

110394936 Canada Inc.

Petrie III 8600 Jeanne D'Arc Boulevard North

ENVIRONMENTAL IMPACT STATEMENT



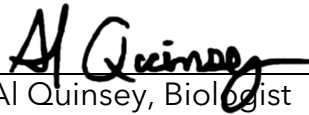
CIMA+ project number: A001295
08 June 2026 - Review 002



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ENVIRONMENTAL IMPACT STATEMENT



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History of Revisions			
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001	AQ/ML/AS	20250213	Addressing OPA (D01-01-23-0018) and Plan of Subdivision comments (D07-16-23-0021)
002	AQ/ML	20260513	Addressing City Comments Round 2

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Glossary of Terms

Adjacent Lands	Typically 120 m, or wider to address other guidelines (i.e., MECP with respect to endangered or threatened species)
Development Area	Portion of the Property to be impacted by development of residential subdivision. Excludes the works on the north side of Jeanne d'Arc Boulevard North.
Property	8600 Jeanne d'Arc Boulevard North
Site	all areas impacted by works proposed for the development of the subdivision (i.e., grading, lot creation, road creation, infrastructure) and includes the outlet to the north of Jeanne d'Arc Boulevard North.

List of Acronyms

ANSI	Area of Natural and Scientific Interest
BHA	Butternut Health Assessment
BHE	Butternut Health Expert
CASAR	Canadian Aquatic Species at Risk
CC	Coefficient of Conservation
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
DBH	Diameter-at-breast Height
DFO	Fisheries and Oceans Canada
EIS	Environmental Impact Study
ELC	Ecological Land Classification
ESA	Endangered Species Act, 2007(Provincial)
FA	Fisheries Act
FWCA	<i>Fish and Wildlife Conservation Act, 1997</i> (Provincial)
GPS	Global Positioning System
NAD 83	North American Datum 1983
UTM	Universal Transverse Mercator
LIO	Land Information Ontario
NHA	Natural Heritage Assessment
NHIC	Natural Heritage Information Centre
NHRM	Natural Heritage Reference Manual
MBCA	<i>Migratory Bird Convention Act, 1994</i> (Federal)
MECP	Ministry of Environment, Conservation and Parks
MNR	Ministry of Natural Resources
MTO	Ministry of Transportation of Ontario
OBBA	Ontario Breeding Bird Atlas
OP	Official Plan
ORAA	Ontario Reptile and Amphibian Atlas
OSAP	Ontario Stream Assessment Protocol
OWES	Ontario Wetland Evaluation System
PSW	Provincially Significant Wetlands
ROW	Right of Way
RVCA	Rideau Valley Conservation Authority

SAR	Species at Risk (in this report they refer to species that are provincially or federally listed as endangered or threatened and receive protection under ESA or SARA)
SARA	Species at Risk Act (Federal)
SARO	Species at Risk in Ontario
SWHTG	Significant Wildlife Habitat Technical Guide

List of Definitions

SRANK Definitions

- S1 Critically Imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
- S2 Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
- S3 Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4 Apparently Secure; uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 Secure; Common, widespread, and abundant in the nation or state/province.
- ? Inexact Numeric Rank—Denotes inexact numeric rank
- SNA Not Applicable – A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
- S#B Breeding
- S#N Non-Breeding

SARA Status Definitions

- END Endangered: a wildlife species facing imminent extirpation or extinction.
- THR Threatened: a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
- SC Special Concern: a wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

SARO Status Definitions

- END Endangered: A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's ESA.
- THR Threatened: A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
- SC Special Concern: A species with characteristics that make it sensitive to human activities or natural events.

Coefficient of Conservatism Ranking Criteria

- 0 Obligate to ruderal areas.
- 1 Occurs more frequently in ruderal areas than natural areas.
- 2 Facultative to ruderal and natural areas.
- 3 Occurs less frequent in ruderal areas than natural areas.
- 4 Occurs much more frequently in natural areas than ruderal areas.
- 5 Obligate to natural areas (quality of area is low).
- 6 Weak affinities to high-quality natural areas.
- 7 Moderate affinity to high-quality natural areas.
- 8 High affinity to high-quality natural areas.
- 9 Very high affinity to high-quality natural areas.
- 10 Obligate to high-quality natural areas

1. Introduction

CIMA+ was retained by 110394936 Canada Inc., hereafter referred to as the proponent, to update the Environmental Impact Statement (EIS) prepared by Bowfin Environmental Consulting Inc. (Bowfin) for the development of a mixed-use commercial and residential area, Petrie's Landing III (the "Site"). Note that Bowfin merged its services with CIMA+ in 2022, and the file was transferred to CIMA+. The following report has been updated based on comments received from the City of Ottawa (April 15, 2024), and additional information on the servicing (Stantec, 2025), and legislative changes.

1.1 Project Description

The development proposal consists of fully serviced residential housing connected to the City's water and sanitary systems. No stormwater management ponds are predicted for this Site, instead any stormwater runoff will be directed to the Ottawa River via the two existing outlets (Stantec, 2025). The details on the design for these services will be finalized at the detailed design stage, and these will ensure that an enhanced level of water quality control (e.g., 80% total suspended solids removal) is achieved that design meets Ministry of Environment, Conservation, and Parks (MECP) regulations. For the purposes of this report, the following terminology is used:

- "Property" refers to 8600 Jeanne d'Arc Boulevard North;
- "Development Area" refers to the development footprint within the Property (excludes the work on the north side of Jeanne d'Arc Boulevard North)
- "Site" refers to all areas impacted by works proposed for the development of the subdivision (i.e., grading, lot creation, road creation, infrastructure) and includes the construction of the outlets to the north of Jeanne d'Arc Boulevard North.

The potential to impact the natural heritage features on the Site or in the adjacent lands (i.e., 120 m for natural heritage features, or as appropriate based on provincial requirements for species at risk [SAR]) were evaluated.

1.2 Project Location

The Property, which amounts to roughly 7.5 ha, is situated at 8600 Jeanne d'Arc Boulevard North. It is bordered by Jeanne D'Arc Boulevard North to the north and Regional Road 174 to the south, and falls approximately 400 m west of Trim Road, immediately west of La Cité.

The Property is situated in part of Lots 31 and 32, Concession 1 in the Geographic Township of Cumberland, City of Ottawa (UTM 18T 461807 m E; 5037977 m N, and Latitude 45.49410 Longitude -75.48884) (Figure 1).

All work associated with the development is situated on the south side of Jeanne d'Arc Boulevard N, on the Property, with the exception of the stormwater outlets. The stormwater from the Site will discharge at two locations to the north of Jeanne d'Arc Boulevard N:

- One will make use of an existing stormwater culvert that outlets to the north side of the boulevard, north of the recreational pathway;
- The other will discharge into the south road ditch of Jeanne d'Arc Boulevard North.

1.3 Summary of Project Activities

The development of the residences will include the following activities:

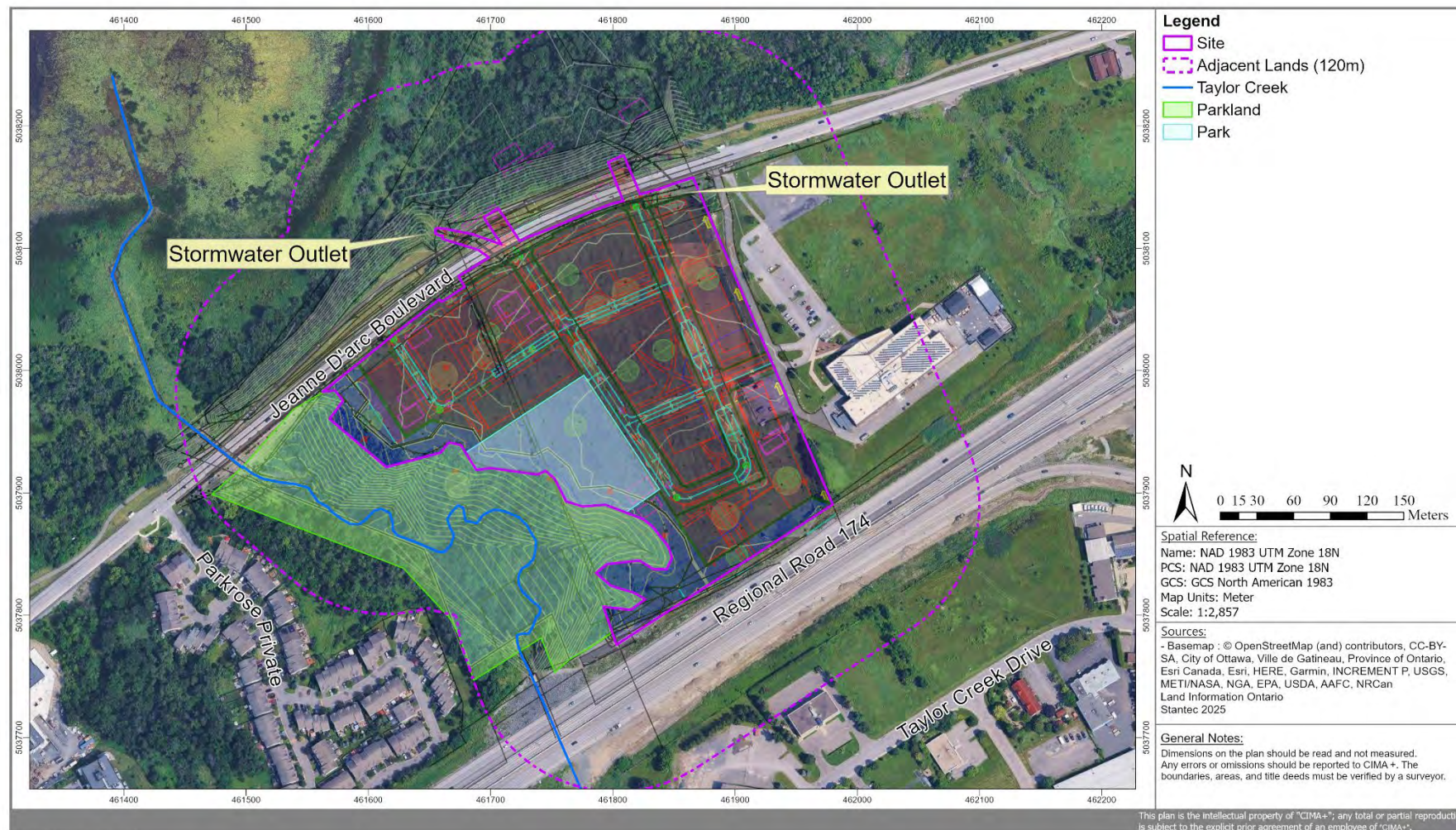
- Clearing of terrestrial vegetation;
- Excavation, grading, and backfilling; and
- Construction of residences and services (subdivision will be fully serviced).

Early on in the process, the development footprint was adjusted to minimize impacts to the natural heritage features:

- The buildings, parking, and roads are not situated within any of the identified natural heritage features.
- Setbacks were established, based on the greatest of hazards or natural heritage features as per the Official Plan (OP) Section 4.8.1. These include a conservation authority's hazard limit, geotechnical hazard limit identified through a study adhering to Slope Stability guidelines, top of bank, and existing stable to of slope (Table 1). Development limits are depicted on Figure 4 and Figure 11.
- The grading plan minimizes disturbances to natural areas. If mature vegetation or clearing of vegetation within the hazard lands is mandatory, this will be minimized, appropriate erosion and sediment control measures implemented, and area re-planted with native vegetation including woody species.
- Only a small portion of the development is situated within 30 m of watercourses or wetlands. This was originally planned to minimized impact to what was termed "Category 2 habitat of Blanding's Turtle" under the Endangered Species Act (ESA) which is no longer applicable under the new Species Conservation Act (SCA).

1.4 Purpose

The purpose of this EIS is to collect and evaluate available information from background review and site investigations in order to make an informed decision as to whether the proposed works will have a negative impact on significant natural features and/or ecological functions present in the Site or adjacent lands. Using this data, the functions and values of the natural features within the site and its adjacent lands are assessed, followed by an evaluation of significance as per applicable legislative requirements and guidelines. The report concludes with recommendations on avoidance and mitigations to protect natural features and minimize negative impacts.



Petrie's Landing III
 8600 Jeanne d'Arc, Ottawa, ON
 11034936 Canada Inc.

Ref #: A001295

CIMA+

Revision 00 - - Issued for report - July 2, 2025 2:01:47 PM

Figure 1: General Location of Site

2. Legislative Context

2.1 Provincial – Official Plan

As per the 2021 OP, an EIS is required to determine if significant natural features have been designated in or adjacent to the Site, followed by an assessment of the potential impacts to these features. The City's natural heritage features (NHF) are listed in Subsection 4.8.1 Policy 3 and summarized in Table 1 below.

The City designates greater significance to features that are **within** a Natural Heritage System (NHS) than those outside of its boundaries. The NHS includes both Core Natural Areas and Natural Linkage Areas (NLAs). All of these are found on Schedule C11. As is noted in Section 4.1, the area is identified as being within the Urban Area. The OP further identifies the sub-designation of Urban Natural Features (UNF), which refer to natural heritage features that are protected throughout the City's Urban Area. As per City of Ottawa policies (OP Subsection 5.6.4.1 Policy 2), the mapping provided in the OP is high-level and the edges of the natural heritage features are to be confirmed through delineation onsite. The edges as per the schedules are shown on Figure 7, copies of the relevant OP schedules are in Appendix A.

This EIS follows the *City of Ottawa Environmental Impact Statement Guidelines* (City of Ottawa, 2023). The Tree Conservation Report was provided as a stand-alone document and approved by the City.

It is noted that there are no Community Design Plans for this area.

Table 1: Summary of Natural Heritage Features

Natural Heritage Feature	Reference for the City of Ottawa OP (2021), last updated November 2022
Significant habitat of Endangered and Threatened Species (SAR)	Section 4.8.1. Site-specific basis as per provincial guidelines. The City's EIS Guidelines (City of Ottawa, 2023) indicate that federally and provincially legislated lists of SAR should be consulted as well as the City's list of SAR.
Significant wetlands	Section 4.8.1, 4.9.3, and 7.3 Policy 2. Wetland boundaries may need to be verified in the field as per the province's Ontario Wetland Evaluation System, Southern Manual 3.3 (2014). Section 4.8.1, Policy 5 states that development and site alteration are "prohibited" in provincially significant wetlands. Evaluated wetlands not

Natural Heritage Feature	Reference for the City of Ottawa OP (2021), last updated November 2022
	deemed provincially significant are subject to a “no net loss approach”, achieved through a variety of mechanisms in place by the City, including land use planning, development processes, and stewardship. In accordance with Section 4.9.3, Policy 6(f), minimum setback recommendations shall be established through Section 4.9.3, Policy 5 (headwater drainage features) for non-significant, hydrologically connected wetlands less than 0.5 ha in size. Minimum setbacks for other non-significant wetlands shall be determined through an EIS.
Significant valleylands	Section 4.8.1. Valleylands to be evaluated for significance based on the Natural Heritage Reference Manual (NHRM) (2005).
Significant woodlands	Section 4.8.1. Woodlands are to be defined and evaluated using the Significant Woodland – Guidelines for Identification, Evaluation, and Impact Assessment (City of Ottawa, 2022).
Significant wildlife habitat	Section 4.8.1. Site-specific basis as per provincial guidelines. SWH is to be defined and evaluated using the province’s Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (2015).
Areas of Natural and Scientific Interest	Section 4.8.1. Mapped on provincial databases (i.e., Land Information Ontario).
Urban Natural Features	Section 4.8.1 and 7.3 Policy 1.
Natural Environment Areas	Section 4.8.1 and 7.3 Policy 3.
Natural linkage features and corridors	Section 4.8.1.
Groundwater features	Section 4.8.1 and 4.9.4. Part of the water resources system.
Surface water features, including Fish Habitat	Sections 4.8.1 & 4.9.3. Part of the water resources system. Definitions of features include those by the <i>Fisheries Act</i> for fish habitat or Evaluation, Classification, and Management of Headwater Drainage Features Guidelines (2014) for headwater drainage features. Section 4.9.3, Policy 1 indicates that development or site alteration shall be subject to minimum setbacks as established by an approved watershed, sub-watershed, or environmental management plan. Where an approved management plan does not exist, minimum setback recommendations are as follows: a conservation authority’s hazard limit, floodplain, geotechnical hazard limit using the approved Slope Stability Guidelines, 30 m from the top of bank, and 15 m from the existing stable top of slope. Where minimum setbacks cannot be achieved, additional

Natural Heritage Feature	Reference for the City of Ottawa OP (2021), last updated November 2022
	studies and assessment of water features will be required (i.e., fish and fish habitat, riparian habitat).
	Site investigations of surface water features will be required, and findings may trigger the FA.
Landform features	Section 4.8.1.

2.2 Provincial - Other Acts and Regulations

2.2.1 Species Conservation Act

On March 30, 2026, the former *Endangered Species Act, 2007* (ESA) was officially repealed and replaced by the *Species Conservation Act, 2025* (SCA). Section 16 of the SCA regulates activities that result in:

- The killing, harming, capturing or taking of a member of a species that is listed on the Protected Species in Ontario (PSO) List, or
- Damage to or destruction of the habitat of a species that is listed on the Protected Species in Ontario List

These restrictions remain in place until the activity has either been Registered or a Permit obtained following the O. Reg. 75/26 (Registrable Activities) or O. Reg. 74/26 (Permit Activities) or if the activity is listed on O. Reg. 61/26 (Excepted Activities – No Permit or Registration).

It is noted that under Section 4 of the Act, birds protected by the Migratory Birds Convention Act, 1994 or as aquatic species under subsection 2(1) of the *Species at Risk Act* (SARA) are not protected by SCA.

The SCA is applicable on private and provincial lands. It can also sometimes be applicable to federal lands.

Species on the PSO list have been selected by the Minister and are then classified by the Committee on the Status of Species at Risk in Ontario (COSSARO) designation as either Endangered (END), Threatened (THR), or Special Concern (SC). Endangered indicates that the species lives in the wild in Ontario but is facing imminent extinction or extirpation. Threatened indicates the species lives in the wild in Ontario, is not endangered, but is likely to become endangered if steps are not taken to address the factors threatening it. Species classified as Special Concern are not afforded protection under the Act.

It is important to note the policies to the new definition of “habitat” under the SCA as outlined on <https://www.ontario.ca/page/how-species-risk-are-protected-and-conserved> (reviewed May 22, 2026)

“Under the SCA, habitat is defined as follows:

- *for animal species:*
 - *a dwelling place, such as a den, nest, or similar place, occupied or habitually occupied by one or more members of a species for the purposes of breeding, rearing, staging, wintering, or hibernating*
 - *the area immediately surrounding a dwelling place described above that is essential for the purposes mentioned*
- *for vascular plant species:*
 - *the critical root zone surrounding a member of the species*
- *for all other species (for example, lichens): an area on which any member of the species directly depends to carry on its life processes*

*Habitat for animals **does not** include areas used **exclusively for foraging or travelling** between dwelling places.”*

2.2.2 Conservation Authorities Act

On April 1, 2024, changes to the *Conservation Authorities Act* and a new regulation (O. Reg. 41/24) under the Act came into effect. Note that O.Reg. 41/24, Prohibited Activities, Exemptions, and Permits, replaces all previous Conservation Authority development regulations.

2.2.3 Fish and Wildlife Conservation Act

In addition to the protections offered by the statutes and policies noted above, the *Fish and Wildlife Conservation Act*, 1997, administered by the Ministry of Natural Resources (MNR), needs to be considered. This Act imposes restrictions on the hunting, trapping, and fishing of wildlife, as well as the possession of animals (live or dead). These restrictions include the capturing or harassing of specially protected wildlife or any wild bird species (not a game bird and not listed as an exception) regardless of its live stage (egg, adult) (Part II 5 (1)). It also protects nests or eggs of wild bird species (other than American crow, brown-headed cowbird, common grackle, house sparrow, red-winged blackbird, or starling) (Part II 7(1)). In case of conflicting provisions with the *Endangered Species Act*, 2007, the Act providing greater protection for the animal, invertebrate, or fish in question will prevail.

2.3 Federal

2.3.1 Fisheries Act

The *Fisheries Act*, last amended on August 28, 2019, is intended to provide a framework for the management of threats to fish¹ and fish habitat, including the prevention of pollution, regardless of their attachment to a fishery. The most relevant sections to works, undertakings and activities are:

- Prohibition of the Death of Fish (Section 34.4 (1));
- Prohibition of the Harmful alteration, disruption, or destruction of Fish Habitat (Section 35 (1));
- Prohibition on discharging deleterious substances (Section 36); and,
- The provisional Ministerial powers to ensure the free passage of fish or the protection of fish or fish habitat with respect to existing obstructions (Section 34.3).

Under the updated *Fisheries Act*, certain types of waterbodies remain that do not require DFO review. Generally, these are projects that will occur on a waterbody that is not connected to fish habitat and does not contain fish at any time of year.

2.3.2 Migratory Birds Convention Act

The *Migratory Birds Convention Act, 1994* (MBCA) regulates the protection and conservation of migratory birds as populations and individuals. It also offers protection for nests containing a live bird or viable eggs for most migratory bird species. Schedule 1 under the Migratory Bird Regulations (2022) lists 18 species that may reuse nests and whose nests are protected year-round regardless of occupation, unless the nest has been reported and deemed abandoned after a waiting period. Species listed under Schedule 1 that occur in Ontario include great egret, great blue heron, cattle egret, green heron, snowy egret, black-crowned night heron, and pileated woodpecker. The Migratory Bird Regulations (2022) prohibit the disturbance, damage, or destruction of migratory bird nests or eggs. These prohibitions and regulations apply to any areas where migratory birds and their nests are found in Canada.

¹ Summary of the FA definition of fish: parts of fish, shellfish, crustaceans, marine animals, and any parts of these, and eggs, sperm, spawn, larvae and juvenile stages of the above list.

2.3.3 Species at Risk Act

Federally protected species are listed in 'Schedule 1' of the *Species at Risk Act* (SARA). The application of SARA varies depending on the species and the level of government with jurisdiction over the land. In general, the relevant sections are:

- Prohibition of killing, harming, harassment, capturing or taking of an individual listed as extirpated, endangered, or threatened (Section 32(1))
- Prohibition of possessing, collecting, buying, selling, or trading an individual listed as extirpated, endangered, or threatened (Section 32(2))
- Prohibition against the damaging or destruction of residences of species listed as endangered or threatened. For extirpated species, the recovery strategy must also recommend the reintroduction of the species into the wild in Canada (Section 33)

However, on lands that are not federal, Sections 32 and 33 do not apply except for aquatic species (those listed as "fish" under the *Fisheries Act*) or a migratory bird as per the *Migratory Birds Convention Act, 1994* (MBCA), unless a federal order has been created. For bird species with defined residences, the residences are protected year-round on all lands, while nests (that are now also defined as "residences") are protected during the nesting period (CWS, 2025).

3. Methodology

3.1 Area of Impact

The Site and adjacent natural heritage features were examined and analyzed by the review of available information from desktop research, and site investigations. For the most part, the OP calls for an evaluation of the areas to be impacted directly and the adjacent lands (120 m). This area is widened when analyzing the potential for species at risk (SAR) as their protected habitats vary with the species being considered.

3.2 Background Review

Where the OP indicated that the features to be considered were those identified on their schedules, these took precedence along with any consultation comments from reviewing agencies. Other information collected from outside sources was used to help inform the functions of these features and to identify those not found on the schedules (i.e., endangered and threatened species habitat). Information from government websites, other consultants' reports, and personal knowledge has also been included as appropriate. The desktop review included a larger area (~5 km), and the data was reviewed and analyzed for applicable site-specific information. Data sources included:

- Official Plan of the City of Ottawa and applicable Schedules (2021);
- Geographic information from Land Information Ontario (LIO, 2021);
- The Ministry of Natural Resources' (MNR) Natural Heritage Information Center (NHIC) Make A Map for squares #18VR6137, #18VR6138, #18VR6038, #18VR6139, #18VR6540, #18VR6334, #18VR6335, #18VR6439, #18VR6033, #18VR6439, #18VR6033, #18VR5635– search was completed in December 2024 (NHIC, 2024);
- Ontario Breeding Bird Atlas squares #18VR53, #18VR63, and #18VR64 (Atlas 2-2001 - 2005);
- Atlas of the Mammals of Ontario (Dobbyn, 1994);
- iNaturalist (2022);
- eBird (2023);
- Rideau Valley Conservation Authority (RVCA);
- Fisheries and Oceans (DFO) Canadian Aquatic Species at Risk Mapping (CASAR) (DFO, 2025); and,
- Aerial/Satellite Imagery (ESRI, 2021).

3.3 Field Studies

3.3.1 Vegetation Descriptions and Flora Observations

Vegetation communities were mapped using satellite imagery and verified during field visits. Field studies were completed by systematically walking the Site. Field investigations included a botanical inventory where vegetation was characterized based on the appropriate methodology: Ontario Wetland Evaluation System (OWES), Southern Manual (MNRF, 2022) for wetland habitats and the Ecological Land Classification (ELC) for Southern Ontario for upland habitats (Lee *et al.*, 1998). Note that wetlands are defined differently in the ELC and OWES manuals. Since wetlands are to be evaluated following OWES, the presence or absence of wetland habitat was determined solely based on the OWES definition of wetland habitat:

“Lands that are seasonally or permanently flooded by shallow water as well as lands where the water table is close to the surface; in either case the presence of abundant water has caused the formation of hydric soils and has favored the dominance of either hydrophytic or water tolerant plants”. (MNRF, 2022)

The upland vegetation communities were characterized using ELC to classify and map ecological communities to the community class or lower. The ecological community boundaries were generally defined through the review of satellite imagery and further refined during field investigations. Like OWES, the ELC protocol recommends that a vegetation community be at least 0.5 hectares (ha) in size before it is defined. Based on the composition of vegetation communities within the Site, patches of vegetation less than 0.5 ha were described as inclusions (if required). The information was documented and classified according to species and locational data was gathered using a hand-held GPS.

Nomenclature used in this report follows the Southern Ontario Plant List (Bradley, 2010) for both common and scientific names which are based on Newmaster *et al.* (1998). Authorities for scientific names are given in Newmaster *et al.* (1998).

3.3.2 Turtle Surveys

The province's Blanding's Turtle Survey Protocol (MNRF, 2015) was used for basking surveys and consisted of:

- Minimum of five visual surveys of areas identified as potential turtle habitat using the Blanding's Turtle general habitat description by MNDMNRF.

- The survey period begins following ice-melt and ends on June 15th. Surveys were spaced to cover a minimum period of 3 weeks.
- Basking surveys were completed between 8 am and 5 pm during sunny periods and when air temperature is at least 5°C (partially cloudy is accepted if air temperature is above 15°C and is warmer than the water temperature).
 - When possible, surveys targeted days immediately following inclement weather, when turtles would be more prone to basking.

Information collected included: date of survey, start and stop time, weather conditions, number and species of turtles observed, and their location. Surveys were restricted to the Property.

3.3.3 Bird Surveys, including SAR Birds

Information on bird use within the area was collected through a grassland breeding bird survey. This information serves primarily to determine the presence/absence of species at risk (endangered/threatened) but also serves to meet the requirements of other functions as applicable to the OP policies for the land and project (i.e., MBCA regulations, functions of woodlands and wetlands, significant wildlife habitat).

The MNR grassland breeding bird survey protocol was used for grassland habitats, as described below:

- Two of the three grassland visits completed between June 1st and first week in July.
- Began no earlier than 30 minutes after dawn and completed by 0900 hours;
- Conducted on a day with no rain, little to no wind and good visibility;
- Included linear transects spaced 250 m apart with point counts every 250 m;
 - Point counts consisted of listening and observing for SAR species over a 10 min period recording the number heard/seen, their sex, location, behaviour and interactions with other birds (any species);
- While walking between points, any additional SAR observations was recorded; and
- A list of all birds observed was also compiled within the different habitats.
- Birds were identified by sound and/or sight.

Survey point locations are depicted on Figure 2.

3.3.4 Species at Risk Plants

Specific attention was paid to locating species at risk (SAR) or species of conservation value listed as potentially occurring within the study area. If these species were observed, they would be photographed, and their coordinates recorded on a hand-held GPS using NAD83. Plants that could not be identified in the field were collected or photographed for a more detailed examination in the laboratory. The surveys completed were based upon the species listed at that time. Additional surveys are anticipated at detailed design or prior to disturbance to the Site.

The Butternut Assessment Guidelines were followed (MECP, 2021). The requirements of this protocol are summarized below:

- Surveys to be completed by a Butternut Health Expert.
- Health assessment period is during the leaf-on season, which is considered to be between May 15-August 31.
- Information collected includes location (UTM coordinates using a GPS unit set at 18T NAD83), diameter-at-breast-height (dbh), tree height, canopy cover, and number of cankers.
- Each individual tree is to be assigned a number and identified (i.e., paint, preference for white) or flagged.

The inventory included the entire original site and the adjacent 50 m around the site (where access was possible). Any individuals noted were marked with white spray paint and flagging tape and numbered sequentially. Note that butternut inventories are valid for 2 years (until September 29, 2024), and will be updated prior to the removal of vegetation.

3.3.5 Aquatic Habitat Descriptions

To assess the potential impacts to fish habitat, fish communities or fish species at risk (SAR), the aquatic habitats within the study area were assessed based on the point observation technique used by Ontario Stream Assessment Protocol (Stanfield, 2013) and the Ministry of Transportation of Ontario (MTO)'s Environmental Guide for Fisheries (MTO, 2020). This project included a description of the channel morphology using evenly spaced transects upon which data was recorded from evenly spaced observation points. The data collected included: channel width, wetted width, bankfull depth, water depth, substrate size, morphological units, temperature, pH, and in-stream cover. The locations of the stations described is provided in the results section.

3.3.6 Incidental Fauna Observations

During all visits, any wildlife observations were recorded. Incidental observations included observations of an individual, its tracks, burrows, feces and/or kill sights.



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Figure 2: Daytime and Nighttime Breeding Bird Survey Points and Butternut Search Area

4. Background

4.1 Summary of Known Natural Heritage Features

The Site and adjacent 120 m are situated entirely within the OP of the City of Ottawa. It is bordered by natural area to the west and north, Ottawa Regional Road 174 to the south, and development to the east. The OP designates the Site as an Urban Area. Based on the most current OP and associated geoOttawa mapping (2025), the zoning across the Site is as follows:

- The Property is zoned DR (Development Reserve Zone) with a portion on the west side zoned O1 (Parks and Open Space Zone).
- The area of impact north of Jeanne d'Arc Boulevard N is zoned EP (Environmental Protection Zone).

The following natural features were identified from the background review (Table 2):

- NHF on the western edge of Property (associated with Taylor Creek)
- UNF - Petrie Island PSW and Candidate Life Science ANSI, north of Jeanne d'Arc Boulevard N. This area is part of the NHS Core area;
- Fish habitat within 120 m of the Site (Taylor Creek and Ottawa River);
- Unevaluated wetland (LIO) on the Property along Taylor Creek.

Table 2: Summary of Available Background Information on Identified Natural Features

Natural Heritage Systems	Present within Site	Present within Adjacent Lands (120m) of Site	Comments
Provincially Significant Wetlands (PSW)	None	Petrie Island is situated 38 m north of the Site.	LIO identified an unevaluated wetland. Discussed in 5.2.
Areas of Natural and Scientific Interest (ANSIs)	None Petrie Island, Candidate ANSI – Life Science		Does not receive protection from the province
Significant habitat of Endangered and Threatened Species (SAR)	Potential for endangered or threatened species needs to be determined following assessment of the suitable habitats in or near the site. Preliminary review of the satellite images suggests that there is a potential for several SAR.		SAR habitat is discussed in 4.2 and 6.3.2.
Significant Woodlands	NHF Overlay on Site (Schedule C11-A)		Satellite imagery identifies potential woodlands on western side of the Site.

Natural Heritage Systems	Present within Site	Present within Adjacent Lands (120m) of Site	Comments
Significant Valleyland	None identified on Schedules	None identified on Schedules, but Ottawa River valley and Taylor Creek Valley are in the adjacent lands and are candidate valleylands.	None
Significant Wildlife Habitat	None identified on Schedules, to be identified as per the SWHTG.	Located adjacent to NHF.	None
Urban Natural Features	No	Petrie Island situated to the North (38m)	None
Natural Environment Areas	No	No	None
Groundwater Features	No, to be confirmed with site investigations		None
Natural Linkage Features and corridors	No		None
Fish Habitat/Surface Water Features	No	Ottawa River (60m) and Taylor Creek (28m)	Discussed in 6.3.6.
Landform Features	No		None

4.1.1 Setback

As per the City's policies, the Minimum Setback from the watercourse shall be the greater of the following:

- Development limits as established by the local conservation Authority's natural hazard limit and meander belt;
- Development limits as established by the geotechnical hazard limits in keeping with Council approved Slope Stability Guidelines;
- 30m from top of channel bank (maximum point to which water can rise within the channel before spilling across the adjacent land); and
- 15m from the existing stable top of slope where there is a defined valley slope or ravine.

Setbacks were established, based on the greatest of hazard or natural heritage features. All of the development limits (hazard lands, top of bank, and top of slope setbacks) are depicted on the Figure 4 and with the site plan in Figure 11. Based on this review, the greater of all setbacks is a combination of the 15 m from the existing stable top of slope and the geotechnical hazard limit. The "Minimum Setback" adheres to the City's policies.

4.2 Endangered and Threatened Species and their Habitat

Endangered and threatened Species at Risk (SAR) are protected under the provincial SCA. The federal SARA applies only to fish species on private land. Most birds, including SAR, also receive protection from MBCA and/or FWCA. Together, provincially, and federally protected species are referred, herein, to as SAR, herein. This site is situated on private lands and as such, the evaluation of presence was complete following the province's guidelines.

A list of potential Endangered and Threatened species was compiled using various sources. The NHIC database provides information available to the public on those SAR documented as occurring within the general area. It should be noted that not all information for all species is available to the public. Furthermore, the absence of a record does not necessarily indicate that the species is absent from the area. The purpose of the NHIC database is to help determine what species may occur within the project area. The background review included looking at the list of birds observed as part of the Ontario Breeding Bird Atlas (OBBA) and any SAR species listed on these lists were considered as potentially occurring within the Property. Added to this list were species that often occur within the general area based on personal experience or observations. Note that following site investigations, this list of species and potential occurrence of them or their habitat was reviewed and adjusted. Furthermore, one species was downlisted to Special Concern (Eastern Whip-poor-will) and is therefore excluded in this update, while three additional bat species are now protected as of January 2025 (Eastern Red Bat, Silver-haired Bat, Hoary Bat).

The resulting list includes 19 SAR (Table 6):

- 1 mollusc (Hickorynut);
- 3 fish (Lake Sturgeon, American Eel, Channel Darter);
- 1 reptile (Blanding's Turtle);
- 5 birds (Least Bittern, Red-Headed Woodpecker, Bank Swallow, Bobolink, and Eastern Meadowlark);
- 7 mammals (Little Brown Myotis, Northern Myotis, Eastern Small-Footed Myotis, Tri-Colored Bat, Silver-Haired Bat, Eastern Red Bat, and Hoary Bat); and,
- 2 plants (butternut and black ash).

4.3 Geology and Hydrologic Conditions

In general, the area is flat and cropped. Based on the mapping from the *Characterization of Ottawa's Watershed: An Environment Foundation Document with Supporting Information Base* (March 2011), the area is identified as Limestone Plains. A summary of the information from the above-mentioned report and maps is provided in Table 3.

The information for the soils map shows the study area as having a Farmington Loam soil (*Soil Map of Carleton County*). However, the geotechnical report (Paterson Group, December 23, 2022) indicated that the site was asphalt with over 0.9-1.0 m of fill (brown silty sand with some gravel/clay) over interbedded grey limestone and black shale.

There were no lakes, ponds, or groundwater seeps in the area. There were no watercourses within the Site, but Taylor Creek and the Ottawa River are found within the adjacent lands.

Table 3: Summary of Soil and Geology

Map	Classification
Bedrock	Limestone with some shaly partings, some sandstone in basal part
Surficial Geology	St. Rosaline Clay
Physiography Unit	Limestone Plains
Permeability	Moderate
Overburden Depth	Medium: shallow
Hydrological Soil Group	D

4.4 Available Information on Fish Habitat and Communities Details

There were two watercourses, identified during the background review adjacent to the Site: Taylor Creek and the Ottawa River. Background information on the fish communities for both systems was available from the Aquatic Resource Area (ARA) database on Land Information Ontario, as well as the DFO Canadian Aquatic Species at Risk Mapping (CASAR), and iNaturalist.

Taylor Creek

Taylor Creek is listed as a cool water system on LIO and is largely piped. The open channel portion begins north of Princess Louise Drive (1 km upstream of the site) and, it remains open for another approximately 2.6 km to the Ottawa River.

Information on the fish communities in Taylor Creek was obtained from the LIO Aquatic Resource databases (LIO), DFO CASAR, and Rideau Valley Conservation Authority (RVCA). This information identified 11 warm to cool water species which are listed in Appendix A and depicted on Figure 3. The list of species included:

- One sport fish (Yellow Perch);
- Two pan fish (Rock Bass and Pumpkinseed);

- DFO CASAR mapping does not identify any federally listed species or their critical habitat; and
- No provincially listed SAR or special concern were identified in the or near the site.

Ottawa River

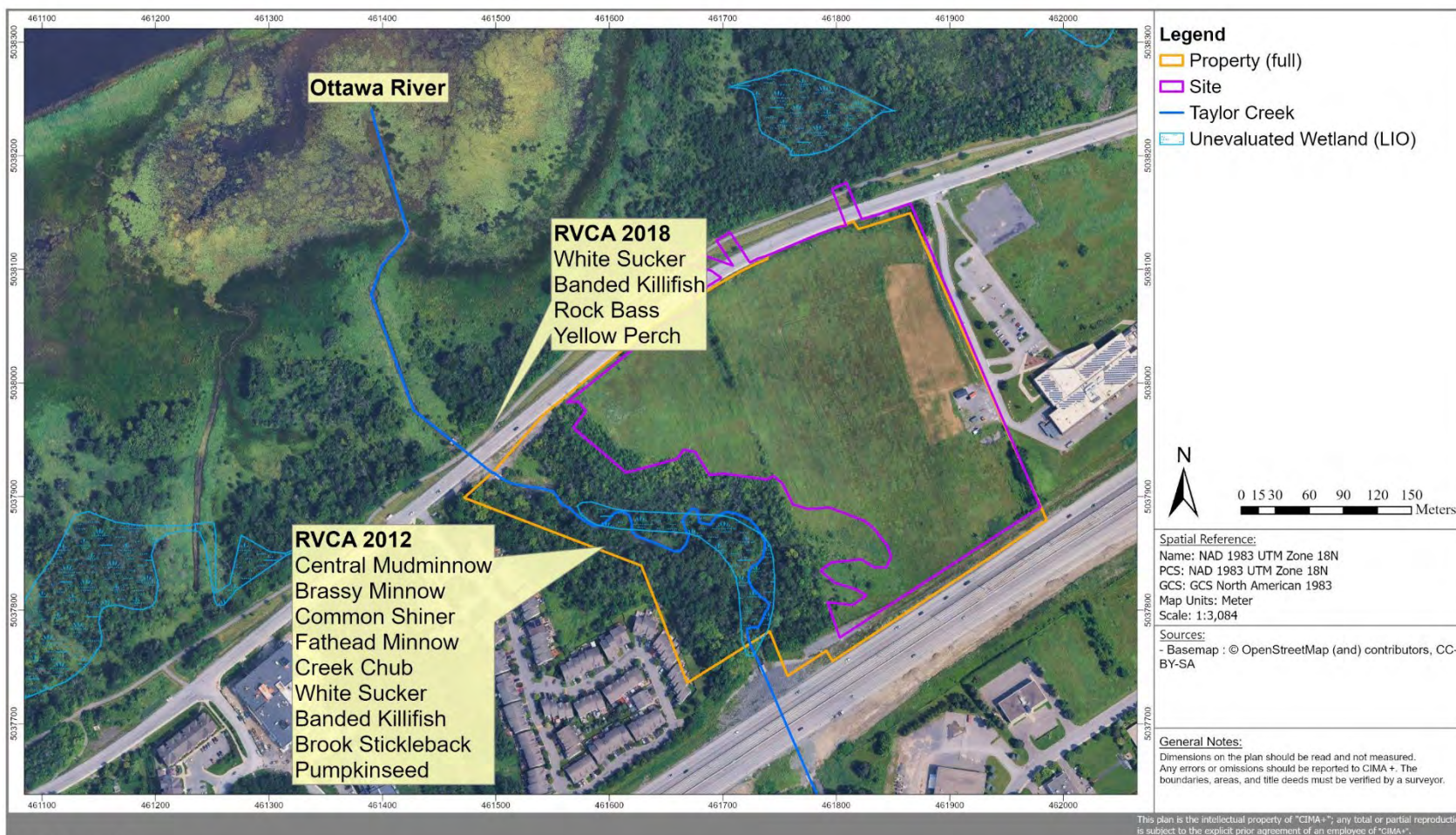
The Ottawa River is approximately 1,130 km long and has a watershed of 146,300 km². Its headwaters are in Quebec at the Grand Lac Victoria and Reservoir Dozois, which outlet into the St. Lawrence River near Montréal (Haxton and Chubbuck, 2002). The river is divided into several reaches by hydroelectric facilities and natural features. The watercourse adjacent to the Site (Taylor Creek) outlets into the Lac Dollard-des-Ormeaux reach.

Lac Dollard-des-Ormeaux begins at Carillon Dam and ends at Chaudière Falls; roughly 113 km and the average depth in this section is 6 m (maximum 94 m) (OMNRF and MFFPQ, 2018). The water levels are regulated to a maximum change of 1.5 m (1.5 m on average) (OMNRF and MFFPQ, 2018). LIO does not identify any notable fish nursery or spawning areas nearby. Following a review of available background data (sources listed in Section 3.2), the fish community for the Lac Deschênes reach of the Ottawa River includes 81 cool to warm-water species (Appendix A). This exceeds the data from the Fisheries Management Plan for the Ottawa River that indicates 75 species in the Lac des Ormeaux Reach (OMNRF and MFFPQ, 2018).

- The more common sportfish were Walleye, Sauger, Northern Pike, Muskellunge, Yellow Perch, Smallmouth Bass, Largemouth Bass, Lake Sturgeon and Black Crappie (Haxton and Chubbuck, 2002).

The DFO CASAR Mapping noted that there is no known critical habitat identified at this Site. The following was identified by CASAR mapping:

- 1 Endangered freshwater mussel protected by SARA (Hickorynut).
- 5 Special Concern species under SARA (Northern Brook Lamprey, Silver Lamprey, River Redhorse, Cutlip Minnow, and Channel Darter).



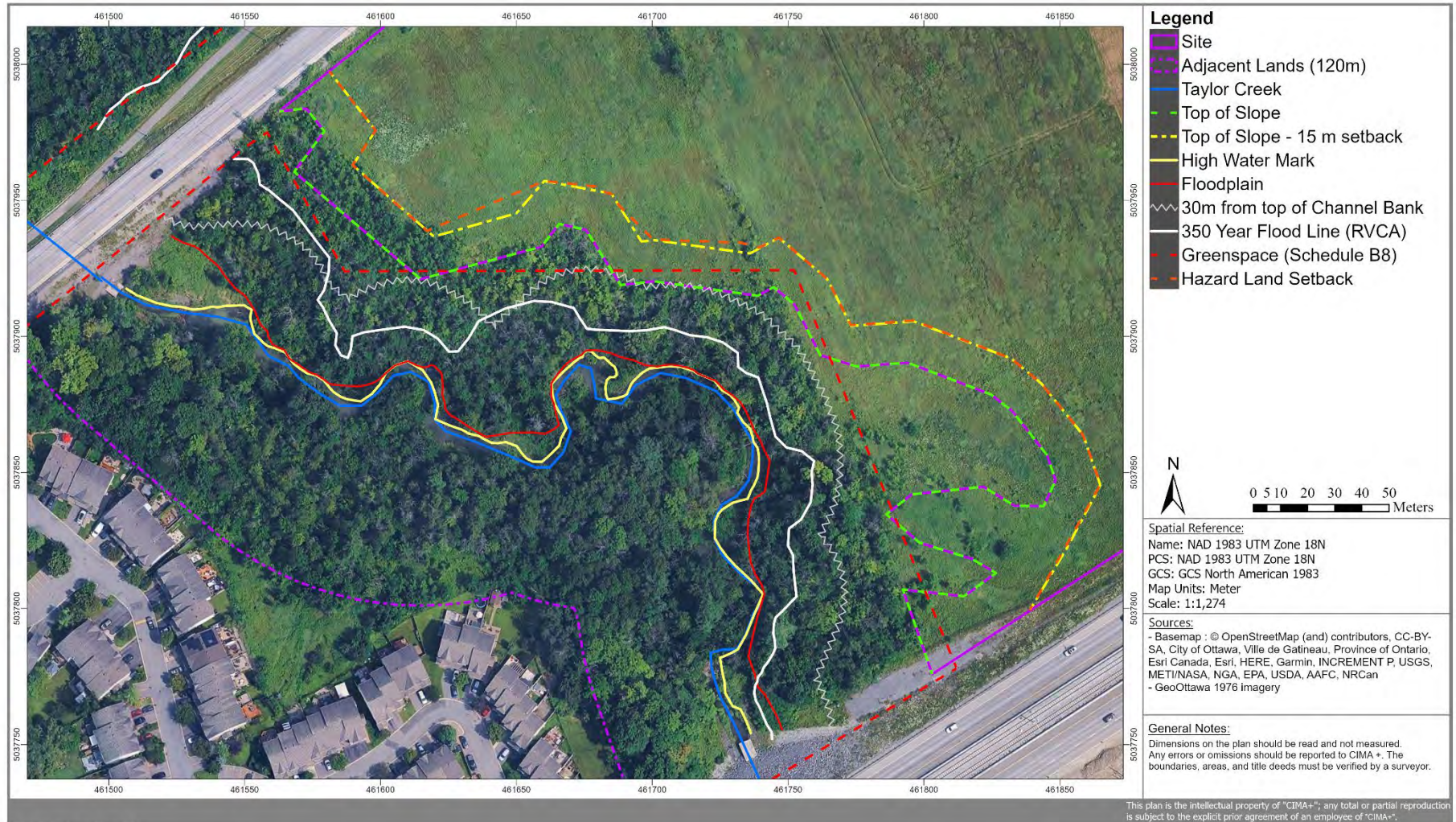
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Figure 3: Summary of Background Fish Community Information



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Figure 4: Setback Comparison

5. Site Investigation

5.1 Site Visit Dates and Purpose

As mentioned above, several site visits were undertaken, by Bowfin and after Bowfin merged with CIMA+. A summary of the most recent survey dates, times, ambient conditions, and purpose for the visits are provided in Table 4.

Table 4: Summary of Site Investigations

Date	Time (h)	Staff	Air Temperature °C* (Min-Max)	Cloud Cover (%) Beaufort Wind Scale [Descriptor (scale)]	Total Rainfall (mm) 7 days prior to visit*	Water Level Conditions **	Purpose
May 1, 2015	1145-1245	B. Pierson	15.0 (8.0-21.5)	Partially Cloudy Wind: Light air (1)	n/a	n/a	-Turtle Survey
May 8, 2015	1130-1215	M Lavictoire C. Fontaine	28.0 (12.2-30.7)	Clear skies Wind: light air (1)	n/a	n/a	-Turtle Survey
May 14, 2015	1030-1100	S. St. Pierre C. Fontaine	22.0 (1.6-19.4)	Clear Skies Wind: light air (1) to light breeze (2)	n/a	n/a	-Turtle Survey
May 21, 2015	1530-1600	S. St. Pierre C. Fontaine	20.0 (6.2-20.6)	Mostly clear skies Wind: gentle breeze (3)	n/a	n/a	-Turtle Survey
May 27, 2015	1315-1415	B. Pierson	28.0 (18.1-28.1)	Partially Cloudy Wind: light breeze (2)	n/a	n/a	-Turtle Survey
June 20, 2022	0630-0720	A. Quinsey	12.0 (7.5-25.2)	Mostly Cloudy Wind: Light Air (1)	n/a	n/a	- Grassland Bird Survey
June 28, 2022	0755-0845	A. Quinsey	18.0 (12.7-24.7)	Mostly Cloudy Wind: Light Breeze (2)	n/a	n/a	- Grassland Bird Survey
August 25, 2022	1015-1315	A. Quinsey	22.0 (16.4-23.8)	Mostly Cloudy Wind: Light Breeze (2)	n/a	n/a	-Vegetation Community Survey

Date	Time (h)	Staff	Air Temperature °C* (Min-Max)	Cloud Cover (%) Beaufort Wind Scale [Descriptor (scale)]	Total Rainfall (mm) 7 days prior to visit*	Water Level Conditions **	Purpose
September 29, 2022	1520-1705	C. Little	13.0 (3.4-13.6)	Few Clouds Wind: Gentle Breeze (3)	n/a	n/a	-Tree Inventory
October 27, 2022	0915-1100	S. Lafrance	8.0 (-1.9-8.8)	Partially Cloudy Wind: Light Breeze (2) to Gentle Breeze (3)	0.0	Normal	-Fish Habitat
November 1, 2023	1315-1400	A. Quinsey	0.0 (-3.4-1.2)	Few Clouds Wind: Gentle Breeze (3)	n/a	n/a	-Vegetation Community Survey and wetland delineation

A. Quinsey - Al Quinsey - B.Sc. Environmental Biology

B. Pierson - Brittney Pierson - Honours B.Sc. Biology and Environmental Science

C. Fontaine - Fisheries and Wildlife Technologist

C. Little - Casey Little - Ecosystems Management Diploma

M. Lavictoire - B.Sc. Wildlife Resources and M.Sc. Natural Resources (Aquatic)

S. Lafrance - Sophie Lafrance - B.Sc. Biology and graduate diploma in Ecosystem Restoration

S. St. Pierre - Shaun St. Pierre - B. Sc. Biology and Fisheries and Wildlife Technologist

*Min-Max Temp Taken From: Environment Canada. National Climate Data and Information Archive. Ottawa International Airport. Available:
<http://climate.weatheroffice.gc.ca/> [October 28, 2022].

**Water Level Conditions taken from Rideau Valley Conservation Authority (RVCA): <https://www.rvca.ca/>

5.2 Vegetation Description and Butternut Survey Results

The Site was primarily cultural meadow dominated by reed canary grass. To the east were developed lands and manicured lawn, to the south was Regional Road 174, and to the west was a forested area and Taylor Creek.

The **unevaluated wetland** noted during the background review along Taylor Creek by LIO was not found to be present during the vegetation surveys. While there was some wetland vegetation along the border of Taylor Creek, it was too narrow to be considered a distinct vegetation community, and was well under the 0.5 ha threshold for mapping. The site investigations confirmed that there was no unevaluated wetland habitat.

A list of plant species that were recorded onsite is provided in Appendix B. All plants had a provincial SRank of S4, S5 or SNA signifying that the species recorded are apparently secure, uncommon but not rare (S4), secure, widespread and abundant in the nation or province (S5) or not applicable because the species is not a suitable target for conservation activities (i.e., non-native species) (SNA). Hackberry was the only species present with a coefficient of conservatism greater than 7, they were present within the FOD4 community and will not be impacted by this project.

The vegetation communities observed were categorized as:

- Cultural Meadow (dominated by herbaceous species with no more than 25% cover provided by either shrub or tree species)
- Fencerow (communities with >75% cover by woody plants)
- Coniferous Forests (communities with 60% canopy cover, of which >75% is coniferous trees)
 - FOC2 - Dry-Fresh White Cedar Coniferous Forest
- Deciduous Forests (communities with 60% canopy cover, of which >75% is deciduous trees)
 - FOD4 - Dry-Fresh Sugar Maple Deciduous Forest
 - FOD7 - Fresh-Moist Lowland Deciduous Forest

These vegetation communities are displayed in **Figure 4** and described below.



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Figure 5: Vegetation Communities

Cultural Meadow (CUM)

The subject lands and some of the adjacent lands consisted of a Dry-Fresh Mixed Meadow community. Portions along la Cité were mowed. That within the Property was an old agricultural field and the ruts/depressions caused by machinery were still present.

The community was 8 ha and extended further offsite. Its dominant layer was the ground cover which provided 100% cover and was dominated by graminoids (reed canary grass and timothy grass) with some broadleaf species intermixed (tall and Canada goldenrod, and smooth bedstraw). Other species noted along the road ditches were common milkweed and narrow-leaved cattail. Some of the ruts/depressions supported plants with a higher affinity for moisture such as reed canary grass and red-osier dogwood. For the most part, there was a very limited woody vegetation layer (0.5 m tall; 1% cover) that consisted of white ash and scattered red-osier dogwood. One section of the community located near the ravine (southwest side of Property) contained 1-3 m tall woody vegetation that provided 10% cover. Here the woody vegetation species included: white ash, staghorn sumac along with some red-osier dogwood, meadowsweet, and bur oak. A few bur oaks were also noted on the north side of the property, along the North Service Road ditch. The ditch was dry during all visits.



Photo 1: Cultural Meadow (CUM) within Subject Lands, (August 25, 2022)



Photo 2: Patch of forbs on the south side of the meadow, (August 25, 2022)

Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FOD4)

A Dry-Fresh Deciduous Forest community was situated along the ravine on the western side of the study area. The community was on a steep bank with a 45° slope and a small creek (Taylor Creek) running down the middle. The vegetation along the bank of the creek consisted of: Pink jewelweed (invasive), Canada goldenrod, tall goldenrod, and reed canary grass.

This community had 80% tree cover consisting of 85% deciduous trees and 15% coniferous trees. The overall DBH was 10-20 cm with a few large trees being present (American basswood DBH 60 cm, and white pines DBH range 55-60 cm).

The canopy was 10-12 m tall and provided 40% canopy cover. The canopy was patchy due to dead/dying white ash (25%, avg. DBH 25 cm). Other common species included American elm (15% avg DBH 12), sugar maple (15%, avg. DBH 25 cm), and basswood (5%, avg. DBH 15 cm), white cedar (5%, avg. DBH 20 cm) and white pine (5%, avg. DBH 45 cm). The sub-canopy (6 m tall; 50-60% cover) consisted primarily of white ash and sugar maple. There were also some American elm and white cedar in this layer. The understory (1-4 m tall; 30% cover) was characterized by white ash, common buckthorn, and wild black currant. The ground layer was sparse (5% cover) and included: northern lady fern, partridge berry and large-leaved aster).



Photo 3: Dry-Fresh Deciduous Forest (FOD4) (August 25, 2022)



Photo 4: Taylor Creek and Riparian Habitat, (August 25, 2022)

Fresh-moist Lowland Deciduous Forest Type (FOD7)

A Dry-Fresh Deciduous Forest community was situated the north side of the walking path, north of Jeanne D'Arc Boulevard North. The community was on a slope descending towards the Ottawa River. The community had a patchy (60% cover) tree cover consisting of 90% deciduous trees and 10% coniferous trees. The open areas were typically shrubs dominated, but the area downstream of the eastern culvert was primarily reed canary grass with some cattails in the channel. The overall DBH was 10-30 cm with a few large trees being present (white pines DBH range >50cm). The canopy was 10-14 m tall and provided 60% cover, it was primarily composed of green ash (DBH 8-32cm) with some unhealthy black ash (DBH 12-25cm), American elm (DBH 12-28), and white pine intermixed (10%, DBH 15-55 cm). There was no distinct sub canopy. The understory (0.5-8 m tall; 40% cover) was characterized by staghorn sumac, common buckthorn, and towards the bottom of the slope red osier dogwood. The ground layer was dense near the top of the slope (95% cover) and included: reed canary grass, smooth brome, wild parsnip, and cow vetch.



Photo 5: Dry-Fresh Deciduous Forest (FOD4) (November 1, 2023)

Dry-Fresh White Cedar Coniferous Forest (FOC2)

This community was found within the deciduous forest described above. Here the community differed in that it had 90% tree cover consisting of coniferous trees. There was only one layer, the canopy layer, which was 6-10 m tall providing 90% cover, dominated by white cedar (avg. DBH 15 cm).



Photo 6: Dry-Fresh White Cedar Coniferous Forest (FOC2), (August, 25 2022)

Fencerows

There were two fencerows present within the Property. The first fencerow was found within the north central side of the study area. This community had 15% tree cover consisted of deciduous trees. The overall DBH was 10 cm. The canopy was 5 m tall and provided 15% canopy cover. The species noted were American elm (avg. DBH 12 cm), and white ash (avg. DBH 10 cm). The sub-canopy (3-4 m tall; 1% cover) contained white ash. The understory (1-2 m tall; 35% cover) included: nannyberry, wild red raspberry with some red-osier dogwood and prickly-ash. The ground layer (90% cover) was primarily Canada goldenrod with some timothy and reed canary grass.

The second fencerow was found within the southeastern side of the study area. This community consisted of a row of 10 bur oaks with common buckthorn and white ash regeneration beneath.



Photo 7: Fencerow (TAGM5) (August 25, 2022)

5.3 Turtle Survey Results

The surveys were completed during 2015, and met the requirements of the MNR Protocol. Only one (1) Midland Painted Turtle was observed, no SAR were found.

5.4 Bird Survey Results

5.4.1 Grassland Bird Survey Results

Due to the timing of the request, the breeding bird surveys included two visits on June 20 and June 28, 2022. These visits took place in the early morning and on days with appropriate weather conditions.

The Site provided habitat for many common breeding birds. In total, 20 species of birds were observed onsite and the adjacent lands (Appendix B). Of these, 8 species were found to likely be nesting onsite or within the adjacent lands (Table 5). Most of the observations consisted of calling males, though some foraging individuals and females were noted. No species of conservation value or SAR were observed.

Table 5: Probable or Confirmed Breeding Evidence

Common Name	Scientific Name	ABBO Category	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Breeding Evidence
American Robin	<i>Turdus migratorius</i>	Confirmed	S5B	no status	no status	T
European Starling	<i>Sturnus vulgaris</i>	Confirmed	SNA	no status	no status	T
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Confirmed	S5B	no status	no status	T
Yellow Warbler	<i>Dendroica petechia</i>	Confirmed	S5B	no status	no status	T
Common Yellowthroat	<i>Geothlypis trichas</i>	Confirmed	S5B	no status	no status	T
Song Sparrow	<i>Melospiza melodia</i>	Confirmed	S5B	no status	no status	T
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Confirmed	S4	no status	no status	T
American Goldfinch	<i>Carduelis tristis</i>	Confirmed	S5B	no status	no status	T

T - Presumed Territory based on the presence of an adult bird (usually singing, but not necessarily so), in the same suitable nesting habitat patch on at least two visits, one week or more apart, during the species' breeding season.

5.5 Fish Habitat and Communities

There was a single feature identified within the Property: Taylor Creek. No additional features (i.e., no headwater drainages, pools, seeps etc.) were located within the Site. The section of the channel characterized for this project was located between the downstream end of the culvert flowing under Highway 174 and the upstream end of the culvert under Jeanne d'Arc Boulevard North. The channel then flowed 190 m downstream to the Ottawa River.

No periods of rain were recorded in the 7 days prior to the October 2022 visit, and the water level conditions were shown as "Normal" by RCVA. The entire length of the channel between the two culverts had water flowing through it.



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 8600 Jeanne d'Arc, Ottawa, ON
 110394936 Canada Inc.



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Figure 6: Location of Fish Station and Blanding's Turtle Habitat along Taylor Creek

5.5.1 Taylor Creek

Taylor Creek historically originated offsite in the subdivisions south of the Property, but that area is now piped until it reaches Princess Louise Drive (850m south). From Princess Louise Drive, the watercourse is in an open channel flowing north approximately 950 m to the Highway 174 culvert, reaching the area near the Property.

The channel along the Property was open and flowed northwest for roughly 470 m. The riparian habitat was mostly composed of wooded areas, with some meadow habitat near the downstream end. The feature was permanent, with flowing water present year-round. This feature was well defined along its entire length, with some pooling near its downstream end due to an old beaver dam (Photo 8). Most of the substrate in the channel constituted of fines but some rocky areas were present near each culvert and near the center of the area. Erosion was present throughout much of its length. A retaining wall was noted near the center of its length, along the edge of the Property. The channel was described at one station, located at its downstream end.



Photo 8: Taylor Creek downstream end, looking upstream at the beaver dam (October 27, 2022)



Photo 9: Taylor Creek downstream end, looking downstream at the culvert flowing under Jeanne d'Arc Boulevard North (October 27, 2022)



Photo 10: Taylor Creek near the center of its length, looking downstream, retaining wall present (October 27, 2022)



Photo 11: Taylor Creek near the center of its length, looking downstream at erosion and depositions on banks (October 27, 2022)



Photo 12: Taylor Creek near the upstream end, looking upstream at the culvert flowing under Highway 174 (October 27, 2022)

5.5.1.1 Fish Station 1

The station began approximately 10 m upstream of the downstream culvert and was 50 m in length. The beaver dam was located near the center of the station. The average channel width of the entire station was 6.2 m and the average bankfull depth was 42 cm (range: 5-91 cm). The average wetted width and depths in the fall were 4.1 m and 24 cm (range 1-65 cm), respectively. The habitat was a glide and riffle downstream of the beaver dam, a pool immediately upstream of it (91cm deep), and a glide again at the upstream end of the station. A run was situated just upstream of Jeanne d'Arc Boulevard North.

The substrate consisted of mostly fines and cobbles, with some gravel and boulders. The in-water cover was provided by cobble and boulders, terrestrial vegetation (reed canary grass, vetch, and grasses), aquatic vegetation (pondweed, algae, and reed canary grass), and pool habitats. This station was partially shaded by red-osier dogwood, speckled alder, common buckthorn, oaks, and ashes. Eroding slopes were noted near the upstream end of the station.

The tops of the banks were fully vegetated with herbaceous vegetation and woody species. The most common species were reed canary grass, vetch, grasses, red-osier dogwood, speckled alder, common buckthorn, oaks, and ashes.

No sampling was undertaken as the feature was already documented by RVCA as being fish habitat. Fish were observed in the culvert downstream of the station.



Photo 13: Fish Station looking upstream from the downstream culvert (October 27, 2022)



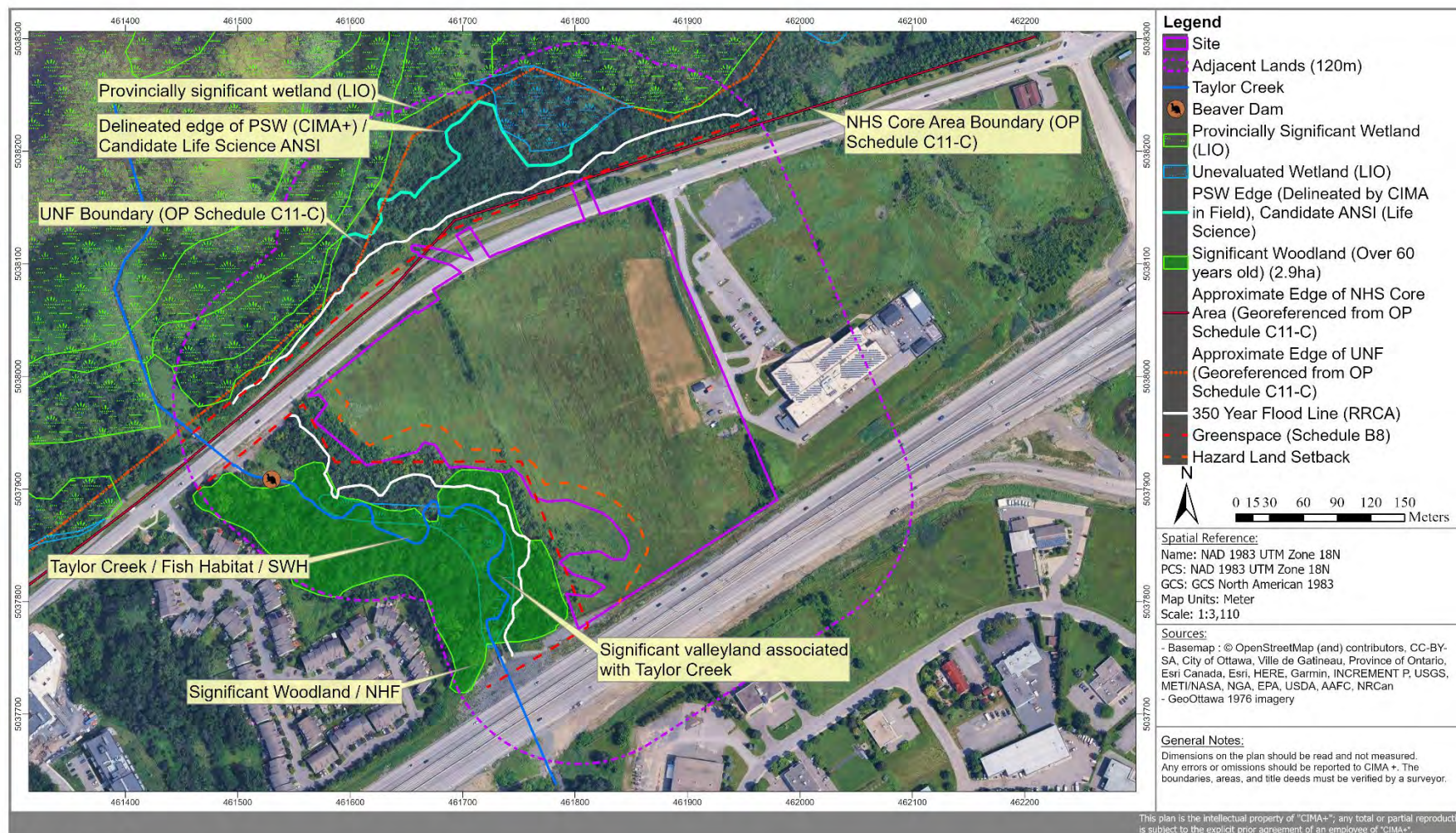
Photo 14: Fish Station looking downstream from upstream (October 27, 2022)

5.6 Incidentals

During the site investigations, evidence of presence or observations of individuals were noted. Incidental observations included 9 insects (Black Swallowtail, Monarch, Mustard White, Common Green Darner, Canada Darner, Eastern Pond Hawk, White-Faced Meadow Hawk, Autumn Meadow Hawk, and Pale Green Assassin Bug), 1 reptile (Eastern Garter Snake), and 1 amphibian (Leopard Frog).

5.7 Potential and Known Natural Heritage Features Identified in Background Review and Site Investigations

Following the background review and the site investigations, it was concluded that the vegetation communities and landscape on the Site and its adjacent lands contain provincially significant wetlands, candidate significant woodlands, candidate valleylands, Urban Natural Features, fish habitat, as well as the potential for endangered or threatened species and significant wildlife habitat. In the following section, these are reviewed using the appropriate methods.



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Figure 7: Summary of Natural Heritage Based on Background and Corrected with Site Investigations

6. Evaluation of Significance and Assessment of Impacts

As per the conclusions of the background review and site investigations, potential or known natural heritage features were identified:

- Provincially Significant Wetland – Petrie island PSW, Natural Heritage System Core Area and Candidate ANSI;
- Habitat of endangered and threatened species;
- Candidate woodlands;
- Candidate valleylands;
- Candidate Significant Wildlife Habitat;
- Urban Natural Features; and,
- Fish habitat.

The following section assess whether these features are significant based on the OP, or the *Natural Heritage Reference Manual* (OMNR, 2010), or other legislations, as applicable. Where it is determined that a significant natural heritage feature is present or is assumed to be present, the potential impacts are determined based on the understanding of project activities and the impact assessment methods. These methods are summarized below following by the evaluation for each feature.

6.1 Review of Project Activities

The project is a residential subdivision. The activities associated with each of these are listed below.

- Work within the Property:
 - Clearing of a total of 7.2 ha
 - 7.1 ha of Cultural Meadow
 - 104m² of the Dry-Fresh Sugar Maple Deciduous Forest. This 0.1 ha is also within the Natural Heritage Features Overlay (but is not a Core or Linkage Area).
 - Backfilling and grading.
 - No stormwater management facility is required on Site however, the pre- to post-development quantities will change slightly.
 - There is a slight change to Taylor Creek pre versus post development drainage area. Existing is catchment in the development area is estimated at 2.72 ha and post would be 1.41 ha. The relative catchment for Taylor Creek from the existing site is estimated at less than 1% (catchment information estimated to be between 430 ha (immediately upstream of site) to 1,035 ha for Taylor Creek in total) (Stantec, 2025).

- Water quality will be controlled through the use of oil-grit separator units associated with each stormwater outlet. Project must conform to MECP norms and the details will be confirmed during the detailed design plans.
- Work north of Jeanne d'Arc Boulevard North:
 - Replacement of existing the western stormwater outlet, culvert, headwall and erosion protection measures to accommodate flows from the proposed subdivision. This will require:
 - Clearing of 0.1 ha for the stormwater outlet . This habitat consists of the edge habitat along the existing bike path primarily cultural meadow with a small amount (0.01 ha) of Fresh-Moist Lowland Deciduous Forest.

6.2 Impact Assessment Methods

The assessment of the potential impacts is completed by analyzing the impact of various activities associated with the project. The significance of the potential impacts is measured using four different criteria:

1. Area affected may be:
 - a. local in extent signifying that the impacts will be localized within the Site
 - b. regional signifying that the impacts may extend beyond the immediate Site.
2. Nature of Impact:
 - a. negative or positive
 - b. direct or indirect
 - c. Risk (certainty, understanding of impacts)
3. Duration of the impact may be rated as:
 - a. short term (1-2 years)
 - b. medium term (>2years)
 - c. long term (>7 years).
 - d. permanent
4. Magnitude of the impact may be:
 - a. negligible signifying that the impact is not noticeable
 - b. minor signifying that the project's impacts are perceivable and require mitigation
 - c. moderate signifying that the project's impacts are perceivable and require mitigation as well as monitoring and/or compensation
 - d. major signifying that the project's impacts would destroy the environmental component within the Site.

Where identified, the boundaries of any significant features are noted and the potential for the development to cause negative impacts is assessed. For those features which may be negatively impacted, avoidance and mitigation measures are recommended, as appropriate. The PPS (MMAH, 2024) states that a negative impact signifies:

“a) in regard to policy 2.2, degradation to the quality and quantity of water, sensitive surface water features and sensitive ground water features, and their related hydrologic functions, due to single, multiple or successive development or site alteration activities;

c) in regard to fish habitat, any permanent alteration to, or destruction of fish habitat, except where, in conjunction with the appropriate authorities, it has been authorized under the Fisheries Act;

d) in regard to other natural heritage features and areas, degradation that threatens the health and integrity of the natural features or ecological functions for which an area is identified due to single, multiple or successive development or site alteration activities.” (MMAH, 2020)

6.3 Evaluation of Potential Impacts

6.3.1 Provincially Significant Wetland / Candidate Area of Natural and Scientific Interest / Urban Natural Feature / Natural Heritage System Core Area

6.3.1.1 Evaluation of Significance Methods and Results

The Petrie Island PSW is situated to the north of the recreational bike path, north of the Jeanne d'Arc Boulevard North. This area also forms part of the ANSI, Urban Natural Feature and falls within the Natural Heritage System Core Area. With respect to the ANSI, communications with MNR indicated that the Petrie Island ANSI is a “Candidate” ANSI and does not receive any protection from the province (email dated May 21, 2024). MNR also provided the evaluation record which identified the Petrie Island Candidate ANSI as consisting of a PSW (marsh, deciduous swamp, and open water associations) complex associated with the low sandbar deposits in the Ottawa River. This Candidate ANSI is primarily associated with the alluvial sandbars its description does not include the south shoreline of the Ottawa River (MNR, 1992).

None of these features (PSW, candidate ANSI, UNF or NHS-Core) include any habitat within the Property and all are separated from the Property by Jeanne d'Arc Boulevard North.

As per OP Subsection 5.6.4.1 Policy 2, the features designated by the City's schedules are coarse and should be delineated in the field. It is recommended that the UNF and NHS follow the same boundary as the PSW/ANSI. This boundary was delineated by an OWES surveyor in early fall and, the figures herein reflect this boundary. This preliminary delineated PSW boundary was similar but found to be 1-20m closer to the Site than the wetland mapping from the province. As such, the delineated line is more conservative delineation and is used for this impact assessment.

The nearest distance between these features and the Property is 38 m.

- Petrie Island Wetland will not be directly impacted as there is no wetland habitat on Site. There will be a minimum distance of approximately 38 m.
- Potential indirect impacts on the wetland habitat are also minimized as all works aside from two stormwater upgrades will occur on the south of the Jeanne d'Arc Boulevard N. The works associated with the stormwater upgrades will ensure to meet MECP's requirements with respect to water quality, and will include oil-grit separators associated with each of the stormwater outlets. Design will include appropriate erosion and sediment control measures that will be limited to above the high-water mark, to the extent feasible. Additional details on these will be provided at detailed design.
- It is noted that construction work within the Property could result in erosion of the soil. Proper erosion and sediment control measures will be designed to prevent the transportation of sediment-laden water offsite (i.e., overland or via Taylor Creek, or the road ditches). Best management practices are included in the avoidance and mitigation measures further below.
- There is already a recreational pathway along the PSW, and existing infrastructure. As such there is negligible potential for its development to increase human presence on the wetland habitat to the north.

6.3.1.1 Analysis of Impacts

The City of Ottawa OP calls for no impacts to a PSW and for the maintaining of the integrity, biodiversity, ecosystem and ensuring that the integrity of other features (i.e., NHS-Core, UNF, ANSIs) are not compromised. As noted above, it is recommended that the same PSW boundary be applied to all features (i.e., NHS-Core, UNF) as the natural functions of the UNF/NHS-Core/ANSI should not include the already disturbed areas of the bike path and existing stormwater outlet and headwall.

This review considered the potential for a permanent change involving a longer outlet and headwall with some erosion protection. The existing culvert is situated 45 m from the PSW (65m based on existing provincial mapping; to be updated at detailed design). The new works would be restricted to no closer than 15 m and are anticipated to have a maximum width <1.0 m. In addition, during construction another 5 m around the work area may need to be disturbed. This area will be rehabilitated with native vegetation. The stormwater management is to consist of enhanced water quality control (80% total suspended solids removal) and oil-grit separators (Stantec, 2025), and will consider other water quality parameters as required by MECP.

This proposed development can avoid impacts to these features by:

- Avoiding any work within the PSW;
- Following best management practices during construction to minimize impacts to wildlife utilizing the area;
- Avoiding impacting the hydrology of the PSW. Note that the hydrology of the PSW is controlled by the Ottawa River levels and will not be impacted by this proposed development;
- Minimizing the removal of natural vegetation on the north side of Jeanne d'Arc Boulevard North;
- Ensuring stormwater discharge water quality does not negatively affect water quality within the features and meets MECP's guidelines;
- Ensuring that water discharging from the culvert does not cause erosion of the bank or below the high-water mark;
- Minimizing impacts during the extension of the culvert, headwall and erosion control measures.

Avoidance and mitigation measures will be required to minimize the indirect impacts to the PSW, candidate ANSI, UNF and NHS-Core area. These are provided in Section 7.

6.3.2 Habitat of Endangered and Threatened Species

Endangered and threatened Species at Risk (SAR) are protected under provincial Endangered Species Act. The federal Species at Risk Act (SARA) applies to only fish and defined residences of bird species on private land. Most birds, including SAR, also receive protection from *Migratory Bird Convention Act* and/or *Fish and Wildlife Conservation Act*. Together, provincially and/or federally protected species are, herein, referred to as SAR. This Site is situated on private lands and as such, evaluation of species presence was completed following the province's guidelines with SARA restricted to fish and birds.

For some species, the federal and/or provincial governments provide guidelines on what habitats should receive automatic protection. This is usually based on distances from known sightings or suitable habitat. Federally, the habitat is typically classed based on function and provincially it is either regulated or general habitat. In the table below, the candidate SAR for the Site are listed along with their habitat needs. Where guidance is provided by the government, this is used to evaluate whether to bring the species forward to assessment. When there is no guidance available, the available literature is used to evaluate the suitability of the habitat on-site for that species.

The background review identified the potential for 19 SAR to occur within the general area (Table 6). As discussed in Table 6 below, the habitat requirements for most identified species were not met. Those that were present, potentially present or that should be highlighted for avoidance during construction are discussed further in the paragraphs following Table 6.

Note: While the SCA is now in effect, the policies and guidelines are still pending. The project will review SCA implications at Detailed Design.

Table 6: List of Potential Endangered or Threatened Species and Identification of those Brought Forward

Common Name	Scientific Name	SRank	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Preferred Habitat Guidelines	Evaluation	Brought Forward (Yes/No)
MOLLUSCS							
Hickorynut	Obovaria olivaria	S1?	END	END	Found in large, wide, and deep (>2-3 m) rivers with moderate to strong water velocities and sandy bottom. The mandatory host species in Ontario is Lake Sturgeon. For the mussel to be present, the host species must have access to the area (COSEWIC, 2011).	The nearest record was identified on NHIC (Square #18VR6038) on Ottawa River, however the DFO mapping indicates all of Ottawa River as potential habitat. Ottawa River is approximately 70 m from the Site. There is no work proposed for below the high-water mark of either watercourse.	No
FISH							
Lake Sturgeon	Acipenser fulvescens	S2	THR	No Status	Bottoms of lakes and large rivers. Adults are typically found in highly productive shoal areas of large rivers and large lakes. Preferred water temp. 15-17°C. (COSEWIC 2017)	The nearest record is from Ottawa River, 70 m north. There is no work proposed for below the high-water mark of either watercourse.	No
American Eel	Anguilla rostrata	S1?	END	No Status	Near cover over muddy bottoms in lakes, ponds, rivers, and creeks at depths <15 m; preferred water temperature range 16-19°C. (COSEWIC 2006)	Potential to occur in Taylor Creek as well as Ottawa River; however at the current population levels, there are few	No

Common Name	Scientific Name	SRank	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Preferred Habitat Guidelines	Evaluation	Brought Forward (Yes/No)
						individuals in this reach of the Ottawa River (pers. obs.). Low potential to occur and there is no work proposed for below the high-water mark of either watercourse.	
Channel Darter	<i>Percina copelandi</i>	S2	No Status	SC	Pools and the edges of riffles of small to medium rivers over sand and gravel substrate. Prefers sand or gravel beach habitat within lakes and pool or riffle areas within creeks.	The closest record is from Ottawa River 70 m north. There is no work proposed for below the high-water mark of either watercourse.	No
REPTILES							
Blanding's Turtle	<i>Emydoidea blandingii</i>	S3	THR	THR	Shallow water, large marshes, shallow lakes or similar such water bodies (COSEWIC, 2016). Federal guidelines use a 2 km distance and bases the automatic protection on the occupancy and suitability of the habitat for nesting, overwintering and functional habitat (ECCC, 2018). Provincial guidelines provide general habitat protection to suitable habitat within 2 km of an occurrence when certain conditions are met (MECP, 2019).	Potential to be within the Ottawa River and Taylor Creek. The nearest record is within 200m within the PSW (Ottawa River). The proposed development will not impact any "habitat" as defined under the SCA.	Yes

Common Name	Scientific Name	SRank	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Preferred Habitat Guidelines	Evaluation	Brought Forward (Yes/No)
BIRDS							
Least Bittern	<i>Ixobrychus exilis</i>	S4B	No status	THR	Freshwater marsh habitat with dense vegetation (Sandilands, 2005; COSEWIC, 2009a). Nests are typically in cattail marshes, near edge or openings but they have been found in other emergents and occasionally in willow (Woodcliff, 2007). Recovery strategy states that the species must have permanent marsh/shrub swamps and a mosaic of tall and robust herbaceous or woody vegetated with open water areas and natural regime water levels (ECCC, 2014). The open water areas can be shallow (10-50cm) (OMNRF, 2016). Movements within this suitable habitat can extend within a 500m radius of the nest (ECCC, 2014). and are usually found in those that are larger than 5 ha (COSEWIC 2009; OMNRF, 2014). The province does not currently have any guidance on the general habitat requirements of this species.	Potentially suitable wetlands are present along Ottawa River, north of Jeanne d’Arc Boulevard. The nearest occurrence is within 1km within the PSW. The headwall installed north of the road will be over 30 m from marsh habitat.	Yes
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	S4B	No status	END	Open deciduous woodland, woodland edges, and sparsely treed habitats. (COSEWIC, 2007; MECP, 2022). The	None were observed during bird surveys.	No

Common Name	Scientific Name	SRank	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Preferred Habitat Guidelines	Evaluation	Brought Forward (Yes/No)
					province does not currently have guidance for the general habitat of this species, though critical habitat is identified (both federally and provincially) as the suitable habitat within a 200 m radius around a nest observation OR the 600 m around confirmed or probable breeding OR two possible breeding records within 600 m and 7 days of each other (MECP, 2022; ECCC, 2019). Observations must be from after 2021.		
Bank Swallow	Riparia riparia	S4B	No status	THR	This species nests within vertical banks, with a preference for sand-silt substrate. Nesting sites more likely near open upland habitats and at heights averaging 5.6m (1.2-10.8m) (COSEWIC 2013). Provincially, this species’ protected habitat consists of the 50 m in front of a breeding colonies bank face and all suitable foraging habitat within 500 m (MECP 2015).	Banks with suitable height, sediment, and slope were present onsite, but they lacked open space in front of them. No nests were found, and no individuals were observed during breeding bird surveys. The species and its habitat was absent. Further, the 30 m setback from Taylor Creek will protect the banks of the valley.	No
Bobolink	Dolichonyx oryzivorus	S4B	No status	THR	Primarily in forage crops, and grassland habitat. It is sensitive to edge effects, size of habitat	The cultural meadow on the Property was suitable for this	Yes

Common Name	Scientific Name	SRank	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Preferred Habitat Guidelines	Evaluation	Brought Forward (Yes/No)
					and areas with dense shrub vegetation or a litter layer deeper than a few centimeters (COSEWIC, 2010). Provincially, this species’ protected habitat consists of the area extending 60 m from the nest as well as the 300 m of suitable habitat around the nest (MECP 2013).	species. However, none were observed during bird surveys.	
Eastern Meadowlark	<i>Sturnella magna</i>	S4B	No status	THR	Typically require larger grasslands but have been known to breed in habitats that were 1 ha in the United States. Usually, this species’ defended territories consist of 2.8-3.2 ha of uncut meadow or field (OMNR, 2014b). Personal observations of successful nesting habitat for this species in Eastern Ontario have not found any successful nesting pairs in habitats that were less than 5 ha, which is estimated to be this species’ approximate area requirement (COSEWIC, 2011). The federal recovery strategy requires habitat to fall within 10x10 km squares of occupancy to be considered for critical habitat. Provincially, this species protected habitat is the area extending 100 m from the nest as well as the 300 m of	The cultural meadow on the Property was suitable for this species. However, none were observed during bird surveys.	Yes

Common Name	Scientific Name	SRank	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Preferred Habitat Guidelines	Evaluation	Brought Forward (Yes/No)
					suitable habitat around the nest (MECP 2013).		
MAMMALS							
Little Brown Myotis	Myotis lucifugus	S4	END	END	Females establish summer maternity colonies, often in buildings or large-diameter trees. Foraging occurs over water, along waterways, and forest edges. Overwinter in cold and humid hibernacula (i.e., caves/mines) (COSEWIC, 2013). Critical habitat has not yet been defined by the province.	No suitable hibernacula present in the area (no crevices or entrances to bedrock).	Yes (6 woodland bats)
Northern Myotis	Myotis septentrionalis	S3	END	END	Older (late successional or primary forests) with large interior habitat and snags that are in the mid-stage of decay. They prefer intact interior habitat and are sensitive to edge habitats (Menzel et al. 2002, Broders et al. 2006, SWH 6E Ecoregion Criterion Schedule). Critical habitat has not yet been defined by the province.	No suitable maternity roost habitat is present within or adjacent to the Site for Eastern Small-footed Myotis. There remains the potential for woodland bats to utilize adjacent lands for maternity or day-roots. As such, the six woodland bat species are brought forward for avoidance and mitigation measures.	
Eastern Small-footed Myotis	Myotis leibii	S2S3	END	No Status	Roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. The recovery strategy for the eastern small-footed myotis indicates that the preferred maternity		

Common Name	Scientific Name	SRank	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Preferred Habitat Guidelines	Evaluation	Brought Forward (Yes/No)
					habitat of this species consists of open rock habitats. In the winter, these bats hibernate, most often in caves and abandoned mines (Humphrey, 2017). Critical habitat has not yet been defined by the province.		
Tri-colored Bat	<i>Perimyotis subflavus</i>	S3?	END	END	Females establish summer maternity colonies, often in buildings or large-diameter trees. Foraging occurs over water, along waterways, and forest edges. Overwinter in cold and humid hibernacula (i.e., caves/mines) (COSEWIC, 2013). Critical habitat has not yet been defined by the province.		
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	S4	END	No Status (END COSEWIC 2023)	Females establish summer maternity colonies in large diameter trees (COSEWIC 2023). They also use buildings as roosting sites. Critical habitat has not yet been defined. Provincially, hibernacula have a buffer of 200m. Buffers for maternity sites have not been established.		
Eastern Red Bat	<i>Lasiurus borealis</i>	S4	END	No Status	Day roosts can be in a variety of deciduous and coniferous forest types, usually in trees but occasionally shrubs. Trees used as maternity roosts by both		
Hoary Bat	<i>Lasiurus cinereus</i>	S4	END	No Status (END COSEWIC 2023)			

Common Name	Scientific Name	SRank	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Preferred Habitat Guidelines	Evaluation	Brought Forward (Yes/No)
					species tend to be large diameter and tall (COSEWIC 2023). Both migrate south to hibernate in the southern United States (COSEWIC 2023).		
VASCULAR PLANTS							
Butternut	Juglans cinerea	S2?	END	END	Found in a variety of habitat types but grows best on well-drained fertile soils in shallow valleys and on gradual slopes (COSEWIC, 2017). The federal recovery strategy does not outline critical habitat for this species. Provincially, butternuts are assessed and categorized based on the amount of canker. These categories are outlined in Section 5. MECP protocol considers the habitat to be 18x the maximum dbh which for butternut is 0.91 m (Poisson and Ursic, 2013)	None were observed during surveys. The most recent butternut inventory is valid until September 29, 2024.	Yes
Black Ash	Fraxinus nigra	S4	END	No Status	Swamps, bogs, and riparian areas, occasionally poorly drained upland areas (COSEWIC 2018). Healthy black ash with diameters equal to or larger than 8cm at breast height in areas affected by the emerald ash borer are to be protected.	Suitable habitat present and the site is within the municipalities listed as heavily affected by the emerald ash borer. Some were present in the areas to the north of Property, north of the bike path.	Yes

Sources: Species at Risk in Ottawa (June 2024)

Table Updated: May 2026

SRANK Definitions

- S1 Critically Imperiled, Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
- S2 Imperiled, Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
- S3 Vulnerable, Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4 Apparently Secure, Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S#S# Range Rank, A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).
- ? Inexact Numeric Rank–Denotes inexact numeric rank

Blanding's Turtle

Blanding's turtle is associated with a variety of shallow slow aquatic habitats with submergent and emergent plants and soft substrate (COSEWIC, 2016). Their preferred aquatic habitat is less than <2 m deep (ECCA, 2018). To err on the side of caution, depths up to 4.5 m are considered habitat for this species (ECCA, 2018). These turtles require basking sites located near the water such as exposed rocks or partially submerged logs. The nesting sites are located within areas of loose substrates varying from sand to cobblestone and may occur along roadways as far as 400 m away. Marsh habitat is important for the juveniles for protection from predators. The species overwinters within permanent water bodies (COSEWIC, 2016). This species can migrate far distances of up to 6 km (OMNR, 2013b). Migration routes can include overland movement. However, some habitats such as active agricultural croplands, sand pits, large waterbodies, fast-flowing systems, and high use highways are not considered suitable habitat (ECCA, 2018). They also note that heavily developed urban areas without aquatic or wetland habitats are considered unsuitable (ECCA, 2018).

The SCA protects breeding, rearing, staging, wintering, or hibernating habitats, none of which were present in the Site. No individuals were found in 2015 surveys and there were no potential SCA protected habitat on the Site. The site plans were developed when the *Endangered Species Act* was in play and as such, there was a focus to avoid the 30 m from wetlands and watercourses. All but a small section for the stormwater outlet was designed to be over 30 m from these features. The work areas within 30 m of these features are depicted on the figure below.

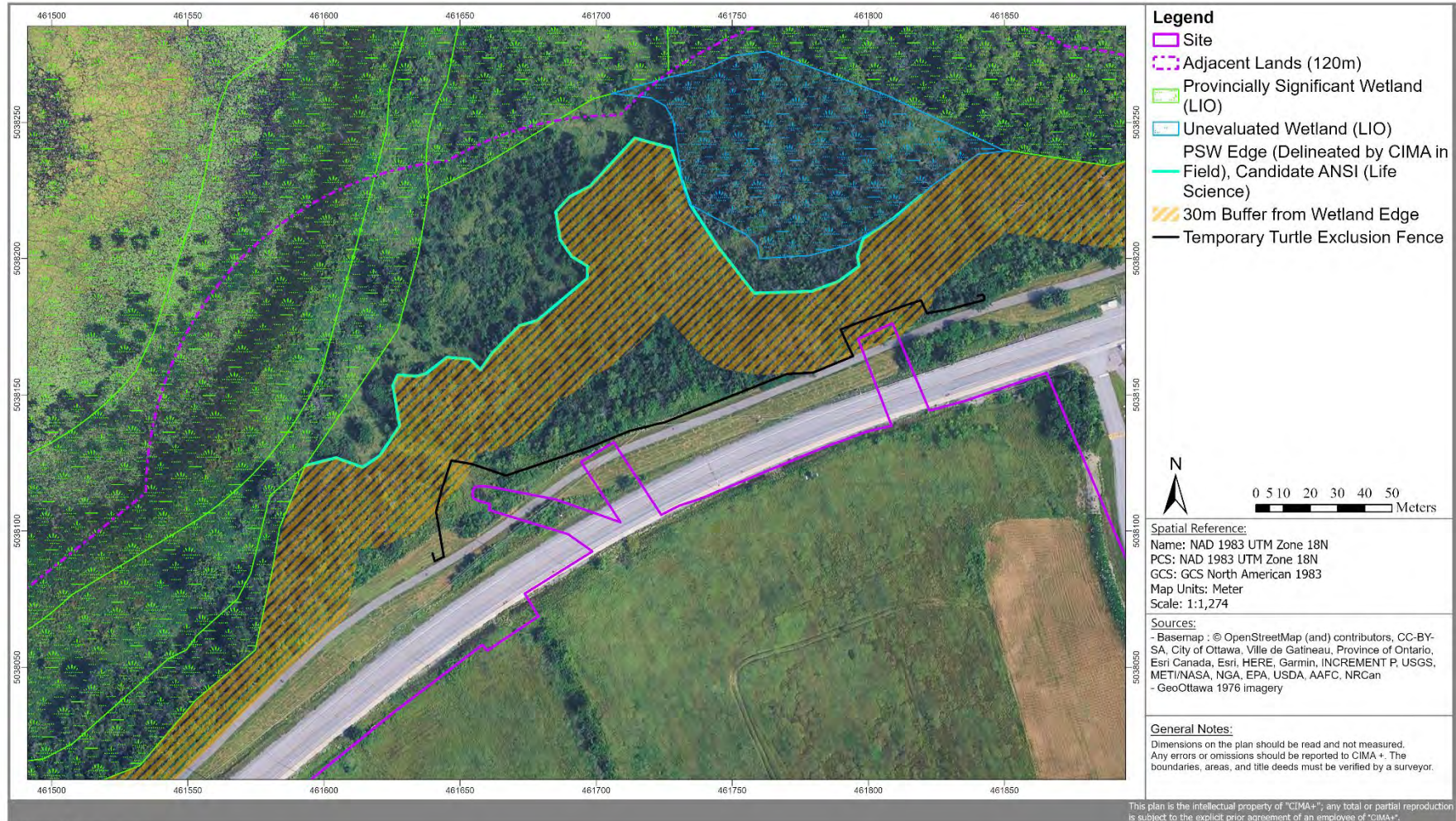
Potential Impacts to Turtles:

- There are few records of Blanding's Turtle in the area; and none on Taylor Creek.
- The SCA protected habitat is absent from Taylor Creek and from the Site.
- The small areas to be disturbed on the north side of the road are minimized and the temporary and permanent footprints will not adversely impact to the ability of Blanding's Turtle to carry out life functions or utilize the habitats.
- Impacts for both the stormwater works and the development could include accidental harm or killing of an individual should it be present and impacted by machinery. Avoidance and mitigation measures will be included to minimize this potential.
- Indirect impacts would be limited to sensory disturbances during construction (light/noise).
- Impacts to the habitat within the Ottawa River will be minimized by ensuring that the stormwater discharge meets the provincial requirements. Details of the system are expected at Detailed Design.

- The appropriated SCA process will be applied at detailed design.

Avoidance and mitigation measures will be included in Section 7. The appropriate SCA process will be followed at project design.

Prior to Avoidance and Mitigation Measures - Blanding's Turtle				
Area	Nature	Duration	Magnitude	Findings
Local	Negative Direct to Indirect	Temporary and Permanent	Negligible Moderate (if accidental harm/kill)	Avoidance and mitigation measures required to reduce accidental harm. Appropriate SCA process will be followed.



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Figure 8: Blanding's Turtle Habitat Impacted

Birds

Least Bittern

The Least Bittern is a threatened species protected both provincially and federally. It is a secretive species that requires marsh habitats with dense vegetation (Sandilands, 2005; COSEWIC, 2009a). This species tends to prefer to nest within cattail marshes usually along the edge or near openings (Woodliffe, 2007). However, they have also been found to nest in bulrushes, grasses, horsetails and willow (Woodliffe, 2007). The COSEWIC report for this species indicates that they must have emergent marsh communities with open water areas and stable water levels (COSEWIC, 2009a).

The wetland north of the walking trail has potential to be used by this species. No direct impacts are anticipated to occur in this wetland as the Site is 38 m away at its closest point, which is separated by Jeanne d'Arc Boulevard North. The stormwater work north of the walking trail will require minimal clearing and is outside of the suitable wetland habitat for this species. Avoidance and mitigation measures will be required to avoid any potential indirect to this species should it be present. These are presented in Section 7.

Bobolink

This species is grassland-breeding-bird typically requiring a minimum of 4 ha of uncut meadow or field (McCracken, 2013). It is described as area-sensitive in the general habitat guidelines (MECP, 2021). That same publication also notes that its defended territory tends to be between 1.2-6.1 ha, but it prefers larger tracks of grassland. While there are no new guidelines on the minimum habitat protected under SCA, to ensure successful nesting. The Bobolink General Habitat Description (MECP, 2021) used 10 m from the nest for immediate area.

No individuals were present in the 2022 bird surveys; however, the cultural meadow on the Property is suitable habitat, and they have been observed in this field in past years. Avoidance and mitigation measures will be required to avoid any potential indirect to this species should it be present. These are presented in Section 7.

Eastern Meadowlark

Like the Bobolink, this species is grassland-breeding-bird that typically requires a minimum of 4 ha of uncut meadow or field (McCracken, 2013). The general Habitat Description for the Eastern Meadowlark (OMNRF, 2018) also used 10m from the nest for immediate area.

No individuals were observed during the 2022, or during previous bird surveys, but the cultural meadow on the Property does provide suitable habitat. Avoidance and mitigation measures will be required to avoid any potential indirect to this species should it be present. These are presented in Section 7.

Potential Impacts to SAR Birds

- For this project, there are no direct impacts to any known SCA habitat and no individuals observed during the 2022 surveys. Call-back surveys for the Least Bittern were not carried out (as these can be disruptive) and any potential habitat would be restricted to the north side in the PSW in an area that will be protected from impacts.
- To minimize indirect impacts should Least Bittern habitat be present further north, the potential for sensory disturbances can be avoided through typical avoidance and mitigation measures that minimize light and noise disturbances.

Prior to Avoidance and Mitigation Measures – SAR Birds				
Area	Nature	Duration	Magnitude	Findings
Local	Negative Indirect	Temporary	Negligible to Minor	Avoidance and mitigation measures required to reduce accidental harm.

Bats

The potential SAR bats within the general area are Little Brown Myotis, Northern Myotis, Eastern Small-footed Myotis, Tri-colored Bat, Eastern Red Bat, Hoary Bat, and Silver-haired Bat. A review of the primary types of habitats required by bats (hibernation, maternity sites and day-roost sites) is provided below for each species.

Note that only hibernacula, and maternity sites are considered as habitat under the SCA. Day-roosts during migration could also be considered habitat under staging.

Hibernacula

Four of the seven protected bat species (Little Brown Myotis, Northern Myotis, Eastern Small-footed Myotis, and Tri-colored Bat) prefer to hibernate in caves or mines. They can hibernate in buildings but that is rare for these species (COSEWIC, 2013). No caves or mines or buildings are present on Site. The other three (Eastern Red Bat, Hoary Bat, and Silver-haired Bat) are migratory. The Eastern Red-bat and Hoary Bat do not overwinter in Canada while the Silver-haired Bat is unlikely to overwinter in Canada (COSEWIC, 2023). No rocky habitat was present within the impact areas. As such hibernation sites are considered absent for these species. **No hibernation habitat.**

Maternity

The Eastern Small-footed Myotis's preferred maternity habitat consists of open rock habitats; this species rarely uses old buildings as roosting/maternity sites (Humphrey, 2017). There have only been two reports of maternity colonies in Ontario, one historical report in Renfrew County in 1953 and another in Hamilton in 2016 (MNR, 2017). There was no rocky habitat present and no old buildings on the Site. Based on this information, this species' maternity sites are considered absent. **No maternity habitat present for Eastern Small-footed Myotis.**

The Atlas of Mammals of Ontario (Dobbyn, 1994) suggests that the Tri-colored Bat has the southernmost distribution relative to other species, and is most commonly found along Lake Erie and Lake Ontario shores in Ontario. The Recovery Strategy notes that it tends to prefer older forests with snags and to forage in closed canopies (ECCC, 2015). Some studies have shown a preference for roosting in dead leaves and tree lichens and occasionally in barns (ECCC, 2015). Based on this information, and the open young nature of the forest onsite, this species is considered to have a little to no potential of using the Site for breeding. **No maternity habitat present for Tri-colored Bat.**

The Northern Myotis tends to prefer larger expanses of older forests (late successional or primary forests) and choose maternity sites in snags that are in the mid-stage of decay. They prefer habitat with intact interior habitat and is shown to be negatively correlated with edge habitat (Broders et al., 2006; Environment Canada, 2015; Menzel et al., 2002; Yates et al., 2006). The preferred habitat is not present, so this species is considered unlikely to have maternity sites on the Site. **No maternity habitat present for Northern Myotis.**

The Little Brown Myotis is one of the few bat species that can use anthropogenic structures as maternity sites. Potential suitable structures can include buildings, bridges, barns, and bat boxes. They can also use tall, large diameter cavity trees that are in the early-to mid-stages of decay as maternity roosts, as well as loose or raised tree bark, and crevices in cliffs (ECCC, 2018). This bat species occurs in higher densities in mature deciduous and/or mixed forests due to increased opportunities for large snags. However, unlike the Northern Myotis, the Little Brown Myotis does not exclusively require mature forest stands to find appropriate maternity roosts (COSEWIC, 2013). While there are no anthropogenic structures within the Site, **this commonly observed species could establish maternity roosts within the trees.**

Eastern Red Bat and Silver-haired bat tend to require forested areas for maternity habitat roosting in trees or (less commonly) shrubs that are over 5 m tall. The trees used for maternity are typically larger diameter, face south where there is more sun exposure and in areas protected from wind. The maternity sites are often in the taller and larger trees in the woodlot (i.e., exceeding the height of the rest of the canopy). Eastern Red Bat tends to avoid areas with large variations in temperature (COSEWIC, 2023). Foraging habitat is often associated with edge or aquatic habitat (COSEWIC, 2023). **There is a potential for these species to occur.**

Day-roosts

All species could use trees for day-roosting during movement. Silver-haired Bat is known to use buildings for roost sites during migration. Eastern Red Bat and Hoary Bat can but are less likely to use other structures such as shrubs, bridges and buildings during migration (COSEWIC, 2023). Male Eastern Red Bats can utilize smaller diameter trees (down to saplings) during the summer (COSEWIC, 2023). **Day-roosts are not considered protected habitat unless being used during staging** and impacts to bats can be minimized by avoiding tree removal and removing trees outside of the day-use period.

Potential Impacts to SAR Bats

The proposed development will avoid the removal of the woodland vegetation within the area identified as Parkland identified on the site plans. The removal of 0.2 ha of woodland and the individual trees in the fencerows (trees with a dbh of 10 cm or larger) could result in direct or indirect impacts to bats and their habitat. The habitat on Site does not provide large track of older forests and does not have interior habitat. This habitat is less sensitive to disturbances and is most suitable for species that have fewer specific requirements for maternity habitat (i.e., Little Brown Myotis). Following the removal of the small number of trees associated with this project, the remaining wooded areas will retain their existing functions. Provided that timing windows are applied for the removal of vegetation, the direct loss of habitat would be limited to the removal of individual trees that are 10 cm or larger in diameter and only if these individuals provide maternity habitat.

The indirect impacts would be those associated sensory impacts (i.e., noise, light disturbances).

The appropriate SCA process will be followed at project design. Avoidance and mitigation measures are included in Section 7.

Prior to Avoidance and Mitigation Measures - Bats				
Area	Nature	Duration	Magnitude	Findings
Local	Negative Direct to Indirect	Temporary to Permanent	to be confirmed	Avoidance and Mitigation Measures required.

Prior to Avoidance and Mitigation Measures - Bats				
				Appropriate SCA process will be followed.

Butternut

Butternut (*Juglans cinerea*) is listed as an endangered species provincially and federally, signifying that it is at risk of becoming extinct or extirpated in Ontario and in Canada. Butternut is a shade-intolerant species that is often found along edge habitats on rich, moist, well-drained loams or well-drained gravels (COESWIC, 2003). It is threatened by a canker for which there is no known control (COESWIC, 2003). Butternuts are assessed based on the amount of canker present, their size and health, as per the province's protocols.

The Site and surrounding 50 m was surveyed in 2022 and none were found. However, as the two year shelf life has elapsed the surveys will need to be repeated prior to clearing vegetation.

Black Ash

Black ash is listed as an endangered species provincially. It is a facultative wetland species found primarily in swamps, fens, floodplain forests, and shorelines, with occasional occurrences in upland habitat (Catling et al., 2022). Individuals within a defined geographic area which are in good health and over 8 cm in diameter at breast height will be protected along with the surrounding 30 m habitat.

The Site is within this defined area and black ash individuals are present to the north of the bike trail, near the stormwater outlet work. **None were found on the Property.**

Impacts to these trees could be direct (if one needs to be removed or is accidentally harmed) or indirect is their habitat is impacted (i.e., compaction of soil, hardening of area, pooling of water, dust). The wooded areas within 30 m of the Site will require surveying during detailed design. Avoidance and mitigation measures are included.

Prior to Avoidance and Mitigation Measures - Black Ash				
Area	Nature	Duration	Magnitude	Findings
Local	To be determined			Surveys, Avoidance and Mitigation Measures required. Appropriate SCA process will be followed.

6.3.3 Candidate Significant Woodlands / Natural Heritage Feature

6.3.3.1 Evaluation of Significance Methods and Results

This report makes use of the City of Ottawa's Significant Woodlands Guidelines that notes that in the Urban Area a woodland that is at least 60 years old and 0.8 ha or larger is significant. The candidate woodland is 4.0 ha, of which 2.9 ha is older than 60 years. Only this smaller area meets the criteria to be significant. The significant woodland will not be impact as the 104m² section to be impacted is under 60 years of age (Appendix A).

6.3.3.2 Analysis of Impacts

No significant woodland will be cleared as all woodlands >60 years in age are outside of the 15 m setback from the top or slope.

Potential for indirect impacts could occur as a result of dust, impacts to soil (i.e., compaction), changes in gradient that results in pooling, and/or accidentally harming trees scheduled to be retained. Indirect impacts could also stem from impacting the sensory of wildlife using the woodlands; this is covered under the significant wildlife habitat and mitigation measures in Section 7 under woodland, significant wildlife and other (the other section includes protection measures for wildlife in general).

Potential Impacts PRIOR to Avoidance and Mitigation Measures – Significant Woodland				
Feature	Nature	Duration	Magnitude	Findings
Local	Indirect	Temporary to Permanent	Negligible to Minor	Avoidance and Mitigation Measures required



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Figure 9: Significant Woodland Analysis Using Historical Imagery

6.3.4 Significant Wildlife Habitat

6.3.4.1 Evaluation of Significance Methods and Results

The PPS indicates that no development or site alteration is permitted within significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural feature or its ecological functions. It defines wildlife habitat as:

“Areas where plants, animals and other organisms live and find adequate amounts of food, water, shelter, and space needed to sustain their populations. Specific wildlife habitat of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species.”

The ELC communities on the Site and in adjacent lands were assessed as per the MNR's Significant Wildlife Habitat Criteria Schedules 6E (2015), as displayed in Appendix D. Those that were deemed candidate SWH are highlighted below:

- Ottawa River may provide turtle overwintering habitat. It is noted that the potential for overwintering turtles in Taylor Creek (outside of the downstream portion that is regulated by the water levels on the Ottawa River), was artificially created by the beaver dam. If there was no beaver dams, then the candidate overwintering habitat would be restricted to the habitats downstream of Jeanne d'Arc Boulevard North.
- Larger trees in close proximity to the Ottawa River could provide perching habitat for Osprey (an Osprey was observed during the breeding bird surveys). No Osprey nest was found. No large trees are scheduled for removal.
- Petrie Island PSW likely provides a variety of significant wildlife habitat functions, but none of these significant habitat types were found to be within 120m of the property and as such are unlikely to be directly impacted by this project.

6.3.4.2 Analysis of Impacts

Most of the significant wildlife habitat identified above as potentially occurring, are associated with habitat outside of the area to be developed and will not be directly impacted. With respect to the loss of potential perching trees for the Osprey, the trees to be removed north of the bike path are of small diameter (not preferred perching) and most trees will be retained in the Site. Between perching in the Site south of Jeanne d'Arc Boulevard North and along the Ottawa River, the raptors would tend to prefer the larger trees along the Ottawa River. Ospreys are not anticipated to perch within the area to be impacted by the development and as such, the removal of trees for this project is not anticipated to result in any direct impacts to Osprey habitat.

Indirect impacts to any of the aquatic significant wildlife habitat (i.e., turtle overwintering habitat) can stem from accidentally affecting the water quality during construction), or sensory disturbances during construction (i.e., light / noise) to individuals. The minor change in pre- to post- development flows to Taylor Creek are not anticipated to impact any overwintering habitat as the only habitat is that created by the beaver dams. Stormwater discharge is to meet provincial water quality requirements. Avoidance and mitigation measures are provided in Section 7.

Potential Impacts PRIOR to Avoidance and Mitigation Measures – Significant Wildlife Habitat					
Feature	Area	Nature	Duration	Magnitude	Findings
Turtle wintering areas	Local	Negative Indirect	Temporary	None to Moderate	Pre and Post water quantities are very similar. Potential impacts associated with water quality would be the result of accident or malfunction. Avoidance and Mitigation Measures required
Bald Eagle and Osprey nesting, foraging and perching habitat		Negative Indirect	Temporary to Permanent	None to Negligible	Majority of large trees retained using the 15m setback from top of the slope. Perching habitat for Osprey would remain suitable.
Amphibian breeding habitat (woodland and wetlands)		Negative Indirect	Temporary	None to Moderate	Pre and Post water quantities are very similar. Potential impacts associated with water quality would be the result of accident or malfunction. Stormwater outlet discharge is to meet provincial requirements (Detailed Design). Avoidance and Mitigation Measures required

6.3.5 Valleyland

6.3.5.1 Evaluation of Significance Methods and Results

Within the City of Ottawa, Significant Valleylands are defined as valleylands with slopes more than 15% and a length of more than 50 m, with water present for some period of the year, excluding man-made features (City of Ottawa 2023). Both Taylor Creek and the Ottawa River meet the criteria for significance as valleylands.

6.3.5.2 Analysis of Impacts

For the Ottawa River valleyland the work will take place within 120 m but will not result in any changes to the identified significant feature. From what was observed in the field, the works would take place on the table lands and not the valley. The potential to impact the valley through erosion of the slope will need to be considered by the contractor and avoided/mitigated. The design will need to ensure that appropriate erosion and sediment controls for the operation of the outlet are included.

With respect to the significant valleyland associated with Taylor Creek, there will be no direct impact as no work will occur within 15m of the top of slope. Any functions of the valleyland in terms of wildlife, is retained and discussed under the relevant sections. It is noted that should any disturbances to the lands within the minimum setback be disturbed, that these will be re-planted with native vegetation including woody species, and appropriate erosion and sediment control measures implemented. Avoidance and mitigation measures are included in Section 7.

Prior to Avoidance and Mitigation Measures - Valleylands					
Feature	Area	Nature	Duration	Magnitude	Findings
Ottawa River Valley	Local	Negative Indirect	Temporary	Unlikely to occur but could be Negligible to moderate - impacts associated with accidents or malfunctions	Avoidance and Mitigation measures required to avoid impacts
Taylor Creek Valley					

6.3.6 Fish and Fish Habitat

6.3.6.1 Evaluation of Significance Methods and Results

The evaluation of impacts to fish and fish habitat are assessed based on guidelines and direction from Fisheries and Oceans Canada (DFO). The Ottawa River and Taylor Creek are known to provide permanent direct fish habitat for a variety of species. Activities below the high-water mark and/or within any regulated or critical habitat associated with mussels or fish would require review from DFO along with any works that could indirectly affect the function of the fish habitat (i.e., changes to water quality or quantity or impacts to fish passage).

6.3.6.2 Analysis of Impacts

The proposed works do not include any activities below the high-water mark of either watercourse. For this Site, there is no regulated or critical habitat extending above the high-water mark. There is no direct impact to fish and fish habitat.

The potential for indirect impacts can stem from erosion of the banks, removal of riparian vegetation, transportation of sediment-laden water to fish bearing areas, accidental release of other deleterious substances, or sensory disturbance (lighting of fish habitat during construction) as well as changes to the quantity or quality of water reaching fish habitat. This project has limited potential to affect the shoreline or fish habitat during construction as the footprint along the riparian area of the Ottawa River is very small and there are setbacks established along Taylor Creek. With respect to changes in the quantity of water, there is no impact anticipated to the Ottawa River (no change to the catchment area), but as mentioned in the description of activities, the pre to post-contributions to the water quantity to Taylor Creek will be decreased, slightly. The slight change to stormwater runoff to Taylor Creek (decrease of -9.1L/s (-5.7%) and -14.7L/s (- 5.4%) for the 5 and 100 year discharge to Taylor Creek respectively.) will be brought to DFO for review. Finally, the potential to impact water quality during construction will need to be avoided through avoidance and mitigation measures and that during operations through properly designed stormwater management. The detailed design phase will provide more information on the water quality controls but it is noted that the design is to meet enhanced water quality guidelines of the MECP and will include oil-grit separators with each of the stormwater outlets. List of avoidance and mitigation measures is included in Section 7.

Prior to Avoidance and Mitigation Measures – Fish Habitat / UNF					
Feature	Area	Nature	Duration	Magnitude	Findings
Taylor Creek	Local	Indirect	Permanent	Negligible	DFO consultation required, and Avoidance and Mitigation Measures needed
Ottawa River	Local	Indirect	Temporary	Negligible to moderate	Unlikely, impact would only occur if accident or malfunction during construction or operation (i.e., erosion, bank failure)

6.3.7 Other

In addition to the natural heritage features identified herein, there are other regulations that need to be considered. For this project, this would be for the general protection of birds (under the *Fish and Wildlife Conservation Act* and the *Migratory Bird Convention Act*) and in terms of minimizing impacts to birds as a result of development by including bird safe design features, as appropriate. For turtles (all are protected under the *Fish and Wildlife Conservation Act*). Avoidance and mitigation measures are provided.

6.3.8 Wildland Fire Risk

As per policy 10.1.5, the City encourages development to take place outside of areas identified as unsafe due to hazardous forest types for wildland fires, unless the development can demonstrate that it meets the provincial wildlife fire assessment and mitigation standards created by the province (OMNR, 2017). The City's EIS Guidelines specify that a wildlife fire assessment is required under the following circumstances:

- Development within 100 m of an area described as:
 - high or extreme risk
 - a forest community with a canopy cover of >50% conifers

The City of Ottawa geoOttawa Potential Hazardous Forest Types for Wildlife Fire provides mapping of areas classifying these as Extreme, High, Pine Needs Evaluation, Moderate, Low, or Water. This mapping indicates that the Site is within an area of Low to Moderate Risk.

During the site investigations, one coniferous community was delineated (Dry-Fresh White Cedar Coniferous Forest) (Section 5.2). This community was 0.47 ha in size and contained within a deciduous forest community. It was composed predominantly of white cedar in a single layer; it is situated approximately 85 m from the proposed development structures, and 75 m from Regional Road 74. The provincial manual classifies three priority zones for vegetation management to mitigate fire risk: Zones 1, 2, and 3.

- Priority Zone 1: the area within 10 m of a proposed structure
- Priority Zone 2: the area 10-30 m of a proposed structure
- Priority Zone 3: the area 30-100 m or greater of a proposed structure.

Priority Zones 1 and 2 comprise the most sensitive Home Ignition Zone (OMNRF, 2017). As per the provincial manual's classification, the coniferous community falls within Priority Zone 3 from the proposed development (OMNRF, 2017).

Relative to other coniferous species, white cedar is not adapted to and does not regenerate with wildland fires. Onsite, there was minimal understory vegetation for ground fuel accumulation and few vegetated, low-hanging branches or structures that could provide a fire pathway via ladder fuels. Deadwood and standing dead trees were observed in very low quantities across the community (Photo 15). The manual also indicates that forest types composed of standing cedar fall under the Moderate - Low risk level in the absence of high risk factors such as significant sources of ground fuels (OMNRF, 2017). In combination, the characteristics of this community reduce the risk level for fires (OMNRF, 2017) (Photo 6).

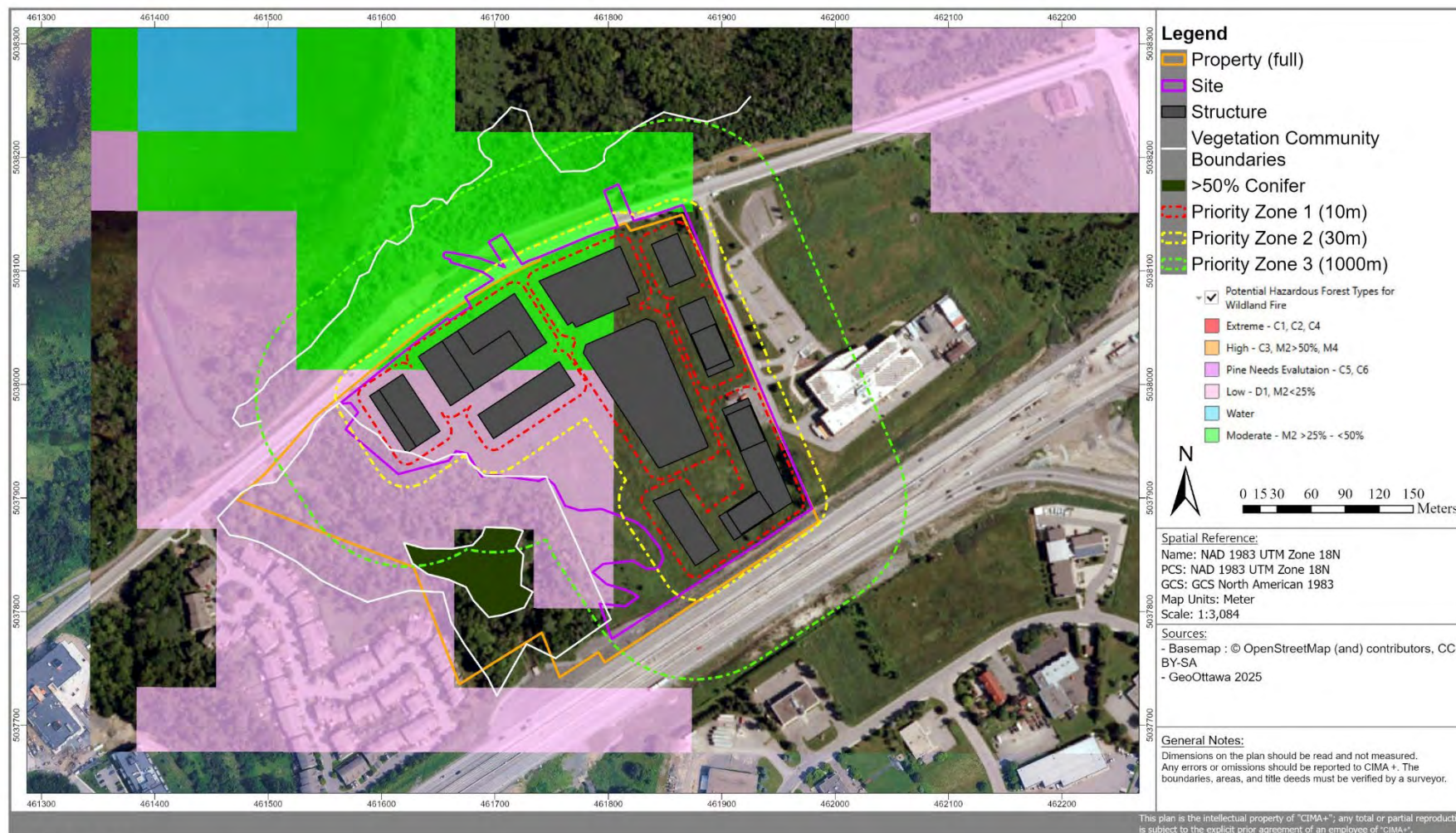


Photo 15: Coniferous community onsite with scattered individuals and groupings (August 25, 2022)

In summary, the fire risk hazard for this community is **Moderate - Low** as a result of the following characteristics:

- Minimal ground fuel accumulation (little to no understory vegetation and debris, low density of deadwood);
- Minimal buildup of litter and no slash;
- Forest composition (standing white cedar community);
- Community falls within Priority Zone 3; and,
- Moderate stand density and gaps within the community.

No further mitigative measures are needed for communities in Priority Zone 3 with a Moderate - Low fire risk.



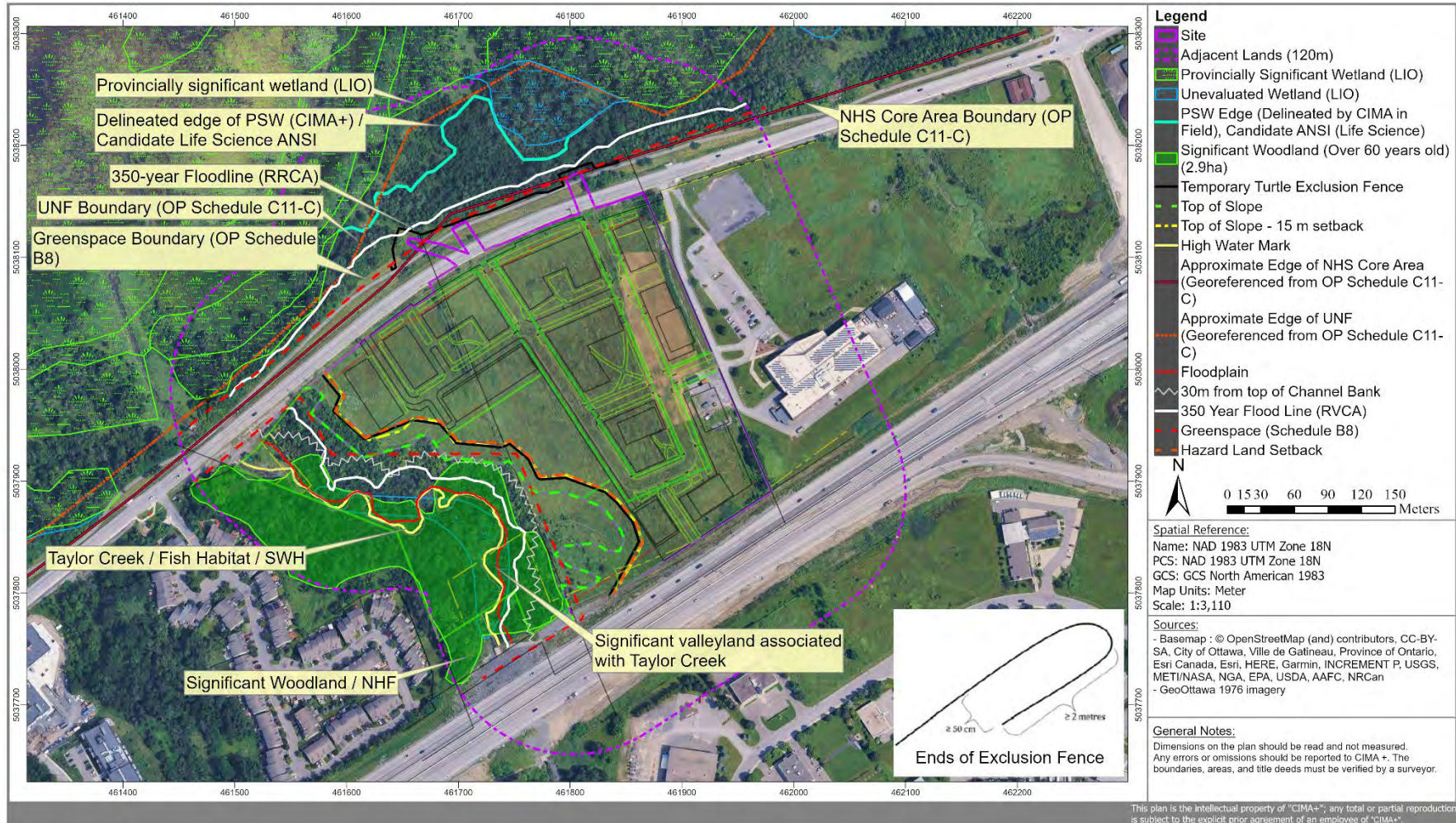
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Figure 10: Fire Hazard (GeoOttawa)



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Figure 11: Natural Heritage Constraints

7. Avoidance and Mitigation Measures

Following a review of the background information, site investigations and evaluation of the potential natural heritage features, the following features were identified for avoidance and or mitigation measures:

- Provincially Significant Wetland/Area of Natural and Scientific Interest /Core Area
- Species at Risk Habitat
 - Potential for Blanding's Turtle
 - Potential of Least Bittern
 - Potential for Bats
 - Presence of Black Ash
- Woodlands / Urban Natural Feature
 - Portion of the woodland in adjacent lands (western portion)
- Significant Wildlife Habitat / Urban Natural Feature
 - Potential for Turtle Wintering Areas
 - Potential for Osprey Habitat
 - Potential for Amphibian Breeding Habitat
- Significant Valleylands / Urban Natural Feature
 - Ottawa River Valley
 - Taylor Creek Valley
- Fish Habitat / Urban Natural Feature
 - Taylor Creek (permanent direct fish habitat within 120 m adjacent lands)
 - Ottawa River (permanent direct fish habitat within 120 m adjacent lands)
- Other
 - Species protected by FWCA or MBCA

NOTE: There are several features whose avoidance and mitigation measures are included under various subsections as the same measures will protect various functions and several of the Urban Natural Features, Core Areas, PSW type features and their functions are already considered under such items as valley, fish habitat, SAR and/or Significant wildlife habitat. As such, it is important to read through all measures.

7.1 Species at Risk

The recommended avoidance and mitigations measures proposed in 7.6 to protect general wildlife should also be implemented to protect SAR herpetofauna, and SAR bats. To ensure compliance under Section 9 and/or Section 10 of the ESA, and to protect SAR and SAR habitat during project construction, the following general mitigation measures are also recommended. Note that these are to be reviewed at detailed design to update with any new policies.

General

- Endangered and threatened species are protected and cannot be harmed or killed and in some cases their habitats are also protected. These individuals will only be handled by qualified personnel and only if the individual is in imminent threat of harm.
- If a SAR enters the work area during the construction period, any work that may harm the individual is to stop immediately and the supervisor will be contacted. No work will continue until the individual has left the area.
- Should an individual be harmed or killed then work will stop, and the Ministry of Environment, Conservation and Parks (MECP) will be contacted, as appropriate based on SCA process.
- Educate staff and contractors on the potential for SAR, with a particular emphasis on species considered more likely to occur.
- If a SAR is observed, encountered, this information will be provided to the Natural Heritage Information Centre (Report rare species (animals and plants) | Ontario.ca).

Turtles

There is a low potential for Blanding's Turtles to occur in the Site. The potential interactions would be with accidental harm to individuals should they be present at the time of construction or accidental release of deleterious substances that affect water quality in their potential habitat downstream (i.e., Taylor Creek/Ottawa River).

- MECP policies will be reviewed and appropriate steps taken with respect to the project's activities.
- Implement a strict speed limit of <15 km/h during construction.
- Minimize clearing of vegetation.
- Clearing of vegetation should take place during the turtle inactive season when they are hibernating which typically occurs between October 31 - April 1 (weather dependent). Otherwise, additional surveys (sweeps for turtles by fish and wildlife technician or biologist familiar with the species are needed).

- Temporary turtle exclusion fencing, such as sediment fencing with the added turn-arounds, along the edge of the area to be cleared can be used for temporary exclusion during construction. These will be properly countersunk and maintained to minimize turtle access into the Site. This sediment fencing is, at a minimum, to include the eastern edge of the Site closest to the creek. Reptile and Amphibian Exclusion Fencing: Best Practices (OMNRF, 2013) will be followed for exclusion fence design and installation and will include the j-hook turnarounds.
- If working during turtle active season (April 1-October 31) then stockpiles that might provide suitable nesting substrate (i.e., gravel, soil) will be provided with additional sediment fencing to prevent turtles from nesting in the work area. Note that should turtles nest on-site, then all work would be stopped until the appropriate process is followed.
- Contractor is to perform daily sweeps during the active season (approximately April 1 to October 31, subject to weather conditions). Not required if under freeze-up conditions.
- If an individual is found:
 - It is not to be harmed or harassed.
 - Work that puts the individual in danger will cease (i.e., moving machinery), and the individual will be watched from far to document where and when it leaves the site for a minimum of 2 hours. If it does not leave, then it may need to be relocated. Contact a biologist experienced with this species to relocate the individual.
- If a turtle nest is suspected, then flag a 10 m buffer to protect the nest. Contact project biologist for immediate assistance, and MNR (non-SAR), and follow the appropriate process for any SAR under SCA.
- Erosion and sediment control measures to be put in place to prevent impacts to water quality downstream of the work area. See Fish Section for more details.
- Minimize sensory impacts to turtles by working during the day and ensuring that equipment and vehicles have the appropriate mufflers and implement a no idling policy. If working at night, ensure that only the lighting needed to perform the work safely is installed and this lighting is focused on the work area (minimize lighting of sky or of natural features).
- No permanent turtle fencing is recommended. Instead a gap of roughly 15 cm is recommended for any fencing along the perimeter of the fence. This meets the most recent (December 2026) advice from MECP.

FOLLOWING Avoidance and Mitigation Measures - Blanding's Turtle				
Area	Nature	Duration	Magnitude	Findings
Local	Negative Direct to Indirect	Temporary	Negligible	Effectively minimized Appropriate SCA process will be followed.

SAR Birds

No SAR Bird habitat was identified.

Least bittern

It is understood that vegetation will be cleared within 5 m of the stormwater drains around 38 m from the Petrie Island PSW. There is a very low potential to impact least bittern during the clearing. Potential impacts would stem from sensory disturbances.

Bobolink and Eastern Meadowlark

It is understood that approximately 7 ha of meadow vegetation will be removed from the site. The potential to impact Bobolink and Eastern Meadowlark is low as none were present during the 2022 surveys.

During Construction:

- If the clearing of vegetation does not take place within the next 5 years, then the surveys should be repeated (i.e., prior to 2027 nesting season).
- Clearing of vegetation will take place between September 1 and March 30 (avoid clearing during what is considered the active SAR Bird season – March 31 to August 31, inclusive). Note that the timing constraint for tree removal for bats is more restrictive (clearing between October 1 and March 31, inclusive). If timing windows cannot be applied, confirm absences of SAR Birds and see Section 7.6.
- Educate construction workers that several SAR bird species could be present and that these and their habitats are protected under the provincial Endangered Species Act and must be protected from harm, harassment and injury.
- If a SAR bird is observed, then all work that may harm the individual must stop and the worker should notify their supervisor. Try to take a photograph or record the call, but do not chase the bird to do so. The supervisor is to inform the client who would then communicate with MECP.
- If an individual has been harmed, the supervisor should contact MECP (and if applicable the project biologist) immediately.
- Minimize sensory impacts to birds by working during the day, and ensuring that equipment and vehicles have the appropriate mufflers and implement a no idling policy. If working at night, ensure that only the lighting needed to perform the work safely is installed and this lighting is focused on the work area (minimize lighting of sky or of natural features).



FOLLOWING Avoidance and Mitigation Measures - SAR Birds				
Area	Nature	Duration	Magnitude	Findings
Local	Negative Direct to Indirect	Temporary	Negligible	Effectively minimized through reduced area of impact and use of timing windows

Bats

There were no hibernacula or Eastern Small-footed Bat maternity sites. Only the fencerows and a small amount of wooded area will be removed. The older portion of the woodland will be protected as Parkland.

- Remove all trees that are 10 cm in diameter at breast height or larger between October 1 and March 31 (Woodland SAR Bat active season is currently assumed to be April 1 to September 30).
 - If this is not possible, follow the appropriate process under SCA.
- Educate contractors by informing them that most bats in Ontario are protected.
- Minimize sensory impacts to bats by ensuring that equipment and vehicles have the appropriate mufflers and implement a no idling policy. If working at night, ensure that only the lighting needed to perform the work safely is installed and this lighting is focused on the work area (minimize lighting of sky or of natural features).

FOLLOWING Avoidance and Mitigation Measures - Bats				
Area	Nature	Duration	Magnitude	Findings
Local	Negative Direct (if individual present and harmed) Indirect (sensory disturbances)	Temporary to Permanent	Negligible	Effectively Minimized

Black Ash and Butternuts

Black Ash is present on the Property, and as of January 25, 2024, healthy individuals with a dbh of 8 cm or greater are protected under ESA.

- Follow guidance on clearing of trees from the bats, birds, and wildlife in the general sections.
- Vegetation removal will be minimized and clearly delineated on construction drawings.
- As it is now protected, a Black Ash inventory must be completed prior to clearing any individuals greater than 8 cm in dbh.

- Health assessment of Black Ash can be completed between June 1 and September 30.
- Should black ash be newly identified, they will need to be assessed. A buffer of 30 m around any unassessed black ash will be applied until the appropriate process under SCA is completed.
- No Butternuts were observed during any of the surveys for the Site.
- If a butternut is observed, follow the appropriate process under SCA. Until this is completed establish a buffer of 50 m with sturdy fencing.

FOLLOWING Avoidance and Mitigation Measures - SAR Flora				
Area	Nature	Duration	Magnitude	Findings
Local	To be determined			Surveys required to confirm potential to impact species or their habitats as per SCA.

7.2 Woodlands / PSW / ANSI / UNF/ Core Area

The vegetation to be removed is not part of the significant woodland, or PSW. Depending on final design, there may be a small part of the urban natural area to be cleared for the outlet. To ensure that impacts are limited to those considered herein, the following will be applied:

- Ensure that the vegetation to be removed is clearly defined on construction drawings and marked in the field with sturdy fencing (with signs indicating the purpose of the fencing).
- Avoid grade raises within the Hazard Lines (Figure 4, Figure 11) to the extent feasible. Should grade raises be required, these are to be approved by geotechnical expert and will avoid mature vegetation to the where possible. Where work must remove vegetation, appropriate measures will be used to protect the exposed face. These could include 100-150 mm topsoil with hardy seed or an erosion control blanket as confirmed by geotechnical expert.
- Construction vehicles will have designated access routes from and to the construction area to avoid disturbance to vegetation and prevent soil compaction.
- The root system, trunk or branches of any tree not designated for removal will be protected from damage.
- In the event of accidental damage to trees, or unexpected vegetation removal, vegetation shall be replaced / restored with native species.
- Material or equipment will not be placed within the critical root zone of any tree (which is 10x the dbh).
- The existing grade will not be raised/lowered within the critical root zone without approval.
- Signs, notices, or posters will not be attached to any tree; and

- Exhaust fumes from equipment will not be directed towards any tree's canopy.
- All equipment and vehicles will be equipped with dust collectors as appropriate.
- Water will be applied, as required, to disturbed surface areas to minimize visible emissions of fugitive dust.
- Machinery must be cleaned prior to arriving on-site to prevent the potential spread of invasive species. Invasive species on site (i.e., Common Reed, buckthorn, honeysuckle) should be removed as appropriate for the species.
 - See Ontario Invasive Plants website for guidance <https://www.ontarioinvasiveplants.ca/>
 - See <http://www.invadingspecies.com/invaders/aquatic-plants/>
- If any invasive plant species are to be disturbed, excavated, or cut on site, best management practices must be followed where available: <https://www.ontarioinvasiveplants.ca/resources/best-management-practices>.
- Minimize sensory impacts to wildlife by working during the day, and ensuring that equipment and vehicles have the appropriate mufflers and implement a no idling policy. If working at night, ensure that only the lighting needed to perform the work safely is installed and this lighting is focused on the work area (minimize lighting of sky or of natural features).
- Mitigation measures for water quality protection for these features is covered in Section 7.5 below.

FOLLOWING Avoidance and Mitigation Measures - Woodlands				
Area	Nature	Duration	Magnitude	Findings
Local	Negative Direct to Indirect	Permanent Temporary	Negligible	Effectively minimized

7.3 Significant Wildlife Habitat / Urban Natural Features

Mitigation measures outlined in other sections (SARA, PSW) will adequately protect the candidate significant wildlife habitat (i.e., turtle overwintering habitat, Osprey nesting and perching habitat, as well as amphibian breeding habitat).

- Ensure that contractors receive information on the sensitivities of the habitat in the two Urban Natural Features (i.e. PSW, ANSI, Core Area, UNF, SWH, Fish Habitat).
- Ensure that the areas of disturbance are clearly defined on construction drawings and marked in the field with sturdy fencing (with signs indicating the purpose of the fencing).
- Avoid removing larger diameter trees to the extent feasible. If any need to be removed, ensure no active or inactive raptor nests.

FOLLOWING Avoidance and Mitigation Measures – Significant Wildlife Habitat				
Area	Nature	Duration	Magnitude	Findings
Local	Negative Indirect	Temporary	Negligible	Effectively minimized

7.4 Valleylands

There are two valleylands that are assumed significant, the Ottawa River Valley and Taylor Creek Valley.

- Ensure that the 15 m setback from top of valley is clearly defined on construction drawings and marked in the field with sturdy fencing (with signs indicating the purpose of the fencing).
- Avoid grade raises within the Hazard Lines (Figure 4, Figure 11) to the extent feasible. Should grade raises be required, these are to be approved by geotechnical expert and will avoid mature vegetation to the where possible. Where work must remove vegetation, appropriate measures will be used to protect the exposed face. These could include 100-150 mm topsoil with hardy seed or an erosion control blanket as confirmed by geotechnical expert.
- Ensure that appropriate implementation and monitoring of erosion and sediment control measures are implemented (see Fish section).

Provided that areas within the minimum setback that need to be disturbed are re-planted with native vegetation including woody species, and that appropriate erosion and sediment control measures, and timing windows are included that there will be no negative impact to the sensitive areas.

Following Avoidance and Mitigation Measures - Valleylands					
Feature	Area	Nature	Duration	Magnitude	Findings
Taylor Creek Valley	Local	Negative Indirect	Temporary	Negligible	Effectively minimized
Ottawa River Valley			Permanent to temporary		

7.5 Fish and Fish Habitat

There are no direct impacts to fish and fish habitat associated with this project as all works will be above the high-water marks. The minor change in contributing catchment area to Taylor Creek is anticipated to be negligible, but there are no models for the area to confirm. The proposed change is <1% (catchment information estimated to be between 430 ha immediately upstream of the Site to 1,035 ha for Taylor Creek in total; information was provided by Stantec (Stantec, 2025)). The following mitigation measures are proposed to avoid or mitigate impacts to fish and fish habitat and will be provided to DFO. DFO will be consulted as appropriated during the detailed design phase and this section will be updated as needed should additional measures be required by DFO.

Planning

- Contact DFO early to ensure that the slight change in catchment area to Taylor Creek is acceptable.
- Minimize the change in pre and post catchment areas.
- Site instruction will be provided to contractor to highlight that both Ottawa River and Taylor Creek provide fish habitat and, that any road ditches that drain to these could transport sediment-laden water to permanent fish habitat.
- Minimize clearing of woody vegetation.

Erosion and Sediment Control

- An erosion and sediment control plan will be developed by contractor and implemented prior to any work within 30 m of the watercourse:
 - Provide regular maintenance to the erosion and sediment control measures during construction. Contractor shall be responsible for ensuring that the erosion and sediment control measures are maintained and will monitor the water clarity downstream of the work site throughout the day and during rain events. Water quality is to meet the *Canadian Water Quality Guidelines for the Protection of Aquatic Life*. Monitoring for visible plumes outside of the work area is to be undertaken;
 - At a minimum, the erosion and sediment control plan will include the installation of a turbidity curtain downstream; and
 - Additional materials (i.e., rip rap, filter cloth and silt fencing) will be readily available in case they are needed promptly for erosion and/or sediment control.

- Avoid grade raises within the Hazard Lines (Figure 4, Figure 11) to the extent feasible. Should grade raises be required, these are to be approved by geotechnical expert and will avoid mature vegetation to the where possible. Where work must remove vegetation, appropriate measures will be used to protect the exposed face. These could include 100-150 mm topsoil with hardy seed or an erosion control blanket as confirmed by geotechnical expert.
- Suspend activities that cause muddy environments during periods of heavy rains.
- Any stockpiles of soil or fill material will be stored as far as possible from the channel and protected by silt fencing (minimum 30 m).
- The erosion control measures will not be removed until the bank is stabilized (i.e., <20% exposed soil).
- Outside of the areas to be backfilled, any disturbed banks will be returned to pre-construction conditions and contours.
- Any disturbed bank along the section to remain will be restored to pre-construction conditions, including revegetation with native vegetation appropriate for site conditions as necessary.
- Where banks/riparian area have been stabilized, monitor the site until stable (<20% bare soil).
- Any riprap or river stone will consist of clean rock free of fines.
- Where possible, limit clearing of vegetation to trimming and leave the stump and lower 60 cm of the tree trunk in place (for shoreline stabilization).
 - Where vegetation clearing is required on slope faces, 150mm of topsoil and seed mix or an erosion control blanket will be applied to exposed slope

Fish Habitat Protection

- Post construction water quantity contribution to the Ottawa River will not change.
- Post-construction water quantity to the Taylor Creek will not be impacted until reviewed by DFO.
- Detailed design of the stormwater management will ensure that water quality being released will not impact the water quality of receiving waterbody.
 - Enhanced measures (i.e., 80% removal of total suspended solids).
 - Measures to ensure that contaminants from the subdivision do not reach the natural environment (i.e., use of oil-grit separator units associated with each stormwater outlet).

General Contaminant and Spill Management

- There will be no use of herbicides in clearing of vegetation;

- All equipment working near the water should be well maintained, clean and free of leaks. Maintenance on construction equipment such as refueling, oil changes or lubrication would only be permitted in designated area located at a minimum of 30 m from the shoreline in an area where sediment erosion control measures and all precautions have been made to prevent oil, grease, antifreeze, or other materials from inadvertently entering the ground or the surface water flow;
- Emergency spill kits will be located on site. The crew will be fully trained on the use of clean-up materials to minimize impacts of any accidental spills. The area would be monitored for leakage and in the unlikely event of a minor spillage the project manager would halt the activity, and corrective measures would be implemented;
- If a spill occurs:
 - Stop all work;
 - Spills are to be immediately reported to the MECP Spills Action Centre (1800 268-6060). Note that under the Fisheries Act deleterious substance includes sediments;
 - Clean-up measures are to be appropriate and are not to result in further harm to fish/fish habitat;
 - Sediment-laden water will be removed and disposed of appropriately.
- Following the completion of construction, all construction materials will be removed from the Site.
- If removal of existing stormwater outlet requires concrete removal or pours, then:
 - Concrete particles and pours can affect the pH of any water that comes into contact with the material. Measures are to be put in place to capture all concrete dust and particles, and wastewater generated during the repairs (i.e., chipping, saw cutting, blasting etc.).
 - During the concrete works (removal and any pours), all water outside of work area is to meet the minimum requirements established by CCME for the protection of aquatic life. Monitoring is to be completed by the contractor and records provided to the Owner.
 - The pH outside of the temporary work area is to be kept with the Canadian Council of Ministers of the Environment (CCME) guidelines (between 6.5-9.0 pH units).
 - Monitoring of water temperature is to be completed until any new concrete is cured.

FOLLOWING Avoidance and Mitigation Measures					
Feature	Area	Nature	Duration	Magnitude	Findings
Ottawa River	Local	Indirect	Temporary	Negligible	DFO to be consulted during detailed design
Taylor Creek		Indirect	Permanent		

7.6 Other

As mentioned at the start, in addition to the natural heritage features identified herein, there are other regulations that need to be considered. For this project, this would be for the general protection of birds (under the *Fish and Wildlife Conservation Act*, and the *Migratory Bird Convention Act*), and for wildlife (all are protected under the *Fish and Wildlife Conservation Act*).

7.6.1 Wildlife

- Removal of any woody vegetation and/or existing infrastructure will occur during the breeding turtle/bird/bat inactive season from between October 31 and March 31 inclusive. If this timing window cannot be followed, then:
 - Adhere to the *Protocol for Wildlife Protection during Construction* (City of Ottawa, 2025).
 - A turtle exclusion fence is required as per the SAR Section (turtle active season is April 1 to October 31).
 - Almost all breeding birds are protected under the MBCA and/or FWCA. The only species not protected are: American crow, brown-headed cowbird, common grackle, house sparrow, red-winged blackbird, and starling. It is prohibited to destroy or disturb an active nest of other birds, or to take or handle nests, eggs, or nestlings. The general Bird timing window applicable to this project during which time no clearing of vegetation can take place is between April 12 and August 28 in nesting Zone C3/C4 (ECCC 2023), inclusive. Outside of this timing window, it is considered unlikely that birds would be nesting. Note, there are some birds (birds of prey, herons etc.) that do begin nesting earlier in the year. It should also be noted, that if an active nest is present before or after the above dates that it is still protected.
 - Follow current MECP policies with respect to the removal of trees with a dbh of 10 cm or larger.
- Almost all reptiles are protected by the FWCA. If a turtle nest is suspected, then flag a 10 m buffer to protect the nest. Contact project biologist, follow the appropriate process under SCA for endangered and threatened species, and MNR (all other species, including those listed as special concern).
- Harassment and/or harm to wildlife during construction is prohibited.
- No hunting or fishing is permitted on construction sites.
- When possible, work will be completed during daylight hours. If nighttime lights are used, they will be installed to illuminate the work area only to minimize impacts to nighttime activities of wildlife.
- Vehicles and equipment will have the appropriate mufflers installed.
- Vehicle and equipment engine idling will be minimized.

- Construction vehicles will have designated access routes from and to the construction area.

7.6.2 Bird Safety

- The detailed design phase will reference the City's Bird Safe Design Guidelines (City of Ottawa, 2020) to minimize potential for impacts to birds. These could include, as appropriate, the following:
 - Building Design:
 - Reflective and transparent surfaces should be minimized where feasible.
 - Cap flues, vent, and vertical pipes.
 - Glass corners should be avoided, if they cannot be then bird safe treatment should be applied in 5m in both directions.
 - Glass which creates a perceived fly through, or mirrored effect should have a bird safe treatment applied.
 - To minimize light pollution:
 - Minimize the number of lights and wattage, while still adhering to the minimum requirements of the building codes.
 - Minimizing the lighting of the sky, use full-cut off lights direct to the ground.
 - If feasible use warm tones for outdoor lights.
 - Landscaping:
 - Avoid creating straight corridors leading to glass or reflective surfaces.
 - Avoid using species which are known to attract birds (species with abundant fruit or seed crops).
 - Minimize reflection of vegetation in the reflective surfaces of the structures.
 - Information in the Owner Awareness Packages with a focus on those units along the west side of the development (i.e., next to the Taylor Creek area) could include the following:
 - Use shades or blinds to minimize light pollution at night.
 - Minimize exterior visibility of indoor vegetation.
 - Avoid using plant species to attract birds (species with abundant fruit or seed crops).

7.6.3 Tree Removal

- Removal of trees greater than 10cm dbh requires a tree permit from the City's Forestry Planning staff. The Tree Conservation Report (CIMA+, 2023) has been reviewed by City staff and will fulfill the requirements for obtaining a tree permit.

Table 7: Summary of Impacts, Mitigation Measures and Residual Effects

Activity	Natural Heritage Feature/Function	Potential Effect	Proposed Mitigation	Residual Effect
Construction				
Vegetation Clearing and removal of buildings in preparation for development Construction of houses, infrastructure	Breeding bird Habitat (MBCA)	Removal of vegetation would destroy (permanently) breeding habitat.	■ Machinery should be cleaned prior to arriving on-site to prevent the potential spread of invasive species. ■ Contractors to be educated for potential for Species at Risk (Blanding’s Turtle, Least Bittern, Bank Swallow, Bobolink, Eastern Meadowlark, Bats, and Black Ash.). ■ If a SAR enters the work area during the construction period, any work that may harm the individual is to stop immediately and the supervisor will be contacted. No work will continue until the individual has left the area. These sightings will be reported to NHIC and as appropriate under SCA. ■ Should an individual be harmed or killed then work will stop and the appropriate process under SCA will be followed. ■ Avoid grade raises within the Hazard Lines (Figure 4, Figure 11) to the extent feasible. Should grade raises be required, these are to be approved by geotechnical expert and will avoid mature vegetation to the where possible. Where work must remove vegetation, appropriate measures will be used to protect the exposed face. These could include 100-150 mm topsoil with hardy seed or an erosion control blanket as confirmed by geotechnical expert. ■ Avoid clearing of vegetation during the sensitive times of the year for local wildlife (i.e., spring to early summer) when animals are bearing and nursing their young. ■ Vegetation removal will be minimized and clearly delineated on construction drawings.	Loss of all vegetation within the site outside of the 15m setback from the Taylor Creek top of slope. Potential impacts to SAR can be avoided or the appropriate process followed.
		Indirect impacts to vegetation not scheduled to be removed.		
	Indirect Fish Habitat	Introduction of non-native vegetation.		
		Potential to injure or kill wildlife during construction as a result of collisions.		
		Potential for Species at Risk – Blanding’s Turtle, Least Bittern, Bank Swallow, Bobolink, Eastern Meadowlark, Bats, and Black Ash.		
		Potential impacts from noise or lights		
		Potential impacts to the water quantity or quality flowing towards the downstream fish habitat.		
		Potential to impact day-roots or bat maternity sites (little brown)		
		Potential for additional Butternuts and Black Ash to be		

Activity	Natural Heritage Feature/Function	Potential Effect	Proposed Mitigation	Residual Effect
		present (i.e., if missed during inventory or new seedlings grow)	■ If a SAR is observed, encountered, this information will be provided to the Natural Heritage Information Centre (Report rare species (animals and plants) Ontario.ca) ■ Strict speed limit of <15 km/h during construction to allow workers opportunity to avoid harming/killing of wildlife with machinery. ■ All vegetation clearing should occur outside of sensitive timing windows. The preferred period would be from October 1 to March 31 (this would avoid: breeding bird season, and active bat season). Additional measures required if work is to be completed during the various sensitive windows: – Between April 1 and September 30 (active bat season) any removal of buildings or trees that are more than 10 cm in diameter would require appropriate process under SCA. – Breeding bird survey for removal of any type of vegetation or removal of any building between April 12 and August 28 by a fish, wildlife or environmental technician or biologist with experience with birds. Within 2 days of the area being cleared. ■ During clearing of vegetation, contractors are to be informed that they should keep a look out for wildlife and if any are observed, they should be given the opportunity to leave the area. ■ There will be no use of herbicides for clearing of vegetation. ■ Work during the daytime hours to prevent light disturbances. ■ Ensure that all equipment have the appropriate mufflers to reduce noise disturbances. ■ There is a high potential for ground nesting birds (i.e., killdeer) to be present once an area is graded. These prefer to nest on bare soil or gravel areas. Perform regular walks of the cleared areas looking for ground nesters. If any are present, the contact a biologist for guidance.	

Activity	Natural Heritage Feature/Function	Potential Effect	Proposed Mitigation	Residual Effect
			■ If a turtle nest is suspected, then flag a 10 m buffer to protect the nest. Appropriate process under SCA for Endangered or Threatened species, and contact MNR (all other species). ■ Do not flag bird nests as it attracts predators. ■ Delineation of the disturbance limits within work areas will be clearly defined on drawings and on the site prior to construction. ■ An erosion and sediment control plan will be developed by contractor and implemented prior to any work within 30 m of the watercourse: – Provide regular maintenance to the erosion and sediment control measures during construction. Contractor shall be responsible for ensuring that the erosion and sediment control measures are maintained and will monitor the water clarity downstream of the work site. – At a minimum, the erosion and sediment control plan will include the installation of a turbidity curtain downstream; and additional materials (i.e., rip rap, filter cloth and silt fencing) will be readily available in case they are needed. ■ Suspend activities that cause muddy environments during periods of heavy rains. ■ Any stockpiles of soil or fill material will be stored as far as possible from the channel and protected by silt fencing (minimum 30 m). ■ The erosion control measures will not be removed until the bank is stabilized (i.e., <20% exposed soil). ■ Outside of the areas to be backfilled, any disturbed banks will be returned to pre-construction conditions and contours. ■ Any disturbed bank, along the section to remain, will be returned to pre-construction conditions, including revegetation with appropriate native vegetation.	

Activity	Natural Heritage Feature/Function	Potential Effect	Proposed Mitigation	Residual Effect
			- Where banks/riparian area (area within 30 m of channel that are to be retained) have been stabilized monitor the site until stable. - Any riprap or river stone will consist of clean rock free of fines. - If pouring of concrete, monitor quality of water leaving the site that has been in contact with uncured concrete or concrete particles during construction, recording changes to pH, turbidity, and temperature.	
Accidents or Malfunctions	Downstream Fish Habitat in Phase B	Spills or accidents during construction could impact the quality of fish habitat downstream	- Follow all guidance provided by geotechnical experts on erosion and sediment control measures to ensure protection of the banks. - Educate contractors that water flowing off of the site must not impact the water quality of the fish habitat. It is a contravention of the <i>Fisheries Act</i> to release deleterious substances (including sediment) into fish bearing watercourses. - All equipment working in or near the water must be well maintained, clean and free of leaks. Maintenance on construction equipment such as refueling, oil changes or lubrication would only be permitted in designated area located at a minimum of 30 m from the shoreline in an area where sediment erosion control measures and all precautions have been made to prevent oil, grease, antifreeze, or other materials from inadvertently entering the ground or the surface water flow. - Emergency spill kits will be located on site. The crew will be fully trained on the use of clean-up materials to minimize impacts of any accidental spills. The area would be monitored for leakage and in the unlikely event of a minor spillage the project manager would halt the activity, and corrective measures would be implemented. - All construction materials will be removed from site after completion of construction. - If a spill occurs:	Unlikely

Activity	Natural Heritage Feature/Function	Potential Effect	Proposed Mitigation	Residual Effect
			– Stop all work – Spills are to be immediately reported to the MECP Spills Action Centre (1800 268-6060). Note that under the <i>Fisheries Act</i> deleterious substance includes sediments. – Clean-up measures are to be appropriate and are not to result in further harm to fish/fish habitat. – Sediment-laden water will be removed and disposed of appropriately.	
Operations	Fish Habitat	Potential for impacts to water quality.	■ Indirect impacts could occur as a result of change in water supply or quality, sediment/erosion. – The stormwater management strategy will ensure that water flow from the site is directed to the appropriate area and is treated to not impact the water quality of the receiving waterbodies.	None provided properly designed and installed.

8. Conclusion

The proponent would like to develop Petrie III's Landing at on the Property. The natural constraints are primarily situated within the adjacent lands. The minor disturbance needed to construct the larger stormwater outlet is not anticipated to result in any negative impacts to the Natural heritage Feature/Core Area. Next steps would include:

- The appropriate SCA process will be followed at project design;
- Submission of Request for Review to DFO prior to affecting the quantity of water reaching Taylor Creek and completion of any subsequent requirements to DFO's satisfaction at detailed design.

Provided that the avoidance and mitigation measures are implemented appropriately, and the appropriate DFO and SAR processes are followed, the site development could proceed as planned.

I trust that this report will meet your requirements. Should you have any questions or comments, please contact Michelle Lavictoire at michelle.lavictoire@cima.ca.

9. Study Limitations and Constraints

CIMA+ completed diligent and reasonable research in the conduct of this evaluation, with respect to the recognized laws and standards of practice.

The facts presented in this report are strictly limited to the period of investigation. The conclusions presented in this report are based on the available information and documents, the observations made during the Site visit and the information obtained from communications with various contacts. The interpretation presented in this report is limited to this data.

CIMA+ is not responsible for erroneous conclusions due to voluntary abstention or the non-availability of pertinent information. Any opinion expressed in relation to legal or regulatory conformity is technical and should not be, in any case, considered as legal advice.

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Appendix A

Background Information

Summary of Fish Communities In Taylor Creek and in Dollard-des-Ormeaux Reach

Species Name	Scientific Name	Trophic Class	Thermal Regime	Reg. 60/26 PSO List Status	COSEWIC Status	SARA Schedule 1 List of Wildlife SAR Status	Taylor Creek	Dollard-des-Ormeaux - Downstream
Northern Brook Lamprey	<i>Ichthyomyzon fossor</i>	nonfeeding, herbivore	cool	No status	No status	SC	N	Y
Silver Lamprey	<i>Ichthyomyzon unicuspis</i>	Parasite, herbivore/ detrivore	cool	No status	SC	SC	N	Y
American Brook Lamprey	<i>Lethenteron appendix</i>	nonparasitic filterer, adults do not feed, herbivore	cold	No Status	No status	No Status	N	Y
Lake Sturgeon	<i>Acipenser fulvescens</i>	invertivore/herbivore	cool	THR	THR	No Status	N	Y
Longnose Gar	<i>Lepisosteus osseus</i>	carnivore	warm	No Status	No status	No Status	N	Y
American Eel	<i>Anguilla rostrata</i>	invertivore/carnivore	cool	END	THR	No Status	N	Y
Alewife	<i>Alosa pseudoharengus</i>	planktivore	cold	No Status	No status	No Status	N	Y
American Shad	<i>Alosa sapidissima</i>	planktivore	cool	No Status	No status	No Status	N	Y
Mooneye	<i>Hiodon tergisus</i>	invertivore	cool	No Status	No status	No Status	N	Y
Rainbow Trout	<i>Oncorhynchus mykiss</i>	invertivore/ carnivore	cold	No Status	No status	No Status	N	Y
Brown Trout	<i>Salmo trutta</i>	invertivore/ carnivore	cold/cool	No Status	No status	No Status	N	Y
Brook trout	<i>Salvelinus fontinalis</i>	invertivore/ carnivore	cold	No status	No status	No Status	N	Y
Lake trout	<i>Salvelinus namaycush</i>	invertivore/ carnivore	invertivore/ carnivore	No status	No status	No Status	N	Y
Cisco (Lake Herring)	<i>Coregonus artedi</i>	planktivore/ invertivore	cold	No Status	No status	No Status	N	Y
Lake Whitefish	<i>Coregonus clupeaformis</i>	invertivore/ carnivore	cold	No status	No status	No Status	N	Y
Round whitefish	<i>Prosopium cylindraceum</i>	invertivore/ carnivore	cold	No status	No status	No Status	N	Y
Rainbow Smelt	<i>Osmerus mordax</i>	invertivore/carnivore	cold	No Status	No status	No Status	N	Y
Northern Pike	<i>Esox lucius</i>	carnivore	cool	No Status	No status	No Status	N	Y
Muskellunge	<i>Esox masquinongy</i>	carnivore	warm	No Status	No status	No Status	N	Y
Central Mudminnow	<i>Umbra limi</i>	invertivore	cool	No Status	No status	No Status	Y	Y

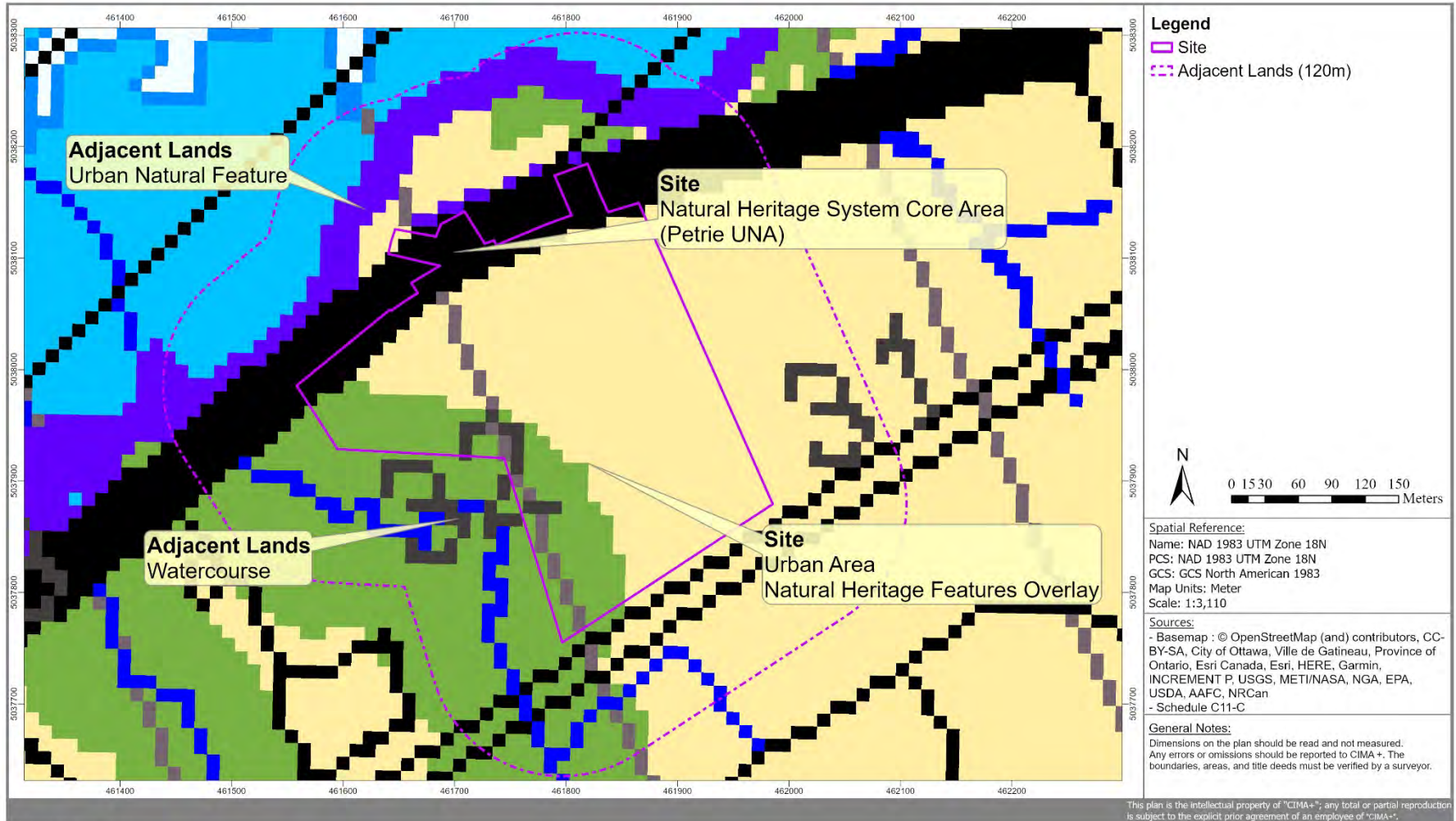
Species Name	Scientific Name	Trophic Class	Thermal Regime	Reg. 60/26 PSO List Status	COSEWIC Status	SARA Schedule 1 List of Wildlife SAR Status	Taylor Creek	Dollard-des-Ormeaux - Downstream
Spotfin shiner	<i>Cyprinella spiloptera</i>	invertivore/ herbivore	warm	No status	No status	No Status	N	Y
Common Carp	<i>Cyprinus carpio</i>	invertivore/ detritivore	warm	No Status	No status	No Status	N	Y
Cutlip Minnow	<i>Exoglossum maxillingua</i>	invertivore	warm	THR	SC	SC	N	Y
Brassy Minnow	<i>Hybognathus hankinsoni</i>	planktivore/ detritivore	cool	No Status	No status	No Status	Y	Y
Eastern Silvery Minnow	<i>Hybognathus regius</i>	herbivore/ detritivore	warm	No Status	No Status	No Status	N	Y
Common Shiner	<i>Luxilus cornutus</i>	invertivore	cool	No Status	No status	No Status	Y	Y
Northern Pearl Dace	<i>Margariscus nachtriebi</i>	invertivore/ carnivore	cool	No Status	No status	No Status	N	Y
Golden Shiner	<i>Notemigonus crysoleucas</i>	invertivore/herbivore	cool	No Status	No status	No Status	N	Y
Emerald Shiner	<i>Notropis atherinoides</i>	planktivore	cool	No Status	No status	No Status	N	Y
Blackchin Shiner	<i>Notropis heterodon</i>	invertivore	cool	No Status	No Status	No Status	N	Y
Blacknose Shiner	<i>Notropis heterolepis</i>	invertivore/ herbivore	cool	No Status	No status	No Status	N	Y
Spottail Shiner	<i>Notropis hudsonius</i>	invertivore/ planktivore	cool	No Status	No status	No Status	N	Y
Rosyface Shiner	<i>Notropis rubellus</i>	invertivore/ detritivore/ herbivore	warm	No Status	No Status	No Status	N	Y
Sand Shiner	<i>Notropis stramineus</i>	invertivore/ detritivore	warm	No Status	No status	No Status	N	Y
Mimic Shiner	<i>Notropis volucellus</i>	invertivore/herbivore	warm	No Status	No status	No Status	N	Y
Northern Redbelly Dace	<i>Chrosomus eos</i>	invertivore/ planktivore	cool	No Status	No status	No Status	N	Y
Finescale Dace	<i>Chrosomus neogaeus</i>	invertivore/ planktivore	cool	No Status	No status	No Status	N	Y
Bluntnose Minnow	<i>Pimephales notatus</i>	detritivore	warm	No Status	No Status	No Status	N	Y
Fathead Minnow	<i>Pimephales promelas</i>	detritivore/ invertivore	warm	No Status	No status	No Status	Y	Y

Species Name	Scientific Name	Trophic Class	Thermal Regime	Reg. 60/26 PSO List Status	COSEWIC Status	SARA Schedule 1 List of Wildlife SAR Status	Taylor Creek	Dollard-des-Ormeaux - Downstream
Western Blacknose Dace	<i>Rhinichthys obtusus</i>	invertivore	cool	No Status	No status	No Status	N	Y
Longnose Dace	<i>Rhinichthys cataractae</i>	invertivore	cool	No Status	No status	No Status	N	Y
Creek Chub	<i>Semotilus atromaculatus</i>	invertivore/ carnivore	cool	No Status	No status	No Status	Y	Y
Fallfish	<i>Semotilus corporalis</i>	invertivore/ carnivore	cool	No Status	No status	No Status	N	Y
Longnose Sucker	<i>Catostomus catostomus</i>	invertivore	cold	No Status	No status	No Status	N	Y
White Sucker	<i>Catostomus commersonii</i>	invertivore/ detritivore	cool	No Status	No status	No Status	Y	Y
Quillback	<i>Carpionodes cyprinus</i>	invertivore/ detritivore	cool	No status	No status	No Status	N	Y
Silver Redhorse	<i>Moxostoma anisurum</i>	invertivore	cool	No Status	No status	No Status	N	Y
River Redhorse	<i>Moxostoma carinatum</i>	invertivore	cool	No status	SC	SC	N	Y
Shorthead Redhorse	<i>Moxostoma macrolepidotum</i>	invertivore	warm	No Status	No status	No Status	N	Y
Greater Redhorse	<i>Moxostoma valenciennesi</i>	invertivore	warm	No Status	No status	No Status	N	Y
Yellow Bullhead	<i>Ameiurus natalis</i>	invertivore/ carnivore	warm	No Status	No status	No Status	N	Y
Brown Bullhead	<i>Ameiurus nebulosus</i>	invertivore/ herbivore/ carnivore	warm	No Status	No status	No Status	N	Y
Channel Catfish	<i>Ictalurus punctatus</i>	invertivore/ carnivore	warm	No Status	No status	No Status	N	Y
Tadpole Madtom	<i>Noturus gyrinus</i>	invertivore/ planktivore	warm	No Status	No status	No Status	N	Y
Margined Madtom	<i>Noturus insignis</i>	invertivore	warm	No Status	DD	No Status	N	Y
Trout-Perch	<i>Percopsis omiscomaycus</i>	invertivore/ carnivore	cold	No status	No status	No Status	N	Y
Burbot	<i>Lota lota</i>	invertivore/ carnivore	cold	No Status	No status	No Status	N	Y
Banded Killifish	<i>Fundulus diaphanus</i>	invertivore/ planktivore	cool	No Status	No Status	No Status	Y	Y
Brook Silverside	<i>Labidesthes sicculus</i>	planktivore/ invertivore	warm	No Status	No Status	No Status	N	Y

Species Name	Scientific Name	Trophic Class	Thermal Regime	Reg. 60/26 PSO List Status	COSEWIC Status	SARA Schedule 1 List of Wildlife SAR Status	Taylor Creek	Dollard-des-Ormeaux - Downstream
Brook Stickleback	<i>Culaea inconstans</i>	planktivore/ invertivore	cool	No Status	No status	No Status	Y	Y
Threespine Stickleback	<i>Gasterosteus aculeatus</i>	invertivore	cool	No Status	No status	No Status	N	Y
Ninespine Stickleback	<i>Pungitius pungitus</i>	planktivore	cool	No Status	No status	No Status	N	Y
Mottled Sculpin	<i>Cottus bairdii</i>	invertivore	cool	No Status	No status	No Status	N	Y
Slimy Sculpin	<i>Cottus cognatus</i>	invertivore	cold	No Status	No status	No Status	N	Y
Rock Bass	<i>Ambloplites rupestris</i>	invertivore/ carnivore	cool	No Status	No status	No Status	Y	Y
Pumpkinseed	<i>Lepomis gibbosus</i>	invertivore/ carnivore	warm	No Status	No status	No Status	Y	Y
Bluegill	<i>Lepomis macrochirus</i>	invertivore	warm	No Status	No status	No Status	N	Y
Longear Sunfish	<i>Lepomis megalotis</i>	insectivore	warm	No Status	No status	No Status	N	Y
Smallmouth Bass	<i>Micropterus dolomieu</i>	invertivore/ carnivore	cool	No Status	No status	No Status	N	Y
Largemouth Bass	<i>Micropterus salmoides</i>	invertivore/ carnivore	warm	No Status	No status	No Status	N	Y
Black Crappie	<i>Pomoxis nigromaculatus</i>	invertivore/ carnivore	cool	No Status	No status	No Status	N	Y
Iowa darter	<i>Etheostoma exile</i>	invertivore	cool	No Status	No status	No Status	N	Y
Fantail Darter	<i>Etheostoma flabellare</i>	invertivore	cool	No Status	No status	No Status	N	Y
Johnny Darter	<i>Etheostoma nigrum</i>	invertivore	cool	No Status	No status	No Status	N	Y
Tessellated Darter	<i>Etheostoma olmstedi</i>	invertivore	cool	No Status	No Status	No Status	N	Y
Yellow Perch	<i>Perca flavescens</i>	invertivore/ carnivore	cool	No Status	No status	No Status	Y	Y
Logperch	<i>Percina caprodes</i>	invertivore	warm	No Status	No status	No Status	N	Y
Channel Darter	<i>Percina copelandi</i>	invertivore/ herbivore	warm	No status	No status	SC	N	Y
Sauger	<i>Sander canadensis</i>	invertivore/ carnivore	cool	No Status	No status	No Status	N	Y
Walleye	<i>Sander vitreus</i>	invertivore/ carnivore	cool	No Status	No status	No Status	N	Y

Species Name	Scientific Name	Trophic Class	Thermal Regime	Reg. 60/26 PSO List Status	COSEWIC Status	SARA Schedule 1 List of Wildlife SAR Status	Taylor Creek	Dollard-des-Ormeaux - Downstream
Freshwater Drum	<i>Aplodinotus grunniens</i>	invertivore/ carnivore	warm	No Status	No status	No Status	N	Y
Number of Species							11	81

(Bowfin, 2015, Eakins, 2024; Haxton & Chubbuck 2002, LIO 2024) - Status Updated: May 2026



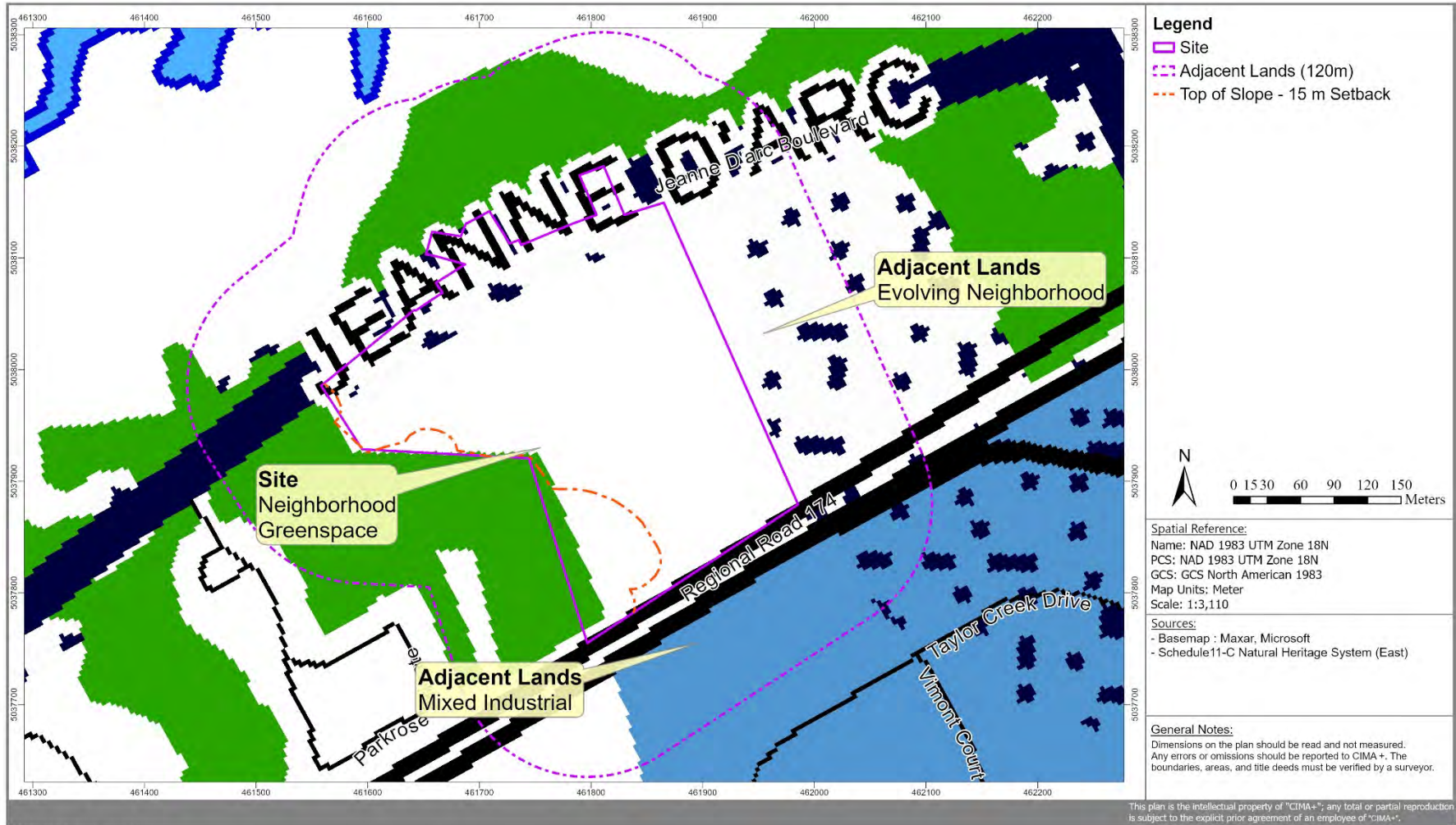
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City of Ottawa Schedule C11-C (East)

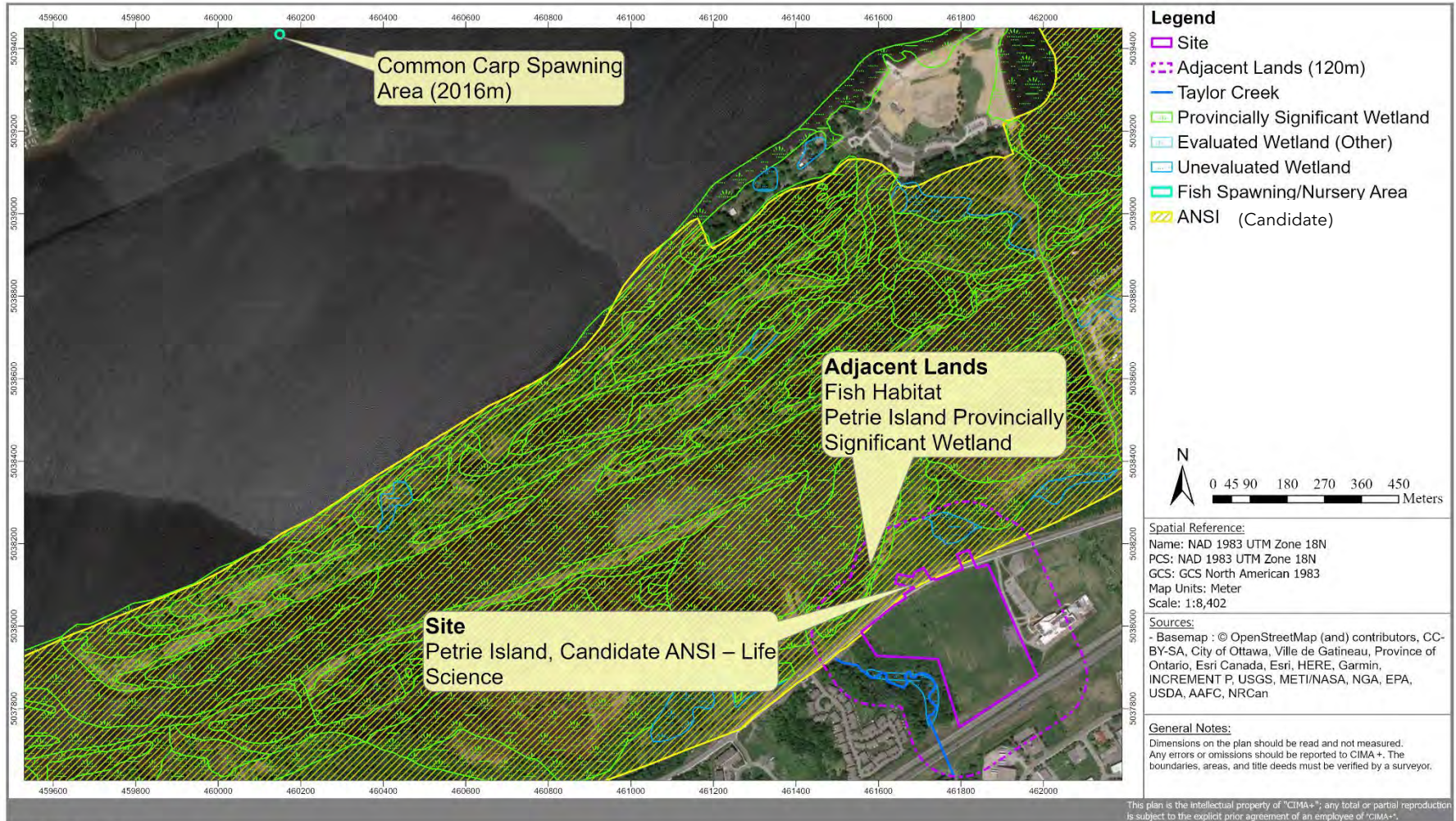


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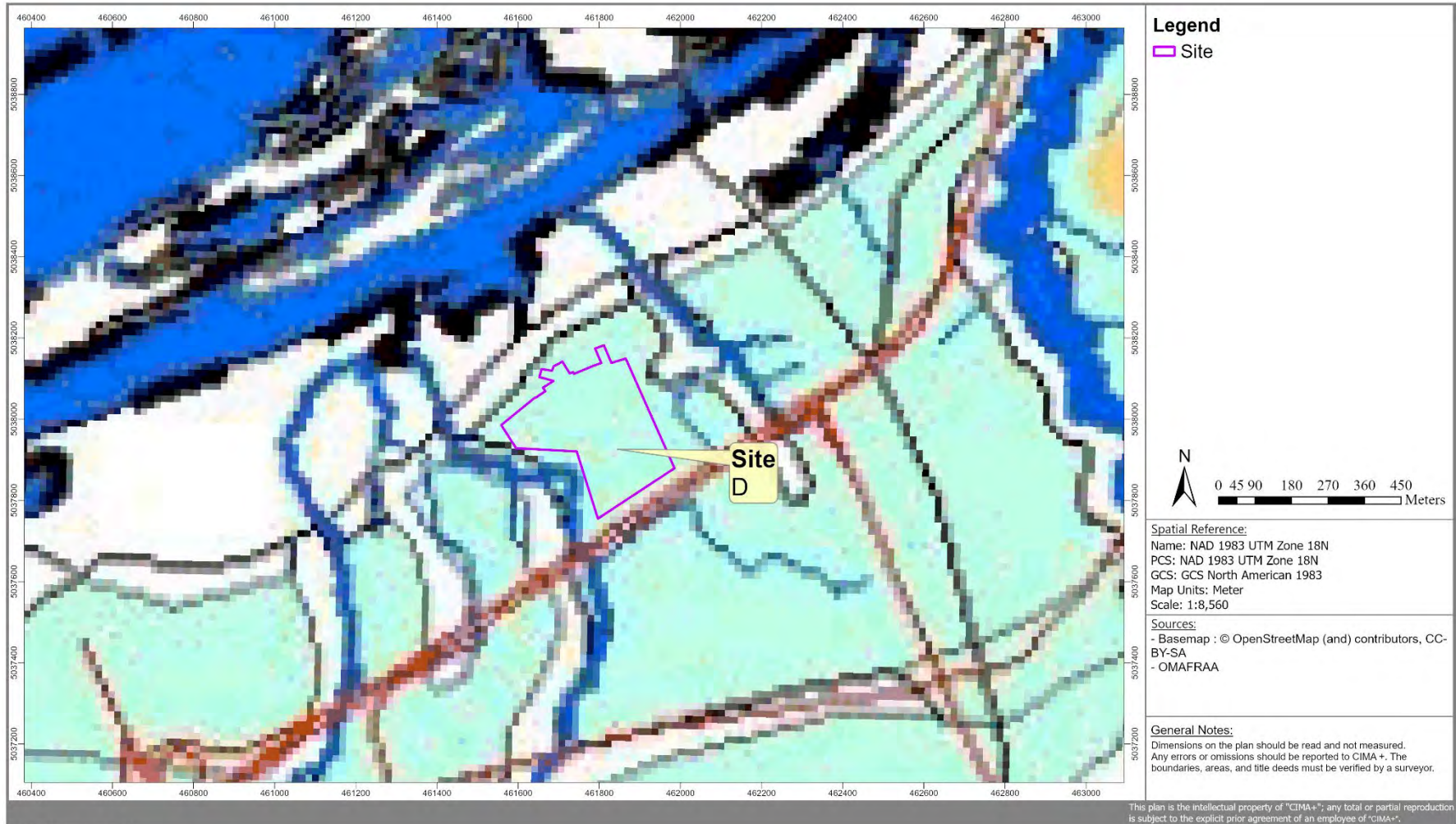
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Background Mapping - Land Information Ontario



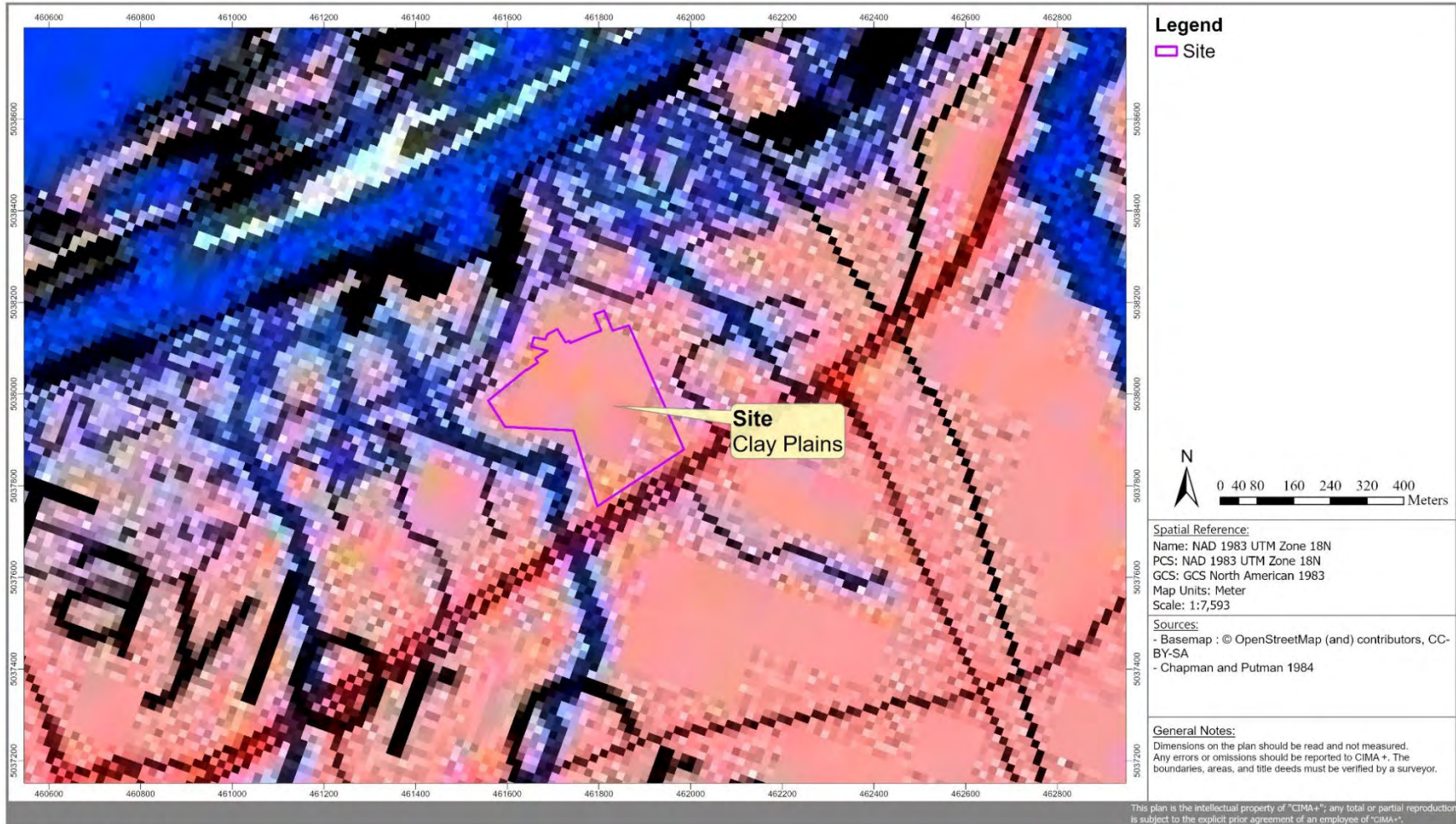
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Hydrologic Soil Group



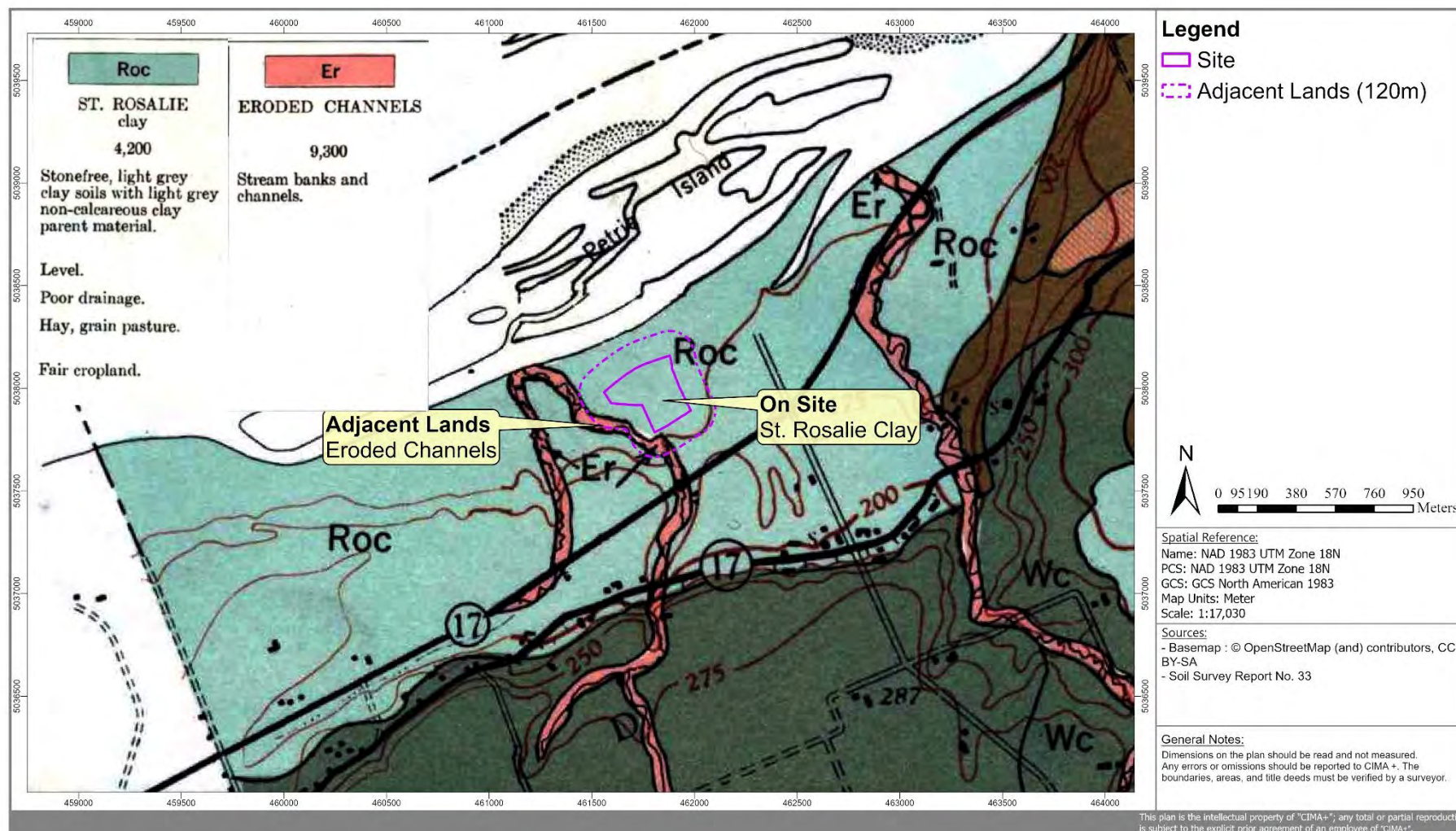
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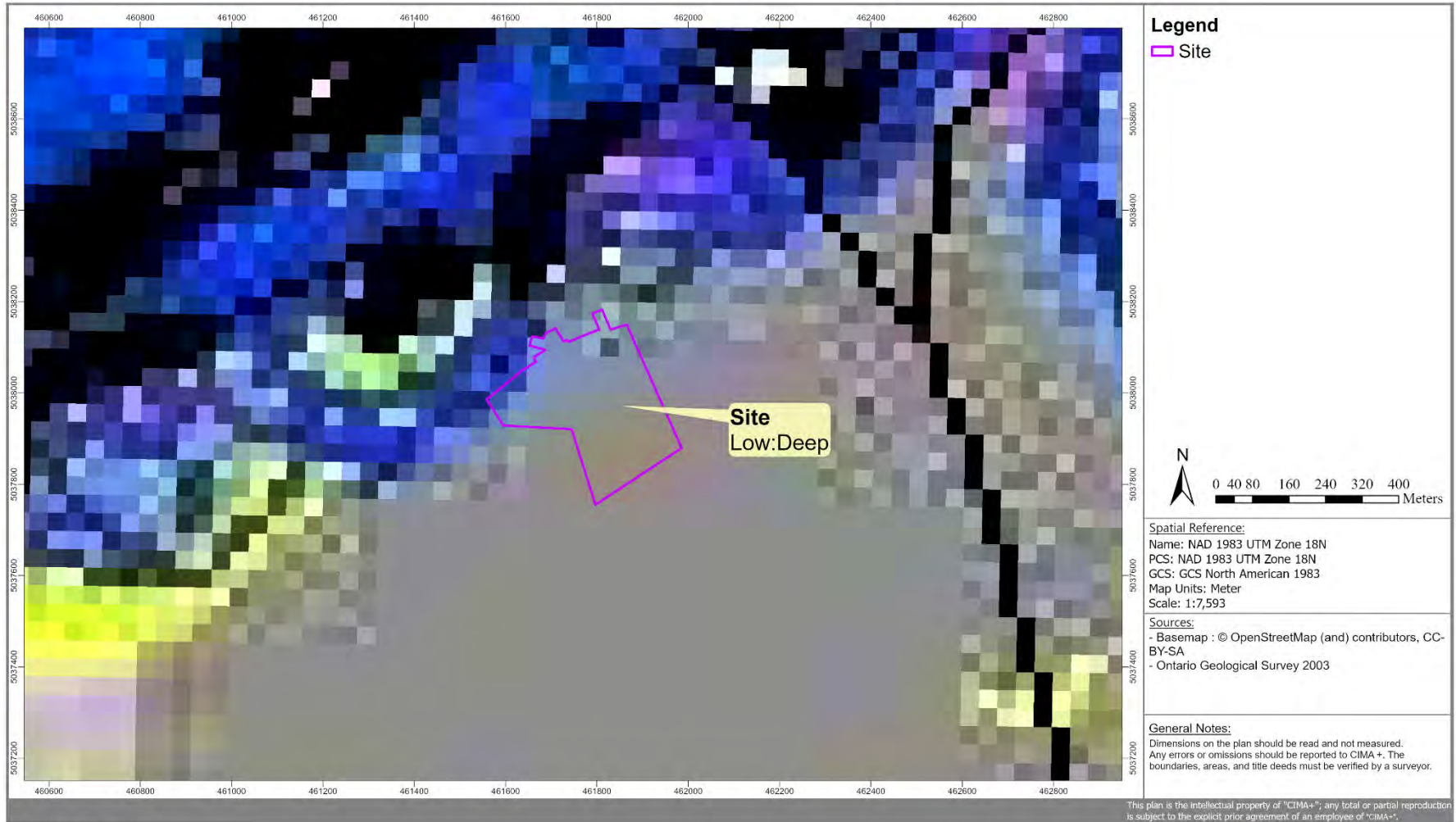


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Physiographic Unit





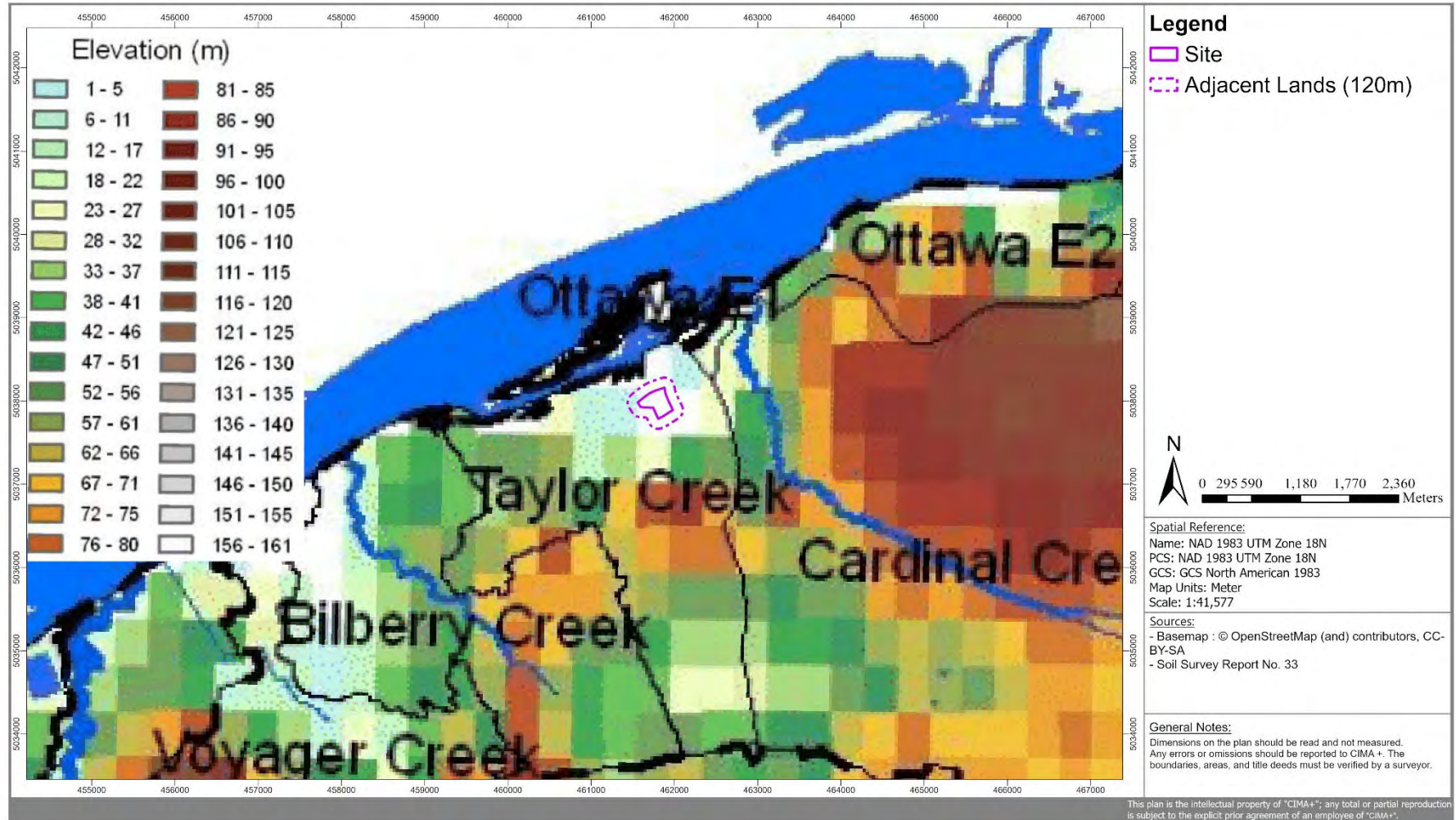
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Depth of Overburden





Petrie's Landing III
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Revision 00 -- Issued for report - June 8, 2026 3:51:05 PM

Woodland Age - GeoOttawa 1976

Atlas of the Breeding Birds of Ontario

Squares: 18VR63, 18VR64, 18VR53

Common Name	Scientific Name	ABBO Category	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status
Canada Goose	<i>Branta canadensis</i>	Confirmed	S5	no status	no status
Wood Duck	<i>Aix sponsa</i>	Confirmed	S5	no status	no status
American Black Duck	<i>Anas rubripes</i>	Confirmed	S4	no status	no status
Mallard	<i>Anas platyrhynchos</i>	Confirmed	S5	no status	no status
Northern Shoveler	<i>Anas clypeata</i>	Probable	S4	no status	no status
Northern Pintail	<i>Anas acuta</i>	Possible	S5	no status	no status
Green-winged Teal	<i>Anas crecca</i>	Probable	S4	no status	no status
Blue-winged Teal	<i>Anas discors</i>	Probable	S4	no status	no status
Ring-necked Duck	<i>Aythya collaris</i>	Possible	S5	no status	no status
Lesser Scaup	<i>Aythya affinis</i>	Probable	S4	no status	no status
Common Merganser	<i>Mergus merganser</i>	Probable	S5B,S5N	no status	no status
Gray Partridge	<i>Perdix perdix</i>	Possible	SNA	no status	no status
Ruffed Grouse	<i>Bonasa umbellus</i>	Confirmed	S4	no status	no status
Wild Turkey	<i>Meleagris gallopava</i>	Probable	S5	no status	no status
Pied-billed Grebe	<i>Podilymbus podiceps</i>	Confirmed	S4B, S4N	no status	no status
American Bittern	<i>Botaurus lentiginosus</i>	Probable	S4B	no status	no status
Great Blue Heron	<i>Ardea herodias</i>	Confirmed	S4	no status	no status
Green Heron	<i>Butorides virescens</i>	Probable	S4B	no status	no status
Turkey Vulture	<i>Cathartes aura</i>	Possible	S5B	no status	no status
Osprey	<i>Pandion haliaetus</i>	Confirmed	S5B	no status	no status
Northern Harrier	<i>Circus cyaneus</i>	Confirmed	S4B	no status	no status
Cooper's Hawk	<i>Accipiter cooperii</i>	Confirmed	S4	no status	no status
Broad-winged Hawk	<i>Buteo platypterus</i>	Possible	S5B	no status	no status
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Probable	S5	no status	no status
American Kestrel	<i>Falco sparverius</i>	Probable	S4	no status	no status
Merlin	<i>Falco columbarius</i>	Confirmed	S5B	no status	no status
Virginia Rail	<i>Rallus limicola</i>	Probable	S5B	no status	no status
Sora	<i>Porzana carolina</i>	Confirmed	S4B	no status	no status
American Coot	<i>Fulica americana</i>	Possible	S4B	no status	no status
Killdeer	<i>Charadrius vociferus</i>	Confirmed	S5B, S5N	no status	no status
Spotted Sandpiper	<i>Actitis macularia</i>	Confirmed	S5	no status	no status
Upland Sandpiper	<i>Bartramia longicauda</i>	Possible	S4B	no status	no status
Common Snipe	<i>Gallinago delicata</i>	Probable	S5B	no status	no status

Common Name	Scientific Name	ABBO Category	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status
American Woodcock	<i>Scolopax minor</i>	Probable	S4B	no status	no status
Black Tern	<i>Chlidonias niger</i>	Confirmed	S3B	no status	no status
Rock Pigeon	<i>Columba livia</i>	Confirmed	SNA	no status	no status
Mourning Dove	<i>Zenaida macroura</i>	Confirmed	S5	no status	no status
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	Confirmed	S5B	no status	no status
Eastern Screech-Owl	<i>Megascops asio</i>	Possible	S4	no status	no status
Great Horned Owl	<i>Bubo virginianus</i>	Confirmed	S4	no status	no status
Short-eared Owl	<i>Asio flammeus</i>	Confirmed	S2N, S4B	THR	SC
Chimney Swift	<i>Chaetura pelagica</i>	Probable	S4B, S4N	no status	THR
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	Probable	S5B	no status	no status
Belted Kingfisher	<i>Ceryle alcyon</i>	Confirmed	S4B	no status	no status
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Confirmed	S5B	no status	no status
Downy Woodpecker	<i>Picoides pubescens</i>	Confirmed	S5	no status	no status
Hairy Woodpecker	<i>Picoides villosus</i>	Confirmed	S5	no status	no status
Northern Flicker	<i>Colaptes auratus</i>	Confirmed	S4B	no status	no status
Pileated Woodpecker	<i>Dryocopus pileatus</i>	Confirmed	S5	no status	no status
Eastern Wood-Pewee	<i>Contopus virens</i>	Confirmed	S4B	SC	SC
Alder Flycatcher	<i>Empidonax alnorum</i>	Probable	S5B	no status	no status
Willow Flycatcher	<i>Empidonax traillii</i>	Probable	S5B	no status	no status
Least Flycatcher	<i>Empidonax minimus</i>	Confirmed	S4B	no status	no status
Eastern Phoebe	<i>Sayornis phoebe</i>	Confirmed	S5B	no status	no status
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	Confirmed	S4B	no status	no status
Eastern Kingbird	<i>Tyrannus tyrannus</i>	Confirmed	S4B	no status	no status
Blue-headed Vireo	<i>Vireo solitarius</i>	Possible	S5B	no status	no status
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>	Confirmed	S4B	no status	no status
Warbling Vireo	<i>Vireo gilvus</i>	Confirmed	S5B	no status	no status
Red-eyed Vireo	<i>Vireo olivaceus</i>	Confirmed	S5B	no status	no status
Blue Jay	<i>Cyanocitta cristata</i>	Confirmed	S5	no status	no status
American Crow	<i>Corvus brachyrhynchos</i>	Confirmed	S5B	no status	no status
Common Raven	<i>Corvus corax</i>	Confirmed	S5	no status	no status
Horned Lark	<i>Eremophila alpestris</i>	Probable	S5B	no status	no status
Purple Martin	<i>Progne subis</i>	Confirmed	S3S4B	no status	no status
Tree Swallow	<i>Tachycineta bicolor</i>	Confirmed	S4B	no status	no status

Common Name	Scientific Name	ABBO Category	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Possible	S4B	no status	no status
Bank Swallow	<i>Riparia riparia</i>	Confirmed	S4B	no status	THR
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	Confirmed	S4B	no status	no status
Barn Swallow	<i>Hirundo rustica</i>	Confirmed	S4B	no status	THR
Black-capped Chickadee	<i>Poecile atricapilla</i>	Confirmed	S5	no status	no status
Red-breasted Nuthatch	<i>Sitta canadensis</i>	Probable	S5	no status	no status
White-breasted Nuthatch	<i>Sitta carolinensis</i>	Confirmed	S5	no status	no status
Brown Creeper	<i>Certhia familiaris</i>	Probable	S5B	no status	no status
Carolina Wren	<i>Thryothorus ludovicianus</i>	Possible	S4	no status	no status
House Wren	<i>Troglodytes aedon</i>	Confirmed	S5B	no status	no status
Winter Wren	<i>Troglodytes troglodytes</i>	Probable	S5B	no status	no status
Marsh Wren	<i>Cistothorus palustris</i>	Confirmed	S4B	no status	no status
Golden-crowned Kinglet	<i>Regulus satrapa</i>	Possible	S5B	no status	no status
Eastern Bluebird	<i>Sialia sialis</i>	Confirmed	S5B	no status	no status
Veery	<i>Catharus fuscescens</i>	Probable	S4B	no status	no status
Hermit Thrush	<i>Catharus guttatus</i>	Possible	S5B	no status	no status
Wood Thrush	<i>Hylocichla mustelina</i>	Probable	S4B	SC	THR
American Robin	<i>Turdus migratorius</i>	Confirmed	S5B	no status	no status
Gray Catbird	<i>Dumetella carolinensis</i>	Confirmed	S4B	no status	no status
Brown Thrasher	<i>Toxostoma rufum</i>	Confirmed	S4B	no status	no status
European Starling	<i>Sturnus vulgaris</i>	Confirmed	SNA	no status	no status
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Confirmed	S5B	no status	no status
Nashville Warbler	<i>Vermivora ruficapilla</i>	Confirmed	S5B	no status	no status
Yellow Warbler	<i>Dendroica petechia</i>	Confirmed	S5B	no status	no status
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	Confirmed	S5B	no status	no status
Magnolia Warbler	<i>Dendroica magnolia</i>	Possible	S5B	no status	no status
Yellow-rumped Warbler	<i>Dendroica coronata</i>	Probable	S5B	no status	no status
Black-throated Green Warbler	<i>Dendroica virens</i>	Probable	S5B	no status	no status
Pine Warbler	<i>Dendroica pinus</i>	Probable	S5B	no status	no status
Black-and-white Warbler	<i>Mniotilta varia</i>	Probable	S5B	no status	no status

Common Name	Scientific Name	ABBO Category	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status
American Redstart	<i>Setophaga ruticilla</i>	Confirmed	S5B	no status	no status
Ovenbird	<i>Seiurus aurocapillus</i>	Probable	S4B	no status	no status
Northern Waterthrush	<i>Seiurus noveboracensis</i>	Possible	S5B	no status	no status
Mourning Warbler	<i>Oporornis philadelphia</i>	Confirmed	S4B	no status	no status
Common Yellowthroat	<i>Geothlypis trichas</i>	Confirmed	S5B	no status	no status
Canada Warbler	<i>Wilsonia canadensis</i>	Possible	S4B	no status	THR
Chipping Sparrow	<i>Spizella passerina</i>	Confirmed	S5B	no status	no status
Clay-colored Sparrow	<i>Spizella pallida</i>	Probable	S4B	no status	no status
Field Sparrow	<i>Spizella pusilla</i>	Possible	S4B	no status	no status
Vesper Sparrow	<i>Pooecetes gramineus</i>	Possible	S4B	no status	no status
Savannah Sparrow	<i>Passerculus sandwichensis</i>	Confirmed	S4B	no status	no status
Song Sparrow	<i>Melospiza melodia</i>	Confirmed	S5B	no status	no status
Swamp Sparrow	<i>Melospiza georgiana</i>	Confirmed	S5B	no status	no status
White-throated Sparrow	<i>Zonotrichia albicollis</i>	Confirmed	S5B	no status	no status
Dark-eyed Junco	<i>Junco hyemalis</i>	Possible	S5B	no status	no status
Scarlet Tanager	<i>Piranga olivacea</i>	Confirmed	S4B	no status	no status
Northern Cardinal	<i>Cardinalis cardinalis</i>	Confirmed	S5	no status	no status
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	Confirmed	S4B	no status	no status
Indigo Bunting	<i>Passerina cyanea</i>	Probable	S4B	no status	no status
Bobolink	<i>Dolichonyx oryzivorus</i>	Confirmed	S4B	no status	THR
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Confirmed	S4	no status	no status
Eastern Meadowlark	<i>Sturnella magna</i>	Confirmed	S4B	no status	THR
Common Grackle	<i>Quiscalus quiscula</i>	Confirmed	S5B	no status	no status
Brown-headed Cowbird	<i>Molothrus ater</i>	Confirmed	S4B	no status	no status
Baltimore Oriole	<i>Icterus galbula</i>	Confirmed	S4B	no status	no status
Purple Finch	<i>Carpodacus purpureus</i>	Probable	S4B	no status	no status
House Finch	<i>Carpodacus mexicanus</i>	Confirmed	SNA	no status	no status
Pine Siskin	<i>Carduelis pinus</i>	Possible	S4B	no status	no status
American Goldfinch	<i>Carduelis tristis</i>	Confirmed	S5B	no status	no status
House Sparrow	<i>Passer domesticus</i>	Confirmed	SNA	no status	no status

Table Updated May 2026

SRANK DEFINITIONS

S4 Apparently Secure, Uncommon but not rare; some cause for long-term concern due to declines or other factors.

- S5 Secure, Common, widespread, and abundant in the nation or state/province.
- SNA Not Applicable, A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
- S#S# Range Rank, A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).
- S#B Breeding
- S#N Non-Breeding

SARO Status Definitions

- THR Threatened: A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
- SC Special Concern: A species with characteristics that make it sensitive to human activities or natural events.

SARA Status Definitions

- THR Threatened, a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
- SC Special Concern, a wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats

B

Appendix B

Bird Survey Results and Observed Plant List

Survey Point	1		2		3	
Visit	1	2	1	2	1	2
Common Name						
American Bittern						1
Great Egret					3Fly	
Osprey		1fly				
Yellow-bellied Sapsucker				1		
Black-capped Chickadee					1	
Red-eyed Vireo						1
Blue Jay					1	
American Crow		5	1			1
American Robin	1	1				
Brown Thrasher	1					
Gray Catbird			1			
European Starling					5	2p
Cedar Waxwing	1	2p			1	
Yellow Warbler		2			1	1
Common Yellowthroat	1	1		1	1	1
Song Sparrow	3	2	3	4	2	2
Rose-breasted Grosbeak		1				
Red-winged Blackbird	1	9 p	8	10p	11	5p
Common Grackle	3					
American Goldfinch	1		1	2p	1	3

Common Name (Number of individuals heard during the point count)

Common Name	Scientific Name	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Coefficient of Conservatism
Eastern Bracken Fern	<i>Pteridium aquilinum</i> var. <i>latiusculum</i>	S5	No Status	No Status	2
Northern Lady Fern	<i>Athyrium filix-femina</i> var. <i>angustum</i>	S5	No Status	No Status	4
Sensitive Fern	<i>Onoclea sensibilis</i>	S5	No Status	No Status	4
Field Horsetail	<i>Equisetum arvense</i>	S5	No Status	No Status	0
Eastern White Cedar	<i>Thuja occidentalis</i>	S5	No Status	No Status	4
Balsam Fir	<i>Abies balsamea</i>	S5	No Status	No Status	5
White Pine	<i>Pinus strobus</i>	S5	No Status	No Status	4
Manitoba Maple	<i>Acer negundo</i>	S5	No Status	No Status	0
Red Maple	<i>Acer rubrum</i>	S5	No Status	No Status	4
Sugar Maple	<i>Acer saccharum</i>	S5	No Status	No Status	4
Freeman's Maple	<i>Acer X freemanii</i>	SNR	No Status	No Status	
Western Poison-ivy	<i>Rhus radicans</i> ssp. <i>rydbergii</i>	S5	No Status	No Status	0
Staghorn Sumac	<i>Rhus typhina</i>	S5	No Status	No Status	1
Wild Carrot	<i>Daucus carota</i>	SNA	No Status	No Status	
Common Milkweed	<i>Asclepias syriaca</i>	S5	No Status	No Status	0
Annual Ragweed	<i>Ambrosia artemisiifolia</i> var. <i>elator</i>	S5	No Status	No Status	0
Woodland Burdock	<i>Arctium minus</i>	SE?	No Status	No Status	0
Large-leaved Aster	<i>Aster macrophyllus</i>	S5	No Status	No Status	5
New England Aster	<i>Aster novae-angliae</i>	S5	No Status	No Status	2
Devil's Beggar-ticks	<i>Bidens frondosa</i>	S5	No Status	No Status	3
Ox-eye Daisy	<i>Chrysanthemum</i> <i>leucanthemum</i>	SNA	No Status	No Status	
Chicory	<i>Cichorium intybus</i>	SNA	No Status	No Status	
Canada Thistle	<i>Cirsium arvense</i>	SNA	No Status	No Status	
Bull Thistle	<i>Cirsium vulgare</i>	SNA	No Status	No Status	
Daisy Fleabane	<i>Erigeron annuus</i>	S5	No Status	No Status	0
White Snakeroot	<i>Eupatorium rugosum</i>	S5	No Status	No Status	5
Spotted Joe-pye-weed	<i>Eupatorium maculatum</i> ssp. <i>maculatum</i>	S5	No Status	No Status	3
Grass-leaved Goldenrod	<i>Euthamia graminifolia</i>	S5	No Status	No Status	2

Common Name	Scientific Name	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Coefficient of Conservatism
Field Hawkweed	<i>Hieracium caespitosum</i> <i>ssp. caespitosum</i>	SNA	No Status	No Status	
Elecampane	<i>Inula helenium</i>	SNA	No Status	No Status	
Goldenrod sp.	<i>Solidago sp.</i>		No Status	No Status	
Canada Goldenrod	<i>Solidago canadensis</i>	S5	No Status	No Status	1
Giant Goldenrod	<i>Solidago gigantea</i>	S5	No Status	No Status	4
Rough Goldenrod	<i>Solidago rugosa</i> ssp. <i>rugosa</i>	S5	No Status	No Status	4
Field Sow-thistle	<i>Sonchus arvensis</i>	SNA	No Status	No Status	
Spotted Jewel-weed	<i>Impatiens capensis</i>	S5	No Status	No Status	4
Coltsfoot	<i>Tussilago farfara</i>	SNA	No Status	No Status	
Glandular Touch-me-not	<i>Impatiens glandulifera</i>	SE4	No Status	No Status	
White Birch	<i>Betula papyrifera</i>	S5	No Status	No Status	
Garlic Mustard	<i>Alliaria petiolata</i>	SNA	No Status	No Status	0
Common Elderberry	<i>Sambucus canadensis</i>	S5	No Status	No Status	5
Nannyberry	<i>Viburnum lentago</i>	S5	No Status	No Status	4
Bladder Campion	<i>Silene latifolia</i>	SNA	No Status	No Status	
Alternate-leaved Dogwood	<i>Cornus alternifolia</i>	S5	No Status	No Status	6
Red-osier Dogwood	<i>Cornus stolonifera</i>	S5	No Status	No Status	2
Bird's-foot Trefoil	<i>Lotus corniculatus</i>	SNA	No Status	No Status	
Black Medick	<i>Medicago lupulina</i>	SNA	No Status	No Status	
White Sweet-clover	<i>Melilotus alba</i>	SNA	No Status	No Status	
Red Clover	<i>Trifolium pratense</i>	SNA	No Status	No Status	
White Clover	<i>Trifolium repens</i>	SNA	No Status	No Status	
Cow Vetch	<i>Vicia cracca</i>	SNA	No Status	No Status	
American Beech	<i>Fagus grandifolia</i>	S4	No Status	No Status	6
Bur Oak	<i>Quercus macrocarpa</i>	S5	No Status	No Status	5
Wild Black Currant	<i>Ribes americanum</i>	S5	No Status	No Status	4
Swamp Loosestrife	<i>Decodon verticillatus</i>	S5	No Status	No Status	7
Purple Loosestrife	<i>Lythrum salicaria</i>	SNA	No Status	No Status	
Moonseed	<i>Menispermum</i> <i>canadense</i>	S4	No Status	No Status	7
White Ash	<i>Fraxinus americana</i>	S5	No Status	No Status	4

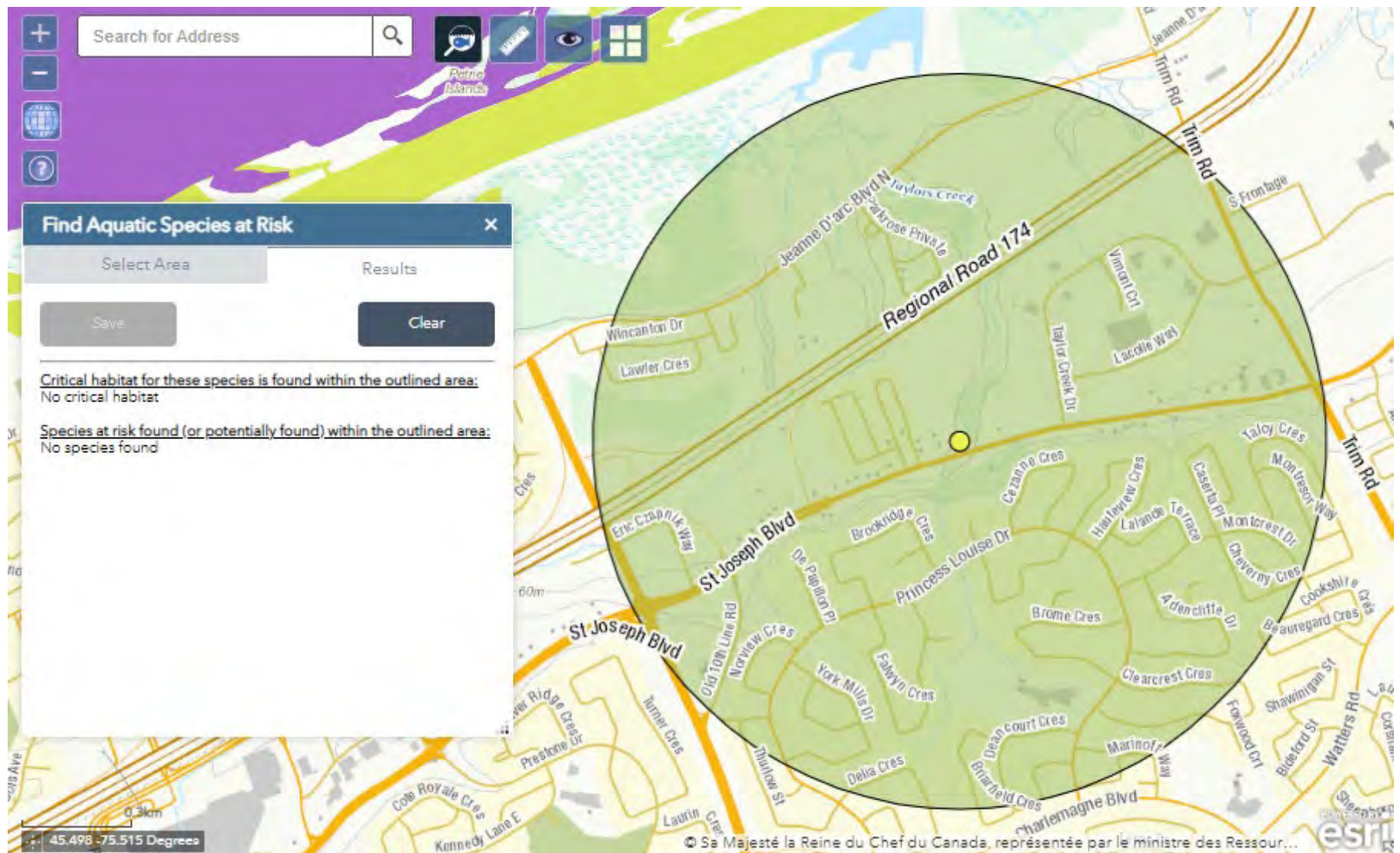
Common Name	Scientific Name	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Coefficient of Conservatism
Black Ash	<i>Fraxinus nigra</i>	S4	END	No Status	7
Canada Enchanter's Nightshade	<i>Circaea lutetiana ssp. canadensis</i>	S5	No Status	No Status	3
Common Plantain	<i>Plantago major</i>	SNA	No Status	No Status	
Pale Smartweed	<i>Polygonum lapathifolium</i>	S5	No Status	No Status	2
Curly Dock	<i>Rumex crispus</i>	SNA	No Status	No Status	
Canada Anemone	<i>Anemone canadensis</i>	S5	No Status	No Status	3
Marsh Marigold	<i>Caltha palustris</i>	S5	No Status	No Status	5
Tall Buttercup	<i>Ranunculus acris</i>	SNA	No Status	No Status	
Common Buckthorn	<i>Rhamnus cathartica</i>	SNA	No Status	No Status	
Glossy Buckthorn	<i>Rhamnus frangula</i>	SNA	No Status	No Status	
Tall Agrimony	<i>Agrimonia gryposepala</i>	S5	No Status	No Status	2
Hawthorn sp.	<i>Crataegus sp.</i>		No Status	No Status	
Woodland Strawberry	<i>Fragaria vesca ssp. americana</i>	S5	No Status	No Status	4
Common Strawberry	<i>Fragaria virginiana ssp. virginiana</i>	S5	No Status	No Status	2
Yellow Avens	<i>Geum aleppicum</i>	S5	No Status	No Status	2
Rough-fruited Cinquefoil	<i>Potentilla recta</i>	SNA	No Status	No Status	
Pin Cherry	<i>Prunus pensylvanica</i>	S5	No Status	No Status	3
Black Cherry	<i>Prunus serotina</i>	S5	No Status	No Status	3
Choke Cherry	<i>Prunus virginiana ssp. virginiana</i>	S5	No Status	No Status	2
Common Blackberry	<i>Rubus allegheniensis</i>	S5	No Status	No Status	2
Wild Red Raspberry	<i>Rubus idaeus ssp. strigosus</i>	S5	No Status	No Status	0
Purple Flowering Raspberry	<i>Rubus odoratus</i>	S5	No Status	No Status	3
Smooth Bedstraw	<i>Galium mollugo</i>	SNA	No Status	No Status	
Partridge Berry	<i>Mitchella repens</i>	S5	No Status	No Status	6
Prickly-ash	<i>Zanthoxylum americanum</i>	S5	No Status	No Status	3
Eastern Cottonwood	<i>Populus deltoides ssp. deltoides</i>	SU	No Status	No Status	4
Trembling Aspen	<i>Populus tremuloides</i>	S5	No Status	No Status	

Common Name	Scientific Name	SRANK	Reg. 60/26 PSO List Status	SARA Schedule 1 List of Wildlife SAR Status	Coefficient of Conservatism
Bittersweet Nightshade	<i>Solanum dulcamara</i>	SNA	No Status	No Status	
American Basswood	<i>Tilia americana</i>	S5	No Status	No Status	4
Common Hackberry	<i>Celtis occidentalis</i>	S4	No Status	No Status	8
American Elm	<i>Ulmus americana</i>	S5	No Status	No Status	3
False Nettle	<i>Boehmeria cylindrica</i>	S5	No Status	No Status	4
Wood Nettle	<i>Laportea canadensis</i>	S5	No Status	No Status	6
Violet sp.	<i>Viola sp.</i>		No Status	No Status	
Virginia Creeper	<i>Parthenocissus inserta</i>	S5	No Status	No Status	3
Riverbank Grape	<i>Vitis riparia</i>	S5	No Status	No Status	0
Bebb's Sedge	<i>Carex bebbii</i>	S5	No Status	No Status	3
Awl-fruited Sedge	<i>Carex stipata</i>	S5	No Status	No Status	3
Wool-grass	<i>Scirpus cyperinus</i>	S5	No Status	No Status	4
Softstem Bulrush	<i>Scirpus validus</i>	S5	No Status	No Status	5
Red Trillium	<i>Trillium erectum</i>	S5	No Status	No Status	6
Grass Family	<i>Poaceae</i>		No Status	No Status	
Oats sp.	<i>Avena sp.</i>		No Status	No Status	
Smooth Brome	<i>Bromus inermis ssp. inermis</i>	SNA	No Status	No Status	
Quack Grass	<i>Elymus repens</i>	SNA	No Status	No Status	
European Common Reed	<i>Phragmites australis ssp. australis</i>	SNA	No Status	No Status	
Kentucky Bluegrass	<i>Poa pratensis</i>	S5	No Status	No Status	0
Fowl Glyceria	<i>Glyceria striata</i>	S4S5	No Status	No Status	3
Foxtail Barley	<i>Hordeum jubatum ssp. intermedium</i>	S5	No Status	No Status	
Reed Canary Grass	<i>Phalaris arundinacea</i>	S5	No Status	No Status	0
Timothy	<i>Phleum pratense</i>	SNA	No Status	No Status	
Narrow-leaved Cattail	<i>Typha angustifolia</i>	SNA	No Status	No Status	3



Appendix C

Canadian Aquatic Species at Risk Map



Accessed Januray 19, 2023

D

Appendix D Significant Wildlife Habitat

Significant Wildlife Habitat	Candidate SWH		Confirmed SWH		Comments
	ELC Codes	Additional Criteria Summary	On Site	In Adjacent Lands	
Seasonal Concentration Areas of Animals					
Waterfowl stopover and staging areas (terrestrial)	Certain cultural meadow or thicket <u>Plus</u> evidence of annual spring flooding	Fields flooded from mid-March to May	No fields present with annual spring flooding.	Not Present; Not discussed further	
Waterfowl stopover and staging areas (aquatic)	Specific aquatic habitat types (marsh, swamps)	Ponds, marshes, lakes, bays, coastal inlets and watercourses used for migration. Stormwater and sewage management facilities are not included.	Petrie Island Wetland to the north may provide stopover area. But the open aquatic habitat is far enough from the project that it will not be impacted.	Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further	
Shorebird migratory stopover area	Beach/Bar Sand Dunes Meadow marsh	Shorelines used in May -t mid-June and early July to October. Stormwater and sewage management facilities are not included.	No shorelines, beaches, bars, dunes, or meadow marshes within the area to be impacted.	Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further	
Raptor wintering area	Requires combination of forest (deciduous, mixed or coniferous) and upland (cultural meadow, cultural thickets, cultural savannahs or cultural woodlands)	Combination of habitats must >20 ha and the field portion must be wind swept with little accumulation of snow. Where site is for eagles, open water and large trees and snags must be available.	No suitably large forests are present.	Not Present; Not discussed further	
Bat hibernacula	Crevices and caves	Active mines are not to be included. Buildings are not included.	No crevices or caves present.	Not Present; Not discussed further	
Bat maternity colonies	Deciduous, or mixed forests Deciduous or mixed Swamps (>5m tall)	>10/ha large diameter (>25 cm diameter at breast height) Snag trees in the decay classes 1-3 are preferred.	Some clearing of trees within fencerows on Site, near the stormwater drains, and 0.1ha of young forest on the west side of site. These areas do not possess sufficient large trees for significance and MECP timing windows will prevent harm to individuals if they are using this lower quality habitat.	Not Present; Not discussed further	
Turtle wintering areas	Swamps, marshes, open water, shallow water, open fen or open bog	Water that is deep enough not to freeze solid with soft bottoms.	Taylor Creek (where beaver dams created deep pools), and the PSW provide areas deep enough for overwintering.	Potentially Present; discussed above.	

Significant Wildlife Habitat	Candidate SWH		Confirmed SWH		Comments
	ELC Codes	Additional Criteria Summary	On Site	In Adjacent Lands	
		Must be permanent waterbody (or wetlands with adequate dissolved oxygen)			
Reptile hibernaculum	Any habitat except very wetlands Talus, rock barren, cave and alvar	For snakes – needs to be below frost lines.	Site primarily consists of previous agricultural lands, no rocky habitat or rock piles present.		Not Present; Not discussed further
Colonially - Nesting bird breeding habitat (Bank and Cliff Swallow)	Exposed sandy slopes of banks or piles. Cliff faces or structures (bridges, silos etc....)	Does not include licensed aggregate areas. Does not include man-made structures or recently (within 2 years) disturbed soil	Exposed banks present, but no nests or individuals observed during surveys.		Not Present; Not discussed further
Colonially - Nesting bird breeding habitat (Trees/Shrubs)	Swamps – deciduous or mixed (trees >5m) Treed fen	Typically requires tall trees as nests are usually 11-15m from ground but shrubs and emergent vegetation could be used.	Swamp present north of site but no indicator species present.		Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further
Colonially - Nesting bird breeding habitat (Ground)	Any rocky island or peninsula on lake or large river. For Brewer’s Blackbird – near watercourses in open fields, pastures		No rocky islands, or peninsulas were present. No suitable habitat for Brewer’s Blackbird were present.		Not Present; Not discussed further
Migratory butterfly stopover area					
Landbird migratory stopover area					
	Mixed or coniferous forests or swamps (>5m tall trees)				
Deer yarding areas	Can include plantations, cultural thickets, or dry-fresh poplar-white birch deciduous forest	These are mapped by OMNRF	None mapped by MNR for this area		Not Present; Not discussed further

Significant Wildlife Habitat	Candidate SWH		Confirmed SWH		Comments
	ELC Codes	Additional Criteria Summary	On Site	In Adjacent Lands	
Deer winter congregation area	All forest and wetland habitats and small conifer plantations	These are mapped by OMNRF (typically >100ha in size)			Not Present; Not discussed further
Rare Vegetation Communities or Specialized Habitat for Wildlife					
Cliffs and talus slopes	Near vertical face that is >3m in height (cliff or talus)	Typically in Niagara Escarpment	Cliffs and talus slope habitat were not present		Not Present; Not discussed further
Sand barren	Sand barrens various types but tree cover is always ≤ 60%	Must be >0.5ha	Sand barrens not present		Not Present; Not discussed further
Alvar	Alvar, Coniferous forest, cultural meadow, cultural savannah, cultural thickets and cultural woodlands	Must have at least 4 indicator species with substantial cover (must not have large amounts of exotic or introduced species) Must be >0.5ha	Alvar habitat is typically flat and mostly unfractured calcareous bedrock. Not present		Not Present; Not discussed further
Old growth forest	Any forest or treed (>5 m) swamp	Must be at least 30 ha with at least 10 ha of interior habitat (edge considered 100 m) Have specific characteristics (snags, mosaic of gaps, multi-layered canopy)	Forest present smaller than 30ha.		Not Present; Not discussed further
Savannah	Tallgrass prairie savannah and cultural savannah	Must have indicator species	No savannah present		Not Present; Not discussed further
Tallgrass prairie	Tallgrass prairie (open prairie - <25% tree cover)	No minimum size	No tallgrass prairie were present. All area is manicured for multi-use pathway		Not Present; Not discussed further

Significant Wildlife Habitat	Candidate SWH		Confirmed SWH		Comments
	ELC Codes	Additional Criteria Summary	On Site	In Adjacent Lands	
Other rare vegetation communities	Provincially rare S1-S3 communities as described in Appendix M of the SWHTG		None of the communities listed for the Ottawa-Carleton Area in Appendix M were present.		Not Present; Not discussed further
Specialised Habitat for Wildlife					
Waterfowl nesting area	Shallow marsh, meadow marsh, thicket swamp or deciduous (treed >5 m tall) swamps	Wetland must be 0.5 ha or consist of up to 3 smaller wetlands within 120 m of each other if known nesting is occurring.	Marsh habitat to the north may provide waterfowl nesting habitat but it is outside of the development area and will not be impacted by this project. Indirect impacts from sensory disturbances already included for SAR birds.		Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further
Bald Eagle and Osprey nesting, foraging and perching habitat	Any forest or swamp (trees >5m) type of habitat that is immediately next to rivers, lakes, ponds or wetlands	Nests on man-made structures are not included.	Large trees present within the riparian area of Taylor Creek in close proximity to the Ottawa River. Osprey observed flying during bird surveys. No nesting habitat was present. Ottawa River provides foraging habitat and larger trees could provide perching habitat.		Potentially present, discussed above
Woodland raptor nesting habitat	Any forest habitat or treed swamp (>5m tall) or coniferous plantation	Stand must be > 30 ha with >10 ha of interior habitat (edge is 200 m)	Does not meet the minimum requirements.		Not Present; Not discussed further
Turtle nesting areas	Shallow marsh, shallow water, open bog	Close to water but away from roads.	Wetland present but no sand or gravel area away from roads, pathway is paved.		Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further
		It must provide sand and gravel that turtles can dig through and be in open sunny areas. Areas on the sides of municipal or provincial roads are not included.			
Seeps and springs	Any forested community could have a seep/spring	Forest area with <25% meadow/pasture in the headwaters of a stream.	None present		Not Present; Not discussed further

Significant Wildlife Habitat	Candidate SWH		Confirmed SWH		Comments
	ELC Codes	Additional Criteria Summary	On Site	In Adjacent Lands	
Amphibian breeding habitat (woodland)	Any forest or treed swamp (>5m tall trees)	Wetland, pond or vernal pool must be > 500 m ² Those with water until mid-July (during most years) are better candidates	No vernal pools present within the area to be impacted. PSW to the north may provide suitable habitat.		Possible, discussed above
Amphibian breeding habitat (wetlands)	Swamps, marsh, fen, bog, open water or shallow water	Unless it’s a larger wetland, must be >120 m from woodlands Must be > 500 m ²	PSW to the north within the adjacent lands may provide amphibian breeding habitat.		Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further
Woodland area-sensitive bird breeding habitat	Any forest or treed swamp (>5 m tall)	Interior habitat (200m edge used) in mature (>60 years) large (>30 ha) stand	No forest interior habitat present		Not Present; Not discussed further
Habitat for Species of Conservation Concern (not including Endangered or Threatened Species)					
Marsh bird breeding habitat	Meadow marsh, shallow water, fen or open bog		No marshes, shallow water or bogs present		Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further
Open country bird breeding habitat	Cultural meadows	Must be large grasslands (>30 ha) Agricultural class 1 and 2 are not included Agricultural lands planted in row crop or intensive hay, or pastures (within past 5 years) not included.	No large grassland habitat present. Cultural meadow on site ~8ha and adjacent areas are mowed.		Not Present; Not discussed further
Shrub/early successional bird breeding habitat	Cultural thickets or woodlands	Must be > 10 ha Agricultural class 1 and 2 are not included Agricultural lands planted in row crop or intensive hay, or pastures (within past 5 years) not included	No thickets or woodlands are present		Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further
Terrestrial crayfish		Not present in Ottawa Area			

Significant Wildlife Habitat	Candidate SWH		Confirmed SWH		Comments
	ELC Codes	Additional Criteria Summary	On Site	In Adjacent Lands	
Special concern and rare wildlife species	All special concern or species ranked as S1-S3, SH (plants or animals)	Habitat depends on the species. There is a potential for Snapping Turtle and Monarch.	No special concern wildlife observed.		Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further
Animal Movement Corridors					
Amphibian movement corridor	Any habitat but amphibian breeding <u>wetland</u> habitat must be identified		Corridors need link habitats; upstream of this ravine is fully developed		Possible offsite within the Petrie Island PSW Not present on or near site; Not discussed further
Deer movement corridor	All forests but project must be in Stratum II Deer Wintering Area and Deer Wintering Habitat must be confirmed.		Not applicable - no Deer Wintering Areas or Habitat identified by OMNRF for area.		Not Present; Not discussed further