L.	Common Milkweed	G5	S5	-	-	Common
Apocynaceae	*Vinca* sp.	Periwinkle (garden cultivar)	-	-	-	-	-
Aquifoliaceae	*Ilex mucronata* (L.) Loes.	Mountain Holly	G5	S5	-	-	-
Araceae	*Arisaema triphyllum* (L.) Schott	Jack-in-the-pulpit	G5	S5	-	-	Common
Araliaceae	*Hedera helix* L.	English Ivy (garden cultivar)	GNR	SNA	-	-	-
Asphodelaceae	Hemerocallis Stella D'Oro	Stella D'Oro Daylily (garden culti	-	-	-	-	-
Asteraceae	*Centaurea nigra* L.	Black Knapweed	GNR	SNA	-	-	Rare
Asteraceae	*Eupatorium perfoliatum* L.	Boneset	G5	S5	-	-	Common
Asteraceae	*Cirsium vulgare* (Savi) Tenore	Bull Thistle	GNR	SNA	-	-	Common
Asteraceae	*Solidago canadensis* L.	Canada Goldenrod	G5	SNR	-	-	Common
Asteraceae	*Cirsium arvense* (L.) Scop.	Canada Thistle	G5	SNA	-	-	Common
Asteraceae	*Cichorium intybus* L.	Chicory	GNR	SNA	-	-	Common
Asteraceae	*Artemisia vulgaris* L.	Common Mugwort	GU	SNA	-	-	Common
Asteraceae	*Erigeron annuus* (L.) Pers.	Daisy Fleabane	G5	S5	-	-	Common
Asteraceae	*Taraxacum officinale* Weber	Common Dandelion	G5	SNA	-	-	Common
Asteraceae	*Arctium lappa* L.	Great Burdock	GNR	SNA	-	-	Uncommon
Asteraceae	*Arctium minus* Bernh.	Common Burdock	GNR	SNA	-	-	Common
Asteraceae	*Leucanthemum vulgare* Lam.	Ox-eye Daisy	GNR	SNA	-	-	Common
Asteraceae	*Leucanthemum × superbum* (J.W. Ingram) Berg. ex Kent.	Shasta Daisy	GNA	-	-	-	-
Asteraceae	*Eupatorium maculatum* L.	Spotted Joe-pye Weed	G5	S5	-	-	Common
Asteraceae	*Cirsium discolor* L.	Field Thistle	G5	S3	-	-	Regionally significant
Asteraceae	*Achillea millefolium* L.	Yarrow	G5	SNA	-	-	Common
Asteraceae	*Heliopsis helianthoides* (L.) Sw.	False Sunflower	G5	SNR	-	-	Uncommon
Balsaminaceae	*Impatiens capensis* Meerb.	Spotted Jewelweed	G5	S5	-	-	Common
Betulaceae	*Ostrya virginiana* (Mill.) K. Koch	Ironwood	G5T5	SNR	-	-	Common
Betulaceae	*Alnus incana* (L.) Moench ssp. rugosa (Du Roi) Clausen	Speckled Alder	G5	S5	-	-	Common
Betulaceae	*Betula alleghaniensis* Britt.	Yellow Birch	G5	S5	-	-	Common
Boraginaceae	*Echium vulgare* L.	Viper's Bugloss	GNR	SNA	-	-	Common
Brassicaceae	*Hesperis matronalis* L.	Dame's Rocket	G4G5	SNA	-	-	Uncommon (spreading invasive)
Brassicaceae	*Thlaspi arvense* L.	Field Penny-cress	GNR	SNA	-	-	Common
Brassicaceae	*Lepidium campestre* (L.) Ait. f.	Field Peppergrass	GNR	SNA	-	-	Uncommon
Brassicaceae	*Alliaria petiolata* (Bieb.) Cov. & Grande	Garlic Mustard	GNR	SNA	-	-	Common (aggressive invasive)
Brassicaceae	*Brassica rapa* L.	Field Mustard	GNRTNR	SNA	-	-	Rare
Brassicaceae	*Berteroa incana* (L.) DC.	Hoary-alyssum	GNR	SNA	-	-	Common
Brassicaceae	*Erysimum cheiranthoides* L.	Wormseed Mustard	G5	S5?	-	-	Common
Campanulaceae	*Campanula rapunculoides* L.	Creeping Bellflower	GNR	SNA	-	-	Common
Caprifoliaceae	*Lonicera tatarica* L.	Tartarian Honeysuckle	GNR	SNA	-	-	Common (aggressive invasive)
Caryophyllaceae	*Silene vulgaris* (Moench) Garcke	Bladder Campion	GNR	SNA	-	-	Common
Caryophyllaceae	*Dianthus* sp.	Dianthus (garden cultivar)	-	-	-	-	-
Caryophyllaceae	*Silene latifolia* Poir.	White Cockle	GNR	SNA	-	-	Uncommon
Clusiaceae	*Hypericum perforatum* L.	St. John's-wort	GNR	SNA	-	-	Common

Family Name	Species Scientific Name	Species Common Name	Global Rank	Provincial Rank	SARA Status	ESA Status	Brunton (2005)
Convolvulaceae	*Fallopia cilinodis* (Michx.) Holub	Bindweed	GNR	SNA	-	-	Common
Cornaceae	*Cornus alternifolia* L.f.	Alternate-leaved Dogwood	G5	S5	-	-	Common
Cornaceae	*Cornus sericea* L.	Red-osier Dogwood	G5	S5	-	-	Common
Crassulaceae	*Sedum* sp.	Stonecrop (garden cultivar)	-	-	-	-	-
Cucurbitaceae	*Echinocystis lobata* (Michx.) T.& G.	Wild Cucumber	G5	S5	-	-	Common
Cupressaceae	*Thuja occidentalis* L.	Eastern White Cedar	G5	S5	-	-	Common
Dryopteridaceae	*Matteuccia struthiopteris* (L.) Todaro	Ostrich Fern	G5	S5	-	-	Common
Dryopteridaceae	*Onoclea sensibilis* L.	Sensitive Fern	G5	S5	-	-	Common
Equisetaceae	*Equisetum hyemale* L.	Scouring-rush Horsetail	G5T5	S5	-	-	Common
Fabaceae	*Lotus corniculatus* L.	Bird's-foot trefoil	GNR	SNA	-	-	Common
Fabaceae	*Trifolium pratense* L.	Red Clover	GNR	SNA	-	-	Common
Fabaceae	*Vicia cracca* L.	Cow Vetch	GNR	SNA	-	-	Common
Fabaceae	*Coronilla varia* L.	Crown Vetch	GNR	SNA	-	-	Uncommon (locally abundant)
Fabaceae	*Melilotus alba* Desr.	White Sweet-clover	-	-	-	-	Common
Fabaceae	*Trifolium campestre* Schreb.	Low Hop Clover	GNR	SNA	-	-	Common
Fagaceae	*Fagus grandifolia* Ehrh.	American Beech	G5	S4	-	-	Common
Fagaceae	*Quercus rubra* L.	Red Oak	G5	S5	-	-	Common
Fagaceae	*Quercus alba* L.	White Oak	G5	S5	-	-	Regionally significant
Geraniaceae	*Geranium* sp.	Perennial Geranium (garden cul	-	-	-	-	-
Grossulariaceae	*Ribes cynosbati* L.	Prickly Gooseberry	G5	S5	-	-	Common
Iridaceae	*Iris versicolor* L.	Blue-flag	G5	S5	-	-	Common
Iridaceae	*Iris* sp.	Iris (garden cultivar)	-	-	-	-	-
Juglandaceae	*Carya cordiformis* (Wangenh.) K. Koch	Bitternut Hickory	G5	S5	-	-	Common
Juglandaceae	*Juglans cinerea* L.	Butternut	G3	S2?	END	END	Common
Lamiaceae	*Monarda* sp.	Bee-balm (garden cultivar)	-	-	-	-	-
Lamiaceae	*Glechoma hederacea* L.	Ground-ivy	GNR	SNA	-	-	Common
Liliaceae	*Allium schoenoprasum* L.	Chives	G5	S4	-	-	Rare
Liliaceae	*Asparagus officinalis* L.	Garden Asparagus	G5?	SNA	-	-	Common
Liliaceae	*Convallaria majalis* L.	Lily-of-the-valley (garden cultivar	G5	SNA	-	-	Uncommon (locally abundant invasive)
Liliaceae	*Trillium grandiflorum* (Michx.) Salisb.	Great White Trillium	G5	S5	-	-	Common
Lythraceae	*Lythrum salicaria* L.	Purple Loosestrife	G5	SNA	-	-	Common (invasive)
Oleaceae	*Fraxinus nigra* Marsh.	Black Ash	G5	S4	-	-	Common
Oleaceae	*Fraxinus pennsylvanica* Marsh.	Green Ash	G5	S4	-	-	Common
Oleaceae	*Syringa* sp.	Lilac (garden cultivar)	-	-	-	-	-
Oleaceae	*Fraxinus nigra* Marsh.	Black Ash	G5	S4	-	-	Common
Onagraceae	*Circaea lutetiana* L. ssp. *canadensis* (L.) Asch. & Magnus	Enchanter's Nightshade	G5T5	S5	-	-	Common
Papaveraceae	*Sanguinaria canadensis* L.	Bloodroot	G5	S5	-	-	Common
Pinaceae	*Pinus strobus* L.	White Pine	G5	S5	-	-	Common
Pinaceae	*Picea glauca* (Moench) Voss	White Spruce	G5	S5	-	-	Common
Plantaginaceae	*Plantago major* L.	Common Plantain	G5	SNA	-	-	Common
Poaceae	*Bromus* sp.	Brome	-	-	-	-	-
Poaceae	*Digitaria* sp.	Crabgrass	-	-	-	-	-
Poaceae	*Agrostis stolonifera* L.	Creeping Bent-grass	G5	SNA	-	-	Common
Poaceae	*Poa pratensis* L.	Kentucky Bluegrass	G5	S5	-	-	Common
Poaceae	*Elymus repens* (L.) Gould	Quack Grass	GNR	SNA	-	-	Common
Poaceae	*Bromus inermis* Leyss.	Common Brome Grass	G5	SNA	-	-	Common
Poaceae	*Phalaris arundinacea* L.	Reed Canary Grass	G5	S5	-	-	Common (locally abundant introduction)
Polemoniaceae	*Phlox paniculata* L.	Garden Phlox	G5	SNA	-	-	Rare
Polygonaceae	*Rumex crispus* L.	Curled Dock	GNR	SNA	-	-	Common
Ranunculaceae	*Anemone canadensis* L.	Canada Anemone	G5	S5	-	-	Common

Family Name	Species Scientific Name	Species Common Name	Global Rank	Provincial Rank	SARA Status	ESA Status	Brunton (2005)
Ranunculaceae	*Thalictrum pubescens* Pursh	Tall Meadow-rue	G5	S5	-	-	Common
Rhamnaceae	*Rhamnus cathartica* L.	European Buckthorn	GNR	SNA	-	-	Common (aggressive invasive)
Rhamnaceae	*Rhamnus frangula* L.	Glossy Buckthorn	GNR	SNA	-	-	Common (aggressive invasive)
Rosaceae	*Dasiphora fruticosa* (L.) Rydb.	Shrubby Cinquefoil (garden culti	G5	S5	-	-	-
Rosaceae	*Spiraea* sp.	Meadowsweet (garden cultivar)	-	-	-	-	-
Rosaceae	*Rubus occidentalis* L.	Black Raspberry	G5	S5	-	-	Uncommon
Rosaceae	*Rubus allegheniensis* Porter	Common Blackberry	G5	S5	-	-	Common
Rosaceae	*Rubus odoratus* L.	Purple-flowering Raspberry	G5	S5	-	-	Common
Rosaceae	*Fragaria virginiana* Duchesne	Common Strawberry	G5	S5	-	-	Common
Rutaceae	*Zanthoxylum americanum* Mill.	Prickly-ash	G5	S5	-	-	Common
Salicaceae	*Salix bebbiana* Sarg.	Bebb's Willow	G5	S5	-	-	Common
Salicaceae	*Salix fragilis* L.	Crack Willow	GNRQ	SNA	-	-	-
Salicaceae	*Populus grandidentata* Michx.	Largetooth Aspen	G5	S5	-	-	Common
Salicaceae	*Salix amygdaloides* Anderss.	Peachleaf willow	G5	S5	-	-	Uncommon
Salicaceae	*Populus tremuloides* Michx.	Trembling Aspen	G5	S5	-	-	Common
Salicaceae	*Populus deltoides* Marsh.	Eastern Cottonwood	G5	S5	-	-	Common
Scrophulariaceae	*Verbascum thapsus* L.	Great Mullein	G5	SNA	-	-	Common
Solanaceae	*Solanum dulcamara* L.	Deadly Nightshade	GNR	SNA	-	-	Common
Tiliaceae	*Tilia americana* L.	Basswood	G5	S5	-	-	Common
Typhaceae	*Typha latifolia* L.	Broadleaf Cattail	G5	S5	-	-	Common
Typhaceae	*Typha angustifolia* L.	Narrowleaf Cattail	G5	SNA	-	-	Common
Ulmaceae	*Ulmus americana* L.	American Elm	G4	S5	-	-	Common
Ulmaceae	*Ulmus pumila* L.	Siberian Elm	GNR	SNA	-	-	Rare
Violaceae	*Viola pubescens* Ait.	Downy Yellow Violet	G5	S5	-	-	Common
Violaceae	*Viola renifolia* A. Gray	Kidney-leaved Violet	G5	S5	-	-	Uncommon
Violaceae	*Viola sororia* Willd.	Woolly Blue Violet	G5	SNR	-	-	Common
Vitaceae	*Parthenocissus vitacea* (Knerr) Hitchc.	Virginia Creeper	G5	S5	-	-	Common
Vitaceae	*Vitis riparia* Michx.	Riverbank Grape	G5	S5	-	-	Common

Appendix E Species at Risk Screening for the Site

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Avian						
Bank Swallow (*Riparia riparia*)	**Not Listed**	**Threatened**	Bird Studies Canada et al. (2009)	Colonial nester; burrows in eroding silt or sand banks, sand pit walls, and human-made sand piles. Often found on banks of rivers and lakes.	None. The banks of nearby Poole Creek are not suitable for nesting.	Negligible potential.
Barn Swallow (*Hirundo rustica*)	**Not Listed**	**Threatened**	Cornell Lab of Ornithology (2020), Bird Studies Canada et al. (2009)	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 culverts.	The house, shed, and garage on the Site provide suitable nesting habitat. The open lawn area provides suitable foraging habitat.	Moderate potential.
Black Tern (*Chlidonias niger*)	**Endangered**	**No Status**	N/A	Build floating nests in loose colonies in shallow marshes, especially in cattails.	The cattail and meadow marshes on the Site and the stormwater pond to the north may provide stop-over habitat for migrants but are unlikely to provide nesting habitat (wetland areas on the Site have insufficient surface water; lack of larger waterbodies nearby).	Low potential.
Bobolink (*Dolichonyx oryzivorus*)	**Not Listed**	**Threatened**	Cornell Lab of Ornithology (2020), Bird Studies Canada et al. (2009)	Periodically mown, dry meadow for nesting. Habitat (meadow) should be >10 ha, and preferably >30 ha before Bobolink are attracted to the area. Not near tall trees.	None.	Negligible potential.
Canada Warbler (*Cardellina canadensis*)	**Not Listed**	**Threatened**	N/A	Prefers wet forests with dense shrub layers. Nests located on or near the ground on mossy logs or roots, along stream banks or on hummocks.	Treed swamps and riparian areas of Poole Creek on and adjacent to the Site may provide suitable habitat.	Low potential.
Cerulean Warbler (*Setophaga cerulea)*	**Not Listed**	**Endangered**	N/A	Prefers mature deciduous forests.	None.	Negligible potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Chimney Swift (*Chaetura pelagica*)	**Not Listed**	**Threatened**	N/A	Nests in traditional-style open brick chimneys (and rarely in hollow trees). Tends to stay close to water.	The brick chimney on the house on the Site may provide suitable nesting habitat and adjacent areas provide suitable foraging habitat.	Low potential.
Common Nighthawk (*Chordeiles minor*)	**Not Listed**	**Special Concern**	N/A	Nests in a wide variety of open sites, including beaches, fields, 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.	None.	Negligible potential.
Eastern Meadowlark (*Sturnella magna*)	**Not Listed**	**Threatened**	Cornell Lab of Ornithology (2020), Bird Studies Canada et al. (2009)	Periodically mown, dry meadow for nesting. Habitat (meadow) should be >10 ha, and preferably >30 ha before Eastern Meadowlark are attracted to the area. Not near tall trees.	None.	Negligible potential.
Eastern Whip-poor-will (*Antrostomus vociferus*)	**Not Listed**	**Threatened**	N/A	Nests on the ground in open deciduous or mixed woodlands with little underbrush.	None.	Negligible potential.
Eastern Wood-pewee (*Contopus virens*)	**Not Listed**	**Special Concern**	Cornell Lab of Ornithology (2020), Bird Studies Canada et al. (2009); observed by KAL during 2020 field surveys for the Site	Woodland species often found in the mid-canopy layer near clearings and edges of deciduous and mixed forests.	Wooded areas on the Site provide suitable habitat.	High potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Evening Grosbeak (*Coccothraustes vespertinus*)	Not Listed	Special Concern	Bird Studies Canada et al. (2009)	Nests in trees or large shrubs; prefer mature coniferous forests but will also use deciduous forests, parklands, and orchards.	Wooded areas on the Site may provide suitable habitat but this habitat type (deciduous forest/swamp and mixed swamp) is not typical habitat.	Low potential.
Golden Eagle (*Aquila chrysaetos*)	Endangered	No Status	N/A	Nest 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.	None.	Negligible potential.
Golden-winged Warbler (*Vermivora chrysoptera*)	Not Listed	Threatened	N/A	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, or logged areas.	None.	Negligible potential.
Grasshopper Sparrow (*Ammodramus savannarum*)	Not Listed	Special Concern	N/A	Lives in open grassland areas 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.	None.	Negligible potential.
Henslow's Sparrow (*Ammodramus henslowii*)	Not Listed	Endangered	N/A	Prefers extensive, dense, tall grasslands where it can easily conceal its small ground nest. Tends to avoid fields that have been grazed or are crowded with trees and shrubs.	None.	Negligible potential.
Least Bittern (*Ixobrychus exilis*)	Not Listed	Threatened	N/A	Found in a variety of wetland habitats, but strongly prefers cattail marshes with a mix of open pools and channels.	Marsh areas on the Site do not contain open water except for the channel of Poole Creek (high flow). The stormwater management pond to the north (off-Site) may provide suitable stop-over habitat.	Low potential.
Loggerhead Shrike (*Lanius ludovicianus*)	Not Listed	Endangered	N/A	Prefers pasture or other grasslands with scattered low trees and shrubs. Lives in fields or alvars (areas of	None.	Negligible potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
				exposed bedrock) with short grass, which makes it easier to spot prey.		
Olive-sided Flycatcher (*Contopus cooperi*)	**Not Listed**	**Special Concern**	N/A	Found along natural 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.	Wooded areas and adjacent open areas on the Site may provide suitable habitat.	Low potential.
Red Knot (*Calidris canutus rufa*)	**Endangered**	**Endangered**	N/A	Prefer open beaches, mudflats, and coastal lagoons where they feast on molluscs, crustaceans, and other invertebrates.	None.	Negligible potential.
Red-headed Woodpecker (*Melanerpes erythrocephalus*)	**Not Listed**	**Endangered**	N/A	Lives in open woodland and woodland edges and is often found in parks, golf courses, and cemeteries. These areas typically have many dead trees, which the birds use for nesting and perching.	Wooded areas on the Site may provide suitable habitat.	Low potential.
Rusty Blackbird (*Euphagus carolinus*)	**Not Listed**	**Special Concern**	Cornell Lab of Ornithology (2020)	Prefers wet wooded or shrubby areas (nests at edges of boreal wetlands and coniferous forests). These areas include bogs, marshes, and beaver ponds.	Tree and thicket swamps on the Site may provide suitable habitat.	Moderate potential.
Short-eared Owl (*Asio flammeus*)	**Threatened**	**Special Concern**	N/A	Lives in open areas such as grasslands, marshes, and tundra where it nests on the ground and hunts for small mammals.	None.	Negligible potential.
Wood Thrush (*Hylocichla mustelina*)	**Not Listed**	**Threatened**	Bird Studies Canada et al. (2009)	Lives in mature deciduous and mixed (conifer-deciduous) forests. They seek moist stands of trees with well-developed undergrowth and tall trees for singing and perching. Usually build nests in Sugar Maple or American Beech.	Wooded areas on the Site may provide suitable habitat.	Moderate potential.
Yellow Rail (*Coturnicops noveboracensis*)	**Not Listed**	**Special Concern**	N/A	Lives deep in the reeds, sedges, and marshes of shallow wetlands, where they nest on the ground. The marshy areas used by Yellow Rails have an overlying dry mat of dead vegetation that is used to make roofs for nests.	Marsh areas on and adjacent to the Site may provide suitable habitat.	Low potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Mammals						
Eastern Red Bat (Lasiurus borealis)	**Endangered**	**Not Listed**	N/a	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).	The forested area on the Site may provide suitable habitat.	Moderate potential
Eastern Small-footed Myotis (*Myotis leibii*)	**Endangered**	**Not Listed**	KAL (K. Black) personal communication with MECP (S. Snell) on December 17, 2020 (response to SAR information request)	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).	The forested area on the Site may provide suitable habitat.	Moderate potential
Gray Fox (*Urocyon cinereoargenteus*)	**Threatened**	**Threatened**	N/A	Lives in deciduous forests and marshes. Their dens are usually found in dense shrubs close to a water source, but they will also use rocky areas, hollow trees, and underground burrows dug by other animals.	The range of Gray Fox is limited to southwestern Ontario (MECP, 2020a).	Negligible potential.
Little Brown Myotis (*Myotis lucifugus*)	**Endangered**	**Endangered**	KAL (K. Black) personal communication with MECP (S. Snell) on December 17, 2020 (response to SAR information request)	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).	The forested area on the Site may provide suitable habitat.	Moderate potential
Northern Myotis / Northern Long-eared Bat (*Myotis septentrionalis*)	**Endangered**	**Endangered**	KAL (K. Black) personal communication with MECP (S. Snell) on December 17, 2020 (response to SAR information request)	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).	The forested area on the Site may provide suitable habitat.	Moderate potential

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Silver-haired Bat (Lasionycteris noctivagans)	**Endangered**	**Not Listed**	N/a	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).	The forested area on the Site may provide suitable habitat.	Moderate
Tri-coloured Bat / Eastern Pipistrelle (*Perimyotis subflavus*)	**Endangered**	**Endangered**	N/A	Roosts mainly in trees during summer; overwinters in caves and mines along with other species, but often uses deeper parts of the hibernaculum.	Trees and buildings on the Site may provide roosting habitat.	Low potential.
Amphibians						
Western Chorus Frog (*Pseudacris triseriata*)	**Not Listed**	Great Lakes-St. Lawrence population: **Threatened**	Ontario Nature (2019)	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.	Wetland areas on and adjacent to the Site may provide suitable habitat.	Low potential.
Arthropods						
Bogbean Buckmoth (*Hemileuca* sp. 1)	**Endangered**	**Endangered**	N/A	Restricted to open, chalky, low shrub fens containing large amounts of bogbean, an emergent wetland flowering plant.	None.	Negligible potential.
Gypsy Cuckoo Bumble Bee (*Bombus bohemicus*)	**Endangered**	**Endangered**	N/A	Live in diverse habitats including open meadows, mixed farmlands, urban areas, boreal forest, and montane meadows. Host nests occur in	Currently only known to occur in Pinery Provincial Park.	Negligible potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
				abandoned underground rodent burrows and rotten logs.		
Macropis Cuckoo Bee *(Epeoloides pilosulus)*	**Not Listed**	**Endangered**	N/A	Found in habitats supporting both Macropis bees and their food plant, Yellow Loosestrife (*Lysimachia*).	Has not been observed in Ontario in over 45 years (COSEWIC, 2011).	Negligible potential.
Monarch (*Danaus plexippus*)	**Not Listed**	**Endangered**	N/A	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.	The open lawn and wetland areas on the Site provide suitable habitat. Milkweed was observed by KAL during 2020 field surveys.	Moderate potential.
Mottled Duskywing (*Erynnis martialis*)	**Endangered**	**Endangered**	N/A	Requires host plants such as the New Jersey Tea and Prairie Redroot. These plants grow in dry, well-drained soils or alvar habitat within oak woodland, pine woodland, roadsides, riverbanks, shady hillsides, and tall grass prairies.	None.	Negligible potential.
Nine-spotted Lady Beetle (*Coccinella novemnotata*)	**Endangered**	**Endangered**	N/A	Occurs within agricultural areas, suburban gardens, parks, coniferous forests, deciduous forests, prairie grasslands, meadows, riparian areas, and isolated natural areas.	There have been no records of this species in Ontario since the mid-1990s (MECP, 2019e).	Negligible potential.
Rapids Clubtail *(Gomphus quadricolor)*	**Threatened**	**Endangered**	N/A	Inhabits a wide variety of riverine habitats ranging in size from the St. Lawrence River to small creeks. Larvae are typically found in microhabitats with slow to moderate flow and fine sand or silt substrates where they burrow into the stream bed. Adults disperse from the river after emerging and feed in the forest canopy and other riparian vegetation.	There are no records of this species in Ottawa (MECP, 2019f).	Negligible potential.
Rusty-patched Bumble Bee (*Bombus affinis*)	**Endangered**	**Endangered**	N/A	Can be found in open habitat such as mixed farmland, urban settings, savannah, open woods, and sand dunes.	The range of this species is limited to southwestern Ontario (MECP, 2019g).	Negligible potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Transverse Lady Beetle (*Coccinella transversoguttata*)	**Endangered**	**Endangered**	N/A	Able to live in a wide range of habitats, including agricultural areas, suburban gardens, parks, coniferous forests, deciduous forests, prairie grasslands, meadows and riparian areas.	There have been no records of the species in Ontario since 1990 (MECP, 2020b).	Negligible potential.
West Virginia White (*Pieris virginiensis*)	**Not Listed**	**No Status**	N/A	Lives in moist, deciduous woodlots. Requires a supply of toothwort, a small, spring-blooming plant that is a member of the mustard family, since it is the only food source for larvae.	Wooded areas on the Site may provide suitable habitat. Toothwort was not observed on the Site.	Low potential.
Yellow-banded Bumble Bee (*Bombus terricola*)	**Not Listed**	**Special Concern**	N/A	This species is a forage 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.	All areas on the Site may provide suitable habitat given that the species is able to thrive in a variety of environmental settings.	Low potential.
Lichens						
Black-foam Lichen (*Anzia colpodes*)	**Not Listed**	**Threatened**	N/A`	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.	Assumed to no longer occur in Ontario (COSEWIC, 2015).	Negligible potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Flooded Jellyskin (*Leptogium rivulare*)	**Not Listed**	**Special Concern**	N/A	Grows in seasonally flooded habitats, typically on the bark of deciduous trees, on rocks along the margins of seasonal ponds, and on rocks along shorelines and stream/riverbeds.	Treed swamps on the Site may provide suitable habitat.	Low potential.
Pale-bellied Frost Lichen (*Physconia subpallida*)	**Endangered**	**Endangered**	N/A	Typically grows on the bark of hardwood trees such as White Ash, Black Walnut, and American Elm. Can also be found growing on fence posts and boulders.	There are no records of the species in the Ottawa area (MECP, 2019h).	Negligible potential.
Reptiles						
Blanding's Turtle (*Emydoidea blandingii*)	**Threatened**	**Endangered**	MNRF (2020b), Ontario Nature (2019), KAL (2017)	Quiet lakes, streams, and wetlands with abundant emergent vegetation. Also frequently occurs in adjacent upland forests.	Wetland areas on and adjacent to the Site provide suitable habitat.	High potential.
Eastern Musk Turtle / Stinkpot (*Sternotherus odoratus*)	**Not Listed**	**Special Concern**	N/A	Found in ponds, lakes, marshes, and rivers that are generally slow-moving, have abundant emergent vegetation, and muddy bottoms that they burrow into for winter hibernation.	Wetland areas on and adjacent to the Site provide suitable habitat.	Low potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Eastern Ribbonsnake *(Thamnophis sauritus)*	**Not Listed**	**Threatened**	N/A	The Eastern Ribbonsnake is semi-aquatic. It is most frequently found along the edges of shallow ponds, streams, marshes, swamps, or bogs bordered by dense vegetation that provides cover. Abundant exposure to sunlight is also required, and adjacent upland areas may be used for nesting.	Wetland areas on and adjacent to the Site provide suitable habitat.	Low potential.
Milksnake (*Lampropeltis triangulum*)	**Not Listed**	**Special Concern**	Ontario Nature (2019)	Found in variety of open, scrubby or edge habitats, including pastures.	Most areas on the Site likely provide suitable habitat.	Moderate potential.
Northern Map Turtle (*Graptemys geographica*)	**Not Listed**	**Special Concern**	N/A	Lives in rivers and lakeshores where it basks on emergent rocks and fallen trees throughout the spring and summer. In winter, they hibernate on the bottom of deep, slow-moving sections of river.	None.	Negligible potential.
Snapping Turtle (*Chelydra serpentina*)	**Not Listed**	**Special Concern**	MNRF (2020a), MNRF (2020b), California Academy of Sciences and National Geographic Society (2020), Ontario Nature (2019)	Spend most of their lives in the water. Prefer shallow waters so they can hide under the soft mud and leaf litter with only their noses exposed to the surface to breathe.	Wetland areas on and adjacent to the Site provide suitable habitat.	Moderate potential.
Spiny Softshell (*Apalone spinifera*)	**Endangered**	**Endangered**	N/A	Found primarily in rivers and lakes but also in creeks, ditches, and ponds near rivers. Habitat requirements are open sand or gravel nesting areas, shallow muddy or sandy areas to bury in, deep pools for hibernation, areas for basking, and suitable habitat for crayfish and other food species.	Poole Creek and its riparian corridor may provide suitable habitat.	Low potential.

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Spotted Turtle (*Clemmys guttata*)	**Endangered**	**Endangered**	N/A	Semi-aquatic and prefers ponds, marshes, bogs, and even ditches with slow-moving, unpolluted water and an abundant supply of aquatic vegetation.	Poole Creek and its riparian corridor may provide suitable habitat.	Low potential.
Wood Turtle (*Glyptemys insculpta*)	**Endangered**	**Threatened**	N/A	Prefers clear rivers, streams, or creeks with a slight current and sandy or gravelly bottom. Wooded areas are essential habitat but they are found in other habitats such as wet meadows, swamps, and fields.	Poole Creek and its riparian corridor and wooded areas on the Site may provide suitable habitat.	Low potential.
Vascular Plants						
American Chestnut (*Castanea dentata*)	**Endangered**	**Endangered**	N/A	Typical habitat is upland deciduous forests on sandy acidic soils. Occurs with Red Oak, Black Cherry, Sugar Maple, and beech.	None.	Negligible potential.
American Ginseng (*Panax quinquefolius*)	**Threatened**	**Endangered**	N/A	Grows in rich, moist, but well-drained, and relatively mature, deciduous woods dominated by Sugar Maple, White Ash, and American Basswood.	Wooded areas on the Site may provide suitable habitat.	Low potential.
Black Ash	**Endangered**	**Not Listed**	N/A			

Species Name (*Taxonomic Name*)	Status under *Species Conservation Act*	Status under Schedule 1 of the *Species at Risk Act* (SARA)	Observation Record Sources for the General Area	Habitat Description	Habitat on or Near the Site	Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)
Butternut (*Juglans cinerea*)	**Endangered**	**Endangered**	KAL observations during 2020 field surveys for the Site, KAL (K. Black) personal communication with MECP (S. Snell) on December 17, 2020 (response to SAR information request)	Commonly found in riparian habitats but is also found on rich, moist, well-drained loams and well-drained gravels, especially those of limestone origin.	Wooded areas on the Site provide suitable habitat.	High potential.
Eastern Prairie Fringed-orchid (*Platanthera leucophaea*)	**Endangered**	**Endangered**	N/A	Populations are found in three main habitat types: fens, tallgrass prairie, and moist old fields.	None.	Negligible potential.
Fish						
American Eel (*Anguilla rostrata*)	**Endangered**	**Not Listed**	N/A	Primarily nocturnal, hiding in soft substrate or submerged vegetation during the day. Also protected under the *Fisheries Act*.	None.	Negligible potential.
Bridle Shiner (*Notropis bifrenatus*)	**Not Listed**	**Special Concern**	N/A	Prefers clear water with abundant vegetation over silty or sandy substrate.	None.	Negligible potential.
Channel Darter (*Percina copelandi*)	**Not Listed**	**Special Concern**	N/A	Prefers clean streams and lakes with moderate current over sandy or rocky substrate.	None.	Negligible potential.
Lake Sturgeon (*Acipenser fulvescens*)	**Endangered**	**No Status**	N/A	Only found in large lakes and rivers. Forages in cool water, 4-9 m deep over soft substrate; spawns in shallower, fast-flowing areas over rocks or gravel.	None.	Negligible potential.
Northern Brook Lamprey (*Ichthyomyzon fossor*)	**Not Listed**	**Special Concern**	N/A	Non-parasitic species. Prefers shallow areas with warm water. Larvae live in burrows in soft substrate for up to seven years.	None.	Negligible potential.

Species Name (*Taxonomic Name*)	**Status under *Species Conservation Act***	**Status under Schedule 1 of the *Species at Risk Act* (SARA)**	**Observation Record Sources for the General Area**	**Habitat Description**	**Habitat on or Near the Site**	**Potential to Interact with Development of the Site (Negligible, Low, Moderate, High)**
Northern Sunfish (*Lepomis peltastes*)	**Not Listed**	**Special Concern**	N/A	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.	None.	Negligible potential.
River Redhorse (*Moxostoma carinatum*)	**Not Listed**	**Special Concern**	N/A	Prefers fast-flowing, clear rivers over rocky substrate.	None.	Negligible potential.
Silver Lamprey (*Ichthyomyzon unicuspis*)	**Not Listed**	**Special Concern**	N/A	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.	None.	Negligible potential.

Appendix F Butternut Tree Analysis for the Site

Ontario

Ministry of the Environment, Conservation and Parks

Butternut Health Expert's Report Template – Version 2022

Instructions to Butternut Health Experts (BHEs):

Please enter the 6-character BHE Report number: MIY-26-3

BHE Report numbering format:
BHE Report numbers are to be assigned by the BHE using the first 3 letters of BHE's last name, followed by BHE's own 3-digit report numbering system. If the BHE's last name has fewer than 3 letters, use the full last name and numbers for the remaining characters.

BHE Report Number: MIY-26-3

Cover letter to client:
Insert your cover letter to your client here and include the below list of enclosures.

Enclosures:

1. Information from the Ministry of the Environment, Conservation and Parks about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Expert's Report, including the completed Butternut Data Collection Form

Ministry of the Environment, Conservation and Parks
Species at Risk Branch
40 St. Clair Avenue West
14th Floor
Toronto ON M4V 1M2

Ministère de l'Environnement, de la Protection de la nature et des Parcs
Direction des espèces en péril
40, avenue St. Clair Ouest
14e étage
Toronto ON M4V 1M2

Ontario

Information for the Property Owner (or person(s) who requested the enclosed Butternut Health Expert's Report):

The enclosed Butternut Health Expert's Report (BHE Report) documents the results of the Butternut health assessment that was conducted by the Butternut Health Expert (BHE) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be impacted by a proposed activity that are not identified in the enclosed BHE Report, they too must be assessed by a BHE before commencing any actions that may impact those Butternut trees or their habitat.

Butternut (*Juglans cinerea*) is listed as an endangered species in Schedule 2 of Ontario Regulation (O. Reg.) 230/08 "the Species at Risk in Ontario List". As an endangered species, the *Endangered Species Act, 2007* (ESA) prohibits adversely impacting Butternut and its habitat. A permit or agreement under the ESA is required before engaging in an activity that is otherwise prohibited under the ESA. The activity may be eligible for the Butternut conditional exemption in Part V of O. Reg. 830/21, provided the requirements of the regulation are met.

If the proposed activity is eligible for the conditional exemption in Part V of O. Reg. 830/21, the next step is to submit the BHE Report and the Butternut Data Collection Form enclosed in this package to the Ministry of the Environment, Conservation and Parks (MECP).

If the enclosed BHE Report does not identify which Butternut tree(s) are proposed to be killed, harmed or taken and the reasons for doing so (e.g., if "unknown" is indicated in Table 1) or if the information in the last two columns of Table 1 has changed since the date this BHE Report was produced, **do not edit the BHE Report to update this information**. Instead, the report must be submitted together with a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed or taken (by referencing the tree identification numbers) when you submit the BHE Report to MECP.

The BHE Report must be submitted to MECP at least 30 days before registering an activity in respect of the Butternut conditional exemption. MECP may need to examine the Butternut trees subject to the report during this 30-day period. **Adversely impacting Butternut trees during this 30-day period or before registration is completed is prohibited by the ESA.** Further, the conditional exemption for Butternut does not apply unless the requirements of Part V of O. Reg. 830/21 are being followed.

If the proposed activity is eligible for the Butternut conditional exemption, you may register the proposed activity using the "**Notice of Butternut Impact**" form after the 30-day period has elapsed.

If the proposed activity is not eligible for a regulatory exemption, please contact MECP to determine whether the proposed activity would require a permit or agreement under the ESA in order to proceed.

Please retain this information and a copy of the BHE Report for your records, along with any other documentation you may receive from MECP should an examination of the trees occur.

This information should not be relied upon to determine legal obligations. To determine your legal obligations, consult the *Endangered Species Act, 2007* and the relevant regulations made thereunder. These may be found at www.ontario.ca/laws. If legal advice is required, consult a legal professional. In the event of an error on this template or a conflict between this template and any applicable law, the law prevails.

If you have any questions, please contact MECP at SAROntario@ontario.ca.

Butternut Health Expert's Report (BHE Report)

BHE Report Number: MIY-26-3

Butternut Health Expert Contact Information

Name of Butternut Health Expert

Last Name	First Name
Miyashita	Kesia

Mailing Address

Unit Number	Street Number	Street Name	PO Box
16-C	2285	St. Laurent Blvd	

City/Town	Province	Postal Code
OTtawa	ON	K1G 4Z6

Telephone Number	Email Address
613-367-5546	kmiyashita@kilgourassociates.com

Summary of qualifications as a Butternut Health Expert

a) expertise in relation to butternut

Kesia Miyashita has five years of experience conducting surveys for Butternut. She has received internal training from colleagues at Kilgour & Associates who are certified Butternut Health Assessors. She has completed numerous Butternut Health Assessments since 2024 as the lead botanist.

b) expertise, education, training and experience necessary to assess the health of butternut trees

Kesia Miyashita has five years of experience conducting surveys for Butternut and Butternut Health Assessments. She has received internal training from colleagues at Kilgour & Associates who are certified Butternut Health Assessors (having completed the MNRF Butternut Health Assessor Course prior to its discontinuation). Kesia has undertaken numerous Butternut Health Assessments since 2024 as the lead botanist.

Property Owner Contact Information

Name of Property Owner (or representative)

Last Name	First Name
Zayoun	Hussein

Mailing Address

Unit Number	Street Number	Street Name	PO Box
	190	Lisgar Street	

Lot Number	Concession	Township	Rural Route

City/Town	Province	Postal Code
Ottawa	ON	K2P 0C4

Telephone Number	Email Address
305-607-8749	carmine@zayoungroup.com

Site Location

Unit Number	Street Number	Street Name	PO Box
	37	Wildpine Court	

Lot Number	Concession	Township	Rural Route

City/Town	Province	Postal Code
OTtawa	ON	K2S 1C6

Additional Site Location Information

One Butternut tree (BN002) is situated near the edge of a deciduous forest patch (ELC unit: FODM9-5). It is a large, mature tree with a DBH of 65 cm. Site is located on City Land, near the Stittsville Wetland Complex (not a provincially significant wetland) and surrounded on other sides by residential and commercial developments.

Add

Two dead Butternuts were also observed within the FODM905 ELC unit; both dead trees were sufficiently distant from the proposed development area that anticipated works would not require their removal.

Date(s) of Butternut health assessment

Start Date (yyyy/mm/dd) 2026/07/30

End Date (yyyy/mm/dd) 2026/07/30

Date BHE Report prepared (yyyy/mm/dd) 2026/09/04

Map datum used: ☐ NAD83 ☐ WGS84

Total number of trees assessed in this BHE Report 1

The assessed trees were numbered on site using white flagging tape

The numbers at the site correspond to the tree identification numbers referenced in this report.

This BHE Report includes the following tables:

- Table 1: Butternut trees assessed by the BHE
- Table 2: Trees determined by the BHE to be Butternut hybrids
- Table 3: Summary of Butternut health assessment results

Table 1: Butternut trees assessed by the BHE

Tree ID #	UTM coordinates	Accuracy (+/-)	Category[1] (1, 2 or 3)	Tree stem diameter[2] (cm)	Is tree stem shorter than 1.37 m? (Yes/No)	Cultivated? (Yes/No)	Proposed to be: (killed, harmed, taken, or unknown[3])	If tree is proposed to be killed, harmed or taken, indicate reason tree is to be killed, harmed or taken, if known
002	18T 501298[illegible] m N, 427213 m E	0.6m	2	65	No	No	harmed	development activity (SWM construction) within the portion of the CRZ extending onto the adjacent development lands
		m						
		m						

[1] Details regarding the extent to which the tree is affected by Butternut Canker is presented in the Butternut Data Collection Form that accompanies this BHE Report.

[2] Diameter of the tree stem rounded to nearest cm, measured in accordance with the Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the *Endangered Species Act, 2007*

[3] In this column, “unknown” indicates that at the time of assessment and reporting, there are no proposals to kill, harm or take this tree that are known to the BHE.

Table 2: Trees determined by the BHE to be Butternut hybrids

Tree ID #	UTM coordinates	Method used (genetic testing or field identification)	Additional Comments on Method Used

Tree ID #	UTM coordinates	Method used (genetic testing or field identification)	Additional Comments on Method Used

Table 3: Summary of Butternut health assessment results

Result	Total number of trees in this category	Information for persons planning activities that may impact Butternut
Category 1		• Category 1 Butternut tree — the Butternut tree is affected by Butternut Canker to such an advanced degree that retaining the tree would not support the protection or recovery of Butternut trees in the area in which the tree is located.
		• If the proposed activity will kill, harm or take one or more Butternut trees of any category (including Category 1), the BHE Report must be submitted to MECP at SARontario@ontario.ca.
Category 2	1	• Category 2 Butternut tree — the Butternut tree is not affected by Butternut Canker or the Butternut tree is affected by Butternut Canker but the degree to which it is affected is not as advanced as a Category 1 Butternut tree and retaining the tree could support the protection or recovery of Butternut trees in the area in which the tree is located.
		• Activities that may kill, harm or take up to a **maximum of fifteen (15)** Category 2 trees may be eligible for the conditional exemption in Part V of Ontario Regulation 830/21. Refer to the regulation for eligibility conditions and requirements that must be fulfilled.
		• If the proposed activity will kill, harm or take more than fifteen (15) Category 2 trees, **contact MECP** for information on how to seek an ESA authorization (e.g., a permit).
Category 3		• Category 3 Butternut tree — the Butternut tree may be useful in determining sources of resistance to Butternut Canker.
		• Activities that may kill, harm or take up to a **maximum of five (5)** Category 3 trees may be eligible for the conditional exemption in Part V of Ontario Regulation 830/21. Refer to the regulation for eligibility conditions and requirements that must be fulfilled.
		• If the proposed activity will kill, harm or take more than five (5) Category 3 trees, contact MECP for information on how to seek an ESA authorization (e.g., a permit).

Result	Total number of trees in this category	Information for persons planning activities that may impact Butternut
Cultivated		• An activity that will kill, harm or take a cultivated Butternut tree that was required to be planted to fulfil a condition of an ESA permit or agreement, or a conditional exemption, is **not** eligible for the exemption for cultivated trees that is provided by subsection 25 (5) of O. Reg. 830/21. Refer to the regulation for eligibility conditions.
Hybrid		• Hybrid Butternut trees are not protected under the ESA but impacts to these trees may be subject to local municipal by-laws and other legislation.

Additional Information on Cultivated Tree Determination

Please note:

- A BHE Report that is submitted to MECP must include the completed Butternut Data Collection Form. As appropriate, please also ensure additional relevant documentation to support the assessment (e.g., completed Data Sheets for Field Identification of Butternut Hybrids, evidence that the Butternut was cultivated) and all relevant maps and photographs are provided.
- During the 30-day period that follows the submission of this BHE Report to MECP, no Butternut trees (of any category) may be killed, harmed or taken. MECP may need to examine the Butternut trees subject to the report during this 30-day period.

Butternut Health Expert's Comments

One Butternut tree (BN002) is situated near the edge of a deciduous forest patch (ELC unit: FODM9-5). It is a large, mature tree with a DBH of 65 cm. While the tree itself is situated outside the proposed development limits, its CRZ extends to the development site by a maximum distance of 8.6 m. Proposed development works within that portion of the CRZ are anticipated to result in harm to the tree.

Two dead Butternuts were also observed within the FODM905 ELC unit; both dead trees were sufficiently distant from the proposed development area that anticipated works would not require their removal.

Ontario

Ministry of the Environment, Conservation and Parks

Butternut Data Collection Form

Butternut (*Juglans cinerea*) is listed as an endangered species in Schedule 2 of Ontario Regulation 230/08 "the Species at Risk in Ontario List". As an endangered species, the *Endangered Species Act, 2007* (ESA) prohibits adversely impacting Butternut and its habitat. A permit or agreement under the ESA is required before engaging in an activity that is otherwise prohibited under the ESA. The activity may be eligible for the Butternut conditional exemption in Part V of Ontario Regulation 830/21, provided the requirements of the regulation are met. For more information please refer to the following links:

Endangered Species Act, 2007
Ontario Regulation 830/21 (Exemptions – Species Subject to Species Conservation Charges)
Ontario Regulation 230/08 (Species at Risk in Ontario List)
Ontario Regulation 242/08 (General Regulation)
Information about ESA permits and authorizations
Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the Endangered Species Act, 2007

A Butternut Health Expert's Report (BHE Report) completed by a "Butternut Health Expert" (BHE) as defined in section 21 of Ontario Regulation 830/21 is typically required as part of an application to the Ministry of the Environment, Conservation and Parks (MECP) for a permit or agreement under the ESA and is required in respect of the conditions of the Butternut conditional exemption in Part V of O. Reg. 830/21. **This Butternut Data Collection Form must be completed by the BHE and included in their BHE Report.**

This form should not be relied upon to determine your legal obligations. To determine your legal obligations, consult the *Endangered Species Act, 2007* and the relevant regulations made thereunder. These may be found at www.ontario.ca/laws. If legal advice is required, consult a legal professional. In the event of an error on this form or a conflict between this form and any applicable law, the law prevails.

Notice of Collection and Use

Personal information on this form is collected under the authority of Section 53 of the ESA and section 38 of the *Freedom of Information and Protection of Privacy Act*. Forms that have been submitted to MECP may be used by MECP staff to contact the property owner (or person acting on their behalf) to request permission to access the assessed trees for the purpose of examining the trees or to contact the BHE who prepared the BHE Report. Questions about the use of your personal information should be directed to the Species at Risk Branch, Ministry of the Environment, Conservation and Parks, 300 Water Street, Peterborough Ontario, K9J 3C7 at speciesatriskregistry@ontario.ca.

Fields marked with an asterisk (*) are mandatory.

Butternut Health Expert's Report Number*	Start Date of Butternut Health Assessment (yyyy/mm/dd)*	End Date of Butternut Health Assessment (yyyy/mm/dd)*
MIY-26-3	2026/07/30	2026/07/30

Butternut Health Expert (BHE) Contact Information

Last Name*		First Name*
Miyashita		Kesia
Telephone Number*	**Alternate Telephone Number**	**Email Address***
613-367-5546		kmiyashita@kilgourassociates.com

Summary of Qualifications as a Butternut Health Expert*

Ms. Miyashita has 10 years of experience in environmental consulting and more than 16 seasons of field experience in ecosystems in Ontario, 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 invasive weed surveys in a variety of natural environments, including native forest, urban nature preserves, grasslands, and wetlands.

Property Owner Contact Information

Last Name*	First Name*
Zayoun	Hussein

Company Name: Wildpine Trails Inc.

Mailing Address*

Unit Number	Street Number	Street Name	PO Box
	190	Lisgar Street	

Lot Number	Concession	Township	Rural Route

City/Town	Province	Postal Code
Ottawa	Ontario	K2P 0C4

Telephone Number *	Alternate Telephone Number	Email Address
305-607-8749		carmine@zayoungroup.com

Butternut Tree(s) Location Information

Address* ☐ Select if location of Butternut is the same as the property owner's mailing address

Unit Number	Street Number	Street Name	PO Box
	37	Wildpine Court	

Lot Number	Concession	Township	Rural Route

City/Town	Province	Postal Code
Ottawa	ON	K2S 1C6

General description of area containing Butternut (select one)

☑ Natural ☐ Rural ☐ Urban - Suburban ☐ Industry / Resource Extraction Area

Soil drainage (select one)

☐ Well Drained ☑ Moderately Drained ☐ Poorly Drained ☐ Unknown

Have any of the Butternut at this site produced seeds?

☐ Yes ☐ No ☑ Unknown

General Comments

One Butternut tree (BN002) is situated near the edge of a deciduous forest patch (ELC unit: FODM9-5). It is a large, mature tree with a DBH of 65 cm. Site is located on City Land, near the Stittsville Wetland Complex (not a provincially significant wetland) and surrounded on other sides by residential and commercial developments.

Two dead Butternuts were also observed within the FODM905 ELC unit; both dead trees were sufficiently distant from the proposed development area that anticipated works would not require their removal.

Butternut Tree Data

Tree Identification Number* **002** Date of Assessment (yyyy/mm/dd)* 2026/07/30

UTM Zone* 18T Northing* 5012989 Easting* 427213

Is this tree a Butternut tree or a putative hybrid? * ☑ Butternut ☐ Putative Hybrid

Is the stem of this tree shorter than 1.37 m? * ☐ Yes ☑ No

Is this a single or multi-stemmed tree? * ☑ Single Stem ☐ Multiple Stems

Live Crown %* 100 Tree Stem Diameter (cm)* 65

Number of sooty cankers* At or below 2m (the lower stem) 6 Above 2m 3 At the root (root flares) 4

Number of open cankers* At or below 2m (the lower stem) 1 Above 2m 1 At the root (root flares) 3

Metres from badly cankered tree* ☐ 40 metres or less ☐ Greater than 40 metres ☐ None found

Crown Class ☐ Dominant, full sun ☑ Co-dominant, two sides in the sun ☐ Intermediate, sun only from above ☐ Suppressed, shaded crown

Signs of Stress ☑ Twig dieback ☐ Branch dieback ☑ Defoliation ☐ Discolouration

Seed Signs ☐ Mature stamens or pollen ☐ Receptive pistils ☐ Seed set ☑ None ☐ Unknown

Below Crown Number of stems 1 Main stem length (m) below crown 6

Number of epic-live 0 Number of epic-dead 0 Number of callused wounds 6

Bark type: ☑ Deep furrows/Narrow ridges ☐ Shallow furrows/Wide ridges

Tree Origin ☐ Naturally-occurring ☐ Planted (cultivated) ☑ Unknown

Is this tree located in an area that is upland, wetland, or riparian? ☑ Upland ☐ Wetland ☐ Riparian

Vegetation Community ☐ Open ☐ Shrub thicket ☐ Savannah - Woodland ☑ Forest

If Savannah-Woodland or Forest selected, select one option from both groups:

☑ Deciduous ☐ Coniferous ☐ Mixed

☑ Climax ☐ Regenerating

Does this tree occupy edge habitat? ☐ Yes ☐ No

If "Yes", select which edge habitat:

☐ Road ☐ Trail ☐ Utility corridor

☐ Fencerow ☑ Forest/woodlot edge ☐ Watercourse/waterbody

Competing Species 1. BittHic 2. Ironwd 3. Basswd

Comments about this tree

(Use this space to provide comments about this tree, or to record the file numbers of photos of this tree)

BHE Report Number	Start Date of Butternut Health Assessment (yyyy/mm/dd)	End Date of Butternut Health Assessment (yyyy/mm/dd)
MIY-26-3	2026/07/30	2026/07/30

Total Number Butternut Trees in BHE Report	Butternut Health Expert's Name
1	Miyashita, Kesia

Property Owner/Client Name	Property Address
Zayoun, Hussein	37 Wildpine Court Ottawa ON K2S 1C6

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Tree #	Live Crown %	Tree stem diameter (cm)	# bole cankers (BC)				# root flare cankers (RF)		40 m or less from cankered tree? (Y or N)	Circ. (cm) = Pi * tree stem diameter	Total BC Width (cm) = (D * 2.5) + (E * 2.5) + (F * 5) + (G * 5)	Total RF Width (cm) = (H * 2.5) + (I * 5)	Total BC Width % of Circ. = L / K * 100	Total RF Width % of Circ. = M / K * 100	Total BC + RF Width % of 2 * Circ. = (N + O) / 2	Tree Categories: 1, 2, or 3				
			Sooty (S) (will be assigned 2.5 cm per canker) Open (O) (will be assigned 5 cm per canker)													= Cat 2 if B >= 50 and N=0 else = Cat 1	= Cat 2 if B > 70 and P < 20 else = Cat 1	= Cat 2 if B > 70 and N < 20 else = Cat 1	**Preliminary tree call** = Cat 2 if Q= Cat 2 or R= Cat 2 or S= Cat 2 else = Cat 1	**Final tree call** = Cat 3 if T= Cat 2 and C > 19 and J='Y' else T
			S <= 2m	S > 2m	O <= 2m	O > 2m	S	O												
2	100	65	6	3	1	1	4	3		204.1	32.5	25.0	15.92	12.25	14.09	1	2	2	2	