

415 LEGGET DRIVE AND 2700 SOLANDT ROAD

NATURAL HERITAGE SCREENING AND EXISTING CONDITIONS REPORT

ACCESS PROPERTY DEVELOPMENT

PROJECT NO.: 219-00058-04 DATE: OCTOBER 22, 2021

WSP SUITE 300 2611 QUEENSVIEW DRIVE OTTAWA, ON, CANADA K2B 8K2

T: +1 613 829-2800 F: +1 613 829-8299 WSP.COM

REVISION HISTORY

FIRST ISSUE

| October 21, 2021 | | | |
|-----------------------------------------------|-------------|-------------|--|
| Prepared by | Reviewed by | Approved By | |
| Andrea Orr, B.Sc. Ecology - Environment | | | |

SIGNATURES

| PREPARED BY | | |
|--------------------|------------------|--|
| Andrea Ola | October 21, 2021 | |
| Andrea Orr, B.Sc. | Date | |
| | | |
| | | |
| APPROVED BY | | |
| APPROVED BY | | |
| | | |
| Alex Zeller, M.Sc. | | |

WSP prepared this report solely for the use of the intended recipient, ACCESS PROPERTY DEVELOPMENT, in accordance with the professional services agreement. The intended recipient is solely responsible for the disclosure of any information contained in this report. The content and opinions contained in the present report are based on the observations and/or information available to WSP at the time of preparation. If a third party makes use of, relies on, or makes decisions in accordance with this report, said third party is solely responsible for such use, reliance or decisions. WSP does not accept responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken by said third party based on this report. This limitations statement is considered an integral part of this report.

The original of this digital file will be conserved by WSP for a period of not less than 10 years. As the digital file transmitted to the intended recipient is no longer under the control of WSP, its integrity cannot be assured. As such, WSP does not guarantee any modifications made to this digital file subsequent to its transmission to the intended recipient.

| 1 | INTRODUCTION | 1 |
|-------|------------------------------------------------------------------|----|
| 1.1 | PURPOSE | 1 |
| 1.2 | SCOPE | 1 |
| 1.3 | PROPERTY INFORMATION | 3 |
| 1.4 | STUDY APPROACH | 3 |
| 2 | POLICY FRAMEWORK | 5 |
| 3 | METHODOLOGY | 7 |
| 3.1 | BACKGROUND RECORDS REVIEW | 7 |
| 3.2 | ECOLOGICAL FIELD SURVEY | 7 |
| 3.2.1 | Vegetation Communities | 7 |
| 3.2.2 | Significant Wildlife Habitat | 7 |
| 3.3 | SPECIES AT RISK SCREENING AND RISK ASSESSMENT | 8 |
| 3.3.1 | Species at Risk Legislation and Habitat Risk Assessment Criteria | a8 |
| 4 | RESULTS | 10 |
| 4.1 | BACKGROUND RECORDS REVIEW | 10 |
| 4.1.1 | Aquatic Environment | 10 |
| 4.1.2 | Natural Heritage Features | 10 |
| 4.1.3 | Species at Risk Records | 10 |
| 4.2 | ECOLOGICAL FIELD SURVEY RESULTS | 11 |
| 4.2.1 | Vegetation Communities | 11 |
| 4.2.2 | Wildlife and Wildlife Habitat | 12 |
| 4.2.3 | Species at Risk Screening and Risk Assessment | 12 |
| 5 | MITIGATION MEASURES | 14 |
| 5.1 | AQUATIC ENVIRONMENT | 14 |
| 5.2 | NATURAL HERITAGE FEATURES | 17 |
| 5.2.1 | Vegetation Communities Mitigation Measures | 17 |
| 5.2.2 | Wildlife and Wildlife Habitat Mitigation Measures | 17 |
| 5.2.3 | Species at Risk Impact Avoidance Measures | 17 |



| 6 | CONCLUSION AND NEXT STEPS19 |
|---|-----------------------------|
| 7 | REFERENCES20 |



TABLES

TABLE 1 POLICIES, LEGISLATION AND
BACKGROUND SOURCES......5
TABLE 2 SAR RECORDS FOR THE 415
LEGGET DRIVE & 2700 SOLANDT
ROAD PROJECT STUDY AREA10

FIGURES

FIGURE 1 PROJECT STUDY AREA......2
FIGURE 2 NATURAL HERITAGE FEATURES
WITHIN THE STUDY AREA......13
FIGURE 3 PROJECT SITE PLAN16

APPENDICES

A SPECIES AT RISK SCREENING AND RISK ASSESSMENT

B PHOTOGRAPHIC RECORD

1 INTRODUCTION

1.1 PURPOSE

WSP was retained by Access Property Development Inc. (APD) to prepare a Planning Rationale and Design Brief (the "Report") in support of a Site Plan Control application for the properties municipally known as 415 Legget Drive and 2700 Solandt Road ("the site"), in the City of Ottawa.

There is an existing 18,084.7 m² (194,662 ft²) two-storey flex/office building at 415 Legget Drive. Existing parking for the existing building is located at the north and east sides of the site. There is an existing stormwater pond at the northeast corner of the site. The redevelopment of the site is split into two (2) phases. Phase 1 includes the change of use from existing office and manufacturing occupancy building to 2-storey self storage and single-storey high bay warehousing occupancy. A partial removal of the second storey is proposed which will reduce the overall Gross Floor Area (GFA) of the building to approximately 14,347 m².

The proposed development for Phase 2 consists of two (2) one-storey, storage warehouse buildings, with a proposed total GFA of approximately $18,580 \text{ m}^2$ ($199,993.4 \text{ ft}^2$), to be located on existing parking areas north and east of the existing building at 415 Legget Drive. The two (2) warehouse buildings are proposed to contain light industrial warehousing and ancillary office uses. Phase 2 of the project will require Site Plan approval.

A natural heritage screening and existing conditions for the 415 Legget Drive and Solandt Road Project (herein known as "the Project") in Kanata, Ontario (**Figure 1**) has been conducted. The Study Area is located within the municipality of the City of Ottawa.

The purpose of this document is to assist APD in managing the environmental risks associated with the proposed Project by conducting a natural heritage background review of sensitive environmental features, wildlife and wildlife habitat, and Species at Risk (SAR) that may be present within the Study Area.

For this report, the Study Area includes the area within 120 m of the Project footprint to account for policy recommendations and setback distances outlined in the *Provincial Policy Statement* (PPS, 2020) and the accompanying *Natural Heritage Reference Manual* (MNR, 2010).

1.2 SCOPE

The main objective of the ecological assessment was to complete a baseline/preliminary evaluation. A detailed ecological assessment could not be performed due to the seasonal constraints at the time of assessment (i.e. Fall). The ecological assessment included; vegetation community identification, wildlife habitat assessment, and Species at Risk (SAR) screening within the Project Study Area to determine if the Project has the potential to adversely impact wildlife/SAR associated with the proposed works. Based on results and impact assessment, recommended mitigation measures have also been proposed. To determine the ecological risks of the Project, three components were adopted. They include:

- A desktop background review of available online biodiversity databases to determine which wildlife/SAR has a
 record/likelihood of occurrence within the Study Area, as well as any significant natural heritage features;
- An ecological field survey to confirm the presence or absence of wildlife/SAR habitat and record any direct observations of wildlife within the Project Study Area;
- Based on field survey results and a habitat suitability analysis, a risk level (High, Medium, Low) will be assigned for each SAR with the potential to conflict with construction activities.

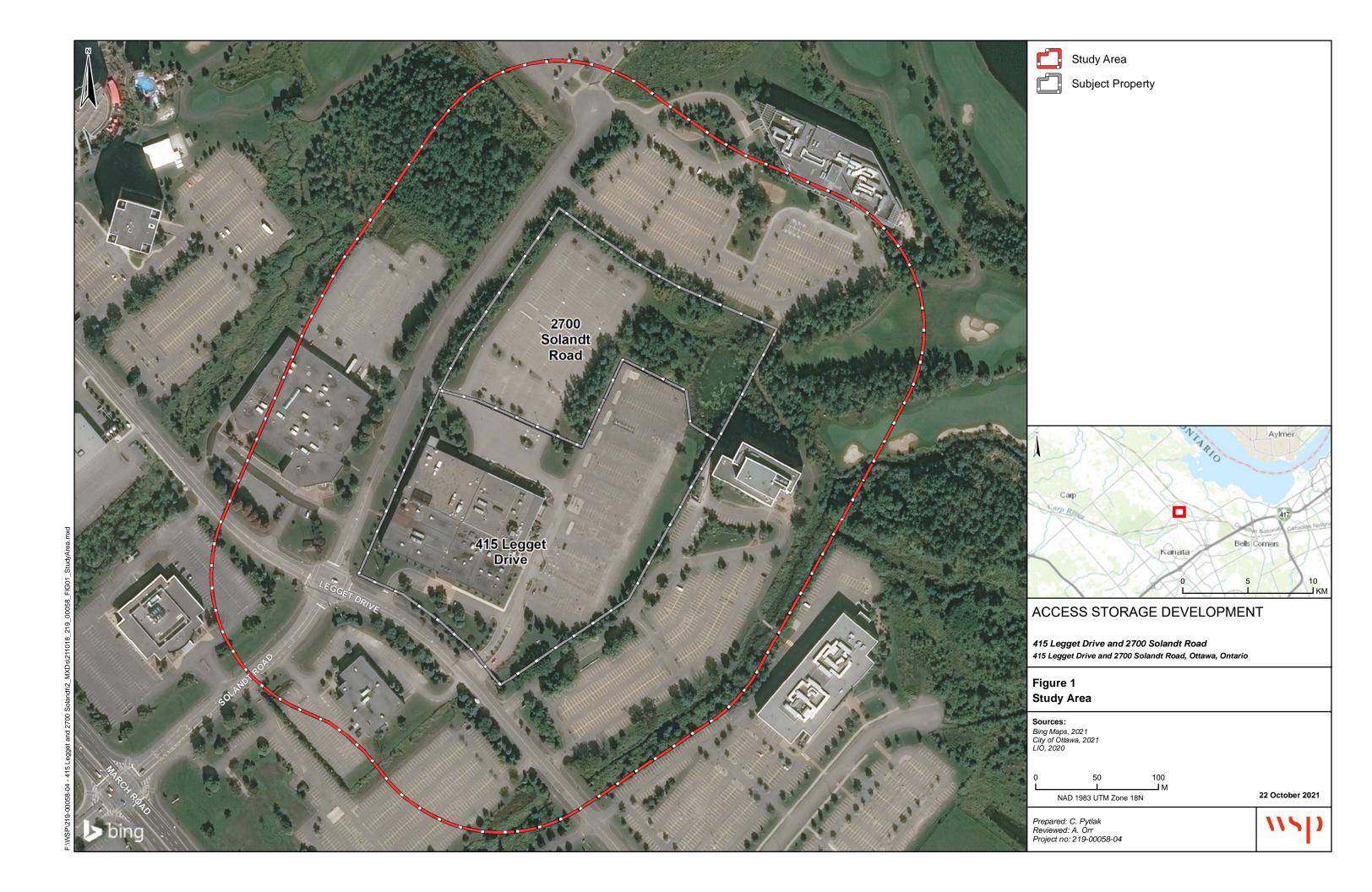
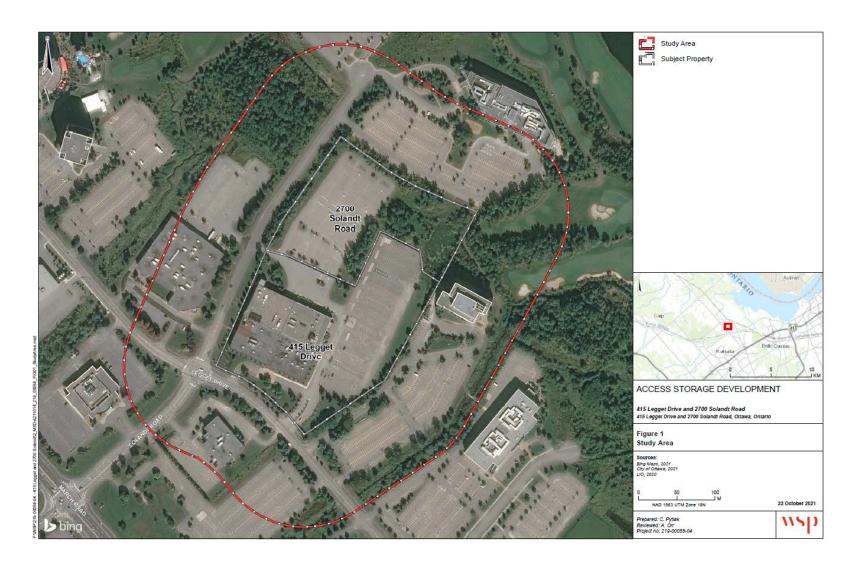


Figure 1 Project Study Area



1.3 PROPERTY INFORMATION

| Owner: | Access Property Development |
|-------------------------------------------|---------------------------------------------------------------|
| Address: | 415 Legget Drive and 2700 Solandt Road, Kanata, Ontario |
| Lot and concession: | Lot 8, Concession 4 |
| Property Identification Number(s): | 061430081620964 |
| Zoning: | Area C - Suburban IP6 Subzone – Kanata North Business Park |
| Official Plan designation (Schedule B): | Urban Employment Area |
| Existing Land Uses: | Industrial |

1.4 STUDY APPROACH

The following approach has been developed to provide a clear methodological direction towards characterizing the natural environment and assessing the potential for significant species and habitats within the Study Area.

Policy Framework: This section outlines the policies and legislation that apply to the protection of

natural heritage features within the Study Area as it relates to the Project.

Natural Heritage Screening: This section provides detailed background information collected from a variety

of publicly accessible resource databases to describe the natural heritage

features and significant features that may occur within the Study Area.

Methodology: This section provides a summary of the specific protocols and methods used to

evaluate potential natural heritage features and species identified within the

natural heritage screening.

Survey Results: This section provides the results from the field surveys. This also includes any

incidental observations or notable observations made by the field biologists.

Impact Assessment and

Mitigation:

This section provides the assessment of potential environmental impacts associated with the Project on the natural heritage system, including the natural

heritage features and species surveyed in this study.

The mitigation measures proposed in this section are aimed at reducing or eliminating potential impacts on natural heritage features. Where mitigation

may not be possible, compensation may be proposed.

This section will also identify any future permitting or agency authorizations

that may be required before the Project may proceed.

Summary and Conclusions: This section provides a summary of the Study's findings, outlines ay notable provisions, and provides WSP's general recommendations.

2 POLICY FRAMEWORK

This study references the regulatory agencies and legislative authorities mandated to protect different elements of natural heritage features and SAR within Ontario and Canada. **Table 1** provides a list of the policies and legislation that apply to the protection of natural heritage features and SAR within Ontario and Canada.

Table 1 Policies, Legislation and Background Sources

| Policy/Regulations | Reference Materials and Supporting Documents | | | | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| Feder | ral Government of Canada | | | | | |
| Migratory Birds Convention Act (MBCA) (1994) (S.C. 1994, c. 22) | Environment and Climate Change Canada – online resources | | | | | |
| Species at Risk Act (SARA) (2002) (S.C., 2002, c. 29) | Federal Species at Risk Public Registry | | | | | |
| Fisheries Act (1985) (R.S.C., 1985, c. F-14) | Fisheries and Oceans Canada (DFO) – online resources | | | | | |
| | Province of Ontario | | | | | |
| Provincial Policy Statement (PPS) (2020), under Planning Act, R.S.O. (1990) c. P.13 | Ministry of Natural Resources and Forestry (MNRF) – Kemptville District | | | | | |
| | MNRF Natural Heritage Information Centre (NHIC) – Online [Accessed: 2021/10/21] | | | | | |
| | SAR and Species of Conservation Concern | | | | | |
| | Natural Heritage Features | | | | | |
| | Natural Heritage Reference Manual (MNRF, 2010) | | | | | |
| | MNRF Significant Wildlife Habitat Technical Guide (MNRF, 2000) | | | | | |
| | Significant Wildlife Habitat Eco-region 6E Criterion Schedules (MNRF, 2016) | | | | | |
| Endangered Species Act (ESA) (2007) (S.O. 2007, c. 6) | Ministry of the Environment, Conservation and Parks (MECP) Species at Risk in Ontario (SARO) List (O.Reg. 230/08) | | | | | |
| | MNRF NHIC - Online [Accessed: 2021/10/21] | | | | | |
| | Species at Risk occurrence records | | | | | |
| | Ontario Breeding Bird Atlas (OBBA) – Online [Accessed: 2021/10/21] | | | | | |
| | Ontario Reptile and Amphibian Atlas – Online [Accessed: 2021/10/21] | | | | | |
| | Atlas of the Mammals of Ontario (Dobbyn, 1994) | | | | | |
| | lley Conservation Authority (MVCA) | | | | | |
| Mississippi Valley Conservation | MVCA Regulations Mapping – Online [Accessed: 2021/10/21] | | | | | |
| Authority: Regulation of Development, | | | | | | |
| Interference with Wetlands and | | | | | | |
| Alterations to Shorelines and | | | | | | |
| Watercourses (O. Reg. 175/06), under | | | | | | |
| Conservation Authorities Act, (R.S.O. | | | | | | |
| 1990, c. C.27) | | | | | | |
| City of Ottawa | | | | | | |

| Policy/Regulations | Reference Materials and Supporting Documents | | | | | |
|-------------------------------------|------------------------------------------------------------------|--|--|--|--|--|
| City of Ottawa Official Plan (2003) | Official Plan; Schedules B (Urban Policy Plan), K (Environmental | | | | | |
| | Constraints), and L3 (Natural Heritage System Overlay (West) – | | | | | |
| | Online [Accessed: 2021/10/21] | | | | | |
| | Environmental Impact Statement Guidelines (2015a) | | | | | |
| | City of Ottawa Tree Conservation Report Guidelines (2019a) | | | | | |
| | Site Alteration By-Law (2018) | | | | | |
| | Protocol for Wildlife Protection During Construction (2015b) | | | | | |

3 METHODOLOGY

3.1 BACKGROUND RECORDS REVIEW

Background data was collected and reviewed to identify natural heritage features and SAR with occurrence records within the Study Area. Publicly available databases (**Table 1**) were consulted to develop a list of SAR that have a record within a 1 km² or 10 km² grid (dependent on the database being consulted) encompassing the Project area.

Documents and/or online publicly available databases mentioned in **Table 1** were searched for the presence or absence of the following:

- Aquatic Environment
- Natural Heritage Features
 - Provincially Significant Wetlands (PSW)
 - Significant Woodlands
 - Significant Valleylands
 - Areas of Natural and Scientific Interest (ANSI)
 - Significant Wildlife Habitat (SWH)
 - Fish Habitat
- Species at Risk and Species at Risk Habitat

3.2 ECOLOGICAL FIELD SURVEY

A visual search of the Project Study Area was completed with special attention paid to vegetation communities, plant species readily identifiable during the fall season, stick nests, turtle basking, and other wildlife habitat characteristics.

3.2.1 VEGETATION COMMUNITIES

Vegetation communities within the Study Area were characterized at a high-level by identifying the dominance of canopy tree species using the ELC system for southern Ontario (Lee, et al., 1998).

3.2.2 SIGNIFICANT WILDLIFE HABITAT

The MNRF has identified four categories of SWH within the SWH Criteria Schedules for Ecoregion 6E (MNRF, 2015b). They include:

- Seasonal Concentration Areas of Animals
- Rare Vegetation Communities or Specialized Habitat for Wildlife
- Habitat for Species of Conservation Concern (excluding Endangered or Threatened Species)
- Animal Movement Corridors

The potential for candidate SWH was reviewed using MNRF (2015), available background information, and air-photo interpretation.

In addition, wildlife features associated with the following wildlife activity were also included in the search:

- Butternut (Juglans cinerea) trees present within 50 m of the proposed work footprint;
- Potential bat roosts and associated evidence (cavity trees);
- Vernal pools within woodland features for amphibian breeding habitat;
- Seeps or springs for winter wildlife;
- Raptor stick nests to detect for woodland breeding nesting habitat;
- Piles of debris and/or broken and fissured rocks for reptile hibernacula.

Incidental wildlife observations (tracks, scat, and dens) within or adjacent to the Study Area were also recorded.

3.3 SPECIES AT RISK SCREENING AND RISK ASSESSMENT

The SAR screening was assigned based on the likelihood of significant natural heritage features or SAR to occur within the Project Study Area and the nature of work being proposed. The risk levels associated to the Project were assigned one of five rankings:

No Risk – Construction activities possess no threat to SAR and SAR habitat as they are absent from the project area or do not generally occur within the study area.

Low Risk – Identified SAR and their associated habitats have low potential to occur within or adjacent to the Study Area. Impacts to SAR and SAR habitat are anticipated to be minimal, providing general mitigation measures are employed.

Medium Risk – A moderate likelihood exists that SAR will be present in or adjacent to the project location based on the presence of suitable habitat. Harm or harassment to individual SAR, or damage to SAR habitat necessary for critical life stages (e.g. nesting) would occur if species-specific mitigation measures are not implemented.

High Risk – A high likelihood exists that SAR will be present in or adjacent to the project location or have been recently confirmed. Serious harm to individual SAR and destruction of SAR regulated habitat or general habitat would occur if mitigation measures are not implemented.

It is assumed that SAR classified as **High Risk** may require consultation with the Ministry of Environment, Conservation, and Parks (MECP) for permitting and authorization.

3.3.1 SPECIES AT RISK LEGISLATION AND HABITAT RISK ASSESSMENT CRITERIA

When assessing the potential risk level associated with a site, the identification of potential SAR habitat was an important factor as numerous species are afforded specific habitat protection under the *Endangered Species Act* (ESA, 2007). In general, species listed as 'Special Concern' do not receive any general habitat protection under the act. Habitat protection under the ESA is only afforded to species classified as Threatened or Endangered and is classified as either general or regulated habitat.

General habitat is defined as:

"with respect to any other species of animal, plant or other organism, an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding."

General habitat protection is afforded to all species once they become listed as Threatened or Endangered and remains in place until regulated habitat is designated.

Regulated habitat is defined as:

"with respect to a species of animal, plant or any other organism for which a regulation made under Clause 55 (1) (a) is in force, the area prescribed by that regulation as the habitat of the species."

Regulated habitat provides more precise details on the species-specific habitats, such as specific features, geographic boundaries, or unique requirements of a species.

4 RESULTS

The following sections outline the findings from the desktop screening and characterize the existing conditions within the Project Study Area. **Figure 2** displays the results of natural heritage features present within 2 km of the Study Area. Detailed SAR screening results are also included below.

4.1 BACKGROUND RECORDS REVIEW

4.1.1 AQUATIC ENVIRONMENT

Aquatic features are present within 1 to 2 km of the Project Study Area and are shown in Figure 2. They include:

- Lac Deschenes Ottawa River; provides aquatic and fish habitat
- Shirley's Brook; provides aquatic and fish habitat
- Unnamed watercourses potential aquatic and fish habitat

4.1.2 NATURAL HERITAGE FEATURES

The background records review identified three significant natural heritage features within 1 to 2 km of the Study Area (**Figure 2**). This includes:

- South March Highlands Area of Natural and Scientific Interest (ANSI)
- Shirley's Bay Game Crown Game Reserve ANSI

Although not significant, Unevaluated Wetlands are also present throughout the Study Area.

No other natural heritage features, such as Provincially Significant Wetlands (PSW) or Significant Valleylands were identified to occur.

4.1.3 SPECIES AT RISK RECORDS

A review of online resources outlined in **Table 1** identified 19 SAR with occurrence records within 1 to 10 km of the Study Area (**Table 2**).

Table 2 SAR Records for the 415 Legget Drive & 2700 Solandt Road Project Study Area

| Common Name | Scientific Name | SARA (Schedule 1) (Federal) | SARO (Provincial) | | |
|------------------------|------------------------------|--------------------------------|-------------------|--|--|
| | Vascula | r Plants | | | |
| Butternut | Juglans cinerea | Endangered | Endangered | | |
| | Inse | ects | | | |
| Monarch | Danaus plexippus | Special Concern | Special Concern | | |
| | Amphibian | s/Reptiles | | | |
| Blanding's Turtle | Emydoidea blandingii | Threatened | Threatened | | |
| Eastern Milksnake | Lampropeltis triangulum | Special Concern | NAR | | |
| Midland Painted Turtle | Chrysemys picta marginata | Special Concern | NAR | | |

| Common Name | Scientific Name | SARA (Schedule 1) (Federal) | SARO (Provincial) |
|---------------------------|--------------------------|--------------------------------|-------------------|
| Northern Map Turtle | Graptemys geographica | Special Concern | Special Concern |
| Snapping Turtle | Chelydra serpentina | Special Concern | Special Concern |
| Western Chorus Frog | Pseudacris maculate pop. | Threatened | Not at Risk |
| (Great Lakes/St. Lawrence | 1 | | |
| pop.) | | | |
| | Bir | ds | |
| Bald Eagle | Haliaeetus leucocephalus | Not at Risk | Special Concern |
| Barn Swallow | Hirundo rustica | Threatened | Threatened |
| Bobolink | Dolichonyx oryzivorus | Threatened | Threatened |
| Eastern Meadowlark | Sturnella magna | Threatened | Threatened |
| Eastern Whip-poor-will | Antrostomus vociferus | Threatened | Threatened |
| Eastern Wood-pewee | Contopus virens | Special Concern | Special Concern |
| Wood Thrush | Hylocichla mustelina | Threatened | Special Concern |
| | Mam | mals | |
| Little Brown Myotis | Myotis lucifugus | Endangered | Endangered |
| Northern Myotis | Myotis septentrionalis | Endangered | Endangered |
| Tricolored Bat | Perimyotis subflavus | Endangered | Endangered |
| Eastern Small-footed | Myotis leibii | NAR | Endangered |
| Myotis | | | |

4.2 ECOLOGICAL FIELD SURVEY RESULTS

Field surveys to determine vegetation communities, as well as the presence and/or absence of wildlife/SAR individuals and their habitat, were conducted by a WSP ecologist on October 15, 2021. Weather conditions consisted of 19°C, 100% cloud cover, wind speed of 1 km/hr, and no precipitation. The following subsections provide a summary of the existing natural environment features identified within the Project Study Area and include vegetation communities, wildlife habitat, and the potential for SAR.

4.2.1 VEGETATION COMMUNITIES

The characterization of vegetation communities was a high-level assessment in order to evaluate the presence of wildlife and SAR habitats within the Study Area. The Project Study Area is predominately occupied by parking facilities, existing buildings, and roads. Manicured grass with planted trees of Red Maple, Silver Maple, White Spruce, and Scotch Pine occur around the perimeter of the parking lots and buildings. However, in between property parcels natural areas have been retained.

The natural areas consisted of the following vegetation communities:

- Poplar Deciduous Forest
- Mixed Meadow
- Cattail and Purple Loosestrife Meadow Marsh
- Open Aquatic Pond

No butternut or other SAR vascular plants were observed within 120 m of the Study Area.

4.2.2 WILDLIFE AND WILDLIFE HABITAT

A few potential wildlife habitat features were identified within the Study Area. Common species and/or wildlife evidence incidentally observed included; Great Blue Heron (observed hunting in the northeastern pond), White-breasted Nuthatch, Black-capped Chickadee, and American Goldfinch.

Potential/candidate SWH wildlife habitat was also noted and include:

- Potential turtle wintering habitat in the form of the open aquatic feature with soft, sandy substrate;
- Potential amphibian wetland breeding habitat in the form of cattail meadow marsh as well as areas of ditches containing water.

Photographs were taken of the Project Study Area and are provided in Appendix B.

4.2.3 SPECIES AT RISK SCREENING AND RISK ASSESSMENT

At the time of field investigations, **no SAR individuals were observed**. The screening was completed for the SAR identified as potentially occurring in the Study Area. Those species are outlined in **Table 2**. The screening and risk assessment were based on the observed existing conditions and the identified presence of suitable habitat within the Study Area. The results of the screening and risk assessment are documented in **Appendix A – Species at Risk Screening and Risk Assessment**.

Summarized below are the species with a likelihood of occurrence (ranked as either High, Moderate, or Low) based on current records and the presence of suitable habitat. As there were no direct observations of SAR within the Study Area, no species were assigned as a High Risk to the Project.

Moderate Potential:

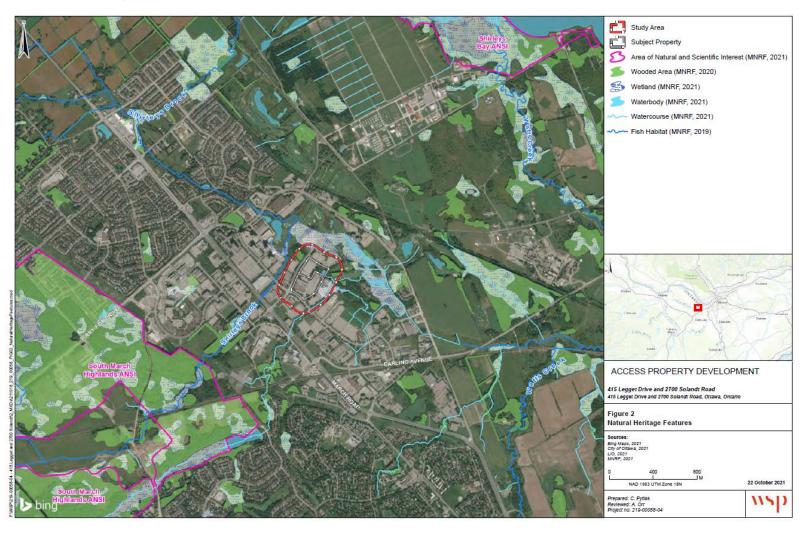
- Barn Swallow: potential nesting habitat on building structures. However, no inactive nests were observed at the time of field investigations. New nests may appear in subsequent breeding seasons.
- Western Chorus Frog: potential breeding habitat of marsh communities, swales, and ditches.
- Blanding's Turtle: potential wintering/basking habitat of open pond with soft, sandy substrates.
- Midland Painted Turtle: potential wintering/basking habitat of open pond with soft, sandy substrates.
- Snapping Turtle: potential wintering/basking habitat of open pond with soft, sandy substrates.

Low Potential:

- Eastern Wood-pewee: potential breeding habitat within the Poplar Forest communities, exhibiting dense understorey suitable for nesting.
- Wood Thrush: potential breeding habitat within the Poplar Forest communities, exhibiting dense understorey suitable for nesting.
- Monarch: potential foraging and dispersal habitat within the meadow communities as common milkweed (Asclepias syriaca) plants (necessary for egg and larval development) were observed.

0 L

Figure 2 Natural Heritage Features within the Study Area



5 MITIGATION MEASURES

The Project site is home to 18,084.7 m² (194,662 ft²) two-storey flex/office building at 415 Legget Drive. Existing parking for the existing building is located at the north and east sides of the site. There is an existing stormwater pond at the northeast corner of the site. The redevelopment of the site is split into two (2) phases. Phase 1 includes the change of use from existing office and manufacturing occupancy building to 2-storey self storage and single-storey high bay warehousing occupancy. A partial removal of the second storey is proposed which will reduce the overall GFA of the building to approximately 14,347 m².

The proposed development for Phase 2 consists of two (2) one-storey, storage warehouse buildings, with a proposed total gross floor area of approximately 18,580 m2 (199,993.4 ft2), to be located on existing parking areas north and east of the existing building at 415 Legget Drive. The two (2) warehouse buildings are proposed to contain light industrial warehousing and ancillary office uses. Phase 2 of the project will require Site Plan approval.

It is anticipated that the footprint of the Phase 2 development is to remain within the existing parking facilities. As such, temporary and/or permanent disturbance to the immediate and surrounding natural areas is not expected. Please refer to **Figure 3** for Project site plan.

Although there is a low to moderate potential for eight (8) SAR to occur in the Project Study Area, the areas immediately adjacent to building and parking lot provides minimal suitability for nesting or roosting habitat or other sensitive habitats for SAR. Indirect impacts will be limited to minor removals or temporary disturbance to foraging habitats, which are also widely available in the surrounding landscape.

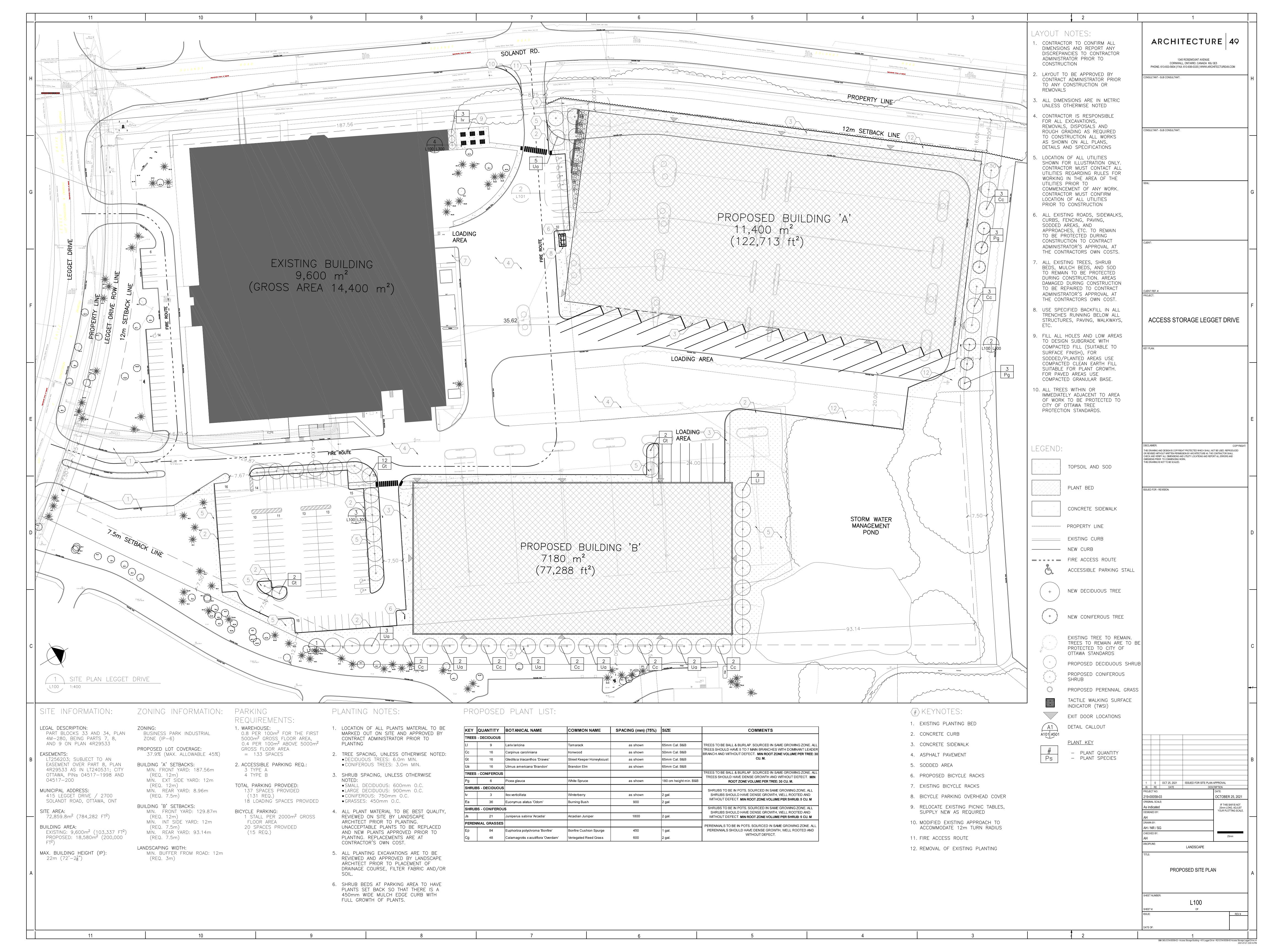
5.1 AQUATIC ENVIRONMENT

The following general mitigation measures are recommended to address impacts on the aquatic environment:

- ✓ DFO's Measures to protect fish and fish habitat, which includes:
 - Prevent the death of fish by avoiding the use of explosives in or near water, and respect in-water timing windows if in-water work is required;
 - o Maintain riparian vegetation;
 - Avoid conducting work in the water, or placing fill or any material below the high-water mark;
 disturbing or removing material along the banks or bed of a waterbody; and building structures in unstable areas, or that may contribute to erosion;
 - Maintain fish passage;
 - o Ensure proper sediment control;
 - o Prevent the entry of deleterious substances in water.
- ✓ Grading plan to direct stormwater flows to appropriate drainage infrastructure;
- ✓ Heavy-duty silt fencing (OPSD 0219.1300) and/or other equivalent erosion and sediment control measures should be installed around the perimeter of the work area to clearly demarcate the development area and prevent erosion and sedimentation into adjacent habitats. Erosion and sediment control measures should be monitored regularly to ensure they are functioning properly and if issues are identified should be dealt with promptly;
- ✓ Materials storage sites and equipment parking will be located at a minimum distance of 30 m from any waterbody, watercourse, or wetland;

- ✓ Stockpiling of excavated material should not occur outside the delineated work area. If stockpiling is to occur outside of this area, silt fencing should be used to contain any soil piles to prevent sedimentation into adjacent areas;
- ✓ Areas of stockpiled or exposed soils should be stabilized using tarps or other similar covers;
- ✓ A spill response plan should be developed and implemented as required. Any environmental spills (biological, chemical or petroleum based) must be reported to Ontario's Spills Action Centre, available 24 Hours a day and 7 days a week, at 1-800-268-6060.

With the mitigation measures outlined above, it is anticipated that the proposed project may result in marginal indirect impacts to the aquatic habitat. Impacts can be reduced or eliminated with the implementation of measures to protect fish and fish habitat during construction.



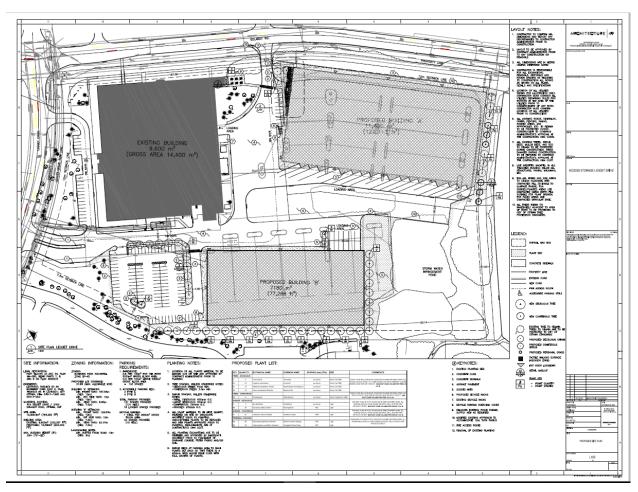


Figure 3: Project Site Plan

5.2 NATURAL HERITAGE FEATURES

5.2.1 VEGETATION COMMUNITIES MITIGATION MEASURES

- Orange snow fencing or other suitable security fencing should be used to delineate the construction limits from
 the adjacent natural areas. This will prevent encroachment of construction activities into the adjacent natural
 feature. This fencing should be monitored regularly to ensure it is functioning properly. Any deviancy in the
 fencing should be dealt with promptly;
- Erosion and sediment control plan should be implemented to prevent sedimentation outside of work areas;
- <u>Landscaping plans (if applicable) should consider the use of appropriate native species</u> to offset the loss of species and biodiversity from vegetation removals;
- Machinery will arrive on-site in a clean condition and will be free of fluid leaks, invasive species, and noxious weeds;
- All excess construction material will be removed from the site and the area restored with seeding of native species
 upon project completion as required;
- Retention of healthy, mature, and mid-aged trees should be prioritized where possible;
- Minimize clearing of woodlands to the least extent possible;
- Tree retention should be prioritized where possible along the work areas.

5.2.2 WILDLIFE AND WILDLIFE HABITAT MITIGATION MEASURES

- Clearing of vegetation should be avoided during the breeding bird season, between April 1 and August 31. Should any clearing be required during the breeding bird season, nest searches conducted by a qualified person must be completed 48 hours prior to clearing activities. If nests are found, an appropriate setback will be established by the qualified professional. No work will be permitted within this setback in accordance with the federal MBCA, 1994.
- <u>Silt fencing should be installed around the perimeter of the project area</u> prior to site activities as part of erosion and sediment control measures, to prevent amphibians and other wildlife from entering the site. Fencing should be maintained throughout the life cycle (until land is permanently stabilized) of the project and repaired if damaged by machinery.
- Reptile and amphibian exclusion fencing should be installed according to Reptile and Amphibian Exclusion Fencing: Best Practices (MNR, 2013).

5.2.3 SPECIES AT RISK IMPACT AVOIDANCE MEASURES

Species-specific wildlife surveys for SAR with potential to occur within the Study Area were not conducted at the time of field investigations due to seasonal constraints and project timelines. Potential SAR were absent from the site due to life cycles of winter migration and/or hibernation and therefore, impact avoidance is a preferred approach to remain compliant with the ESA.

Monarch: To avoid indirect or incidental impacts to Monarch, vegetation removals within the meadow habitat(s) should occur outside of the growing season (May – September). It is recommended for mowing practices to be

implemented at the onset of the growing season (i.e. May) to inhibit the growth of milkweed plants and other wildflowers, thereby managing meadow areas that are proposed to be cleared for project activities.

- Barn Swallow: Inspect adjacent building structures for nests or activity prior to the commencement of
 construction. If nests (old or new) are found to be present the activity will need to be registered with the MECP
 to avoid contravention of the ESA.
- Blanding's Turtle, Midland Painted Turtle, Snapping Turtle and Western Chorus Frog: Silt fencing should be installed around the perimeter of the project area prior to site activities as part of erosion and sediment control measures, to prevent SAR turtles and Western Chorus Frog from entering the site. Fencing should be maintained throughout the life cycle (until land is permanently stabilized) of the project and repaired if damaged by machinery. Fencing is required to be removed post-construction.
 - Reptile and amphibian exclusion fencing should be installed according to Reptile and Amphibian Exclusion Fencing: Best Practices (MNR, 2013).
 - Wildlife exclusion fencing (i.e. Sediment and erosion control fencing) shall be installed prior to site alterations and prior to March 15 (for overwintering habitat) or May 15 (for nesting habitat), following guidance outlined in MNRF (2013). Fencing shall be placed around the perimeter of the Project Area to prevent Snapping Turtle from accessing the site at any given time. Fencing shall be inspected on a regular basis and remain intact for the duration of the project.
 - A qualified person should conduct a pre-construction sweep and monitor the work area for active turtle nests during the turtle nesting season (June – August).
- SAR Birds: If vegetation is proposed for removal, it is recommended that clearing should be avoided during the breeding bird season (April 1 to August 31). If this window cannot be avoided, a biologist should be retained to search for active nests within the area prior to clearing to avoid contravention of the MBCA and ESA.

In the event that a SAR or possible SAR is found within the work area, cease all activities that could potentially harm the SAR immediately and contact a MECP SAR Biologist for direction, to ensure compliance with the ESA.

In addition to the SAR-specific mitigation measures listed above, standard best practices for construction should be followed including: erosion and sediment control; spills prevention; proper maintenance of equipment; and site restoration following disturbance.

With the implementation of standard mitigation measures (as described above), minor impacts to vegetation and vegetation communities, and no impacts to SAR or SAR habitats are anticipated from the proposed development at 415 Legget Drive and 2700 Solandt Road.

6 CONCLUSION AND NEXT STEPS

WSP completed an ecological assessment, consisting of a desktop review of background records and a site visit to collect data on vegetation communities, SWH, and SAR habitat for the proposed development at 415 Legget Drive and 2700 Solandt Road, located in Kanata, Ontario. The purpose of this assessment was to identify vegetation communities, potential wildlife and SAR habitat within and around the Project Area, assess impacts, and provide recommended mitigation measures.

In the background data review, records for a total of nineteen (19) SAR were identified within 1 to 10 km of the Study Area. Based on results from the ecological assessment, eight (8) SAR have potential to occur within or immediately adjacent to the Project Study Area. However, the potential impacts on SAR habitats (if applicable) are negligible as no temporary or permanent disturbance to the surrounding natural areas are anticipated. And, with the implementation of the recommended mitigation measures, indirect impacts to SAR individuals or local SAR populations can be avoided.

Based on our understanding of the proposed Project, construction methods, and the current review of SAR records and potential habitat, there is potential for **Blanding's Turtle** to be impacted as a result of the proposed works. This species is designated as Threatened under the ESA and receives individual and habitat protection. **An ESA authorization may be required prior to the commencement of construction activities.** Consultation with the MECP is recommended in order to initiate the ESA authorization process. Further, it is recommended for target Blanding Turtle surveys to be conducted in spring 2022 to confirm if the species is present or absent within the northeastern pond and surrounding area.

If other wildlife and vegetation mitigation and avoidance measures outlined in this document cannot be followed however, additional wildlife evaluations may be required during opportune seasons when SAR are most active in efforts to not contravene the ESA.

7 References

- Bird Studies Canada. (2020). Atlas of the Breeding Birds of Ontario. Retrieved from http://www.birdsontario.org/atlas/index.jsp
- Dobbyn, J. (1994). Atlas of the Mammals of Ontario. Federation of Ontario Naturalists.
- City of Ottawa. 2003. Retrieved 2020, from Official Plan and master plans: https://ottawa.ca/en/business/planning-and-development/official-plan-and-master-plans
- City of Ottawa. 2015a. Environmental Impact Statement Guidelines.

 http://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/eis_guidelines2015_en.pdf
- City of Ottawa. 2015b. City of Ottawa Protocol for Wildlife Protection during Construction. http://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/construction_en.pdf
- City of Ottawa. 2019. *Tree Conservation Report Guidelines*. https://ottawa.ca/en/residents/water-and-environment/trees-and-community-forests/tree-protection#tree-conservation-report-guidelines
- Environment Canada. (2018). *A to Z Species Index*. Retrieved 2018, from Species at Risk Public Registry: http://www.registrelep-sararegistry.gc.ca/sar/index/default_e.cfm
- Government of Canada. (2020). Aquatic species at risk map. Retrieved from https://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html
- Government of Ontario. (2007). Endangered Species Act 2007, S.O. 2007, c.6. Retrieved from https://www.ontario.ca/laws/statute/07e06
- Government of Ontario. (2020). Species at risk in Ontario. Retrieved from https://www.ontario.ca/page/species-risk-ontario#section-1
- Lee, H., Bakowsky, W., Riley, J., Bowles, J., Puddister, M., Uhlig, P., & McMurray, S. 1998. *Ecological Land Classification for Southern Ontario: First Approximation and its Application*. North Bay, Ontario, Canada: Ontario Ministry of Natural Resources.
- Ministry of Municipal Affairs and Housing. (2020). *Provincial Policy Statement*. Toronto: Queen's Printer for Ontario. Retrieved from http://www.mah.gov.on.ca/Page10679.aspx
- Ministry of Natural Resources and Forestry (MNRF). (2000). Significant Wildlife Habitat Technical Guide. Peterborough: Queen's printer for Ontario. Retrieved from https://www.ontario.ca/document/guide-significant-wildlife-habitat
- MNRF. (2010). *Natural Heritage Reference Manual for Natural Heritage Policies of the Povincial Policy Statement*, 2005 (Second ed.). Toronto: Queen's Printer for Ontario.
- MNRF. (2015). *Natural Heritage Information Centre*. Retrieved October 18, 2021, from https://www.ontario.ca/page/natural-heritage-information-centre
- MNRF. (2016). Significant Wildlife Habitat Criteria Schedules For Ecoregion 6E. https://www.ontario.ca/document/significant-wildlife-habitat-ecoregional-criteria-schedules-ecoregion-6e
- Mississippi Valley Conservation Authority. 2019. Regulation Policies. Retrieved on October 21, 2021 from: http://mvc.on.ca/regulation-policies/

Ontario Nature. (2020). Retrieved from http://www.ontarionature.org/protect/species/herpetofaunal_atlas.php Toronto Entomologists' Association. 2021. The Ontario Butterfly Atlas Online. October 21, 2021 from: http://www.ontarioinsects.org/atlas_online.htm

APPENDIX

SPECIES AT RISK SCREENING AND RISK ASSESSMENT

| SCIENTIFIC NAME | COMMON NAME | GENERAL HABITAT ACCORDING TO THE MNRF SIGNIFICANT WILDLIFE | CON | ISERVATION STA | TUS | | | | |
|---------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------|-----------|-----------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| SCIENTIFIC NAME | COMMON NAME | GENERAL HABITAT ACCORDING TO THE MARE SIGNIFICANT WILDLIFE | | | | | | | |
| | | HABITAT TECHNICAL GUIDE | Federal (SARA, Schedule 1) | Provincial (ESA, 2007) | S-Rank1 | SOURCE2 | HABITAT WITHIN PROJECT SCREENING AREA | RATIONALE | RISK ASSESSMENT |
| SPECIES AT RISK & SPECIES OF CONSERVATION CONCERN | | | | | | | | | |
| | BIRDS | | | | | | | | |
| Haliaeetus leucocephalus Ba | Bald Eagle | Nests in a variety of forest tyoes and habitats; preferably by water for hunting; nest in large trees. | NAR | SC | S2N,S4B | OBBA | No | Large canopy trees are absent from the study area. | No Risk |
| , | Eastern Whip-poor-will | Breeds in a mix of habitats; open woodlands, upland forests with open ground layers, savannahs. | THR | THR | \$4B | OBBA | No | Upland, contiguous open woodlands are absent from the study area. | No Risk |
| Contopus virens Ea | Eastern Wood-pewee | Open deciduous, mixed or coniferous forest; predominated by oak with little understory; forest clearings, edges; farm woodlots, parks. | SC | SC | S4B | OBBA | YES | Deciduous forests and woodlands within the Study Area may provide breeding habitat for this species. | Low |
| Hirundo rustica Ba | Barn Swallow | Farmlands or rural areas; cliffs, caves, rock niches; buildings or other man- made structures for nesting; open country near body of water. | THR | THR | S4B | OBBA | YES | Man-made structures (buildings and bridges) adjacent to watercoursesare present within the Study Area. | Moderate |
| Hylocichla mustelina W | Wood Thrush | Coniferous or deciduous woods with dense young undergrowth; spruce bogs; borders of wooded swamps and damp forest; brushy pasture. | THR | SC | S4B | NHIC/OBBA | No | Deciduous forests and woodlands within the Study Area may provide minimal habitat for this species. | Low |
| Dolichonyx oryzivorus | Bobolink | Large, open expansive grasslands with dense ground cover; hayfields, meadows or fallow fields; marshes; requires tracts of grassland >50 ha. | THR | THR | S4B | NHIC/OBBA | No | This species requires large expansive grasslands with dense ground cover; no meadows or grasslands are situated within the Study Area. | No Risk |
| Sturnella magna Es | Eastern Meadowlark | Open, grassy meadows, farmland, pastures, hayfields or grasslands with elevated singing perches; cultivated land and weedy areas with trees; old orchards with adjacent, open grassy areas >10 ha in size. | THR | THR | S4B | NHIC/OBBA | No | Large, expansive grasslands are absent from the study area. | No Risk |
| | | | HERPETOZA | <u>l</u> | | | | | |
| Pseudacris triseriata W | Western Chorus Frog | Occurs in marshes, or wet woodlands; requiring both terrestrial and aquatic habitats in close proximity; found in temporary ponds for breeding. | THR | NAR | S3 | ORAA | YES | Marshes are present and adjacent to upland habitats within the Study Area, | Moderate |
| Emydoidea blandingii Bl | Blanding's Turtle | Lives in shallow waters , usually in large wetlands and shallow lakes. | THR | THR | \$3 | ORAA/NHIC | YES | Marshes with shallow water are present within the study area. | Moderate |
| Chrysemys picta marginata N | Midland Painted Turtle | Lives in slow-moving, fresh waters with abundant vegetation and basking sites. | SC | | S4 | ORAA | YES | Marshes with shallow water are present within the study area. | Moderate |
| Graptemys geographica N | Northern Map Turtle | Inhabits rivers and lakeshores and hibernates at the bottom of deep, slow-moving river sections. | SC | SC | \$3 | ORAA | No | Large, deep river systems are absent from the Study Area. | No Risk |
| Chelydra serpentina Si | Snapping Turtle | Permanent, semi-permanent fresh water; marshes, swamps or bogs; rivers and streams with soft muddy banks or bottoms; often uses soft soil or clean dry sand on south-facing slopes for nest sites; may nest at some distance from water; often hibernate together in groups in mud under water; home range size ~28 ha. | SC | SC | S3 | NHIC/OBBA | YES | Wetland habitat of marsh is present within the Study Area. | Moderate |
| Lampropeltis triangulum Ea | Eastern Milksnake | Inhabits a wide variety of features including prairies, meadows, pastures, hayfields, rocky outcrops, and forests. | SC | NAR | S4 | NHIC/ORAA | No | Meadows and forests with rocky outcrops are absent from the Study Area. | No Risk |

| | | 415 Legget Drive and | 2700 Solandt | Road - Architect | ture 49 | | | | |
|------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------|-----------|---------|---------------------------------------------|--------------------------------------------------------------------------------------|-----------------|
| | | | CON | ISERVATION STA | ATUS | | | | |
| SCIENTIFIC NAME | COMMON NAME | GENERAL HABITAT ACCORDING TO THE MNRF SIGNIFICANT WILDLIFE HABITAT TECHNICAL GUIDE | Federal (SARA, Schedule 1) | Provincial (ESA, 2007) | S-Rank1 | SOURCE2 | HABITAT WITHIN PROJECT SCREENING AREA | RATIONALE | RISK ASSESSMENT |
| | | SPECIES AT RISK & S | PECIES OF CON | SERVATION CO | NCERN | | | | |
| Danaus plexippus | Monarch | Uses three types of habitat; caterpillars feed on milkweed plants and are confined to meadows and open areas with milkweed, adult butterflies can be found in more diverse habitats where they feed on nectar from wildflowers. | sc | sc | S2N,S4B | OBA | | Meadows and open areas containing milkweed plants are present within the Study Area. | Low |
| | | | MAMMALS | | | | 1 | | |
| Myotis lucifugus | Little Brown Myotis | Roost in trees and buildings; such as attics, abandoned buildings and barns for summer colonies. Hibernate in caves, abandoned mines. | END | END | S3 | AMO | No | Suitable cavity trees are absent from the Study Area. | No Risk |
| Myotis septentrionalis | Northern Myotis | Hibernates during winter in mines or caves; during summer males roost alone and females form maternity colonies of up to 60 adults; roosts in houses, man-made structures but prefers hollow trees or under loose bark; hunts within forests, below canopy. | END | END | S3 | АМО | No | Suitable cavity trees and hibernaculum features are absent from the Study Area. | No Risk |
| Myotis leibii | Eastern Small-footed Myotis | Roost in a variety of habitats; under rocks, rock outcrops, buildings. | | END | \$3 | AMO | No | Rock outcrops are absent from the Study Area. | No Risk |
| Perimyotis subflavus | Tri-Colored Bat | Found in a variety of forested habitats during summer, forms day roosts and maternity colonies in older forest and occasionally in barns or other structures; forage over water and along forested streams; hibernates in a cave or underground structure and roost individually. | END | END | \$3? | АМО | No | Suitable cavity trees are absent from the Study Area. | No Risk |
| | VASCULAR PLANTS | | | | | | | | |
| Juglans cinerea | Butternut | Grows alone or in small groups; preferring moist, well-drained soils along streams. | END | END | \$3? | NHIC | No | No butternut trees were observed at the time of field investigations | No Risk |

¹S-Rank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5, with 5 being very common and 1 being the least common. ²Information sources include: MNRF = NHIC = Natural Heritage Information Centre; OBBA = Ontario Breeding Bird Atlas; ORAA = Ontario Reptile and Amphibian Atlas; OBA = Ontario Butterfly Atlas; AMO = Atlas of the Mammasl of Ontario; --- denotes no information or not applicable.

APPENDIX

B PHOTOGRAPHIC RECORD



Natural Heritage Screening & Existing Conditions Report 415 Legget Drive & 2700 Solandt Road Project

Photo 1

Date:

October 15, 2021

Notes:

Northeastern open aquatic pond feature – potential turtle habitat, looking northeast



Photo 2

Date:

October 15, 2021

Notes:

Cattail and Purple Loosestrife meadow marsh connected to pond, looking east.





Photo 3

Date:

October 15, 2021

Notes:

Swale running east-west from pond to northwest parking lot, looking east.



Photo 4

Date:

October 15, 2021

Notes:

Manicured grass strip with planted trees adjacent to Poplar Deciduous Forest, looking north.





Photo 5

Date:

October 15, 2021

Notes: Manicured grass with planted trees along Solandt Road, looking south.



Photo 6

Date:

October 15, 2021

Notes: Manicured grass with planted trees, looking north.





Photo 7

Date:

October 15, 2021

Notes:

Manicured grass with planted trees, looking east toward Legget Drive.



Photo 8

Date:

October 15, 2021

Notes: Southern parking lot adjacent to Poplar Deciduous Forest, looking west.

