180 KANATA AVENUE

Environmental Impact Statement – Scoped Impact Assessment to Species at Risk

Prepared For:
Théberge Development Ltd.

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Date:
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(Updated May 2022)

List of Acronyms and Definitions

ABBO - Atlas of Breeding Birds of Ontario
BHA - Butternut Health Assessments/Butternut Health Assessor
COSEWIC - Committee on the Status of Endangered Wildlife in Canada
DBH - Diameter at breast height
EIS – Environmental Impact Statement
ELC - Ecological Land Classification
ESA - Endangered Species Act (Provincial)
GPS – Global Positioning System
NAD 83: North American Datum 1983
UTM: Universal Transverse Mercator
LIO - Land Information Ontario
NHIC – Natural Heritage Information Centre
NHRM - Natural Heritage Reference Manual
MBCA - Migratory Bird Convention Act (Federal)
MECP - Ministry of Environment, Conservation and Parks
MNRF - Ministry of Natural Resources and Forestry
NHIC – Natural Heritage Information Centre
OMNR/MNRF - Ontario Ministry of Natural Resources (old name)
-Ministry of Natural Resources and Forestry (new name)
OWES - Ontario Wetland Evaluation System
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
SWHCS - Significant Wildlife Habitat Criteria Schedules

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.

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1.0 INTRODUCTION

The following is an updated version of this scope report based on comments received from the City on February 11, 2022, asking the Environmental Impact Statement (EIS) to address potential impacts to ponds in the adjacent lands, due to blasting. This additional information is in Section 5.

Théberge Developments Ltd, hereafter referred to as the proponent, purchased a portion of the property owned by the City of Ottawa at 6301 Campeau Drive, Kanata, Ontario. This portion is referred to 180 Kanata Avenue. The City of Ottawa's planning department has acknowledged and accepted the findings of a detailed EIS completed by Stantec for the entire property (6301 Campeau Drive). However, the City has indicated that if any Special Concern species were identified in that report, and Endangered and Threatened Species or their habitats that may be present on the 180 Kanata Avenue portion needs to be reviewed in a separate EIS. To this end, Bowfin Environmental Consulting (Bowfin) has been retained by the proponent to complete the Scope EIS for 180 Kanata Avenue. The City also requested a new Tree Conservation Report (TCR) to be completed for the specific project. The TCR is being completed by IFS Associates who will also be submitting a new Butternut Health Assessment (BHA) report for this Site. Since the bulk of the field investigations were completed by Stantec (2020), a desktop review was conducted to identify any additional surveys and measures required for this Site. That review was submitted to MECP to confirm the field work required to address SAR. MECP agreed with the background review and added a species that was historically identified in the area to the list.

The Site, 180 Kanata Avenue, is found in part of Lot 3, Concession 2 of the Geographic Township of March, now the City of Ottawa (former Municipality of Kanata). They are accessible from Kanata Avenue (Figure 1 and Figure 2). The proposed development is for an apartment complex with parking. It would be fully serviced.

As mentioned above, this is a scoped EIS focused on Endangered and Threatened Species and their habitats that would be protected by legislation on private property [i.e. *Endangered Species Act* (ESA) (all species), *Species at Risk Act* (SARA) (birds and fish[1])]. Note that Species at Risk (SAR) refers to those protected by ESA (Extirpated, Endangered or Threatened listed by Species at Risk Ontario (SARO) under Ontario Regulation 230/09) or by SARA (Schedule 1 only).

Special Concern species do not receive protection under either of these legislations and, as per City's comments, the Stantec report was reviewed, and it did not identify any Special Concern for this site. As such, this EIS focuses solely on SAR.

[1] Fish in this case is as defined by the *Fisheries Act.* In this part of Ontario, it could include all stages of mussels and fish

Figure 1: General Location of Site

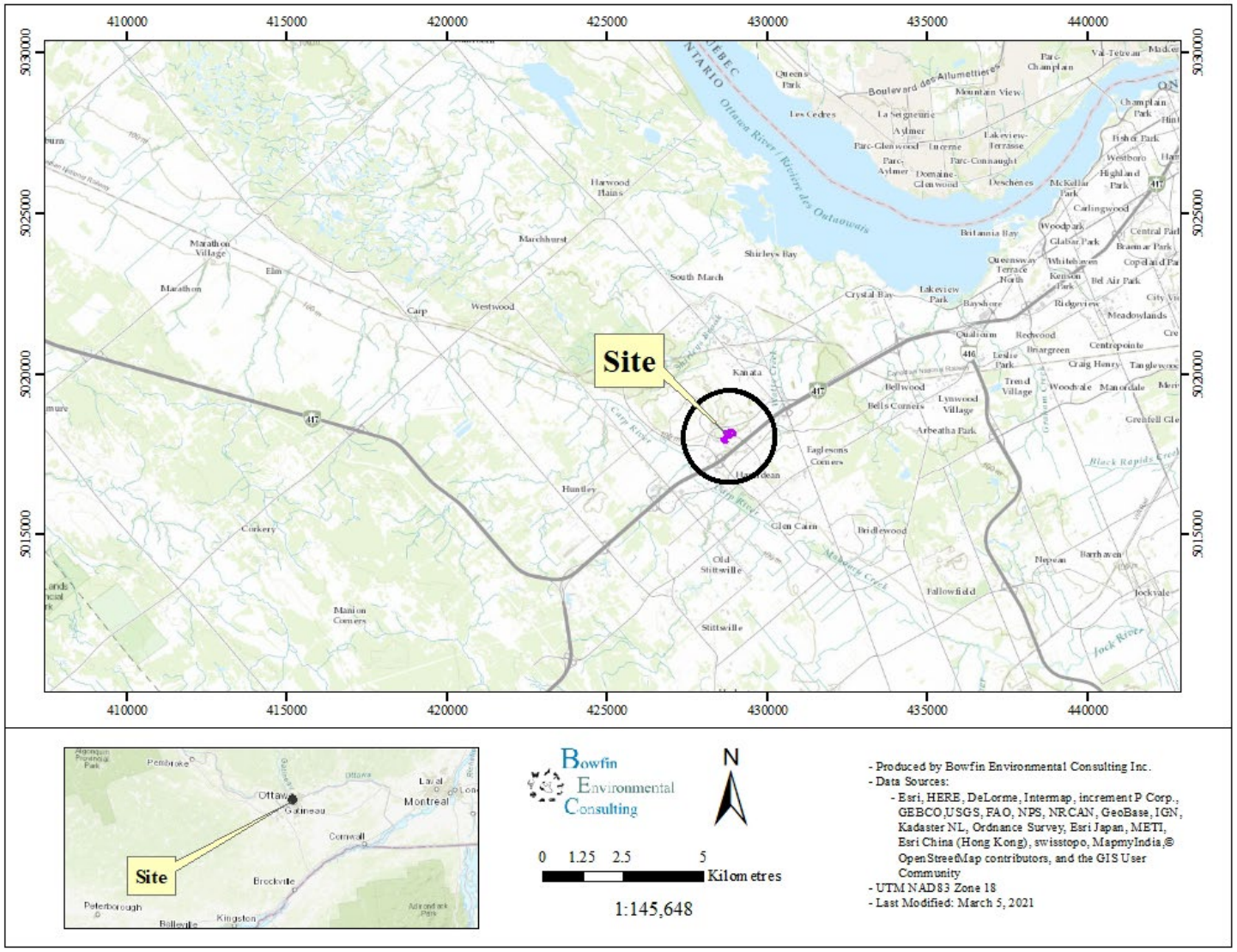
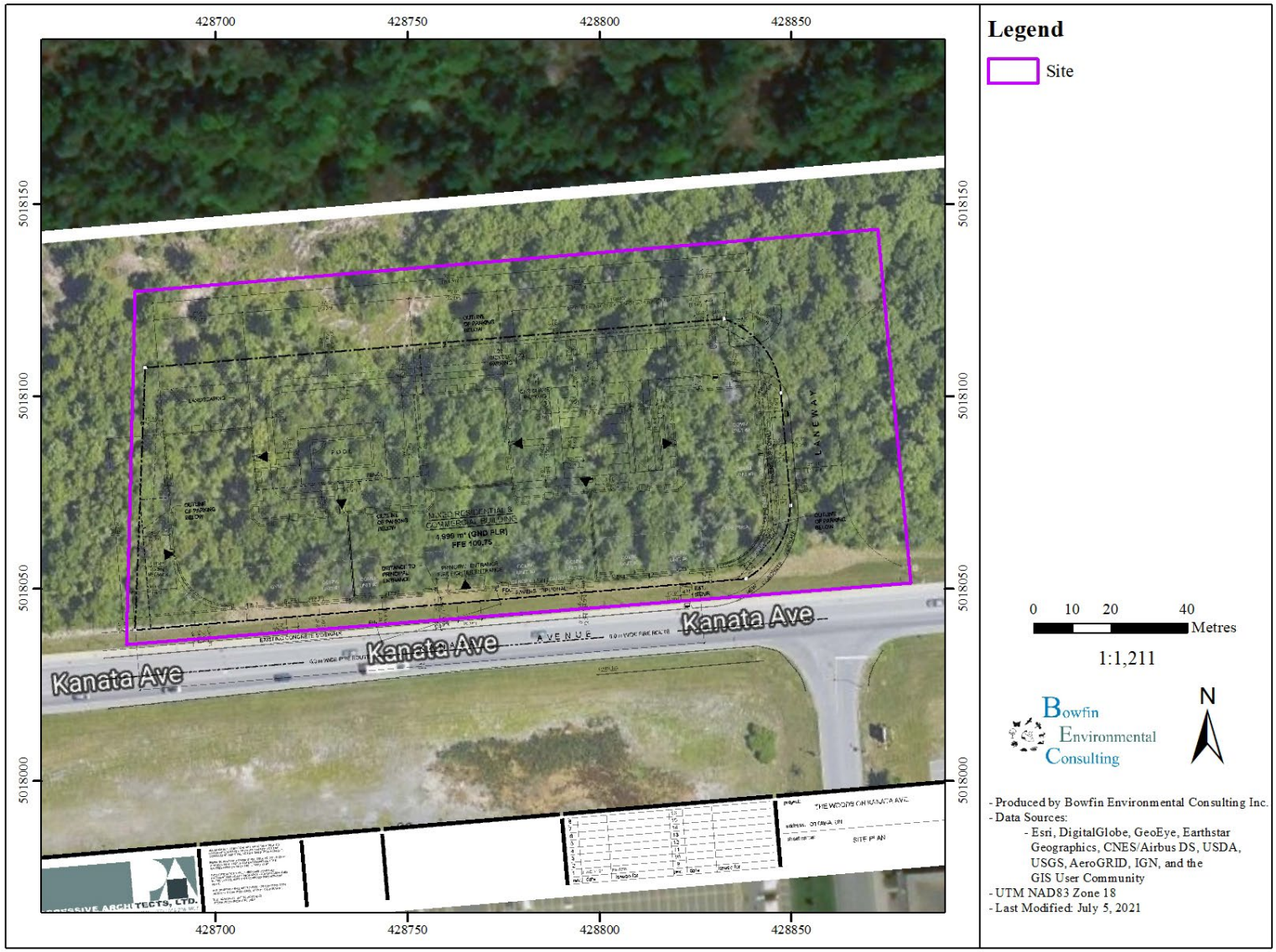


Figure 2: Site Plan



2.0 METHODOLOGY

2.1 Study Area

The study area varied with the species at risk being assessed based on what is deemed protected habitat under ESA (i.e. Category 1, 2 or 3 habitat) or SARA.

2.2 Background Review

Information collected from outside sources was used to help confirm the list of potential SAR for this Site. Sources included: Natural Heritage Information Centre (NHIC) database, iNaturalist, Atlas of Breeding Birds of Ontario (ABBO), Make-a-Map Land Information Ontario (LIO), ebird, and LIO databases. Information from personal knowledge has also been included as appropriate. The desktop review included a larger area (~5 km).

The City provided the proponent with the Stantec EIS (Stantec 2020), and the species information and survey periods were reviewed to determine if any Special Concern or SAR had been documented.

2.3 Additional Field Studies

2.3.1 Nighttime Bird Surveys

Having reviewed the Stantec report, no Special Concern or Endangered/Threatened bird species were observed during their daytime surveys. However, no nighttime surveys for eastern whip-poor-will were conducted. The Site forms part of a forest stand that is of sufficient size to provide habitat for this species (while previous correspondence with the government indicated minimum size was 9 ha, more recent communications with MECP indicates that they refer to the Recovery Strategy for this species that indicates defended territories can be 3-30 ha and home range between 20-500 ha (Environment Canada, 2018)). The recovery strategy indicates that there may be a woodland stand size but that this minimum has yet to be defined (Environment Canada, 2018). Nighttime surveys were completed by Bowfin in 2021 following the province's guidelines for this species. These methods consist of:

- Three surveys to be completed at least 1 week apart between May 18th and June 30th and on nights with appropriate conditions [over 10°C, calm winds (less than 3 on the Beaufort Scale), 50% or more visible moon face illuminated & moon over the horizon].
- Begin at least 30 minutes after sunset and no later than 15 minutes before sunrise.
- Completed when the moon is above the horizon.
- Point observations consisted of a minimum of 6 minutes/station spaced approx. 500 m apart.

2.3.2 Incidental Fauna Observations

During any visits, any wildlife observations would be recorded. Incidental observations could include observations of an individual, its tracks, burrows, feces and/or kill sights.

3.0 SITE INVESTIGATION RESULTS

As mentioned above, the only additional field work required was the surveys for eastern whip-poor-will and an updated BHA. Bowfin has completed the Eastern whip-poor-will surveys and those results are provided below. IFS Associates completed the BHA and documented 12 Category 1s and those details are provided under Section 4 below.

3.1 Project Location

This project is situated on the north side of Kanata Avenue, between Earl Grey Drive and Lord Byng Way. It is in part of Lot 3, Concession 2, in the Geographic Township of March, now the City of Ottawa (UTM 18T 428785 m E; 5018079 m N, and Latitude 45.312603 Longitude -75.908522). It is situated in a deciduous forest, bordered by development.

3.2 Eastern Whip-poor-will

Three nighttime surveys for eastern whip-poor-will were completed in 2021. The surveys were conducted on nights with appropriate weather and over two moon phases. No deviation from the province's guidelines for these surveys was required. The dates and conditions are provided in Table 1. No eastern whip-poor-will were heard or observed.

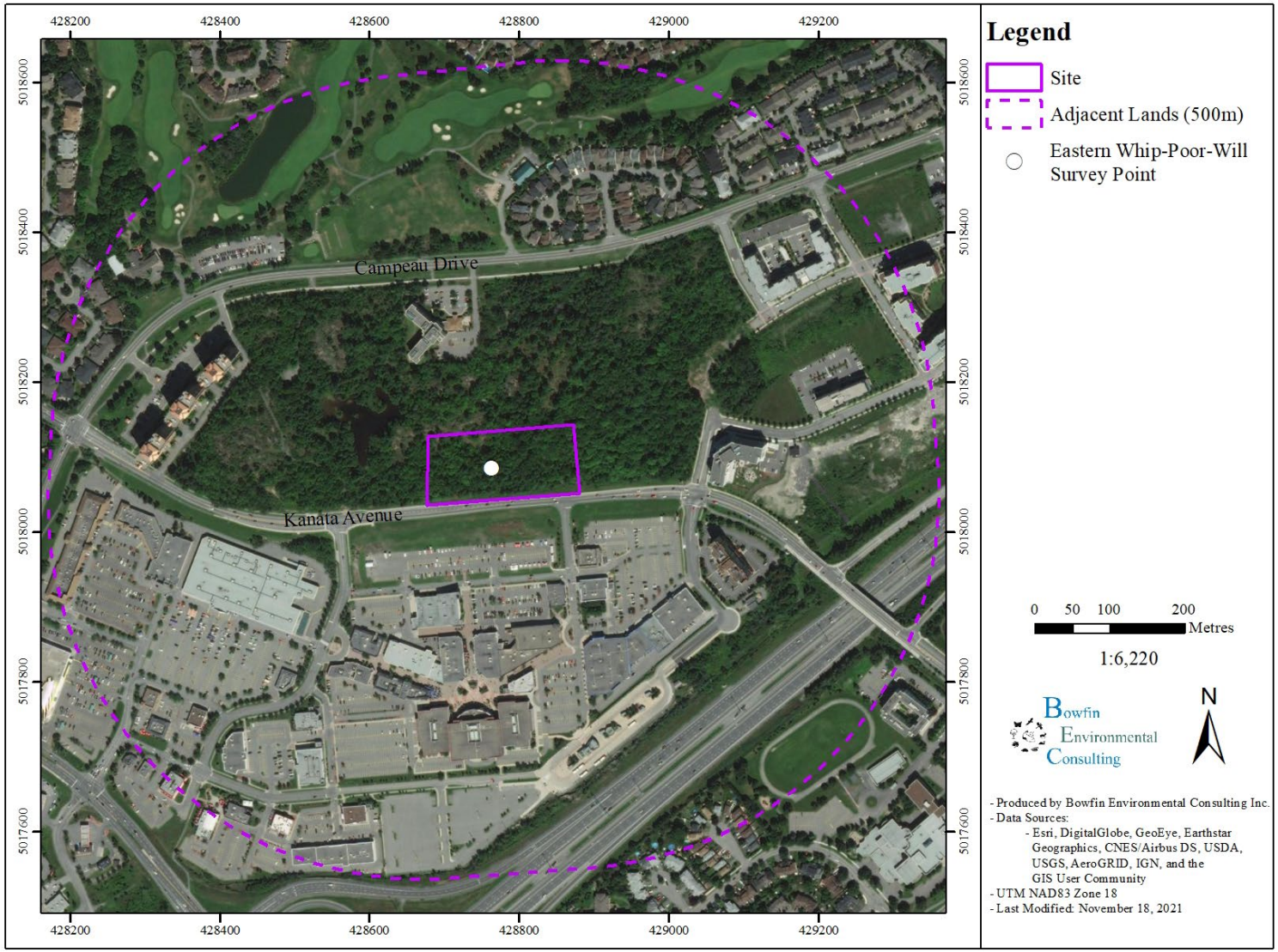
Table 1: Summary of Eastern Whip-poor-Will Survey Dates and Environmental Conditions

Date	Time (h)	Staff	Air Temperature (Min-Max) °C	Cloud Cover (%) Beaufort Wind Scale [Descriptor (scale)]	Moon Illumination (%)
May 19 2021	2305	A. Quinsey	23°C (9.9-30.2°C)	Mainly Clear Light Breeze (1)	63.1%
May 25 2021	0235	A. Quinsey	12°C (11.0-27.3°C)	Mainly Clear Light Breeze (1)	97.3%
June 22 2021	2235	A. Quinsey	13°C (7.0-17.0°C)	Mainly Clear Gentle Breeze (2)	96.1%

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

*Min-Max Temp Taken From: Environment Canada. National Climate Data and Information Archive. Ottawa International Airport. Available at https://climate.weather.gc.ca/ [June 28, 2021]

Figure 3: Eastern Whip-poor-will Survey Point (Bowfin, 2021)



4.0 SPECIES AT RISK INFORMATION

4.1 Endangered and Threatened Species

The vegetation communities discussed in the Stantec (2020) were appropriate for this Site. With the majority of the area consisting of a sugar maple forest with ironwood and some hickory. There was a fair amount of sugar maple, ironwood and hickory regenerating as well as common buckthorn (an invasive species). There was also a small amount of a treed rock barren within this Site (along the bedrock to the north) (edge habitat). That area contained more invasive species including: honeysuckles, common buckthorn, spreading dogvane and strangling dog vine.

4.1.1 Discussion

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 species on private land. Most birds, including SAR, also receive protection from *Migratory Bird Convention Act* and *Fish and Wildlife Conservation Act*. Together, provincially and federally protected species are referred to as SAR, herein.

Background review identified a potential of thirteen endangered or threatened species to occur within the general area. These are: transverse lady beetle, Blanding's turtle, eastern whip-poor-will, chimney swift, bank swallow, barn swallow, bobolink, eastern meadowlark, little brown myotis (bat), northern myotis (bat), eastern small-footed myotis (bat), tri-colored bat and butternut. Of these, most were determined not to be present or had no triggers for review based on guidance from the province. Table 2 notes the relevant MECP guidelines and triggers and indicates whether the species is brought forward for more discussion. Avoidance and education measures will suffice for the protection of these potential SAR. Some additional notes and details are provided below for Blanding's Turtle, bats and Butternuts.

Table 2: Summary of Potential Endangered and Threatened Species

Common Name/ Population	Scientific Name	Preferred Habitat	SRank	ESA Reg. 230/08 SARO List Status	SARA Schedule 1 List of Wildlife SAR Status	Reference	MECP Guidelines/Triggers for Review	Brought Forward for Further Discussions (Yes/No)
INSECTS								
Transverse Lady Beetle	*Coccinella transversoguttata*	Agricultural areas, suburban gardens, parks, coniferous forests, deciduous forests, prairie grasslands, meadows, riparian areas and other natural areas	S1	END	No Status	COSEWIC 2016	Species has not been observed in Southern Ontario since 1985 and is considered a historical sighting.	N
REPTILES								
Blanding's Turtle	*Emydoidea blandingii*	Shallow water, large marshes, shallow lakes or similar such water bodies.	S3	THR	THR	COSEWIC 2016	No Sightings within 500 m of the nearest potential Blanding's Turtle habitat. Stantec (2020) surveys did not identify the presence of this species. Known to be in the general area and to wander far distances upland. Mitigation measures to avoid accidental harm to individuals to be included.	Further Documentation below
BIRDS								
Eastern Whip-poor-will	*Antrostomus vociferus*	Rock or sand barrens with scattered trees, savannahs, old burns or other disturbed sites in a state of early to mid-forest succession, or open conifer plantations.	S4B	THR	THR	COSEWIC 2009	Bowfin 2021 surveys, completed as per protocol, found that this species is absent.	N
Chimney Swift	*Chaetura pelagica*	Cities, towns, villages, rural, and wooded areas. When selecting trees, they prefer those that are >50 cm in diameter and that are	S4B, s4N	THR	THR	COSEWIC 2007	There are no buildings to be removed. Site is not within 1 km of	N

Common Name/ Population	Scientific Name	Preferred Habitat	SRank	ESA Reg. 230/08 SARO List Status	SARA Schedule 1 List of Wildlife SAR Status	Reference	MECP Guidelines/Triggers for Review	Brought Forward for Further Discussions (Yes/No)
		within 1 km of waterbodies.					waterbodies. There are no occurrences on the ABBO squares that cover this Site, and there is a lack of sightings on iNaturalist, and the notes from the daytime bird surveys completed by others (Stantec 2020) in 2019.	
Bank Swallow	*Riparia riparia*	This species nests within vertical banks, with a preference for sand-silt substrate. Nesting sites may be near open upland habitats	S4B	THR	THR	COSEWIC 2013	Suitable habitat is not present.	N
Barn Swallow	*Hirundo rustica*	Open or semi-open lands: farms, field, marshes.	S4B	THR	THR	COSEWIC 2011a	None were observed by Stantec (2020). No suitable buildings are present.	N
Bobolink	*Dolichonyx oryzivorus*	Primarily in forage crops, and grassland habitat.	S4B	THR	THR	COSEWIC 2010	There are no suitable grasslands in or near this site.	N
Eastern Meadowlark	*Sturnella magna*	Fields, meadows and prairies.	S4B	THR	THR	COSEWIC 2011b	There are no suitable grasslands in or near this site.	N
MAMMALS								
Little Brown Myotis	*Myotis lucifugus*	Buildings, attics, roof crevices and loose bark on trees or under bridges. Always roost near waterbodies.	S4	END	END	Eder, 2002; COSEWIC 2013	Common species.	Y
Northern Myotis/Northern Long-eared Bat	*Myotis septentrionalis*	Older (late successional or primary forests) with large interior habitat.	S3	END	END	Menzel et al., 2002; Broders et al., 2006; COSEWIC 2013c	This species maternity or hibernation habitat is not present in or nearby. Potential for day-	Y

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							roosts.	
Eastern Small-footed Myotis	*Myotis leibii*	Found within deciduous or coniferous forests in hilly areas. Maternity roots in Ontario in rock crevices and old wooden buildings (Ontario government response statement). The government response statement also indicates that this species is thought to migrate only short distances from its hibernacula to maternity habitat. Other information from the United States indicates that the rock habitat is that of talus cliff and rocky ledges (NYNHP).	S2S3	END	NAR	Eder, 2002	No historical hibernacula are known to be present nearby. This species maternity or hibernation habitat is not present in or nearby. Potential for day-roosts.	Y
Tri-colored Bat	*Perimyotis subflavus*	Prefers shrub habitat or open woodland near water.	S3?	END	END	Eder, 2002; COSEWIC 2013c	Little information on this species maternity habitat. Potential for day-roosts.	Y
PLANTS								
Butternut	*Juglans cinerea*	Variety of sites, grows best on well-drained fertile soils in shallow valleys and on gradual slopes	S2?	END	END	COSEWIC, 2017	IFS Associates completed survey in 2021 and 12 Category 1 Butternuts were identified of which 11 were on-site.	Y

Status Updated May 31, 2021

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.

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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

S#B Breeding

S#N Non-Breeding

SARO STATUS DEFINITIONS

END Endangered: A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's ESA.

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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.

NAR Not at Risk, a wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

Reptiles

Blanding's Turtle

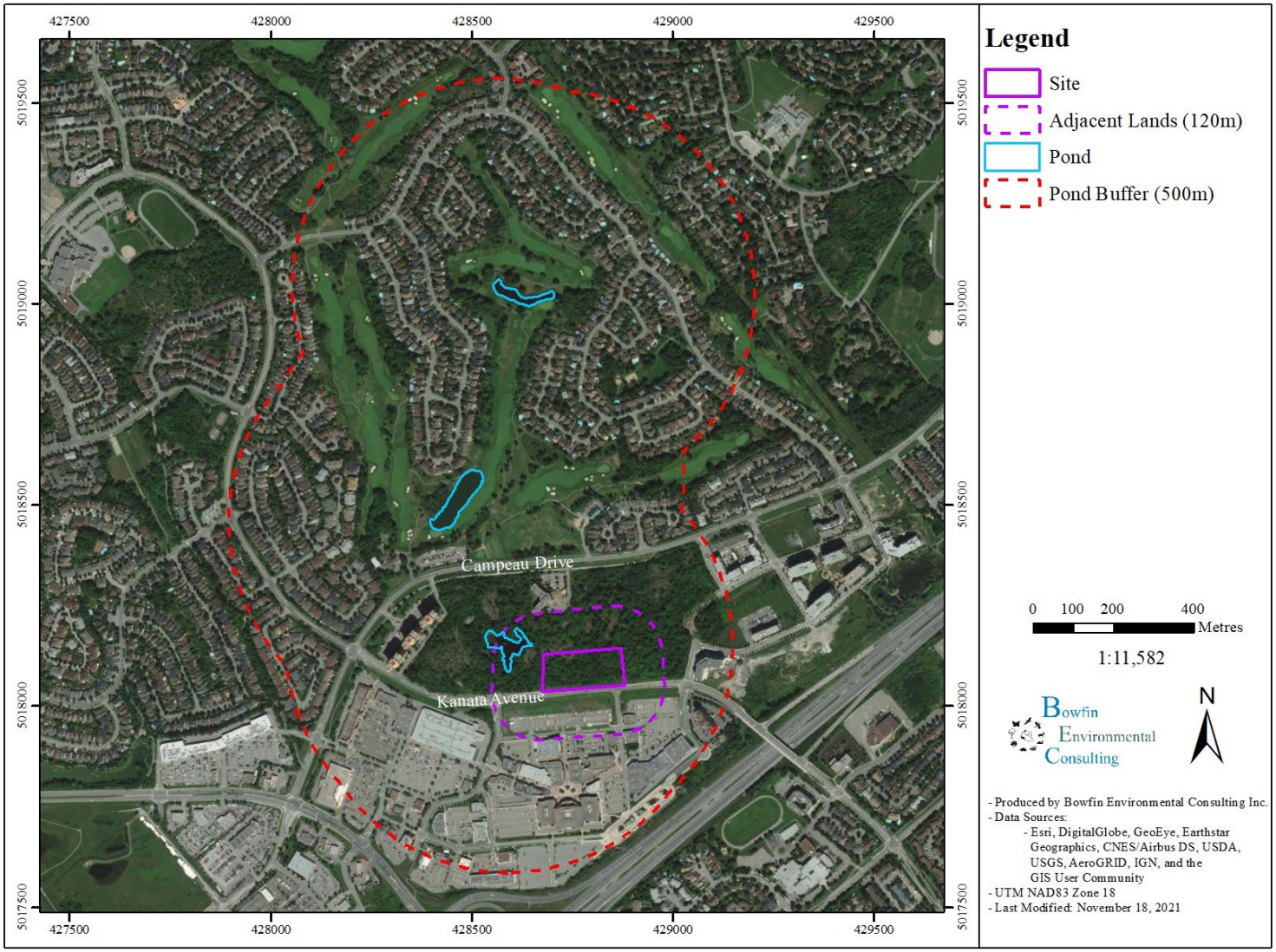
Blanding's turtle is associated with a variety of shallow slow aquatic habitats with submergent and emergent plants. These turtles require basking sites located near the water such as exposed rocks or partially submerged logs. The nesting sites are located within areas of loose substrates varying from 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, 2005). This species can migrate far distances of up to 6 km (OMNR, 2013c). Migration routes can include overland movement.

The habitat guidelines for Blanding's turtle provide protection to the areas surrounding a nest, or perceived nest area. The level of protection varies with the distance from the nest and has been categorized by MNRF into three categories. These along with their protection level are:

Category 1	Nest and the area within 30 m or Overwintering sites and the area within 30 m
Category 2	The wetland complex (i.e., all suitable wetlands or waterbodies within 500 m of each other) that extends up to 2 km from an occurrence, and the area within 30 m around those suitable wetlands or waterbodies
Category 3	Area between 30 m and 250 m around suitable wetlands/waterbodies identified in Category 2, within 2 km of an occurrence

Stantec completed five basking Blanding's Turtle surveys between May 7 and June 12, 2019, on the entire property including the nearby pond and a pool noted in their report to be near (but outside) of this Site (Stantec, 2020). They indicated that no Blanding's Turtles were observed. While Blanding's Turtles are present in the general area, there are none documented within 500 m of the Site. To trigger Category 2 or 3 habitat the potential habitat needs to be linked or within 500 m of another (up to 2 km from the occurrence). The only water/wetland feature not investigated by Stantec in 2019, that is within 500 m of this property are the ponds in the Kanata Golf and Country Club and those are not within 500 m of any other potential habitat. For these reasons, there is no Blanding's Turtle habitat within this Site. No further work is proposed for this species and the only mitigation measures proposed are the education of construction workers during development in case an individual wanders through (see next section).

Figure 4: Candidate Turtle Habitat and 500 m Buffer



Birds

Stantec completed two daytime breeding bird surveys in June 2019 (Stantec, 2020). No SAR birds were noted. They also did not identify any Species of Concern species. Satellite imaging and discussion in the Stantec (2020) report suggests that there are no suitable habitat for Barn Swallow, Bank Swallow, Bobolink or Eastern Meadowlark. The Site is treed and there are no grasslands on or adjacent to the site. There are no artificial structures, watercourses or banks. Only general SAR measures required for SAR birds.

Bats

The potential SAR bats within the general area are: little brown myotis, northern myotis, eastern small-footed myotis and tri-colored bat. There are three types of habitats required by bats: hibernation, maternity sites and day-roost sites. The latter is not considered critical habitat.

These four bat species prefer to hibernate in caves or mines. They can hibernate in buildings but that is rare for these species (COSEWIC, 2013a). No caves, buildings, or mines were present.

The northern myotis tends to prefer larger expanses of older forests (late successional or primary forests) and chose 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 (Menzel et al., 2002; Broders et al., 2006; Yates et al., 2006; OMNRF, 2015).

The recovery strategy for the eastern small-footed myotis indicates that the preferred maternity habitat of this species consists of open rock habitats (cliffs, ledges) and that it rarely uses old buildings as roosting/maternity sites (Humphrey, 2017). This habitat was not present.

The Atlas of Mammals of Ontario (Dobbyn, 1994) suggests that the tri-colored bat is not present within this part of Ontario however, the NatureServe mapping in the COSSARO (2015) includes all of southeastern Ontario. Based on this information, this species is considered to have a very low potential of occurring.

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. The desktop review indicates that these habitats are absent. The little brown myotis can also use tall, large cavity trees that are in the early to mid-stages of decay as maternity roosts, as well as loose/raised tree bark, and/or 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, 2013a). Stantec (2020) identified two candidate SAR bat maternity trees on Site.

There is the potential for bats to use the cavity tree in the adjacent lands for day-roosting. Day-roosts are not considered critical habitat.

While Stantec (2020) identified 2 cavity trees on the Site with a recommendation of bat exit surveys for SAR bats be conducted at these trees, MECP now has avoidance guidelines that can be applied to sites to prevent potential for contravening the *Endangered Species Act* for this species. Provided that the proponent can follow the timing restrictions, then no acoustic surveys are required.

Plants

Butternuts

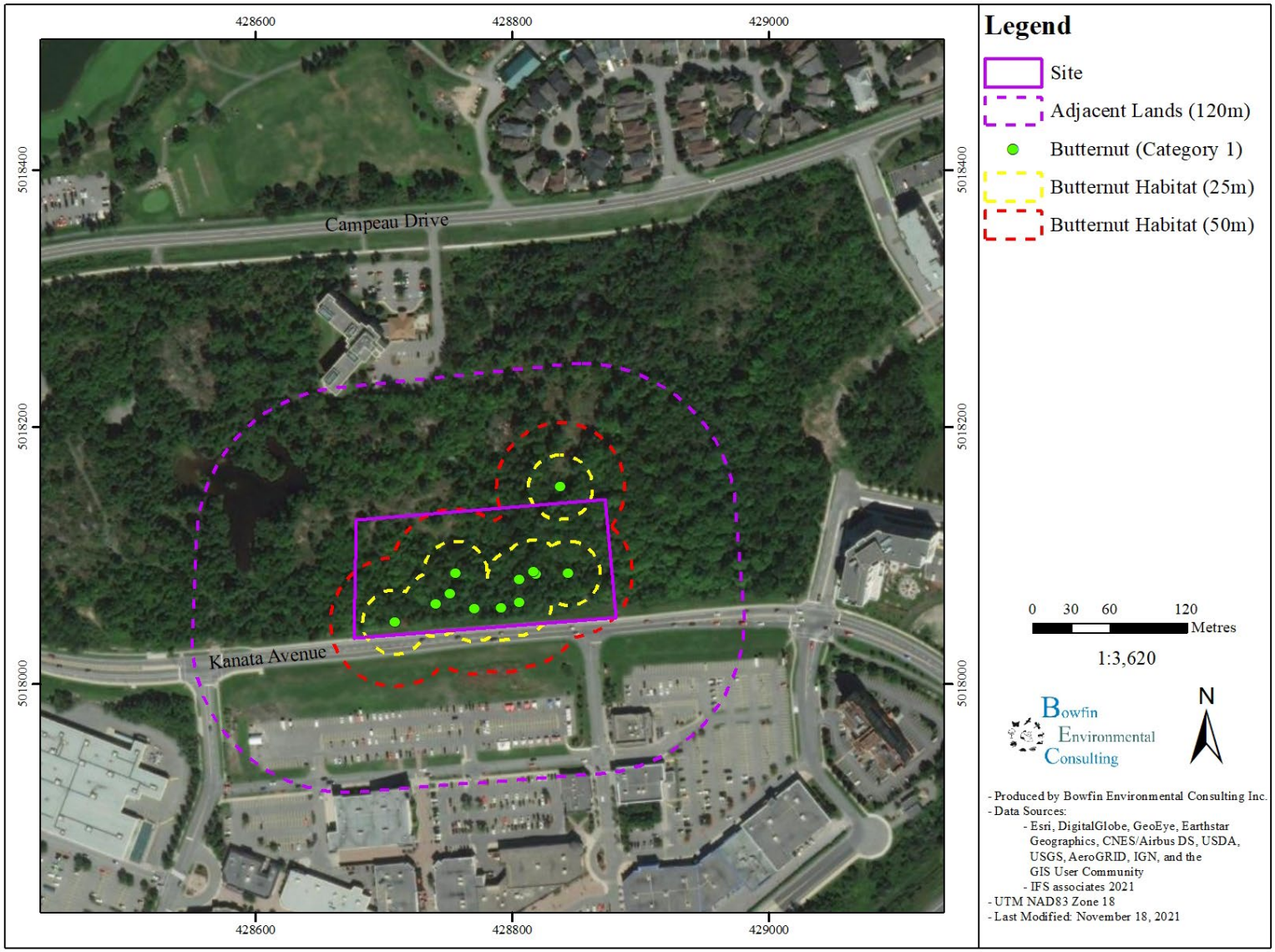
IFS Associates conducted a new BHA for this Site (June 8, 2021). The butternuts were assessed based on the amount of canker (the disease which is killing the species), their size and health, as per the MNRF BHA protocol. This method classes the individual trees as one of three categories:

- Category 1 are those that are heavily infected to the point that they are not expected to survive.
- Category 2 may have some canker but are still considered healthy.
- Category 3 are the same as Category 2, but these are larger individuals situated near heavily cankered trees and MNRF believes that some may be showing immunity to the disease.

IFS's butternuts were classed as Category 1s (or dead) (Figure 5). They will submit it to MECP identifying the need to remove 11 individuals, found within the site. (The twelfth individual is within 50 m but will not be harmed by this project).

Butternut inventories are good for 2-years (IFS Associates report is valid until June 8, 2023). The Butternuts will not be impacted prior to the 30-day period has elapsed following the submission of the BHA for this Site. Note, that the timing window for bats, these won't be able to be removed until October 1 (no removal of trees>10 cm between April 1 and September 30).

Figure 5: Location of Butternuts (IFS, 2021)



SAR Impact Summary

Table 3: Potential to Impact Endangered or Threatened Species or their Habitat

Activity	Species	Magnitude/ Likelihood	Area	Nature	Duration	Measures Required
Construction • Clearing of vegetation • Grading/Blasting/ hoe ramming • Construction of facilities (sewer etc.) and buildings	Blanding's Turtle	Unlikely – no occurrences or habitat on-site. Habitat within 500 m of the Site is isolated (more than 500 m away from suitable habitat resulting in a break in habitat mapping)	Local	N/A	N/A	General SAR Measures to prevent accidental harm to individuals
	Easter Whip-poor-will	Not present – Surveys completed in 2021 by Bowfin	Local	N/A	N/A	General SAR Measures (timing windows for tree removal)
	Chimney Swift Bank Swallow Barn Swallow	Low – no suitable habitat identified, and none observed by others.	Local	N/A	N/A	General SAR Measures (timing windows for tree removal)
	Bobolink Eastern Meadowlark	None – no grassland habitat in or adjacent to property	Local	N/A	N/A	None -no suitable habitat
	Bats	Low potential for most species.	Local	Negative – loss of habitat. Habitat is not limiting factor to species	Permanent	**Timing Restriction - no clearing of vegetation from April 1 to September 30 other wise there would be additional surveys required**

Activity	Species	Magnitude/ Likelihood	Area	Nature	Duration	Measures Required
	Butternuts	High – Category 1s (twelve) are present on-site. No Category 2s or 3s within 50 m	Local	Negative	Permanent	IFS Associates completed a new BHA on, June 8, 2021. This report identified 12 Category 1s. Once it is submitted to MECP, a 30-day time period is required prior to the removal of these individuals. Since they are Category 1s no compensation is required. Because of Bat timing window, trees will need be removed between October 1 and March 31, inclusive. IFS did not identify any individuals nearby, on the adjacent lands, that could be accidentally impacted by the project (nearest is almost 50 m away). Mitigation measures in the tree conservation report for the protection of trees on adjacent lands should be followed.

4.1.2 SAR Avoidance and Mitigation Measures

A desktop review of all available data suggests that, apart from the Butternuts, there is little potential for SAR or their habitats to be present within the Site (180 Kanata Avenue). The detailed EIS completed for the larger City of Ottawa Property by Stantec (2020) did not find any other SAR or Special Concern species. Eastern whip-poor-will surveys completed by Bowfin confirmed that they are absent from in or within 500 m. The IFS BHA (2021) report identified 11 Category 1s on the site and an additional Category 1 roughly 50 m away.

MECP, in an email, confirmed that no bat acoustic work needed to be completed unless the tree removal occurs during the active season.

General:

- Endangered and Threatened species are protected and cannot be harmed, harassed, or killed and in some cases their habitats are also protected. These individuals will only be handled by qualified person and only if the individual is in imminent threat of harm. An authorization under the ESA 2007 would be required to handle individuals that are not 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 immediately.
- If a SAR is encountered, this information will be provided to the Natural Heritage Information Centre (Report rare species (animals and plants) | Ontario.ca)
- Educate staff and contractors on the potential for SAR to be in the area and their significance with specific attention to Blanding's Turtle, bats, and Butternuts.

SAR Turtles: SAR turtles are not anticipated to be present, however since Blanding's Turtle are known to occur in Kanata Area and to wander far distances, the following is recommended:

- Educate construction workers of the potential for Blanding's Turtle to be present and that this is a protected species from harm and injury under the provincial *Endangered Species Act*.
- Educate workers, that this species is known to travel far from aquatic habitats and as such, they are to perform a daily sweep of the work area when they first arrive on-site during the turtle active season (typically April 16-October 15; timing affected by weather conditions).
- A speed limit of 15 km/h is recommended for vehicles used during construction or to access the stormwater management facility. The speed limit is to be posted.

- If a turtle is observed, then all work that may harm the individual must stop and the worker should notify their supervisor. Try to take a photograph but do not chase the turtle in order to do so. It is also important that the individual be watched, from afar, to ensure that it does not enter an area where it may come to harm.
- Turtles encountered on-site cannot be harmed or harassed.
- Turtles should be allowed to leave the area on their own.
- If an individual has been impacted, the supervisor should contact MECP (and if applicable the project biologist) immediately.

SAR Birds: As the natural vegetation will be permanently removed, any impact to SAR or their habitat would be permanent. No SAR birds were identified as occurring or likely to occur.

- No impacts to federal SAR bird nests, or their eggs is permitted under the federal *Species at Risk Act*. If a federally listed bird species at risk nest is encountered, then work must stop until the young have fledged. If the nest/young have been harmed, then Environment Canada must be notified immediately for guidance.
- No impacts to provincial SAR bird nests or their eggs is permitted under the provincial *Endangered Species Act*. If a provincially listed bird species at risk is encountered, then work must stop and MECP contacted (sarontario@ontario.ca).
- Should a nest be discovered, stop all work that may disturb the birds (i.e. that cause the adults to fly off the nest) and contact a biologist or MECP or Environment Canada, as appropriate for the species.

Bats: Recent discussions with MECP on this species indicate that they do not need to be approached if the timing window below can be adhered to.

- Educate contractors by informing them that most bats in Ontario are protected.
- Remove trees between October 1 and March 31 (Bat active season is currently assumed to be April 1 to September 30). **If this is not possible, conduct exit survey prior to cutting them down. If the exit survey identifies bats, contact MECP or biologist for additional guidance.**

Butternuts:

- IFS Associates confirmed that all butternuts are Category 1s. IFS Associates will submit their BHA to MECP. Of the12 butternuts located, 11 will be removed. They are to be removed after at least 30-days have passed from the date that IFS's BHA is submitted **and after September 30 (bats timing window) and before April 1 (bat timing window).**

- Note that all other Butternuts are >50 m from this Site. No activities that disturb the vegetation or soil (including movement of vehicles or stockpiling of material) are permitted beyond this area.
- Educate contractors by informing them that butternuts are protected. Note that there is a large number of walnuts on-site and these are similar in appearance to butternuts, but walnuts are not protected.

4.2 Other Avoidance and Mitigation Measures

4.2.1 Wildlife

The measures outlined above serve to protect the identified or potentially present natural features identified in the background review and/or site investigations. However, there are also some other items that should be mentioned.

1. Almost all birds in Ontario are protected by either MBCA or FWCA.
2. Most reptiles are protected by the FWCA

Mitigation Measures:

- 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. In this part of Ontario, the current standard nesting period is between **April 5th to August 28th**. 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. These dates only serve as a guideline. Note that due to the thick shrub growth, looking for active bird nests at this site would be difficult and could lead to false negatives. Proponent is strongly encouraged to follow timing windows.
- During construction, there is a potential for suitable habitat for ground nesting birds (i.e. killdeer) to be created. These include 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.
- Work during the daytime hours to prevent light disturbances.
- If a turtle nest is suspected, then flag a 10 m buffer to protect the nest. Contact MECP (for SAR) and MNRF (all other species).
- All construction activities, including blasting and hoe-ramming, are to occur during daylight hours to minimize impacts to breeding birds.
- Vehicle and machinery are to have appropriate mufflers to reduce noise.

4.2.2 Accidents and Malfunctions

Although the likelihood of accidents and malfunctions occurring would be minimized by following the mitigation measures outlined below, should accidents and/or malfunctions occur they have the possibility of presenting serious impacts and require consideration.

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 natural areas to be retained. And in an area where erosion and sediment 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.

Machinery should be cleaned prior to arriving on-site to prevent the potential spread of invasive species (i.e. mud and vegetation matter from other sites should be removed from machinery).

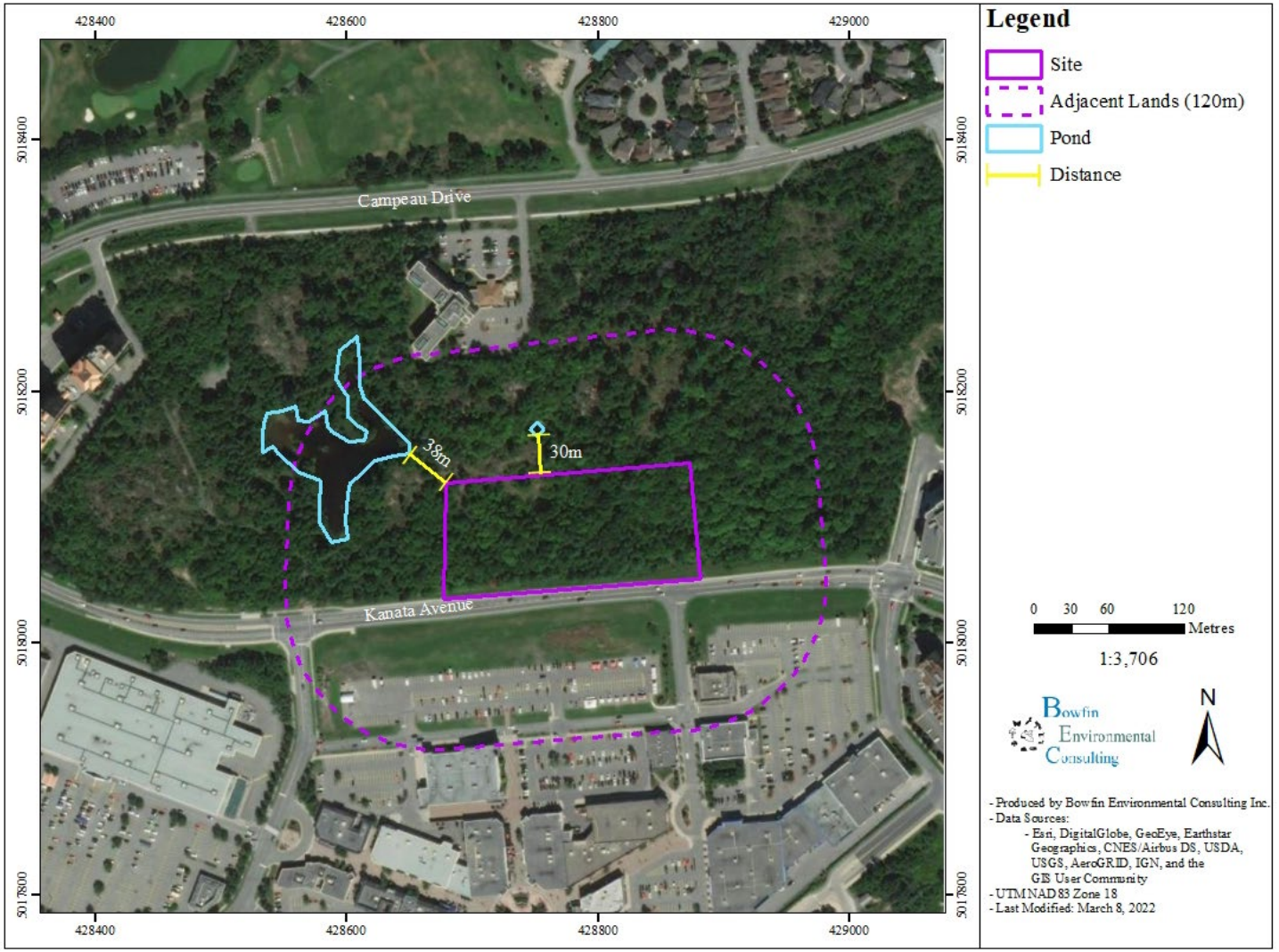
Emergency spill kits would be located on site. The crew would be fully trained on the use of clean-up materials in order to minimize impacts of any accidental spills. The area would be monitored for leakage and in the unlikely event of a minor spillage the project manager would halt the activity and corrective measures would be implemented. Any spills would be immediately reported to the Ministry of Environment, Conservation and Parks (MECP) Spills Action Centre (1800 268-6060).

5.0 POTENTIAL IMPACTS TO ADJACENT PONDS

As noted above, the City's comments from February 11, 2022, identified the concern of bedrock fracturing during blasting to impact these ponds identified in the Stantec (2020) report. The response has been prepared by Paterson Group (refer to their memo PG5758-Memo-04) for details. Their conclusion is that based on the quality of rock in this area, significant fractures in the bedrock which could create a hydraulic conduit with the pond are not anticipated. However, if significant water-bearing fractures are observed, they will be sealed with grout and/or bentonite. It is understood that the bentonite and/or grout will be selected and deployed in such a way as to prevent contamination of those features. The following mitigation measures are added:

- Blasting contractor is to be made aware of the two ponds in the adjacent lands and that these are to be protected.
- In the unlikely event that fracturing of the bedrock occurs, it will be sealed using grout and in a manner that prevents contamination to the adjacent natural features (two ponds).
- The City has requested that should the seasonal water level in the Bill Teron Park pond show signs of change, that mitigation/remedial work will be undertaken following guidance from a professional engineer.

Figure 6: Location of Ponds in Adjacent Lands



6.0 CONCLUSION

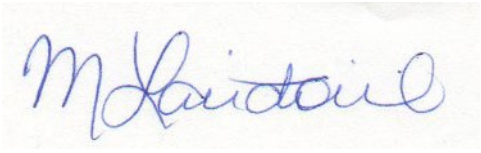
At this time, the only constraints are the timing windows associated with the clearing of vegetation and waiting for the 30-day period (following submission of BHA) to elapse. To avoid birds and bats, the combined timing window for clearing of any vegetation is between October 1 and March 31 (inclusive).

Provided that the measures outlined herein are followed, then the project is not anticipated to result in any contraventions to the *Endangered Species Act* and can proceed as planned. Measures outlined in the Tree Conservation Report (IFS Associates) are to be adhered to.

I trust that this report will meet your requirements. Should you have any questions or comments, please contact the undersigned.

Sincerely,

Bowfin Environmental Consulting Inc.



Michelle Lavictoire,
Biologist / Principal

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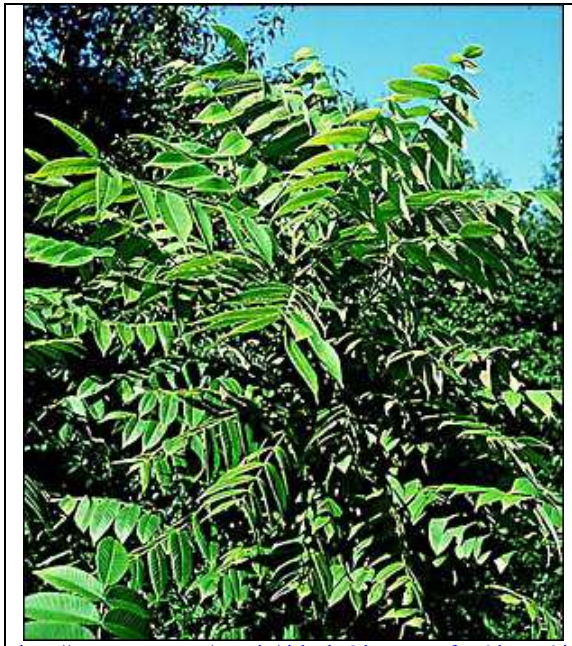
Appendix A: SAR Hand-Out

The following table provides photographs and general descriptions of potential species at risk that may occur within the project area and information on what actions to take should any of these species be observed.

- Endangered and Threatened species are protected and cannot be harmed, harassed, or killed and in some cases their habitats are also protected. These individuals will only be handled by qualified person and only if the individual is in imminent threat of harm. An authorization under the ESA 2007 would be required to handle individuals that are not 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 contact supervisor immediately.
- Note that this site has Butternuts and the potential for SAR such as: Blanding's Turtle, and bats.

Photograph	Description	Action to be Taken
 Photo: Royal Ontario Museum website http://www.rom.on.ca/ontario/risk.php	**Blanding's Turtle** • Medium sized turtle (12.5-28 cm) • Bright yellow on chin and throat • Shall is dark light-coloured sports or lines THREATENED	• Take a photograph and record the date observed, name of person who observed it • If turtle is located within the construction site, then construction activities that may impact it must STOP until the turtle is clear of the site. • Contact supervisor

Photograph	Description	Action to be Taken
 http://birdweb.org/Birdweb	**Barn Swallow** • Swallow with a long tail which is deeply forked in adult males • An orange front (no white on the forehead) • Narrow pointed wings • Juveniles have a white band across the top of the tail. THREATENED	• Stop any activity that may cause harm to this specie and contact project Supervisor. • Individuals should only be encouraged to move if it is in immediate harm's way. These animals can only be handled by a qualified biologist when it is in imminent threat of harm, otherwise an ESA 2007 authorization will be required.
 Photo: audubon.org	**Chimney Swift** • Described as a cigar shaped bird with long wings and a short tail. THREATENED	• Stop any activity that may cause harm to this specie and contact project Supervisor. • Individuals should only be encouraged to move if it is in immediate harm's way. These animals can only be handled by a qualified biologist when it is in imminent threat of harm, otherwise an ESA 2007 authorization will be required.

 http://www.rom.on.ca/ontario/risk.php?doc_type=fact&lang=&id=298	**Butternut** • Medium sized tree with multiple leaflets. • Similar to walnuts, but walnuts usually have a small or missing leaflet at the tip **ENDANGERED**	• Any construction activities within 50 m of an induvial to be retained shall be carried out carefully in order to ensure that no harm comes to the tree (i.e. no heavy machinery, no excavation or stockpiling within 50 m of the tree, no braking of branches, leaves).