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Scoped Environmental Impact Statement
Proposed Condominium Development
1518-1526 Stittsville Main Street
Ottawa, Ontario

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Submitted to:

McIntosh Perry
115 Walgreen Rd., R.R. #3
Carp, Ontario
K0A 1L0

Scoped Environmental Impact Statement
Proposed Condominium Development
1518-1526 Stittsville Main Street
Ottawa, Ontario

August 11, 2020
Project: 65062.08

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1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by McIntosh Perry to carry out a Scoped Environmental Impact Statement (EIS) for the property located at 1518-1526 Stittsville Main Street in Ottawa, Ontario (hereafter referred to as "the subject property"). The site location of the subject property is illustrated on Figure A.1 in Appendix A.

1.1 Purpose

The property owner is seeking to develop a new 4-storey and 2-storey condominium with one level of underground parking for the properties located at 1518, 1524 and 1526 Stittsville Main Street, in the City of Ottawa, Ontario. In preparation for Site Plan Approval, a Species at Risk Screening Assessment is required demonstrating that the future condominium development will not negatively impact any Species at Risk (SAR) or SAR habitat that may be present within the study area. The study area is defined as the property boundary and the adjacent lands encompassing an area of 120 m beyond the property boundary. The subject property, extents of the study area and proposed development are illustrated on Figure A.2 in Appendix A.

1.2 Objective

The 2020 Provincial Policy Statement (MMAH, 2020) issued under Section 3 of the Planning Act stats that "development and site alteration shall not be permitted in: habitats of species at risk, unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions."

The objective of the species at risk (SAR) screening assessment presented herein is twofold; 1) to identify the presence or potential presence of any SAR and their regulated habitat within the project area, and 2) to recommend established and effective avoidance and mitigation measures to ensure that the project is completed in accordance with the provincial *Endangered Species Act, 2007*.

To meet the objectives outlined above, the following scope of work was completed:

- Task 1 – Desktop Assessment
- Task 2 – Site Investigation
- Task 3 – Assessment and Reporting

2.0 METHODOLOGY

2.1 Desktop Review

A desktop information gathering exercise was completed to aid in the scoping of field investigations and to gather information relating to natural heritage features which may be present on the subject project or within 1 km of the subject property. An additional component of the

desktop review was to assess the potential presence of species at risk (SAR) to occur on the subject property or within the study boundary based on a review of publicly accessible occurrence records and review of SAR habitat requirements and range maps.

Following changes to the Ontario Ministry of Natural Resources and Forestry (OMNRF) natural heritage information request process, as of 2019, the OMNRF is no longer providing responses to these requests. As such, an information request was not submitted for this project. In lieu of a request response, the Natural Heritage Information Request Guide (OMNRF, 2018) was consulted and the data resources listed below were reviewed for relevant natural heritage feature and SAR data relating to the site.

Information regarding the potential presence of natural heritage features and SAR within the vicinity of the site was obtained from the following sources:

- Make a Map: Natural Heritage Areas (OMNRF, 2014);
- Land Information Ontario (OMNRF, 2011);
- City of Ottawa Official Plan (Ottawa, 2003);
- Ontario Geological Survey (OGS, 2019);
- Fisheries and Oceans Canada SAR Maps (DFO, 2019);
- Natural Heritage Information Centre Biodiversity Explorer (OMNR, 2013);
- Breeding Bird Atlas of Ontario (Cadman, et al., 2007)
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019); and
- Species at Risk in Ottawa (MacPherson, 2019).

2.2 Field Investigations

Field investigations were undertaken to describe in general, the natural and physical setting of the subject property with a focus on natural heritage features and to identify any potential SAR or their habitat that may exist at the subject property.

A total of two field investigations were completed for the property, field conditions during the investigation and a list of surveys completed is provided in Table 2.1 below.

Table 2.1 Summary of Field Investigations

Date	Time	Weather Conditions	Surveys
May 28, 2020	06:45-09:00	19°C, partly cloudy, Beaufort 4, no precipitation	Tree Inventory; Species at Risk Screening Assessment
June 9, 2020	14:00-14:45	21°C, partly sunny, Beaufort 2, no precipitation	Butternut Health Assessment

Photographs of site features taken during field investigations are provided in Appendix B.

3.0 RESULTS

3.1 Desktop Screening Results

Results of the desktop screening exercise are summarized in Table 3.1 below. The desktop screening exercise identified the potential for one avian, three mammalian, and one plant SAR listed as threatened or endangered to occur within the project area. Four of the threatened or endangered SAR species are considered to have a moderate potential to occur within the project area. Two butternut trees, an endangered plant SAR were identified within the study area adjacent to the subject property, as such butternut has a high potential to occur within the project area.

Impacts to endangered and threatened SAR species with a moderate or high potential to occur on-site are discussed in Section 3.4.

TABLE 3.1
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA

Species	ESA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Avian					
Bald Eagle	Special Concern	Confirmed nest at Shirley's bay since 2012.	Nest in mature forests near open water	Low	Site lacks suitable forest habitat adjacent to open water and foraging area to support Bald Eagle activity
Bank Swallow	Threatened	12 confirmed, 2 probable and 8 possible nests in recent OBBA.	Colonial nester, burrows in eroding silt, to sand banks, sand pit walls, etc.	Low	No suitable nesting habitat located on-site or within study area. Preferred foraging field habitat is not located on-site.
Barn Swallow	Threatened	33 confirmed, 2 probable, and 3 possible nests in recent OBBA.	Nests in barns and other semi-open structures. Forages over open fields and meadows.	Moderate	Potentially suitable nesting structures and foraging habitat present on-site and within broader study area.
Bobolink	Threatened	Widespread in the Ottawa region, confirmed and probable nests found in 39 or 40 local atlas squares during recent OBBA.	Nests in dense tall grass fields and meadows, low tolerance for woody vegetation.	Low	No suitable grassland nesting or foraging habitat present on-site or within boarder study area.
Canada Warbler	Special Concern	1 confirmed, 2 probable, 6 possible nests during recent OBBA. No critical habitat identified in Ottawa region.	Prefers wet forests with dense shrub layers.	Low	No suitable forest habitat to support Canada warbler on-site.
Cerulean Warbler	Threatened	No nests reported during recent OBBA. SARO and SARA range maps both include parts of Ottawa.	Prefers mature deciduous forests.	Low	No suitable forest habitat to support cerulean warbler on-site.
Chimney Swift	Threatened	3 confirmed, 2 probable and 11 possible nests in recent OBBA. No critical habitat identified in Ottawa.	Nests in traditional-style open brick chimneys.	Low	No suitable nesting structures on-site or within broader study area to support chimney swift.
Common Nighthawk	Special Concern	6 probable, 5 possible nests reported in recent OBBA. No critical habitat identified in Ottawa region.	Nests in a variety of open sites: beaches, fields, and gravel rooftops.	Low	Suitable habitat does not occur on-site.
Eastern Meadowlark	Threatened	Sporadic occurrences in Ottawa region, more common in rural areas with pasture or fallow fields.	Nests and forages in dense tall grass fields and meadows, higher tolerance to woody vegetation.	Low	No suitable grassland nesting or foraging habitat present on-site or within boarder study area.
Eastern Whip-poor-will	Threatened	Primary breeding range located east, west and south of the Precambrian shield. 7 probable and 10 possible nests in recent OBBA. Critical habitat tentatively identified in 4 squares in western Ottawa.	Nests on the ground in open deciduous or mixed woodlands with little underbrush, and bedrock outcrops.	Low	No suitable woodland habitat on-site or within broader study area to support eastern whip-poor-will.
Eastern Wood-Pewee	Special Concern	4 possible, 15 probable and 19 confirmed nests in recent OBBA for Ottawa area	Woodland species, often found near clearings and edge habitat.	Moderate	Woodlands within broader study area may support eastern wood-pewee.
Golden Eagle	Endangered	Migrant only in the Ottawa area.	Nests on remote, bedrock cliffs overlooking large burns, lakes or tundra.	Low	Suitable nesting habitat does not occur on-site.
Golden-winged Warbler	Special Concern	1 confirmed, 1 probable nest in recent OBBA. Critical habitat identified in Quebec, northwest of Ottawa.	Ground nesting, edge species. Breeds in successional scrub habitats surrounded by forests.	Low	Site is unlikely to provide suitable habitat for golden-winged warblers due to the lack of successional scrub habitat.
Grasshopper Sparrow	Special Concern	4 confirmed, 5 probable, 2 possible nests in recent OBBA	Area-sensitive grassland species, nests on ground	Low	Suitable grassland habitat to support grasshopper sparrow is not present on-site.
Henslow's Sparrow	Endangered	No nests in recent OBBA	Prefers open, moist tallgrass fields.	Low	Suitable grassland habitat to support Henslow's sparrow is not present on-site.
Loggerhead Shrike	Endangered	1 possible nest in recent OBBA. Critical habitat in Montague Township, however no confirmed nests from MNRF since 2002, and the MNRF do not consider Ottawa to include any significant habitat	Prefers grazed pastures with short grass and scattered shrubs, especially hawthorn.	Low	Preferred pasture habitat and shrub vegetation does not occur on-site.
Olive-sided Flycatcher	Special Concern	1 probable, 1 possible nest in recent OBBA.	Forest edge species, forages in open areas from high vantage points in trees.	Low	No suitable forest habitat to support olive-sided flycatcher on-site.
Peregrine Falcon	Special Concern	1 confirmed nest in recent OBBA and second nest established in 2011 in the Ottawa downtown.	Nests on cliffs near water and on more anthropogenic structures such as tall buildings, bridges and smokestacks	Low	Site lacks suitable nesting structure for peregrine falcon
Red Knot	Endangered	Migrant only, Ottawa River shores, area lagoons, etc.	Nests in the far north, shorelines and lagoons of the Ottawa River	Low	Site does not provide suitable habitat for migrant Red Knot
Red-headed Woodpecker	Special Concern	1 confirmed, 1 probable and 1 possible during recent OBBA. Nesting pair reported from village of Constance Bay in recent years.	Prefers open deciduous woodlands.	Low	Mixed woodlands study area do not provide preferred habitat and structure for nesting red-headed woodpeckers.
Rusty Blackbird	Special Concern	No nests in recent OBBA, primarily observed during migration	Wet wooded or shrubby areas (nests at edges of Boreal wetlands)	Low	Suitable habitat does not occur on-site
Short-eared Owl	Special Concern	1 confirmed, 2 probable, 2 possible nests in recent OBBA.	Ground nester, prefers open habitats: fields and marshes	Low	No suitable open field or open marsh habitat on-site.
Wood Thrush	Special Concern	5 possible, 15 probable, and 16 confirmed nests in recent OBBA for Ottawa area.	Prefers deciduous or mixed woodlands.	Moderate	Woodlands within broader study area may support wood thrush.

TABLE 3.1
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA

Species	ESA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Mammalian					
Eastern small-footed Myotis	Endangered	Rare throughout its range. Historical records in downtown Ottawa.	Roosts in rock crevices, barns and sheds. Overwinters in abandoned mines. Summer habitats are poorly understood in Ontario, elsewhere prefers to roost in open, sunny rocky habitat and occasionally in buildings (Humphrey, 2017).	Moderate	Anthropogenic structures within study area may provide roosting habitat.
Little Brown Myotis	Endangered	Various sites in central and western parts of the Ottawa area. No critical habitat (hibernacula) identified in Ottawa to date.	Maternal colonies known to use buildings, may also roost in trees during summer. Affinity towards anthropogenic structures for summer roosting habitat and exhibit high site fidelity (Environment Canada, 2015).	Moderate	Anthropogenic structures within study area may provide roosting habitat.
Northern myotis (Northern Long-eared Bat)	Endangered	Historical records in downtown Ottawa, more recently in sites to east (Orleans, Clarence-Rockland). No critical habitat (hibernacula) identified in Ottawa to date. Ottawa and region is at southern most limit of range.	Occurs throughout eastern North America in associated with Boreal forests. Roosts mainly in trees, occasionally anthropogenic structures during summer (Environment Canada, 2015). Overwinters in caves and abandoned mines.	Low	Species affinity is for Boreal forest habitat, which is not present on-site. Species does not typically roost in anthropogenic structures.
Tri-colored Bat	Endangered	Provincially Uncommon, only 26 documented occurrences in Ontario from pre-1980 to present (MNRF, 2016). Unknown distribution in Ottawa; historical records from sites in urban Ottawa and Lanark County.	Roosts in trees, rock crevices and occasionally buildings during summer. Overwinters in caves and mines.	Moderate	Anthropogenic structures within study area may provide roosting habitat.
Reptiles					
Blanding's Turtle	Threatened	Provincial range extends from Manitoulin Island south and east. Scattered occurrence records in central Ontario. Scattered occurrence records throughout Ottawa, with numerous sites in western half of City. Critical habitat present in Ottawa.	Quiet lakes, streams and wetlands with abundant emergent vegetation; also frequently occurs in adjacent upland forests.	Low	No suitable aquatic features present on-site or within broader study area to support Blanding's turtles.
Snapping Turtle	Special Concern	Widespread and abundant throughout Ottawa and surrounding region.	Highly aquatic species found in a wide variety of wetlands, water bodies and watercourses.	Low	No suitable aquatic features present on-site or within broader study area to support snapping turtles.
Plants					
Butternut	Endangered	Range is confined to eastern and southern Ontario. Widespread in Ottawa and region.	Inhabits a wide range of habitats including upland and lowland deciduous and mixed forests.	High	Site is in a relatively open state. Two butternut trees observed on adjacent proprety north of site.
Lichens					
Pale-bellied Frost Lichen	Endangered	Historical records in downtown , however locally extirpated. No critical or regulated habitat identified in Ottawa	Grows on the bark of hardwood trees such as hop hornbeam. It may also grow on white ash, black walnut, American elm, fence posts and boulders.	Low	Species believed to be extirpated from the Ottawa area.
Insects					
Bogbean Buckmoth	Endangered	Richmond Fen	Preferred food plant is bog bean, present in a variety of wetlands including bogs, swamps and fens.	Low	Preferred wetland habitat is not present on-site.
Gypsy Cuckoo Bumble Bee	Endangered	Historic occurrences only. Range in Ontario uncertain.	Inhabits a wide range of habits: open meadows, agricultural and urban areas, boreal forests and woodlands.	Low	Currently the only known population is in Pinery Provincial Park
Monarch Butterfly	Special Concern	Widespread in the Ottawa area	Caterpillars require milkweed plants confined to meadow and open areas. Adult butterflies use more diverse habitat with a variety of wildflowers	Moderate	Open vegetation may provide suitable foraging habitat for monarch butterfly.
Mottled Duskywing	Endangered	Constance Bay area, Burnt Lands Alvar	Larval food plant (New Jersey Tea) found in sandy areas and alvars.	Low	Sandy areas and alvars not present in the study area.
Nine-spotted Lady Beetle	Endangered	Historically present but no reports in Ontario since mid-1990s	Habitat generalist	Low	No recent occurrence reports in the area, thought to be locally extirpated
Rusty-patched Bumble Bee	Endangered	Historic records in Ottawa and Gatineau	Habitat generalist	Low	Currently the only known population is in Pinery Provincial Park
Traverse Lady Beetle	Endangered	Unknown in Ottawa region. No southern Ontario records since 1985	Habitat generalist	Low	No new records of Traverse Lady Beetle in Ontario, species thought to be absent in former habitats.
West Virginia White Butterfly	Special Concern	Unknown. No NESS or NHIC records. SARO range map includes Ottawa.	Requires mature moist deciduous woods with larval host plant toothwort.	Low	Necessary vegetation and toothwort plant not present on-site or within study area
Yellow-banded Bumble Bee	Special Concern	Unknown. Historic occurrences and a few recent occurrences in Eastern Ontario/Western Quebec region.	Habitat generalist; mixed woodlands, variety of open habitat	Moderate	Open vegetation may provide suitable foraging habitat for yellow-banded bumble bee.

3.2 Existing Conditions and Vegetation

The site is comprised of three land parcels, municipally addressed as 1518, 1524, and 1526 Stittsville Main Street. Parcels 1524 and 1526 are currently vacant, while an existing development occurs on 1518 Stittsville Main Street. The existing development at 1518 Stittsville Main Street includes a residential building along the north property boundary with an approximate footprint of 110 m^2 and a barn building in the centre of the property with an approximate footprint of 197 m^2. The remainder of the property consists of vacant urban vegetation.

Due to the size and urban nature of the property application of the Southern Ontario Ecological Land Classification (Lee, 2008) was inappropriate. Herbaceous vegetation at the time of the site investigation included manicured lawn grass, as well as primrose (*Oenothera* sp.), red raspberry (*Rubus idaeus*), common mullein (*Verbascum thapsus*) and dandelion (*Taraxacum officinale*).

Numerous trees are present on the property, primarily along the north and west property boundary and within the hedgerow between 1518 and 1524 Stittsville Main Street. Trees found along the hedgerows included staghorn sumac, Norway maple, common buckthorn, American elm, Manitoba maple, Norway spruce, white ash, balsam fir and a few horticultural fruit shrubs. Two butternut, an endangered species at risk, were observed on the adjacent property north of property parcel 1518. The location of the butternut trees are illustrated on Figure A.2 in relation to other site features.

The vicinity of the site is characterized by residential dwellings and businesses. The nearest significant natural feature is the Goulbourn Wetland Complex Provincially Significant Wetland (PSW) located approximately 700 m west of the property. No other natural features were identified on-site or adjacent to site.

3.3 Wildlife

Targeted wildlife surveys were not completed as part of this project; however, typical year-round, urban avian species, including European starling, American crow, ring-billed gull, northern cardinal, blue jay and American goldfinch were observed on-site during the site investigations.

No wildlife SAR were observed during the site investigation.

3.4 Species at Risk

During the desktop review, a total of five endangered or threatened SAR species were identified as having a moderate potential to occur on-site during the desktop review. As outlined in the Endangered Species Act (Ontario, 2007), only species listed as threatened or endangered and their general habitat receive automatic protection. When a species-specific recovery strategy is developed, a specific habitat regulation will be established, which eventually replaces the automatic habitat protection. Species of special concern and their habitat do not receive protection under the ESA.

Potentially suitable nesting structures for barn swallow, an avian SAR species, occurs on-site within the existing residential dwelling and barn structure. However, the interior and exterior of the barn and the exterior of the residential dwelling were inspected and no barn swallow nests were observed. As such, no negative impacts are anticipated to occur to barn swallow as a result of the proposed project.

Two butternut, a plant SAR, were observed on the adjacent property to the north of property parcel 1518 Stittsville Main Street. As the minimum setback distance of 25 m around each butternut cannot be avoided due to the proposed development, a Butternut Health Assessment (BHA) was completed for both trees. The BHA was completed on June 9, 2020, and submitted to the Ministry of Environment, Conservation and Parks on June 22, 2020. The BHA concluded that both butternut trees were assessed to be Category 1 trees.

Category 1 trees may be killed, harmed, or taken after a 30-day period following BHA submission to the MECP has elapsed, unless otherwise instructed by the MECP. As the 30-day BHA submission window has elapsed, construction activities may proceed as planned within the 25 m radius of both butternut trees and no further permitting or action is required to address butternut. The Butternut Health Assessment is provided in Appendix C.

Three mammalian SAR species, eastern small-footed myotis (*Myotis leibii*), little brown myotis (*Myotis lucifugus*) and tri-colored bat (*Perimyotis subflavus*) were identified as having a moderate potential to occur within the project area. Trees immediately adjacent to the proposed expansion area, with a potential to be removed, were surveyed during the tree inventory completed for the project. These trees do not provide suitable snag habitat to support maternity roost habitat but may provide suitable non-maternal summer roosting habitat; however, the existing dwellings may provide suitable non-roosting habitat. The removal of trees and existing dwellings on-site may result in a loss of daily, summer roost habitat.

4.0 AVOIDANCE AND MITIGATION MEASURES

The following avoidance and mitigation measures are recommended in order to minimize, to the greatest extent possible, the potential impacts from the proposed development project on the local environment, including SAR identified as having a moderate potential to occur on-site.

- To protect roosting and foraging bats, tree removal and building demolition should take place outside of the spring and summer active season (typically May 1 to September 1), when bats are more likely to be using trees and buildings for daily roosting. If vegetation clearing must be conducted during the spring and summer timing window then a roost survey should be conducted be a qualified professional.
- Vegetation removal should occur outside the key breeding bird period (typically April 15 to August 15) as identified by Environment Canada for the protection of migratory birds and to avoid contravention of the Migratory Bird Convention Act. If vegetation clearing

activities must take place during the aforementioned timing window than a nest survey shall be conducted by a qualified professional.

- To protect trees identified to be retained during construction, the Critical Root Zone (CRZ) should be identified and fences. The CRZ is defined as 10 cm from the base of the tree for every centimetre in diameter of the tree trunk at breast height.
- To protect wildlife during construction, construction should be completed in accordance with the best practices outlined in Protocols for Wildlife Protection During Construction from the City of Ottawa (Ottawa, 2015).
- Perform daily pre-work sweeps of the construction area to ensure no species at risk are present and to remove any wildlife from inside the construction area.
- All on-site construction staff should undergo environmental awareness training, provided by a qualified professional to be able to identify the potential SAR that may occur on-site.
- Should any species at risk be discovered throughout the course of the proposed works, work should stop immediately, and the species at risk biologist with the local MECP district should be contacted for next steps. Construction may not resume until authorization is given by the MECP.

5.0 CLOSURE

This Species at Risk Assessment was completed based on our understanding of the project at the time of writing. The investigation undertaken by GEMTEC with respect to this report and any conclusions or recommendations made in this report reflect the best judgements of GEMTEC based on the site conditions observed during the investigations undertaken at the date(s) identified in the report and on the information available at the time the report was prepared.

This report has been prepared for the application noted and it is based, in part, on visual observations made at the site, all as described in the report. Unless otherwise stated, the findings contained in this report cannot be extrapolated or extended to previous or future site conditions or for portions of the site that were unavailable for direct investigation.

Should new information become available during future work or other studies, GEMTEC should be requested to review the information and, if necessary, re-assess the conclusions presented herein.

We trust this report provides sufficient information for your present purposes. If you have any questions concerning this report, please do not hesitate to contact our office.

Sincerely,

Taylor Warrington, B.Sc.
Biologist

Drew Paulusse, B.Sc.
Senior Biologist

6.0 REFERENCES

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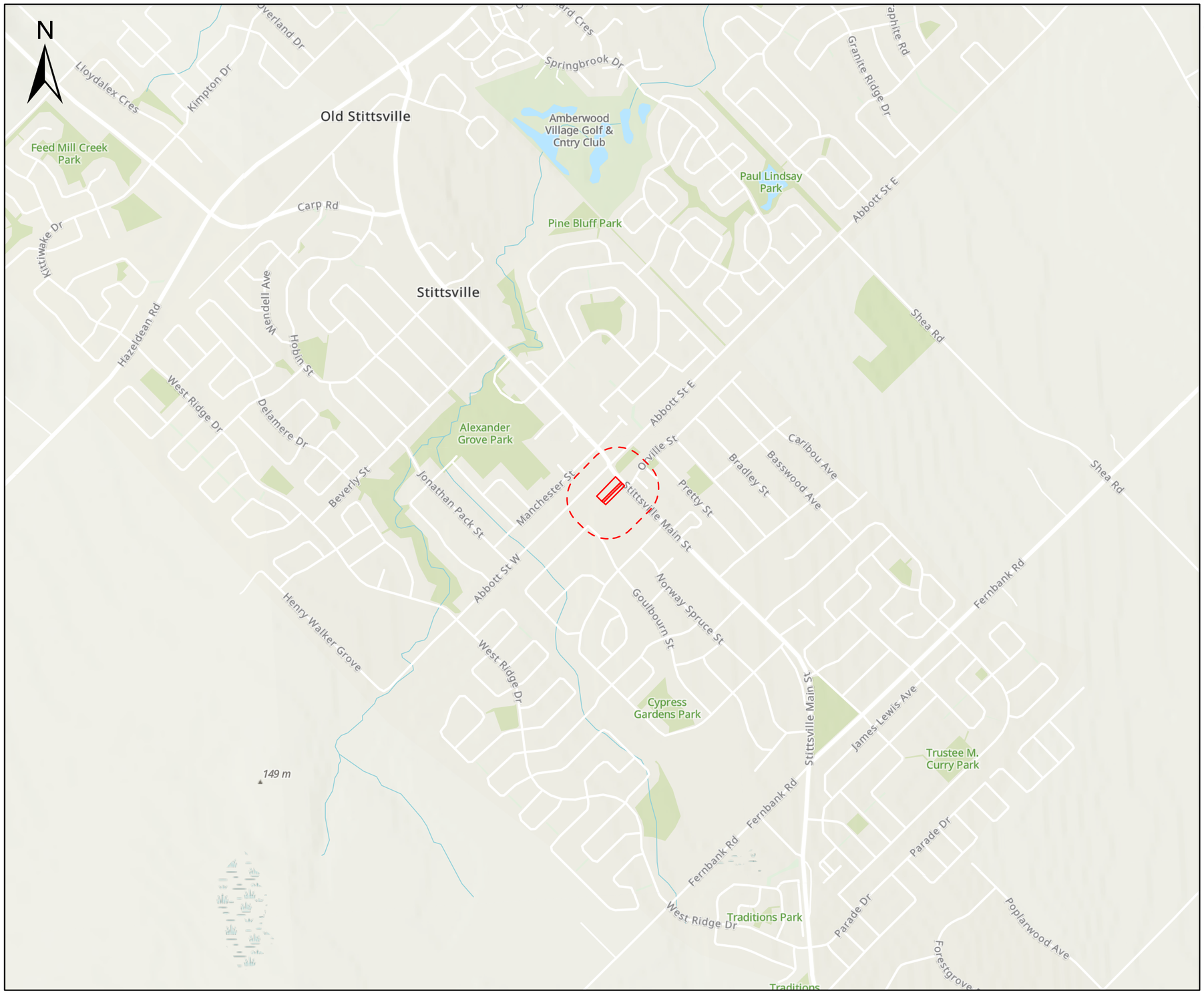
Ottawa, City of (Ottawa). 2015. City of Ottawa Protocol for Wildlife Protection During Construction. August 2015.

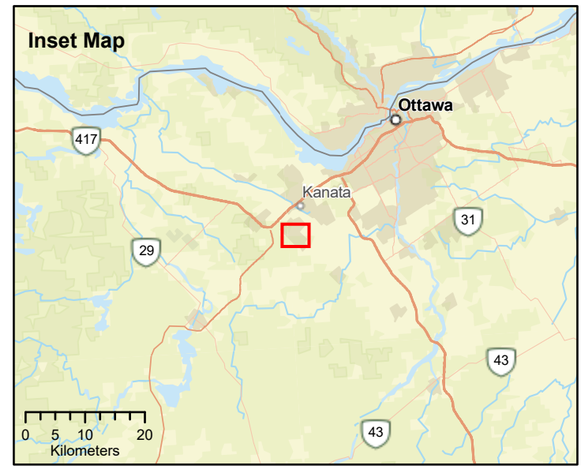
APPENDIX A

Report Figures
Figure A.1 – Site Location
Figure A.2 – Site Layout



Legend

- Study Area
- Property Boundary



Scale
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Client:	Project:
McIntosh Perry	65062.08

Location
1518-1526 Stitsville Main Street
Ottawa, Ontario

Drwn By:	Chkd By:	
TW	DP	Site Location

Date: August 2020	Rev.	
© Queen's Printer for Ontario	0	Figure: A.1

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Street Map: Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
World Topographic Map: Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Legend

- Study Area
- Property Boundary
- Proposed Building
- Proposed Parking and Driveway
- Proposed Patio
- Butternut (25 m radius)
- Radius

Scale
1:1,600
0 25 50 100 Meters

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McIntosh Perry	65062.08

Location
1518-1526 Stittsville Main Street
Ottawa, Ontario

Drwn By:	Chkd By:	
TW	DP	Site Layout

Date: August 2020	Rev.	
	0	Figure: A.2

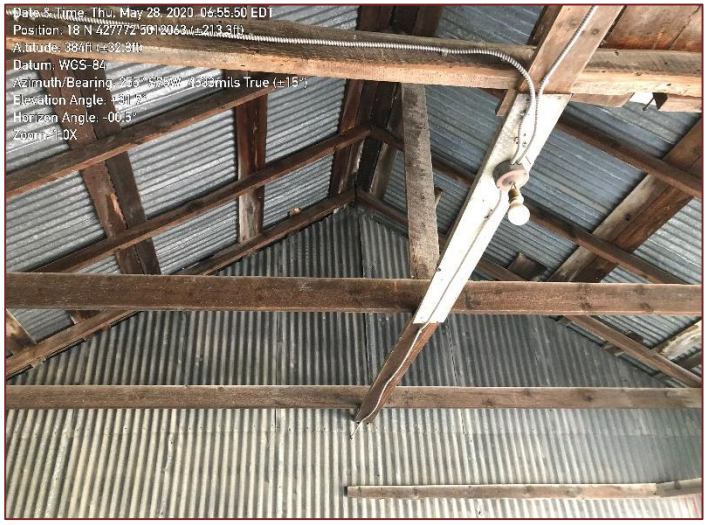
Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Imagery: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

APPENDIX B

Site Photographs

Site Photograph 1 – Existing Development on 1518 Stittsville Main Street

Site Photograph 2 – Existing Development on 1518 Stittsville Main Street



Site Photograph 3 – Inside Roof of Barn Structure

Site Photograph 4 – Inside Roof of Barn Structure

GEMTEC Consulting Engineers and Scientists	Project Scoped Environmental Impact Statement 1518-1526 Stittsville Main Street Ottawa, Ontario	**APPENDIX B**	**Site Photographs**
		File No. 65062.08	

Site Photograph 5 – Existing Vegetation on 1518 Stittsville Main Street

Site Photograph 6 – Hedgerow between 1518 and 1524 Stittsville Main Street

Site Photograph 7 – Hedgerow along 1518 Stittsville Main and Neighbouring Property

Site Photograph 8 – Hedgerow between 1518 and 1524 Sittsville Main Street

GEMTEC Consulting Engineers and Scientists	Project Scoped Environmental Impact Statement 1518-1526 Stittsville Main Street Ottawa, Ontario	**APPENDIX B**	**Site Photographs**
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Site Photograph 9 – Existing Vegetation on 1524 and 1526 Stittsville Main Street

Site Photograph 10 – Existing Vegetation on 1524 and 1526 Stittsville Main Street

Site Photograph 11 – Existing Vegetation non 1524 and 1526 Stittsville Main Street

Site Photograph 12 – Butternut Tree on Adjacent Property

GEMTEC Consulting Engineers and Scientists	Project Scoped Environmental Impact Statement 1518-1526 Stittsville Main Street Ottawa, Ontario	**APPENDIX B**	**Site Photographs**
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APPENDIX C

Butternut Health Assessment

Report to: McIntosh Perry
Project: 65062.08 (August 11, 2020)

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June 22, 2020 File: 65062.08

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K2E 8A5

Attention: Josh Laginski

Re: Butternut Health Assessment - Lyle Campbell
Township of Beckwith, Ontario

Mr. Laginski, please accept this letter and its enclosures as the Butternut Health Assessment completed in support of the proposed development for 1518 Stittsville Main Street in Stittsville, Ontario. A copy of this report has been submitted to the Ministry of Environment, Conservation and Parks through the centralized reporting centre via email (SAROntario@ontario.ca).

If following your review, you have any questions, comments or concerns, please do not hesitate to contact the undersigned.

Sincerely,

Drew Paulusse, B.Sc.,
Senior Biologist

Enclosures
Butternut Health Assessment Report
Field Datra Forms
Excel BHA Tree Analysis
Figure 1
Photolog

Ministry of Natural Resources and Forestry

Species At Risk
P.O. Box 7000, 300 Water Street
Peterborough ON K9J 8M5

Ministère des Richesses naturelles et des Forêts

Espèces en péril
C.P. 7000, 300, rue Water
Peterborough ON K9J 8M5

The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (ESA) from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: http://www.ontario.ca/environment-and-energy/butternut-trees-your-property.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local Ministry of Natural Resources and Forestry (MNRF) District Manager. Note that MNRF cannot accept photocopies or scanned electronic copies of the data forms.

Note regarding changes:

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNRF District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNRF may contact you for an opportunity to examine the trees. If MNRF chooses to examine the trees, a representative of MNRF will contact you using the information you supplied when you submitted the BHA Report.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the "Notice of Butternut Impact" form on the MNRF Registry **after the 30 day period has elapsed**.

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

Links:

Endangered Species Act, 2007:
http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):
http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

MNRF Office Locations:
https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices

Butternut Health Assessor's Report Number: ###-### (6 digits, to be assigned by BHA using format: 3 digit BHA ID#, followed by BHA's own 3 digit report numbering system)

Drew Paulusse, 691
32 Steacie Drive
Ottawa, Ontario
K2K 2A9
613-222-2592
drew.paulusse@gemtec.ca

Inverness Homes
38 Auriga Drive, Suite 200
Nepean, Ontario
K2E 8A5
613-818-5140

Site location: 1518 Stittsville Main Street, Stittsville, Ontario, K2S 1N9.

Date(s) of Butternut health assessment: June 9, 2020
Date BHA Report prepared: June 22, 2020

Map datum used: X NAD83 ☐ WGS84

Total number of trees assessed in this BHA Report: 2

The assessed trees were numbered on site using white tree marking paint. The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category[1] (1, 2, or 3[2])	dbh[3] (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown[4], killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
1	4120625, 5013403	1	26	N	Harmed	Potential interference with critical root zone.

[1] The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.
[2] Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.
[3] dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)
[4] In this column, "unknown" indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Tree #	UTM coordinates	Category[1] (1, 2, or 3[2])	dbh[3] (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown[4], killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
2	4120625, 5013403	1	20	N	Harmed	Potential interference with critical root zone.

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):

Table 3: Summary of Assessment Results

Result:	**Total #:**	**Important information for persons planning activities that may affect Butternut:**
Category 1	2	• A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. • Category 1 trees may be killed, harmed or taken **after** the 30 day period that follows submission of this BHA Report to the MNRF District Manager, unless the results of an MNRF examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the *Endangered Species Act, 2007*”.
Category 2	0	• A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. • During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. • Activities that may kill, harm or take up to a **maximum of ten (10)** Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		the conditions and requirements set out in the regulation. • Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm • Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.
Category 3	0	• A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered "archivable". • Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. • Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.
Cultivated	0	• An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. • Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNRF district office. • The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	• Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

Butternut Health Assessor's Comments:

Trees are located on the property and/or property line located to the north of the subject property (1518 Stittsville Main Street).

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies of the Excel data analysis spreadsheet.

ATTACHMENT A

Field Data Sheets

0cm 3cm 15cm

Butternut Data Collection Form 1 - 2010 Edition

Surveyor ID or BHA # 0691

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy) 22 - 06 - 2020

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact
First: DREW Last: PAULUSSE
Email: drew.paulussee@gemtec.ca
Telephone (613) 222-2592 Telephone Other ( ) - x

Property Owner (check if same as surveyor) ☐
First: Last:
or Company: INVERNESS HOMES
Email:
Telephone (613) 818-5140 Telephone Other ( ) - x

Property Owner's Mailing address
Address: 38 AURIGA DRIVE SUITE 200 Postal Code: K2E8A5 Prov.: ON
City: NEPEAN

Tree Location (if different from mailing address)
Address/(911#): 1518 St. Catherine Main St.
Township: Lot: Con:
City: St. Catharines

Directions:

☑ Yes ☐ No Can Share Location Information with other Butternut Recovery Organizations?
☑ Yes ☐ No Site visits OK? (prior arrangments will always be made for a site vist)

> (Greater than)
< (Less than)

Butternut Trees Tally by Diameter Class

(Do a dot tally in blank space; write total# in box for each)

Tree Condition	< 3 cm	3-15 cm	16-30cm	>30 cm
Vigorous: > 50% Live Crown Minor or no cankers			••	
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem				
Dead				

Historically, do some trees produce seeds? ☐ Y ☐ N ☑ Unkown

Estimated area containing butternut for properties > 1 acre (0.4 hectares): ☐ Acres ☐ Hectares

Overall Property Description (area(s) containing Butternut)
☐ Rolling Upland ☐ Bottomland
☐ Valley Slope ☐ Variable
☑ Tableland ☐ Unknown

Vegetation Community/ies
☐ Open ☑ Fencerow
☐ Shrubland ☐ Roadside
☐ DeciduousForest ☐ Quary
☐ ConiferForest ☐ UrbanYard
☐ MixedForest ☐ UrbanPark

Other

Soil Drainage
☐ Well Drained
☑ Moderately Drained
☐ Poorly Drained
☐ Unknown

Soil Texture
☐ Clay ☐ Sand
☐ Clay Loam ☐ Variable
☐ Loam ☐ Unknown
☑ Loamy Sand

Soil Depth
☑ > 1metre
☐ 30 - 99cm
☐ < 30cm
☐ Variable
☐ Unknown

Please enter matching numerical page link code on forms 1 and 2

Page Link: 501403

(Contact Information follows all applicable privacy policies and guidelines)

Please return forms to:
Forest Gene Conservation Association
Suite 233, 266 Charlotte St.
Peterborough, ON, K9J 2V4
www.fgca.net

49731

Butternut Data Collection FORM 2 (2010 Edition) (PLEASE USE BLOCK LETTERS)

Shaded fields are mandatory for Butternut Health Assessments

Fill when Form 1 indicates canker is well established. The information opn Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Site Code(A,B,...Z, AA...):

Surveyor ID or BHA #: 0691

Date (dd/mm/yyyy): 09 - 06 - 2020

Surveyor Last Name: PAULUSSE

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree #: 001 Zone: 18 Easting: 412062 Northing: 5013403

Crown Class: | Live Crown %: 80 | Main Stem Length(m) Below crown: 8

☐ Twig Dieback
☐ Branch Dieback
☒ Defoliation
☒ Discolouration

#Stems: 1 | DBH(cm): 26

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown: #Epic-Live: 3 | #Epic-Dead: 3 | Bark Type: / | # Callused Wounds: 3

	#Open	#Sooty
Root	1	6
=<2m	5	7
>2m	7	12

Metres from badly cankered tree: ☒ < 40 ☐ > 40 ☐ None Found

Competing Species: Norway maple; Manitoba maple; White Elm

Tree #: 002 Zone: 18 Easting: 412062 Northing: 5013403

Crown Class: | Live Crown %: 100 | Main Stem Length(m) Below crown: 14

☐ Twig Dieback
☒ Branch Dieback
☐ Defoliation
☐ Discolouration

#Stems: 1 | DBH(cm): 20

Butternut Origin: ☒ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☒ None

Assess below live crown: #Epic-Live: | #Epic-Dead: | Bark Type: | # Callused Wounds: 3

	#Open	#Sooty
Root	1	1
=<2m	5	11
>2m	1	3

Metres from badly cankered tree: ☒ < 40 ☐ > 40 ☐ None Found

Competing Species: Norway Maple; Manitoba Maple; White Elm

Tree #: Zone: 1 Easting: Northing:

Crown Class: | Live Crown %: | Main Stem Length(m) Below crown:

☐ Twig Dieback
☐ Branch Dieback
☐ Defoliation
☐ Discolouration

#Stems: | DBH(cm):

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown: #Epic-Live: | #Epic-Dead: | Bark Type: | # Callused Wounds:

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Tree #: Zone: 1 Easting: Northing:

Crown Class: | Live Crown %: | Main Stem Length(m) Below crown:

☐ Twig Dieback
☐ Branch Dieback
☐ Defoliation
☐ Discolouration

#Stems: | DBH(cm):

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown: #Epic-Live: | #Epic-Dead: | Bark Type: | # Callused Wounds:

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Tree #: Zone: 1 Easting: Northing:

Crown Class: | Live Crown %: | Main Stem Length(m) Below crown:

☐ Twig Dieback
☐ Branch Dieback
☐ Defoliation
☐ Discolouration

#Stems: | DBH(cm):

Butternut Origin: ☐ Natural ☐ Planted ☐ Unknown

Seed Signs: ☐ Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown: #Epic-Live: | #Epic-Dead: | Bark Type: | # Callused Wounds:

	#Open	#Sooty
Root		
=<2m		
>2m		

Metres from badly cankered tree: ☐ < 40 ☐ > 40 ☐ None Found

Competing Species:

Please enter matching page link code on forms 1 and 2

Page Link: 501403

(Contact Information follows all applicable privacy policies and guidelines)

Please return forms to:
Forest Gene Conservation Association
Suite 233, 266 Charlotte St.
Peterborough, ON, K9J 2V4
www.fgca.net

49731

ATTACHMENT B

Excel BHA Tree Analysis

BHA Tree Analysis (version: December 2013)

This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	005	Assessment Date(s)	09-Jun-20	Total # Butternut Trees in BHA Report	2
BHA ID #	691	BHA Name	Drew Paulusse		
Landowner / Client Name					
Property Location	1518 Stittsville Main Street, Stittsville, Ontario				

input field data										automatic calculations from field data						Categories: 1: non-retainable, 2: retainable, 3: archivable				
Tree #	Live Crown %	Tree dbh (cm)	# bole cankers: sooty (S) (will be assigned 2.5 cm per canker)		# bole cankers: open (O) (will be assigned 5 cm per canker)		# root flare (RF) cankers		<40 m from cankered tree? (Y or N)	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	LC% >/= 50 & BC% = 0	LC% >70 & BRC% <20	LC% >70 & BC% <20	Preliminary tree call	FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			S <2 m	S >2 m	O <2 m	O >2 m	RF S	RF O		Circ (cm)	BC (cm)	RC (cm)	BC%	RC%	BRC%					
1	80	26	7	12	5	7	6	1	Y	81.64	107.5	20.0	**131.7**	**24.5**	**78.1**	1	1	1	**1**	**1**
2	100	20	11	3	5	1	1	1	Y	62.8	65.0	7.5	**103.5**	**11.9**	**57.7**	1	1	1	**1**	**1**
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4										0	0.0	0.0	#####	#####	#####	####	###	###	##	#DIV/0!
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ATTACHMENT C

Figure 1 – Site Layout

Tree #1

Tree #2

APPENDIX D

CVs for Key Personnel

GEMTEC

Drew Paulusse, B.Sc.
Senior Biologist / Manager of Environmental Services

Mr. Paulusse has over 12 years of experience in the environmental consulting industry, providing private industry and municipal and federal government clients with cost effective solutions to manage environmental constraints associated with land development proposals and infrastructure projects. Mr. Paulusse's expertise, as it relates to land development proposals and infrastructure projects is field assessment and regulatory permitting associated with species at risk, fish habitat and wetlands.

Education

- B.Sc., Biology, Trent University, 2007
- Environmental Technician, Fleming College, 2004

Professional Experience

2018-date	**GEMTEC Consulting Engineers and Scientists Limited** *Manager of Environmental Services*	**Ottawa, Ontario**
2011-2018	**Geofirma Engineering Limited** *Senior Biologist*	**Ottawa, Ontario**
2007-2011	**INTERA Engineering Limited** *Biologist*	**Ottawa, Ontario**
2007	**Canadian Wildlife Service, Environment Canada** *Wetland Conservation Officer*	**Burlington, Ontario**
2005	**Centre for Inland Waters, Environment Canada** *Junior Marine Technologist*	**Burlington, Ontario**

Professional Affiliations and Technical Training

- Canadian Society of Environmental Biologists
- Ontario Association for Impact Assessment
- MTO/DFO/MNRF Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings. Ministry of Transportation. 2018
- Ontario Wetland Evaluation System Certification Course. Ministry of Natural Resources and Forestry. 2017
- Headwater Drainage Feature Assessment Training Course. Rideau Valley Conservation Authority. 2017

- Ecological Land Classification System Certification Course. Ministry of Natural Resources and Forestry. 2015
- Ontario Benthic Biomonitoring Network Certification Course. Ministry of Environment, Conservation and Parks. 2011

Project Highlights

- ***DFO Self-Assessment and Preparation of Tender Special Provisions, Osceola Culvert Replacement, County of Renfrew, Ontario (2019):*** Project manager and technical lead responsible for the evaluation of the significance of fish habitat and species at risk, and completion of a DFO self-assessment. Work included aquatic habitat assessments, pathway of effects evaluation, culvert design recommendations and reporting.
- ***Biological Inventory, Ontario Power Generation Incorporated, Bath, Ontario (2018):*** Project manager and technical lead responsible for conducting a three-season inventory of avian and amphibian species at the Lennox Provincially Significant Wetland. Work included conducting presence and abundance surveys following the Canadian Wildlife Service marsh monitoring protocol and Bird Studies Canada breeding bird surveys, statistical analysis of species data trends and reporting.
- ***Wetland Management Plan, Ontario Power Generation Incorporated, Bath, Ontario (2018):*** Project manager and technical lead responsible for the development of an adaptive wetland management plan for the Lennox Provincially Significant Wetland. Work included a synthesis of historical data, statistical analysis of data trends, vegetation assessment, air photo interpretation, development of short-term and long-term management objectives and development of a standardized monitoring program.
- ***Environmental Compliance Monitoring, Petrie Island Causeway Rehabilitation Project, Ottawa, Ontario (2018):*** Project manager and technical lead responsible for monitoring constructor compliance with various Department of Fisheries and Oceans, Ministry of Natural Resources and Conservation Authority permit conditions during the Petrie Island Causeway Rehabilitation Project within the Ottawa River. Work included species at risk surveys, fish salvage, exclusion fence inspection, monitoring of sediment and erosion control measures, turbidity monitoring, regulatory agency consultation and weekly reporting.
- ***Wetland Delineation and Wetland Function Assessment, National Capital Commission, Ottawa, Ontario (2018):*** Project manager and technical lead responsible for the delineation of wetland pockets within the LeBreton Flats Redevelopment Area and the assessment of wetland function for the purpose of evaluating compensation requirements. Work was completed following both the federal and provincial wetland evaluation frameworks.

- ***Environmental Impact Statement, Code Drive Development, Smiths Falls, Ontario (2018):*** Project manager and technical lead responsible for the completion of an Environmental Impact Statement in support of a severance application for the creation of eight residential lots within a significant woodland and adjacent to a large local wetland. Work included targeted surveys for species at risk, breeding amphibians and marsh birds, impact assessment, development of lot-specific mitigation measures and agency consultations.
- ***Tree Conservation Report, Royal LePage Team Realty, Ottawa, Ontario (2018):*** Mr. Paulusse completed an inventory of all trees located on an urban commercial lot for the purpose of identify significant retainable trees and trees in conflict with the proposed site redevelopment. Work included, site inventory, tree removal permit preparation and reporting.
- ***Environmental Compliance Monitoring, Airport Parkway Culvert Rehabilitation Project, Ottawa, Ontario (2018):*** Project manager and technical lead responsible for monitoring constructor compliance with Ministry of Natural Resources and Conservation Authority permit conditions. Work included species at risk surveys, exclusion fence inspection, monitoring of sediment and erosion control measures and weekly reporting.
- ***Tier I and II Natural Environment Report, Crain's Construction, Ottawa, Ontario (2018):*** Project manager and technical lead responsible for completing an inventory of site flora and fauna, completion of species at risk surveys, regulatory agency consultation, impact assessment and reporting.
- ***Species at Risk Assessment, National Capital Commission, Gatineau, Quebec (2018):*** Project manager responsible for the completion of avian species at risk surveys to determine the presence or absence of chimney swift and barn swallows at a contaminated site. Work was undertaken to support an Ecological Risk Assessment.
- ***Fish Habitat Assessment, Various Culvert Replacements, Ottawa, Ontario (2018):*** Project manager and technical lead responsible for the evaluation of the significance of fish habitat at three culvert crossings in rural Ottawa. Work included aquatic habitat assessments, pathway of effects evaluation, culvert design recommendations and reporting.
- ***Environment Effects Evaluation Assessment, Britannia Wall Rehabilitation Project, Ottawa, Ontario (2018):*** Project manager and technical lead responsible for completing a comprehensive tree inventory, wetland boundary delineation, significant wildlife habitat assessment and evaluation of effects associated with the rehabilitation of the Britannia Wall, a 600-metre-long community flood protection structure.
- ***Environmental Compliance Monitoring, Petrie Island Beach Head Rehabilitation Project, Ottawa, Ontario (2018):*** Project manager and technical lead responsible for monitoring constructor compliance with various Department of Fisheries and Oceans, Ministry of Natural Resources and Conservation Authority permit conditions during the Petrie Island

Beach Head Rehabilitation Project within the Ottawa River. Work included species at risk surveys, exclusion fence inspection, monitoring of sediment and erosion control measures, and reporting.

- ***Provincially Significant Wetland Boundary Evaluation and Mitigation Plan, Town and County Chrysler, Smiths Falls, Ontario (2018):*** Project manager and technical lead responsible for revising the wetland boundary associated with a provincially significant wetland and development of a mitigation plan to enable the redevelopment of an adjacent commercial lot. Work included wetland vegetation delineation, regulatory technical document submissions, agency consultations, mitigation measure development and reporting.
- ***Environmental Impact Statement and Headwater Drainage Feature Assessment, Swank Construction Limited, Morrisburg, Ontario (2017-2018):*** Project manager and technical lead responsible for the completion of an Environmental Impact Statement with Headwater Drainage Feature Assessment for a 100-lot residential subdivision. Work included ecological land classification, breeding bird surveys, impact assessment and a three season assessment of hydrological conditions and their contributions to downstream fish habitat.
- ***Natural Heritage Inventory and Environmental Impact Assessment, Combermere Lodge Limited, Barry's Bay, Ontario (2017-2018):*** Project manager and technical lead responsible for the completion of a Natural Heritage Inventory and Environmental Impact Assessment completed in support of a 54-lot condominium development located in an environmentally sensitive area. Work included wetland boundary delineation, identification of significant wildlife habitat, application of the significant wildlife habitat mitigation support tool, completion of a two-year survey of site flora and fauna, impact assessment and town hall presentations.
- ***Lake Capacity Assessment, Combermere Lodge Limited, Barry's Bay, Ontario (2017-2018):*** Project manager and technical lead responsible for the predictive assessment of septic effluent impacts relating to the operation of a 54-lot condominium development on three adjacent waterbodies. Work included limnological investigations over two seasons, application of the provincial lakeshore capacity model, hydrogeological investigations, mass flux analysis, mitigation measure development and reporting.
- ***Detailed Quantitative Ecological Risk Assessment, National Capital Commission, Gatineau, Quebec (2016 to 2018):*** Project manager and technical lead for the completion of a Detailed Quantitative Ecological Risk Assessment completed for a former landfill property located adjacent to the Ottawa River. Work included aquatic habitat assessment, benthic community characterization, species at risk surveys, terrestrial wildlife surveys and analysis of site-specific aquatic toxicity data.
- ***Environmental Compliance Monitoring, Carp Snow Dump, Ottawa, Ontario (2017):*** Project manager and technical lead responsible for monitoring constructor compliance with a Ministry of Natural Resources overall benefit permit for blanding's turtle associated with the

construction of the Carp Snow Dump. Work included weekly exclusion fence inspection and weekly reporting to the contract administrator.

- ***Fish Habitat Assessment, Little Bark Bay Properties, Barry's Bay, Ontario (2017):*** Project manager and technical lead responsible for the identification and evaluation of significance of fish habitat within and adjacent to a proposed plan of subdivision. Work included aquatic habitat assessments, pathway of effects evaluation, application of the Department of Fisheries and Oceans self-assessment process and reporting.
- ***Species at Risk and Migratory Bird Screening Assessment, City of Ottawa, New Edinburg Park Redevelopment Project, Ottawa, Ontario (2017):*** Project manager and technical lead responsible for the completion of a species at risk and migratory bird screening assessment to assist in bid tender package preparation for the re-development of New Edinburg Park. Work included a general habitat assessment, a probability of occurrence assessment, follow-up pre-construction surveys and reporting.
- ***Fish Habitat Assessment, Highway 417 Culvert Replacement Project, Ottawa, Ontario (2017):*** Project manager and technical lead responsible for the evaluation of the significance of fish habitat at two culvert crossings Ottawa. Work included aquatic habitat assessments, pathway of effects evaluation, application of the Department of Fisheries and Oceans self-assessment process and reporting.
- ***Fish Habitat and Headwater Drainage Feature Assessment, Private Landowner, Ottawa, Ontario (2017):*** Project manager and technical lead responsible for the completion of a two-season hydrological assessment of on-site water courses and assessment of fish habitat. Work completed in support of a permit required to develop an unopened road allowance.
- ***Environmental Impact Statement and Wetland Boundary Assessment, Town and Country RV, Perth, Ontario (2016-2017):*** Project manager and technical lead responsible for delineation of a provincially significant wetland and impact assessment associated with the expansion of an existing commercial enterprise. Work included ecological land classification, identification of significant wildlife habitat, species at risk surveys, wetland vegetation assessment, impact assessment and development of site-specific mitigation measures.
- ***Environmental Impact Statement, Blueberry Creek Veterinary Clinic, Perth, Ontario (2016):*** Project manager and technical lead responsible for delineation of a provincially significant wetland and impact assessment associated with the development of a commercial lot. Work included ecological land classification, identification of significant wildlife habitat, species at risk surveys, wetland vegetation assessment, impact assessment and development of site-specific mitigation measures.

GEMTEC

Taylor Warrington, B.Sc.
Biologist

Ms. Warrington has 4 years of experience in the environmental consulting industry, providing private industry and municipal and federal government clients with cost effective solutions to manage environmental constraints associated with land development proposals and infrastructure projects.

Education

- B.Sc., Life Sciences, McMaster University, 2015
- Graduate Certificate, Ecosystem Restoration, Niagara College, 2016

Professional Experience

2020-date	**GEMTEC Consulting Engineers and Scientists Limited** *Biologist*	**Ottawa, Ontario**
2019-2020	**GEMTEC Consulting Engineers and Scientists Limited** *Junior Biologist*	**Ottawa, Ontario**
2017-2019	**Geofirma Engineering Limited** *Junior Biologist/Scientist*	**Ottawa, Ontario**
2016	**Dillon Consulting** *Junior Field Biologist*	**Little Current, Ontario**
2014	**McMaster University** *Laboratory-Research Assistant; URBAN Project Coordinator*	**Hamilton, Ontario**

Professional Affiliations and Technical Training

- Ottawa Conservation Partners Workshop: How to Prepare and Environmental Impact Statement. 2020.
- Class 2 Backpack Electrofishing Crew Leader Certification Course. June, 2019.
- Ontario Reptile and Amphibian Survey Course. Blazing Star Environmental, Natural Resource Solutions Inc., and Ontario Nature. 2018
- Ontario Benthic Biomonitoring Network Certification Course. Ministry of Environment, Conservation and Parks. 2016

Project Highlights

- ***Tier I and II Natural Environment Report, Crain's Construction, Lanark County, Ontario.*** Biologist responsible for completing on-going surveys in support of a proposed

quarry application. Surveys include winter mammal and ungulate use surveys, bat maternity roost surveys, ecological land classification, breeding bird surveys, turtle basking surveys, amphibian breeding surveys and targeted species at risk surveys for American ginseng and eastern whip-poor-will.

- ***Botanical Surveys, Ontario Power Generation Incorporated, Hydroelectric Generating Stations throughout Central and Eastern Ontario.*** Biologist responsible for completing on-going botanical surveys at 12 hydroelectric generating stations to update existing records. Botanical surveys will include a combination of field survey protocols including random meander, transects and quadrant sampling methods to identify vascular plant species present at each site.
- ***Foresters Falls Dam Removal, Renfrew County, Ontario.*** Biologist responsible for conducting a species at risk screening assessment to identify the presence of species at risk within the project area and evaluate the potential impacts on SAR and their habitat if the dam is removed. On-going surveys including targeted turtle basking surveys, and terrestrial wildlife and vegetation surveys.
- ***Environmental Impact Statement, Subdivision Development, Lanark County, Ontario.*** Biologist responsible for the completion of an Environmental Impact Statement for a proposed 25-lot subdivision application. Work included ecological land classification surveys, targeted surveys for species at risk, breeding amphibians and birds, basking turtle surveys, bat maternity roost surveys, headwater drainage feature assessment, butternut health assessment, impact assessment, development of lot-specific mitigation measures and agency consultation.
- ***Wetland Evaluation and Significant Wildlife Habitat Surveys, Ontario Power Generation Incorporated, Bath, Ontario (2019).*** Biologist responsible for conducting a wetland evaluation and significant wildlife habitat surveys at the Lennox Provincially Significant Wetland. Work included conducting turtle basking surveys, reptile hibernacula surveys, targeting species at risk surveys for Least Bittern and a wetland evaluation following the MNRF's Ontario Wetland Evaluation System.
- ***Environmental Impact Statement, Proposed Subdivision Development, Hawksbury, Ontario (2019).*** Biologist responsible for the completion of an Environmental Impact Statement in support of a proposed 272-lot subdivision application. Work included ecological land classification surveys, targeted surveys for breeding birds, bat maternity roost surveys, headwater drainage feature assessment, impact assessment and development of lot-specific mitigation measures.
- ***Surface Water Impact Assessment, Green Lake Development, Barry's Bay, Ontario (2019):*** Biologist responsible for the completion of a surface water impact assessment supporting two residential lot severances. Work included a review of existing data on Green

Lake, application of the provincial lakeshore capacity model, mitigation measure development and reporting.

- ***Biological Inventory, Ontario Power Generation Incorporated, Bath, Ontario (2018):*** Field Biologist responsible for conducting a three-season inventory of avian and amphibian species at the Lennox Provincially Significant Wetland. Work included conducting presence and abundance surveys following the Canadian Wildlife Service marsh monitoring protocol and Bird Studies Canada breeding bird surveys, statistical analysis of species data trends and reporting.
- ***Environmental Compliance Monitoring, Petrie Island Causeway Rehabilitation Project, Ottawa, Ontario (2018):*** Field biologist responsible for monitoring constructor compliance with various Department of Fisheries and Oceans, Ministry of Natural Resources and Conservation Authority permit conditions during the Petrie Island Causeway Rehabilitation Project within the Ottawa River. Work included species at risk surveys, fish salvage, exclusion fence inspection, monitoring of sediment and erosion control measures, turbidity monitoring, regulatory agency consultation and weekly reporting.
- ***Environmental Impact Statement, Code Drive Development, Smiths Falls, Ontario (2018):*** Field Biologist responsible for the completion of an Environmental Impact Statement in support of a severance application for the creation of eight residential lots within a significant woodland and adjacent to a large local wetland. Work included targeted surveys for species at risk, breeding amphibians and marsh birds, impact assessment, development of lot-specific mitigation measures and agency consultations.
- ***Tier I and II Natural Environment Report, Crain's Construction, Ottawa, Ontario (2018):*** Field biologist responsible for completing an inventory of site flora and fauna, completion of species at risk surveys, bat exit surveys, regulatory agency consultation, impact assessment and reporting.
- ***Species at Risk Assessment, National Capital Commission, Gatineau, Quebec (2018):*** Field biologist responsible for the completion of avian species at risk surveys to determine the presence or absence of chimney swift and barn swallows at a contaminated site. Work was undertaken to support an Ecological Risk Assessment.
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- ***Environmental Compliance Monitoring, Petrie Island Beach Head Rehabilitation Project, Ottawa, Ontario (2018):*** Field biologist responsible for monitoring constructor

compliance with various Department of Fisheries and Oceans, Ministry of Natural Resources and Conservation Authority permit conditions during the Petrie Island Beach Head Rehabilitation Project within the Ottawa River. Work included species at risk surveys, exclusion fence inspection, monitoring of sediment and erosion control measures, and reporting.

- ***Natural Heritage Inventory and Environmental Impact Assessment, Combermere Lodge Limited, Barry's Bay, Ontario (2017-2018):*** Field biologist responsible for the completion of a Natural Heritage Inventory and Environmental Impact Assessment completed in support of a 54-lot condominium development located in an environmentally sensitive area. Work included wetland boundary delineation, identification of significant wildlife habitat, application of the significant wildlife habitat mitigation support tool, completion of a two-year survey of site flora and fauna, and impact assessments.
- ***Species at Risk and Migratory Bird Screening Assessment, City of Ottawa, New Edinburg Park Redevelopment Project, Ottawa, Ontario (2017):*** Field biologist responsible for the completion of a species at risk and migratory bird screening assessment to assist in bid tender package preparation for the re-development of New Edinburg Park. Work included a general habitat assessment, a probability of occurrence assessment, follow-up pre-construction surveys and reporting.
- ***Post-Construction Windfarm Monitoring for Wildlife Impacts, Little Current, Ontario (2016):*** Field biologist responsible for the completion of post-construction monitoring of a windfarm for avian and mammalian fatalities. Work included fatality surveys, vegetation surveys, and wildlife scavenger surveys.
- ***Long-term Changes in Ecosystem Health, Frenchman's Bay, Pickering, Ontario (2015):*** Field biologist responsible for evaluating the long-term changes in ecosystem health of Frenchman's Bay. Work included: data review, analysis of data trends, watershed and land-use mapping, digitization of wetland vegetation cover and analysis of changes over time, reporting and symposium presentation.

experience • knowledge • integrity

civil	civil
geotechnical	géotechnique
environmental	environnementale
field services	surveillance de chantier
materials testing	service de laboratoire des matériaux

expérience • connaissance • intégrité