Colonel Talbot Road NE of Southdale Road

Environmental Impact Study Update (EIS Update)

Project Location:

Colonel Talbot Road NE of Southdale Road

Prepared for:

1739626 Ontario Ltd.
c/o Westdell
1701 Richmond Street, Suite 3B
London, ON N5X 3Y2

Prepared by:

MTE Consultants Inc.
123 St. George Street
London, ON N6A 3A1

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Engineers, Scientists, Surveyors.

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1.0 Introduction

1739626 Ontario Limited (the proponent) is now completing the site plan process for commercial and residential development at the northeast corner of Colonel Talbot Rd and Southdale Rd in the City of London. There has been a settlement agreement on the Official Plan schedules as part of the London Plan settlement process to permit these uses. This EIS also updates the settlement agreement and information into this EIS to consolidate the ongoing discussions leading to this Site Plan submission under one document. Figures 1 through 7 of the prior EIS have remained unchanged in this EIS with the remaining figures updated to reflect a revised site plan which has been produced to incorporate responses to City comments as outlined in a letter (June 27 2022) to support the application and to address council direction as part of their zoning approval (December 2022).

The property is located on Concession 1, Part Lot 42 RP33R8507 Part 1. The area of proposed development is referred to as the Subject Lands for the purpose of this report with the lands that remain, identified as part of the larger Legal Parcel [Figure 1]. The entire Legal Parcel was studied but the separation allows, in our view, a clearer review of development plans in context with additional lands owned by the applicant which largely represent the natural features where no development is planned.

Life science data collection on the Subject Lands and remaining Legal Parcel was completed in 2017 and 2018. This report compiles the data collection for those years.

1.1 Report Objective

This report is an updated Environmental Impact Study (EIS), to address changes to the site plan and address relevant comments provided by the City of London and UTRCA as part of the zoning application [Appendix A]. This EIS is an update to a previous SLSR/EIS (scoping meeting September 17, 2020) for the Site plan to finalize development limits and zone boundaries.

This report contains recommendations to guide site plan for avoidance of impacts, mitigation of impacts, environmental management strategies, construction phasing approaches and monitoring requirements to protect the significant natural heritage features and functions.

The process and reporting are also designed to provide a support document to subsequent site alteration permit applications that may be submitted to the Upper Thames River Conservation Authority (UTRCA). Policies and procedures referenced in the prior EIS report have been maintained to simplify the review process rather than a full update to recent policy changes at the provincial level.

1.2 Format

Natural heritage features and functions identified in this EIS are evaluated through a review of the Natural Heritage Reference Manual (NHRM, 2010) for policy 2.1 of the Provincial Policy Statement (MAH, 2020), and Chapter 6 of the London Plan (2021)

This report will be circulated to the City of London and UTRCA for agency review and comment on the findings and recommendations.

This EIS contains the following components, in accordance with the standards noted above:

Section 2.0 Land Use Setting

Section 3.0 Triggers for EIS

Section 4.0 Description of the Natural Environment

Section 5.0 Natural Heritage Policy Considerations

Section 6.0 Description of Development

Section 7.0 Mitigation and Recommendation

Section 8.0 Summary and Conclusion

1.3 Background Documents

The following additional study was used to review the current environment.

- Dingman Creek Subwatershed: Stormwater Servicing Study (Aquafor-Beech, DRAFT 2020)

1.4 Pre-Consultation

The development proposal included in this EIS update reflects the modifications of previous plans to incorporate changes in the plan as a result of site layout and agency comments from the Zoning submission. The main natural heritage feature to consider for this development is the adjacent wetland and that boundary has been staked and agreed to with the MNRF. The North Talbot Community Plan has been completed, which included these lands, and as a result, there is sufficient servicing in place for development.

A feature-based staking of the wetland was not completed as setbacks were agreed upon through negotiations with the City and the clear topographic boundary of the wetland feature.

2.0 Land Use Settings

The proposal is for the development of a mixed residential and commercial development within the 2.6ha area of the Subject Lands. The Subject Lands are located at 952 Southdale Road West, Part Lot 42, Concession 1, City of London, at the intersection of Southdale Road West and Colonel Talbot Road [Figure 1].

The region is primarily residential with agricultural lands at the southwest corner of Southdale Rd. W. and Colonel Talbot Rd. Components of the North Talbot PSW are located at the east edge of the Subject Lands within the larger overall Legal Parcel with additional wooded areas interspersed (to the northeast and northwest) in the surrounding landscape.

2.1 Environmental Designations

2.1.1 City of London Official Plan, Schedule B (2015)

The wetland boundary as registered with MNRF have not been updated on Map 5 at the time of this report writing and so Schedule B of the City of London Official Plan (which shows the correct boundary) is being used for this EIS [Figure 2].There is a Provincially Significant Wetland (North Talbot PSW) along the eastern section of the Subject Lands with contiguous portions of the wetland further east and north [Figure 2] (City of London Official Plan Schedule B, 2015).

2.2 Land Use Designations

2.2.1 City of London Official Plan, Schedule A (2015)

The appropriate land use changes as a result of the settlement agreement have not yet been updated on Map 1 at the time of this reports writing and so Schedule A of the City of London Official Plan, which better reflects settlement) is being used for this EIS [Figure 3].The Subject Lands are designated as Multi Family, Medium Density Residential with Commercial land also now permitted on the Subject Lands (settlement agreements). The area of the North Talbot PSW is designated as Open Space, extending north as well as east/southeast towards Southdale Road [Figure 3].

2.3 Zoning Bylaws

The Subject Lands have updated zoning since the last EIS to reflect those zone amendments [Figure 4 - updated]. The Subject Lands are now zoned (Commercial Shopping Area (CSA 1 (6 with holding provisions h for the tableland and h-129 along the east boundary. The h provision is in place to ensure conditions of zone approval are met while the h-129 provision is to ensure completion of a hydraulic floodway analysis. The north portion of the Subject Lans is zoned Residential (R8-4(80) with the same h and h-129 holding provisions as the CSA zone.

2.4 Upper Thames River Conservation Authority (UTRCA) Regulation

The Upper Thames River Conservation Authority (UTRCA) regulates the Subject Lands under Ontario Regulation 157 /06. This regulation area is associated with the North Talbot PSW and flood hazard [Figure 5]. The area is also identified as a Dingman Creek Screening Area (under review) by the UTRCA online regulatory mapping (2018).

3.0 Triggers for EIS

When a development proposal requires a Planning Act application (ie. Draft Plan submission, or amendments to the Official Plan and/or zoning by-law), the City of London requires an EIS to be completed if the Subject Lands are adjacent to or within natural heritage components (London Plan – Chapter 6).

The proponent is planning a mixed commercial and medium density residential development at the northeast corner of Colonel Talbot Rd and Southdale Rd.

Based on Official Plan schedules, the triggers for the Environmental Impact Study (EIS) as a result of the proposed development are as follows:

- Proposed development within 120m of a Provincially Significant Wetland
- Proposed development within 120m of unevaluated vegetation patch

As well, application for a permit under the UTRCA Ontario Regulation 157/06 may require an EIS.

- Subject Lands are within the UTRCA’s regulation limits.

In addition, the *Endangered Species Act* (2007) protects species and habitat not specifically identified on Official Plan Schedules. To be consistent with the Provincial Policy Statement (Ministry of Municipal Affairs and Housing (MMAH), 2020), the requirements for an additional study can be triggered without any adjacent features identified on the Official Plan schedules.

The following section (Section 4) reviews the natural heritage setting of the Subject Lands. Section 5 reviews the proposed land use change in conjunction with generic natural heritage issues that may require consideration in the application process.

4.0 Description of the Natural Environment

The following section reviews the abiotic and biotic features on and directly adjacent to the Subject Lands that contribute to the overall natural heritage features and functions. This review provides relevant background information for interpreting environmental features and functions on the Subject Lands for the evaluation in Section 5.

4.1 Physical Setting

4.1.1 Physiography

Bedrock, 100-118m below grade, is Middle Devonian-aged limestone and dolostone of the Dundee Formation (LDS, 2021). The Subject Lands are underlain by Port Stanley silty clay till and clayey silt till with slightly undulating topography (Dreimanis, 1963).

4.1.2 Soils

The predominate soil type in the area of the Subject Lands is Muriel that consists of Muriel, Gobles and Kelvin associates. Mureil soil type is described as silty clay loam, silty clay, and occasionally clay loam glacial till deposited by glaciation from the Lake Erin basin (Hagerty & Kingston, 1992). These soils typically exhibit moderately well to imperfect drainage characteristics.

On a site-specific level, soils identified within the boreholes on the Subject Lands were comprised of clayey silt, with intermittent sandy silt or silty sand layers near surface (LDS, 2021).

4.1.3 Topography

In the general vicinity of the Subject Lands, the topography is very gently sloping (Hagerty & Kingston, 1992). On a site-specific scale, the north, west and south sides of the property slope down, generally to the middle of the Subject Lands. A small, somewhat flat area is present within the centre of property.

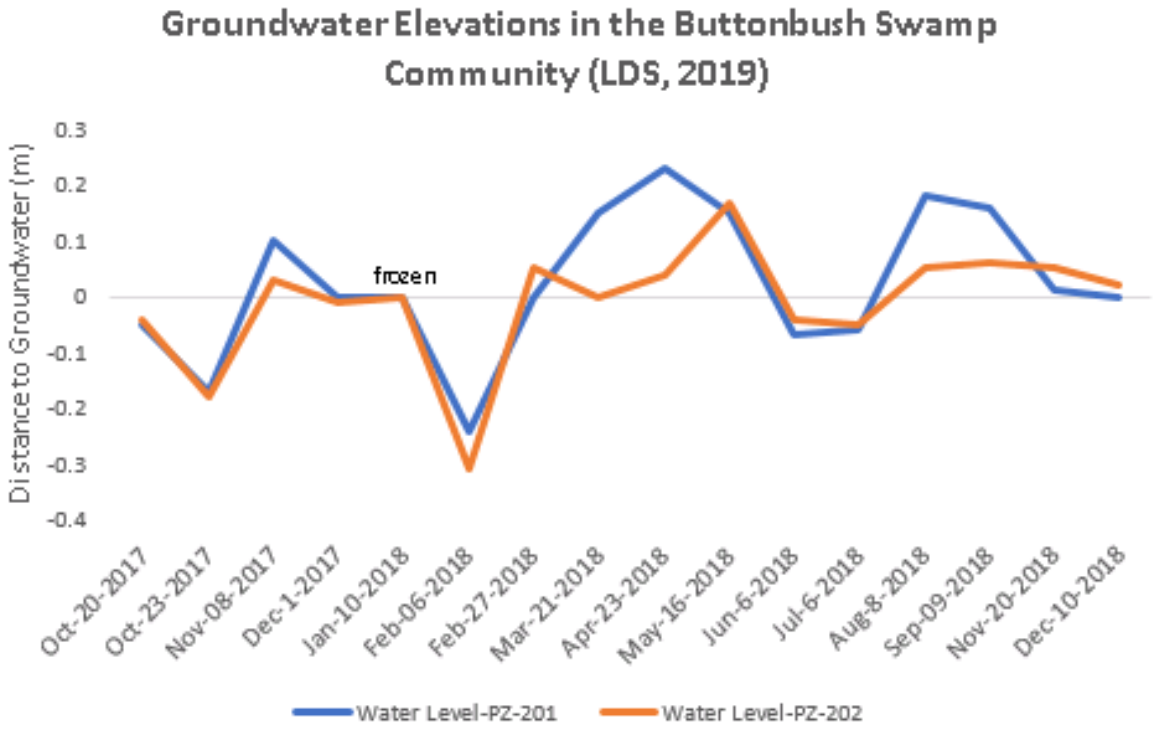
4.1.4 Hydrology

A hydrogeological study has been completed for the Subject Lands and information from the hydrogeological assessment has been incorporated into this report. Groundwater is found in the sandy silt and silt till units between 0-15m below ground surface (BGS) within the Subject Lands [LDS, 2021 - Appendix B], dependent on topographical position. Within the Buttonbush Swamp wetland feature, two piezometers (PZ-201 and 202) were used to measure shallow groundwater levels between 2017 and 2018 [Figure 5a]. Shallow groundwater was measured between 0.3m below ground and 0.2m above ground over the sampling dates [Graph 1 below from Appendix B data]. Both the groundwater and surface slope to the southeast towards the wetland. Water levels within the piezometers fluctuated above and below existing ground with higher levels in the fall and spring months, and below between June and July and generally through the late fall and winter [Graph 1 of their report – reproduced below]

An intermediate overburden aquifer, separated from the surface by silt till deposits, was identified between 15-30m BGS and a deep overburden aquifer was encountered between 30-60m BGS. A review of the hydrology of the area indicates that the intermediate and deep

overburden aquifers consist of differentiated sand a gravel layers within the till (Appendix B; LDS, 2021). However, these aquifers are separated from surface and do not influence site conditions.

The adjacent PSW is primarily influenced by surface water that collects into existing swales that flow west to east through the site. Groundwater contributions to the wetland also arrive from more permeable soils upgradient of the wetland area, but this is marginal relative to surface water contributions from the Subject Lands and developed land to the northeast and east.



Graph 1: Piezometer measurements of shallow groundwater elevations within the Buttonbush Swamp community. A positive value indicates water observed above or at the surface and negative values are groundwater.

4.2 Biological Setting

No Areas of Natural and Scientific Interest (ANSI) or Environmentally Significant Areas (ESA) are located within or adjacent to the Subject Lands within 120m.

A review of the Natural Heritage Information Centre (NHIC) database identifies the North Talbot Wetlands [Provincially Significant Wetland (PSW)] on and within 1km of the Subject Lands [Figure 5a]. The wetland boundary is current as of the time of this reports writing.

The NHIC identifies sections of the wooded area, associated with the PSW to the east, as a Woodland. Development has occurred for much of the lands to the northwest and the NHIC map reflect this while Schedule B1 [Figure 2], does not.

A Preliminary Screening Request was submitted to the Ministry of Environment, Conservation, and Parks (MECP) for project review under the Endangered Species Act (ESA, 2007) in 2019. This screening request included the submission of the information from the completed life

science inventories. MECP determined that the activities associated with the project would likely not contravene the ESA (2007). Mitigation measures were provided by MECP [Appendix H] as a condition of their approval response and are discussed further under Section 7.0.

4.2.1 Vegetation

The vegetation communities within the Subject Lands were assessed by Will Huys, certified to conduct ELC in Southern Ontario, on June 11, 2018 [Figure 6]. ELC information sheets are provided in Appendix C. All communities listed in Table 1 are secure in Ontario (NHIC, 2020) with the Buttonbush Swamp component ranked as S3 in Ontario [Table 1].

Table 1: Ecological Land Classifications for the Subject Lands

Community Type	Polygon	ELC Code	Description	S-rank	Area (ha)
Wetland Communities					
Wetland	1	SWT2	Mineral Thicket Swamp	n/a	1.4
	3	SWT3-4	Buttonbush Organic Thicket Swamp	S3	0.3
Cultural Communities					
Cultural	2	CUW1	Mineral Cultural Woodland Ecosite	n/a	0.25

Community 1 is a Mineral Thicket Swamp (SWT2) dominated by Common Buckthorn, Willow species, and Dogwood species. Wetland sedges and herbaceous wetland plants are the dominant ground-layer. Occasional taller Willow and Black Walnut make up the canopy. Invasive *Phragmites* is occasional within this community.

Community 2 is a Black Walnut dominant Cultural Woodland (CUW1). This cultural woodland transects the property in a north/south direction and functions as an edge/buffer type community between the agricultural lands to the west and the wetland to the east. Tatarian Honeysuckle and Chokecherry are common understory plants. Wild Bergamot, Goldenrods and Raspberries are typical ground-layer plants.

Community 3 is a Buttonbush Organic Thicket Swamp (SWT3-4) dominated by Buttonbush. This vegetation community is considered rare to uncommon but can be locally abundant in Ontario (S3). Surface water ponding was observed in this community on all of the completed life science investigation dates. Occasional Willow species (4-5m tall) were observed within this community. Sedges and wetland grasses are common at the edges of the community. The MNRF delineated wetland boundary includes Vegetation Communities 1 and 3.

Historically, the agricultural area within the Subject Lands was actively farmed row crops. This area has been farmed as recently as last year with plans to farm again this year (per com D. Traher, Westdell Developments, 2020). Additional areas of agriculture have been added in areas that were historically too wet. This agricultural addition did not require tree removal and can be observed on air photos.

4.3 Wildlife Habitat

4.3.1 Significant Wildlife Habitat

MNRF Significant Wildlife Habitat (SWH) Criteria Schedules for Ecoregion 7E (January 2015) uses ELC ecosite codes and habitat criteria (e.g., Size of ELC polygon, location of ELC

polygon) to identify candidate significant wildlife habitat. This is the first step in the process of identifying SWH and the following candidate SWH was noted [Appendix D].

Candidate Seasonal Concentration of Animals

Turtle Wintering Area

Candidate Specialized Habitats of Wildlife Considered SWH

Amphibian Breeding Habitat (Wetlands)

Waterfowl Nesting Areas

Candidate Habitats for Species of Conservation Concern Considered SWH

Shrub/Early-Successional Bird Breeding Habitat

Terrestrial Crayfish

Special Concern and Rare Wildlife Species

Using site-specific life science information collected for the above, candidate SWH is further evaluated in Section 4 based on the defining criteria (species presence, abundance, and diversity) to make the final determination of the presence of SWH. This analysis (Section 5) follows the life science overview below.

4.4 Floral Site Inventories

A review of the NHIC database and correspondence with the Ministry of Environment, Conservation, and Parks (MECP) identified the following floral species protected under the *Endangered Species Act* (*ESA*, 2007) that are found or potentially found within the area of the Subject Lands:

- American Chestnut [END]
- Eastern Flowering Dogwood [END]
- False Hop Sedge [END]
- Butternut [END]

Will Huys completed floral site investigations on September 29, 2017, May 7, June 11, June 28, and July 18, 2018, within the Subject Lands [Appendix E]. None of the above noted floral species protected under the *ESA* (2007) were identified during site investigations. No species of provincial interest [Special Concern or S1-S3 ranked] were identified within the Subject Lands.

4.5 Faunal Site Investigations

A review of the NHIC database and correspondence with the MECP identified the following faunal species protected under the *Endangered Species Act* (*ESA*, 2007) that are found or potentially found within the area of the Subject Lands:

- American Badger [END]
- Barn Swallow [THR]
- Bank Swallow [THR]
- Eastern Meadowlark [THR]
- Protected Bat species

A breeding bird survey, an amphibian breeding survey, and general observations of habitat suitability for American badger [END] were completed on the Subject Lands.

4.5.1 Avifauna

Habitat for Eastern Meadowlark is not present within the legal parcel. Will Huys conducted the standard two-visit breeding bird survey on June 11 and June 28, 2018, guided by the protocols outlined in the Ontario Breeding Bird Atlas (OBBA) (Cadman *et al*., 2007). None of the above noted avian species protected under the *ESA* (2007), nor suitable habitat for these species, were identified within the Subject Lands [Appendix F].

Outside of the Subject Lands but within the larger legal parcel, one (1) Eastern Wood-pewee [SC] was heard calling within Community 1 during one of the two visits of the breeding bird survey. This species does not receive protection under the *ESA* (2007) but is discussed further under the context of SWH and the *Provincial Policy Statement* (2020) [Section 5.0].

4.5.2 Amphibians

Laura McLennan conducted amphibian call surveys on April 12, May 11, and June 12, 2017, guided by the Marsh Monitoring Program (MMP) protocol. No frogs or toads were heard calling within the area of proposed development (agricultural lands) in the Subject Lands. Spring Peeper and Gray Treefrog Call Code Level 2 were the only species heard calling from within the PSW community to the east with no summer breeding frogs were noted [Appendix G].

4.5.3 Mammal Burrows

No animal burrows were identified within the Subject Lands during completed life science inventories. No evidence of American Badger [END] (large burrows) was present within the Subject Lands.

4.5.4 Terrestrial Crayfish

No Terrestrial Crayfish chimneys were observed within the agricultural lands on the Subject Lands. Terrestrial Crayfish chimneys were observed along the edge of Community 2 during site investigations [Figure 6].

4.5.5 Aquatic

There is an unnamed, watercourse that is noted on some of the background maps [Figure 2, 3 and 5] within the Buttonbush Swamp on the Subject Lands. Based on orthographic imagery interpretation and review of drainage maps (OMAFRA, 2020) this unnamed watercourse is piped at Southdale Road West for approximately 600m downstream before out letting to a SWM pond within the North Talbot Community.

There is no additional aquatic habitat within the Subject Lands. Previously noted surficial water that flowed west to east across the Subject Lands was not observed in recent years following a fix of blockage in the culvert at Colonel Talbot Road. However, there is likely still flow after large storm events as these flow paths pick up roadside and development runoff from lands to the north. These surficial water features that are seasonally present do not provide habitat for fish species.

A review of the Fisheries and Oceans Canada (DFO) Species at Risk mapping did not identify any aquatic species at risk nor critical habitat for species at risk within 1km of the Subject Lands (DFO, 2020).

5.0 Natural Heritage Policy Considerations

This section reviews the provincial, municipal and Conservation Authority regulatory policies within the project location with respect to Natural Heritage considerations.

The provincial and municipal natural heritage policies provide guidelines that determine appropriate land uses on and adjacent to natural heritage features and functions.

Policies that pertain to this site include:

- the 2020 Provincial Policy Statement from MAH, Section 2.1
  - these have been reviewed with the Natural Heritage Reference Manual (NHRM) (MNR, 2010),
- the London Plan, Chapter 6,
- the City of London Environmental Management Guidelines (2007), and
- the UTRCA Regulations.

The natural features and functions identified in Section 4 of this EIS are applied to the above policies in order to determine which components of the natural heritage system will require additional consideration.

5.1 Provincial Policy

The Provincial Policy considerations are based on Provincial Policy Statement from MAH, 2020, section 2.1 and reviewed using the Natural Heritage Reference Manual (Sections 5-11) (MNR, 2010).

2.1.4

a), b) Significant Wetlands/Coastal Wetlands

Section 6 - Significant Wetlands and Significant Coastal Wetlands

The North Talbot PSW is located within 120m of the Subject Lands. A section of the PSW is within the legal parcel, adjacent to the Subject Lands. The PSW boundary confirmation request was submitted to MNRF on August 17, 2017. MNRF (Jason Webb) was out on-site June 11, 2018, to stake the boundary with Will Huys. LIO mapping has the most up to date wetland boundary as noted on OP Schedules [Figure 2].

2.1.5

b) Significant Woodlands

Section 7 - Significant Woodlands

No vegetation within the legal parcel has been identified as woodland or Environmental Review on Schedule B. Any other unevaluated vegetation patches are beyond the legal parcel on areas owned by others. Some of the unevaluated woodlands have been developed and Schedule B1 has not been updated to reflect this change.

c) Significant Valleylands

Section 8 - Significant Valleylands

There are no significant valleylands within or adjacent to the Subject Lands.

d) Significant Wildlife Habitat

Section 9 - Significant Wildlife Habitat

Candidate significant wildlife habitat (SWH) is based on ELC communities that were identified in Section 4.3.1. Confirmed significant wildlife habitat is determined through appropriate field.

investigations and evaluation of species use in accordance with specific criterion outlined in the Ecoregion Criteria Schedules 7E (MNRF, 2015).

Turtle Wintering Areas

No incidental observations of turtles or evidence of turtle nesting were identified within the Subject Lands during completed life science inventories. It is expected that the deeper standing water within the wetland community (Community 3) within the remaining legal parcel could be used for turtle overwintering areas.

Not SWH – Confirmed in Subject Lands

Candidate SWH – Not Confirmed in Remaining Legal Parcel (Turtle Overwintering)

Waterfowl Nesting Areas

Breeding bird surveys completed in 2018 confirm that the following defining criterion for significance is not met:

- Presence of 3 or more nesting pairs for listed species excluding Mallards, or
- Presence of 10 or more nesting pairs for listed species including Mallards
- Any active nesting site of American Black Duck

No waterfowl species were observed within the Subject Lands or the legal parcel during breeding bird surveys.

Not SWH – Confirmed

Candidate Amphibian Breeding Habitat (Wetland)

Amphibian monitoring completed in 2017 confirm that the following defining criterion for significance is not met:

- Presence of breeding population of 2 or more listed frog species with Call Level Codes of 3.

Not SWH – Confirmed

There is disagreement on the interpretation of how this SWH is evaluated. However, while no visual surveys were conducted given the auditory-based Marsh Monitoring Protocols were followed, the wetland is being protected in the remaining legal parcel. The EIS reviews impacts and mitigations to protect this wetland feature which will ensure a sustained amphibian population in the post development setting.

Shrub/Early-Successional Bird Breeding Habitat

Breeding bird surveys completed in 2018 confirm that the following defining criterion for significance is not met:

- Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species

Not SWH – Confirmed

Candidate Terrestrial Crayfish

Observations made in 2018 during completed life science inventories confirm that the following defining criteria for significance is met:

- Presence of 1 or more individuals of species or their chimneys (burrows) in suitable meadow marsh, swamp, or moist terrestrial sites

Terrestrial crayfish burrows were observed along the edge of Community 2 adjacent to the wetland communities [Figure 6]. Surveys for crayfish were not completed within Community 1 as this feature is well outside of the development footprint. It is likely that additional terrestrial crayfish chimneys may be present in this community but will not be impacted.

SWH – Confirmed (edge of Community 2)

Candidate SWH – Not Confirmed (Community 1)

Special Concern and Rare Wildlife Species

No species of Special Concern or Rare Wildlife Species were identified within the Subject Lands during site investigations. Within the larger Legal Parcel, one (1) Eastern Wood-pewee [Special Concern] was observed during a single visit of the 2018 breeding bird survey in Community 1. Higher-level breeding confirmation (carrying food, nest with young) was not identified. Habitat within the Subject Lands is limited for this species, with more suitable habitat within the larger Community 2 woodland located off site.

Not SWH – Confirmed (Subject Lands)

Candidate SWH – Unconfirmed woodlands on Adjacent Lands.

e) Areas of Natural and Scientific Interest

Section 10 - Significant Areas of Natural and Scientific Interest

There are no ANSI's within or adjacent to the Subject Lands.

2.1.6

Fish Habitat

Section 11 - Fish Habitat - Broad Scale

Broad scale fish habitat, for the purposes of this review, considers downstream fisheries. Based on orthographic imagery interpretation and review of drainage maps (OMAFRA, 2020), the unnamed watercourse that flows southeast through the Buttonbush Swamp is piped at Southdale Road West for approximately 600m downstream before out-letting to a SWM pond. Downstream fish habitat will not need to be considered in this EIS.

Section 11 - Fish Habitat - Detailed Scale

Detailed scale fish habitat, for the purposes of this review, considered fisheries habitat within the Subject Lands. There is no suitable habitat for fish within the Subject Lands and will not need to be considered in this EIS.

2.1.7

Habitat of Endangered Species and Threatened Species

Section 5 - Significant Habitat of Endangered and Threatened Species

No floral or faunal species protected under the *ESA* (2007) were identified within the Subject Lands during completed site investigations. MECP determined in their review of the project that the proposed works would likely not contravene the *ESA* (2007).

Summary – Provincial Policy

This EIS will need to consider the natural heritage features and functions within and adjacent to the Subject Lands including Significant Wetlands and Significant Wildlife Habitat to address Provincial Planning Policy.

5.2 Municipal Policy

Since the previous submission of this report, chapters of the London Plan (May 28, 2021) have been approved including Chapter 6 – Environmental Policies. The relevant policy sections have been included in brackets. It should be noted that The London Plan Map 5 has a different boundary for the PSW. MNRF staff (Jason Webb) were on site June 11, 2018, to stake the boundary with Will Huys (MTE). The boundary revision was submitted to MNRF on August 17, 2017, and is accurate as of 2021. The wetlands shown on Map 5 of the London Plan are under appeal.

Environmentally Significant Areas (1367-1371)

There are no Environmentally Significant Areas (ESA) within or adjacent to the Subject Lands.

Wetlands (1330-1336)

A Buttonbush Swamp community, that is part of the larger North Talbot PSW, is located within the legal parcel, adjacent to the Subject Lands. Additional areas of the North Talbot PSW are contiguous and within 120 m (Adjacent Lands) to the Subject Lands. Boundary delineation guidelines include Community 2 as an existing buffer to the wetland feature.

Areas of Natural and Scientific Interest (1356-1360)

There are no ANSI's within or adjacent to the Subject Lands.

Habitat of Endangered, Threatened and Vulnerable Species (1325-1329)

There are no floral or faunal species protected under the *ESA* (2007) nor suitable habitat for the listed SAR species within the Subject Lands. MECP has given approval that the proposed project is not likely to contravene the *ESA* (2007).

Woodlands (1337-1343)

There are no woodlands identified on City of London Official Plan maps within the Subject Lands or Legal Parcel [Figure 2].

Corridors (1372-1377)

There are no significant or unevaluated corridors within or adjacent to the Subject Lands.

Significant Wildlife Habitat (1352-1355)

a) The Significant Wildlife Habitat Technical Guidebook (MNRF, 2000) has been updated with the wildlife schedules (MNRF, 2015). We have reviewed the wildlife habitat to determine significance with the more recent wildlife schedules and have confirmed SWH.
b) The Subject Lands do not have a high diversity of species that are of value for research, conservation, education, and passive recreation opportunities.

There are also no areas of Significant Wildlife Habitat identified on Schedule B1 of the City of London Official Plan. Terrestrial Crayfish burrows and candidate Eastern Wood-pewee habitat were identified adjacent to the Subject lands.

Fish Habitat (1323-1324)

There is no suitable habitat for fish within the Subject Lands. The watercourse within the Buttonbush Wetland acts as a flow path for water to leave the wetland and is disconnected from downstream habitat.

Groundwater Recharge Areas, Headwaters, and Aquifers (1361-1365)

The Thames-Sydenham and Region Source Protection Committee has determined that the Subject Lands are not within a highly vulnerable aquifer zone. The southeastern portion of the Legal Parcel

Subject Lands is located within a Significant Groundwater Recharge Area (SGRA) with a vulnerability, score of two (2). A vulnerability score of 2 is considered low. The low permeability of the soils on site are not conducive to groundwater recharge and limit the significance of this feature as a recharge area (LDS, 2021). This is discussed further under Section 7.0.

Water Quality and Quantity (1366)

Water quality and quantity contributions from the Subject Lands to the adjacent North Talbot PSW will need to be considered further in this EIS.

Potential Naturalization Areas (1378-1381)

There are no Potential Naturalization Areas mapped on Schedule B1 of the City of London Official Plan.

Carolinian Canada Big Picture Concept (1418-1420)

There are no areas Big Picture Meta-Cores and Meta-Corridors within or adjacent to the Subject Lands. These corridors are represented conceptually and are not rigid boundary delineations nor a component of London's Natural Heritage System (City of London OPA 438, 2011).

Unevaluated Vegetation Patches (1383-1384)

There are no additional unevaluated vegetation patches within the Subject Lands. Additional vegetation patches identified on the City of London Official Plan Schedule B (Unevaluated Vegetation Patches on Schedule B1) are over 100m to the north on lands owned by others. These have not been reviewed.

Other Woodland Patches larger than 0.5 Hectares (1385-1386)

There are no other Woodland Patches larger than 0.5ha within or adjacent to the Subject Lands. Community 2, which is 0.25 ha has been included within the preliminary 10m offset to the wetland.

Other Drainage Features (1387)

There are no other drainage features on the Subject Lands not previously discussed in this report.

Summary - Municipal Policy:

This EIS will need to consider significant natural heritage features and functions including Wetlands, Significant Wildlife Habitat, and Groundwater Recharge to address municipal planning policy.

5.3 Policy Considerations and Regulated Lands

5.3.1 Conservation Authority Regulation Limit

The entire Subject Lands are within the regulation limit of the UTRCA associated with the North Talbot PSW and flood hazards. However, the wetland feature does not meet the definition of a regulated wetland under the Conservation Authorities Act, specifically, this wetland does not:

“directly contribute to the hydrological function of a watershed through connection with a surface watercourse” (Conservation Authorities Act – Section 28(25).

The water is piped under Southdale Road and becomes part of a stormwater sewer system that ultimately leads to the regional Stormwater Management Facilities in the North Talbot Community. Therefore, the adjacent wetland does not provide any direct contribution. Nevertheless, the water balance studies have been completed through the City of London application requirements and as a result, the wetlands will be protected through that process.

However, any development proposed within the flood hazard area regulated by UTRCA will require a permit.

Summary - Conservation Authority Regulations

This EIS has considered the wetland and water balance for the Buttonbush Swamp and this documentation will be provided as part of the required Section 28 Permit Application for flood hazards when submitted to the Upper Thames River Conservation Authority (UTRCA).

5.4 Summary of Identified Features and Functions

The features and functions in Table 2, have been identified through the policy review as requiring further consideration in an EIS.

Table 2: Environmental Considerations for the Subject Lands

Policy Category	Environmental Consideration	Adjacent Natural Heritage Feature
Provincial Policy Statement	Provincially Significant Wetland	North Talbot PSW (Buttonbush Swamp)
	Significant Wildlife Habitat	Turtle Wintering Area – Not Confirmed; Communities 1 and 3 (PSW) Terrestrial Crayfish (Community 2) – Confirmed Eastern Wood-pewee, not confirmed in adjacent wetland habitat. Heard further north..
The London Plan (2021)	Wetlands	North Talbot PSW (Buttonbush Swamp)
	Significant Wildlife Habitat	Candidate Turtle Wintering Area – Not Confirmed; Communities 1 and 3 (PSW) Terrestrial Crayfish – Confirmed Eastern Wood-pewee (to the north)
	Groundwater Recharge Areas, Headwaters and Aquifers	Southeast portion of the Subject Lands is within a SGRA
	Water Quality and Quantity	Water quality and quantity contributions to Buttonbush Swamp
UTRCA Regulations	Flood Hazard	Flood Hazards

5.5 Ecological Buffers and Pre-Development Considerations

Based on the above review, the most critical component of the natural heritage system that defines the adjacent feature is the Buttonbush Swamp community within the legal parcel, next to the Subject Lands. This component is part of the North Talbot Community PSW complex.

A review of the TRCA Wetland Water Balance Risk Evaluation document (TRCA 2017), indicates Buttonbush Swamps are typically slow to recover from hydrological changes (2017), although hydrologic change is not separated between not enough water and too much water in the TRCA document. The Michigan Natural Features Inventory (MNFI–https://mnfi.anr.msu.edu) in conjunction with the Field Guide to the Natural Communities of Michigan (Cohen *et al*., 2014) provides a more detailed description of Buttonbush Swamp ecology and sensitivity. These documents identify Buttonbush Swamps as tolerant to a wide variety of hydrologic changes (including prolonged flooding), stating that:

> *"Buttonbush seedlings are highly tolerant of flooding, exhibiting several adaptations to inundation, rapid changes in water level, and low oxygen availability and is well adapted to flood events characteristic of disturbed ecosystems" (Cohen et al., 2014).*

However, Buttonbush Swamps are less tolerant of conditions that result in lower water levels (drought or lower water table).

This document also describes Buttonbush as a desirable species for use in urban and disturbed ecosystem restoration because of its tolerance to flooding and nutrient loading, stating that:

> *"In addition, buttonbush increases its biomass in response to nutrient inputs, making the species desirable for use in urban and disturbed wetland systems for its flood tolerance and ability to assimilate nutrients, including wastewater" (Cohen et al., 2014).*

Evidence of Buttonbush ability to handle stormwater inputs can be observed in other Buttonbush Swamp communities nearby. To the north, within the "Crestwood Subdivision" stormwater management facilities were retroactively added to an approved development in the early days of stormwater management requirements. These ponds were undersized for water quantity management based on stormwater design standards but approved to allow the development to proceed with some treatment. These ponds took several years to reach full functional capabilities with much of the stormwater bypassing these facilities during the construction phase of development. However, upon site inspection this year, the upper Buttonbush feature remains. A culvert crossing downstream of this feature appears to be set too high and may be backing water up more than should be the case, yet the Buttonbush community remains. Further south, in the north Talbot community plan area, a wetland feature that receives major storm water to assist in quantity control has converted from a horse pastured wet meadow beforehand, to Buttonbush community today. Therefore, based on literature support and local evidence, the Buttonbush Swamp communities are not highly susceptible to minor to moderate increase in water inputs. Not enough water appears to be the main impairment concern for post development.

Provided surface water and groundwater inputs to existing Buttonbush Swamp features is met, these communities will continue to persist post development.

5.5.1 Public Ownership/Acquisition (1404-1407)

In this ownership policy section of the London Plan, the City recognizes not all natural heritage areas will be brought into public ownership. The remaining legal parcel may remain in private ownership.

5.5.2 Stewardship (1408-1411)

Under the stewardship policies of the London Plan, protection is encouraged for natural heritage systems that remain in private lands. These protection efforts can include stewardship agreements, Conservation easements, education, land trusts, tax incentives, signage, and other suitable techniques. Such efforts will be discussed in conjunction with the post development setting in context of mitigation measures and their contribution to the refinement of setbacks and buffers.

5.5.3 Ecological Buffers (1412-1416)

The City of London has developed guidelines to establish recommended ecological buffer and setback limits for developments adjacent to natural heritage features. These guidelines were developed and ultimately formalized in 2004. The objective of the guidelines is to provide setbacks which provide a physical distance between “a developed area to an identifiable natural feature” and buffers to protect key ecological functions.

“Key ecological functions may include, but are not limited to, acting as a filter to minimize impacts from adjacent land use, proving linkage as a wildlife corridor around or between habitats, functioning as a windbreak to protect sensitive habitat and contributing to habitat and species diversity” (City of London, 2004) .

In the Buffer Guideline Document, there is acknowledgement that fixed width buffers and site-specific buffers have their merits with fixed widths seen as arbitrary and site-specific widths more flexible but requiring expertise. The guideline document opted for fixed width minimum buffers based on limited data and effectiveness research at the time, recognizing these buffers can be adjusted based on site specific information in the EIS. A suggested minimum width of 5m is suggested in the document as a starting point. Other set widths in the document suggest 10m from woodlands to protect root zones and 30m from wetland for water quality benefits. While the guideline recognizes buffers widths can vary based on land use and site sensitivity, the guideline does not speak to the various stages of potential impact from pre- to post-development.

In current conditions, the site is an agricultural field that slopes steeply towards the wetland/woodland complex to the east. In addition, road runoff and flows from developments to the northwest (across Colonel Talbot Road, and northeast drain to the feature complex. These impacts will be mitigated in the post-development setting through stormwater management water quality and quantity controls.

Therefore, it is during construction when the greatest potential impact to the adjacent feature can occur as the site is graded. Above and beyond sediment and erosion control measures, grading works within 30m – 50m of the wetland require a very high level of management. Interim stormwater management during site grading and construction will also be critical.

Once the stormwater issues have been addressed, we turn our minds to the physical separation (setbacks) and buffers needed for the type of use proposed. Shallow root zones that extend beyond the tree dripline along the feature edge have been impacted by the plough depths of the agricultural field. There is already and existing edge of woodland thicket adjacent to the Buttonbush Swamp, but some additional setback is warranted. Provided there is some Common Buckthorn management along the edge habitat, a 10m from the wetland edge is suggested as a reasonable distance to expand the edge habitat (this distance is greater than that City proposed Southdale Road widening whereby not only the buffer edge, but part of the North Talbot PSW will be impacted).

However, as part of the discussions for zoning approvals with the previous EIS, an agreed buffer distance [Figure 9] was established (between 15 and 32m to the wetland). It is this agreed buffer distance that is presented in this EIS update.

6.0 Description of the Development

1739626 Ontario Limited. (The proponent) is proposing a commercial and medium density residential development at the northeast corner of Colonel Talbot Rd and Southdale Rd W. in the City of London [Figure 7 and 8]. The site plan has been updated from the one provided to the City previously part of the zoning approval as a modification to accommodate changes to layout efficiency and comments from agency staff through the zoning approval process.

The Legal Parcel is described as Concession 1, Part Lot 42 RP33R8507 Part 1. The west two thirds of the Subject Lands were historically agricultural and currently there are no buildings on the property. The identified natural heritage features and functions are shown on Figure 6, 7, and 8. The setbacks on the site plan have accommodated the final buffer distances agreed to with the City during the zoning approvals [Figure 9].

Detailed design has been completed and the site will be fully serviced with municipal sanitary sewers and water supply (MTE, 2023). Stormwater will be managed on-site with a mixture of surface ponding, oil and grit separators and an underground storage system [MTE, 2023] The grocery store rooftop will drain directly to the underground storage to provide clean water to the PSW. Water will be released from the storage area slowly and the outlet will spill to stilling basin to help diffuse the velocity of the flow and minimize erosion [Figure 10].

To accommodate a minor filling of some backwater flood storage, a cut and fill balance was proposed in the zoning submission (Stantec, 2023). The area of cut involves a 2% grade from 15m offset to wetland, to the development limits (Civil Drawing Set C2.2) which will be top dressed with topsoil and planted with native species mix.

A retaining wall will be required on the eastern boundary of the development to accommodate the amount of fill needed to create more accessible grading and slopes within the site. This retaining wall is set at 15 to 32m from the wetland edge [Figure 9 and 10].

Development of the Subject Lands without the above noted stormwater management strategy and the use of LID measures would result in a loss of infiltration and an increase in runoff across the site annually. The direction of stormwater towards dissipation areas which then discharge to the adjacent PSW will effectively increase infiltration to address the deficit. Additional LID measures have been recommended to ensure that adequate infiltration is achieved. These measures may include but are not limited to the use of grass swales in greenspace areas, infiltration trenches, and reduced lot grading (LDS, 2021).

Water Balance and Quality

With the proposed commercial and residential development, an infiltration deficit is expected and is addressed with a combination of Stormceptor underground storage areas, direct stormwater drainage from roofs to the adjacent wetland, and LID measures [Figure 8 and 10]. The wetland to the east of the proposed development is fed primarily by surface water runoff and to a lesser degree the shallow aquifer, which flows from the upgradient area of the wetland (LDS, 2021). Given the low permeability of the silt till soils on site, contamination of the deeper aquifers within the Subject Lands is not anticipated. Oil-grit separators, catch-basin hoods, grassed swales, and rip-rap pads at stormwater outlets will provide quality controls for

stormwater directed towards the adjacent PSW. Green space and buffer areas adjacent to the wetland will continue to allow for surface water infiltration to help with water balance values.

Given the proximity of the proposed development to the adjacent PSW, consideration for hydrological and grading impacts was a priority. To ensure that features are protected from sedimentation during development, a fill and grading construction staging plan will need to be finalized to conform to the final site plan design.

With the proposed stormwater management strategy and LID measures, the adjacent wetland feature will continue to receive surface water inputs from the area where development is proposed. Should these wetland communities receive additional inputs from the surrounding landscape or from increased surface runoff of the Subject Lands, the Buttonbush Swamp component of the North Talbot PSW will persist and thrive, given the ecology of the species described above. Additional recommendations have been provided to further protect the adjacent wetland feature.

7.0 Impacts and Mitigation

This section reviews the development proposal [Figures 7 and 8] and identifies potential direct and indirect impacts to the significant natural heritage features within and adjacent to the development footprint. Appropriate avoidance, protection and mitigation measures for the impacts are also presented. Most recommendations remain the same as the prior EIS to guide site plan design.

Based on the analysis in Section 5.0, the significant features identified are summarized in Table 3. In addition, a net effects table has been prepared for the proposed development application (see page 43) [Table 4].

Table 3: Significant Natural Heritage Features

Environmental Consideration	Related Feature or Function on the legal parcel
Significant Wetland	North Talbot PSW (Buttonbush Swamp)
Significant Wildlife Habitat	Candidate Turtle Wintering Area – Not Confirmed Terrestrial Crayfish – Confirmed Eastern Wood-pewee
Groundwater Recharge Areas, Headwaters, and Aquifers	Southeast portion of Subject Lands in a SGRA
Water Quality and Quantity	Quality and quantity contributions of the Subject Lands will need to be managed
Wetland and Wetland Interference	Associated with the North Talbot PSW (Buttonbush Swamp)

With the proposed commercial and residential development, the North Talbot PSW (Buttonbush Swamp), the buffering cultural woodland Community 2, and significant wildlife habitat are physically protected within the future Open Space boundary [Figure 9, Figure 10].

7.1 Direct Impacts

7.1.1 North Talbot PSW (Buttonbush Swamp) and Buffer

Based on the detailed hydrogeological investigations and stormwater management design which will provide more detail for water balance purposes, the hydrology changes as a result of development will be mitigated. The original 10m preliminary buffer to the wetland has been expanded along the entire length, ranging from 15 to 32m. The City has agreed to allow the road connection closer to the Colonel Talbot intersection than previously indicated in the zoning submission. As a result, the road edge is now 20m from the wetland boundary. A retaining wall will be constructed at the edge of the development zone.

The only area of direct impact into the buffer is the installation of dissipation outlets for the drainage to the north of the development and from the Stormwater outlet for this development. These dissipation outlets can be designed to provide a vegetative cover to minimize the visual impact of the energy dissipation measures.

Recommendation 1:

Finalize LID measure design to reflect water balance needs and landscape these measures to minimize visual impact. This detail can be finalized as part ot the site plan approval process once site plan comments from the initial design phase have been provided and addressed.

Recommendation 2:

The buffer area between the proposed development and the designated setbacks will be actively naturalized with native tree and shrub species to improve the ecological function of the area and to provide a natural buffer to the wetland. Additional recommendations for construction of the road entrance are provided later in the report.

Recommendation 3:

Invasive plant species that are identified within the proposed naturalization area should be removed and best management practices for limiting the spread of floral invasive species should be followed during development. A landscape plan will be provided as part of the site plan approval process.

7.2 Indirect Impacts

Grading

A retaining wall structure has been proposed along the eastern boundary of development zone at distances of 15 to 32m from the wetland. However, some excavation within the ultimate buffer will create a temporary impact as material is removed to allow for more flood storage before flowing into the buried storm sewer downstream (Stantec, 2023). A robust sediment and erosion control plan has been proposed at this flood plain excavation limit which will remain 15m or more from the wetland edge [Figure 10] to prevent sedimentation into the adjacent PSW and the associated natural heritage features.

Recommendation 4:

Installation of the robust sediment and erosion control fencing will be completed prior to retaining wall construction. The retaining wall should be constructed prior to any additional site grading work to provide a physical barrier between construction activities and the adjacent feature.

Recommendation 5: Restoration of the floodplain excavation area to native species will be required. As an interim measure, the excavation area needs to be seeded with annual rye and/or erosion control blanket (snake friendly) to quickly stabilize the buffer.

Recommendation 6:

A detailed interim stormwater management plan is needed to guide the construction phase. Stormwater must be discharged away from the adjacent wetland feature until adequate treatment has been provided. More detail is required as part of the Second Submission package.

Construction Related Impacts

The most critical time for the protection of natural heritage features is during the construction phase. For all works and especially those within 30m of adjacent natural heritage features, substantial sediment and erosion control measures will be required to ensure that indirect impacts to the adjacent wetland and the other natural heritage features identified in this report are mitigated.

Recommendation 7:

A phased approach for fill placement is recommended to provide additional protection of the buffer area (following flood plain cut and fill works). More detail is required as part of the construction phasing plan to be developed after design studies issues have been addressed.

Recommendation 8:

During construction, the lands between the sediment and erosion control fencing should be maintained. The fence at the eastern boundary should remain in place until construction is complete and the remainder of the natural areas to remain are sodded or seeded and naturalized.

Recommendation 9:

Soil stockpiles should be established on the tableland in locations where natural drainage is away from the PSW. No soil should be stockpiled in the area of close proximity (30m) to the PSW without additional erosion control measures in place. The stockpile locations should be reviewed at detailed design.

Recommendation 10:

Sediment and erosion control fencing should be inspected prior construction to ensure it was installed correctly and during construction to ensure that the fencing is being maintained and functioning properly. Any issues that are identified are resolved in the same day.

Recommendation 11:

Sediment and erosion control fencing will be installed according to the Guidelines for Erosion and Sediment Control for Urban Construction Sites (OMNR, 1987) and the applicable standards established in the Ontario Provincial Standard Specification/Ontario Provincial Standard Drawings (OPSS/OPSD) documents. The sediment and erosion control fencing will also be installed according to the City of London Design Specifications and Requirements Manual specifications (2017).

Recommendation 12:

Sediment and erosion control fencing should not be removed until adequate re-vegetation and site stabilization has occurred. Additional re-vegetation plantings and/or more time for

vegetation to establish may be required; however, two growing seasons are typically sufficient to stabilize most sites.

Recommendation 13:

All disturbed areas should be re-seeded as soon as possible to maximize erosion protection and to minimize volunteer populations of invasive species which may spread to the adjacent feature.

Recommendation 14:

Roof runoff to bare ground can generate considerable sediment movement beyond the construction limits. Until the grounds have been vegetated and stable for housing and development adjacent to vegetation, roof leaders should be directed to the streets or nearby stabilized vegetated areas.

Recommendation 15:

Installation of permanent fencing feature is recommended for the eastern boundary of the proposed development. This fencing will deter encroachment into the adjacent PSW and will trap garbage. Details for the height and material of fencing required will be recommended by the City of London.

Recommendation 16:

In consultation with the City of London, a stewardship agreement and/or a conservation easement should be implemented at detailed design for the actively naturalized area and the remaining area of the legal parcel to protect the features post-development.

Recommendation 17:

Regular cleanup of the Subject Lands must be completed during construction and post-construction to ensure the adjacent natural heritage features are not degraded.

Wildlife

Nesting migratory birds are protected under the Migratory Birds Convention Act (MBCA), 1994. No work is permitted to proceed that would result in the destruction of active nests (nests with eggs or young birds), or the wounding or killing of birds, of species protected under the Migratory Birds Convention Act, 1994 and/or Regulations under that Act.

Killdeer are a migratory bird species that may make use of un-maintained areas as they frequently make nests on construction sites and other disturbed areas near bodies of water. Killdeer and other ground nesting birds may utilize the disturbed areas of the Subject Lands for nesting during the active breeding season.

Recommendation 18:

Avoid vegetation clearing and site disturbance during migratory bird breeding season (April to August 31) to ensure that no active nests will be removed or disturbed, in accordance with the Migratory Birds Convention Act and/or Regulations under that Act. If works are proposed within the breeding season, prior to any vegetation removal or ground disturbance, the area should be checked for nesting birds. If there are any nesting birds, works within the nesting area should not proceed until after August 31.

Landowner(s) Education

Recommendation 19:

Develop an information package to educate the landowner(s) and landscape contractor on appropriate ways to dispose of landscaping and lawn maintenance waste, garbage, and protect

the natural heritage components beyond the property boundaries. This is important for preservation of the adjacent PSW.

Recommendation 20:

The installation of educational signage on permanent fencing post-development is recommended to inform/remind landowners and customers of the significance of the adjacent PSW feature.

7.3 Monitoring Plan

Avoidance of direct impacts to the significant natural heritage features is achieved with the proposed Site Plan. Mitigation and compensation measures recommended in this EIS aim to minimize the indirect impacts to the significant natural heritage features and functions. The monitoring plan is recommended to document the implementation of the mitigation and compensation measures during construction and post-construction.

The monitoring plan will be 2-phase and will consist of a construction monitoring plan and a long-term post-construction plan. The construction monitoring plan will monitor for construction-related impacts, document successes or deficiencies of the implemented mitigation measures and provide guidance on remedial actions for circumstances when mitigation is not successful [e.g., Erosion and Sedimentation Control (ESC) measures]. This plan should continue from clearing and grubbing through to home and commercial building construction until rear yards and grounds adjacent to natural features are vegetated and stabilized. This plan will be developed further through the detailed design stage. Reports should be made available to the UTRCA and City design services staff.

Long-term post-construction monitoring shall evaluate the success of the proposed active naturalization efforts of the setback area. This plan should include remedial actions that are triggered if effects exceed pre-determined thresholds (e.g., supplemental plantings if survival rates are low). Monitoring requirements should be determined at the detailed design stage in consultation with agency staff. Recommendations for monitoring include, but are not limited to:

- Survival success of the naturalization of the naturalized edge
- Encroachment activities and correction – once the development is at 80% build-out, annual reporting to the City of London should be completed for two years.
- Invasive species observations in the buffer and adjacent wetland with adaptive management measures and work plan, in cooperation with the city to manage.
- Water balance monitoring by others to ensure wetland feature.

8.0 Summary and Conclusions

1739626 Ontario Limited. (The proponent) is proposing a commercial and residential development at the northeast corner of Colonel Talbot Rd and Southdale Rd in the City of London.

The proposed development avoids direct impact to the features and functions of the PSW at the east edge of the Subject Lands. The eastern retaining wall will limit the amount of grading while providing a developable footprint on the Subject Lands. Water balance requirements will be met with the proposed LID measures and possible modifications through design studies to maintain infiltration to the wetland. The 15m to 30+m setback distances mitigate indirect impacts to the PSW and protects the adjacent potential fish habitat and significant wildlife habitat (confirmed

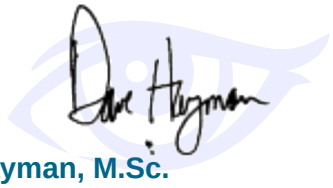
and treated as confirmed). The setback area should be naturalized to establish an enhanced buffer between the proposed development and the adjacent significant natural heritage features and functions. The PSW and the buffer area should be protected as Open Space.

This EIS has set out recommendations to protect the adjacent significant natural heritage features from indirect impacts. Provided these are met, it is our opinion that the proposed development can proceed through the design studies phase.

MTE seeks comments from the City of London with respect to the contents of the EIS. Formal comments can be submitted in writing to MTE of behalf of the client. Should you wish to clarify any questions or require additional information as part of the review of this EIS, do not hesitate to contact us.

All of which is respectfully submitted,

MTE Consultants Inc.



Dave Hayman, M.Sc.
Senior Biologist
519-204-6510 ext. 2241
dhayman@mte85.com

DGH:sdm

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Figures

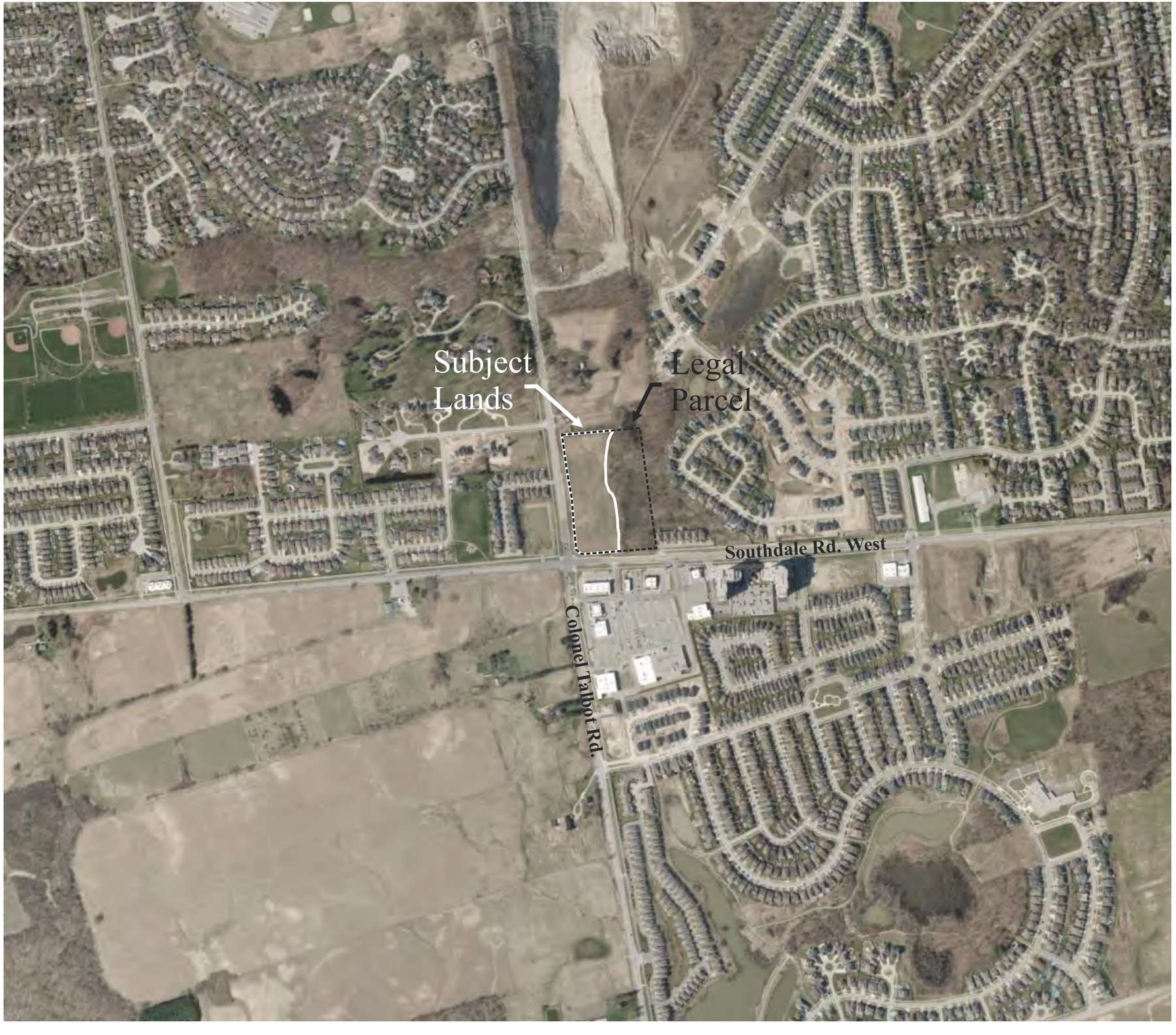
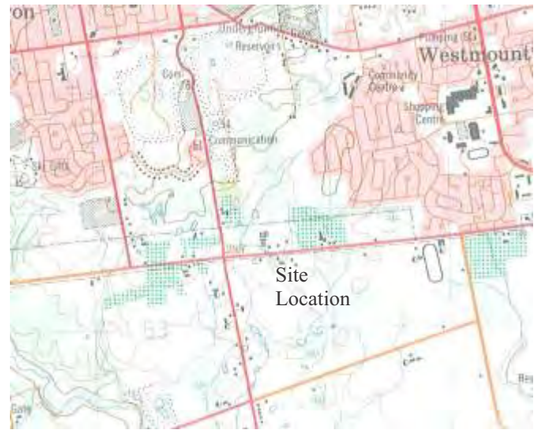


Figure 1: Site Location

(2017 City of London Air Photo)



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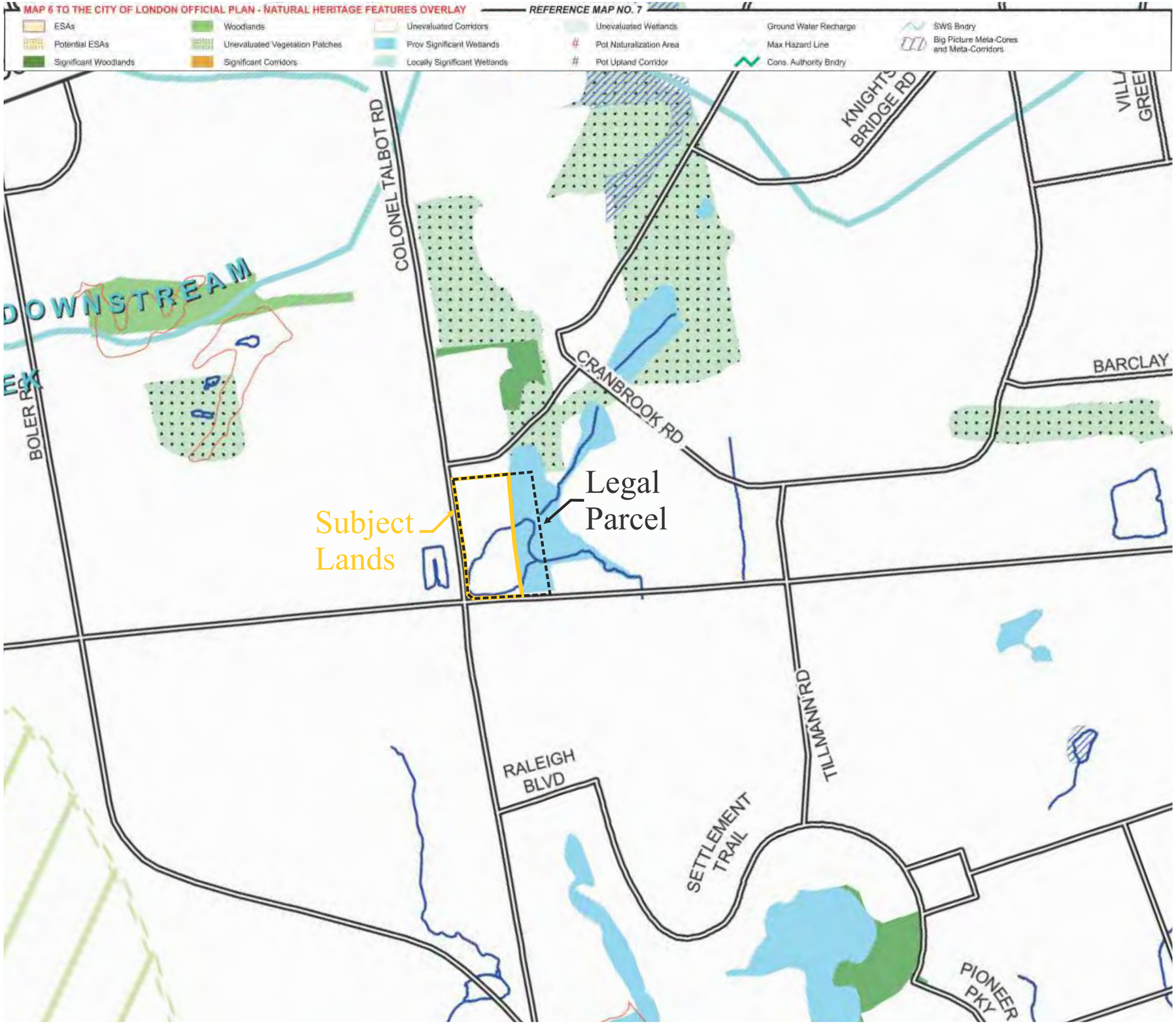
April 2020

MTE

Figure 2: Natural Features

[City of London Official Plan Schedule B (September 2015)]



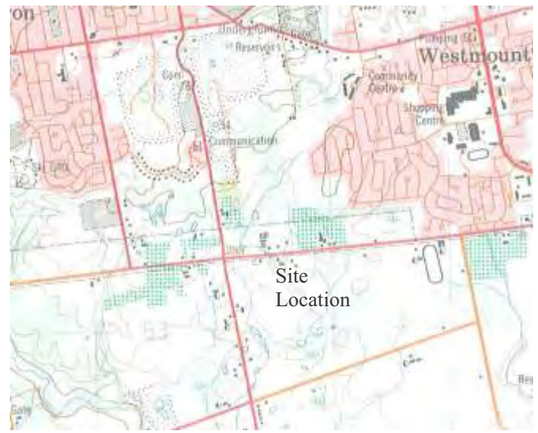


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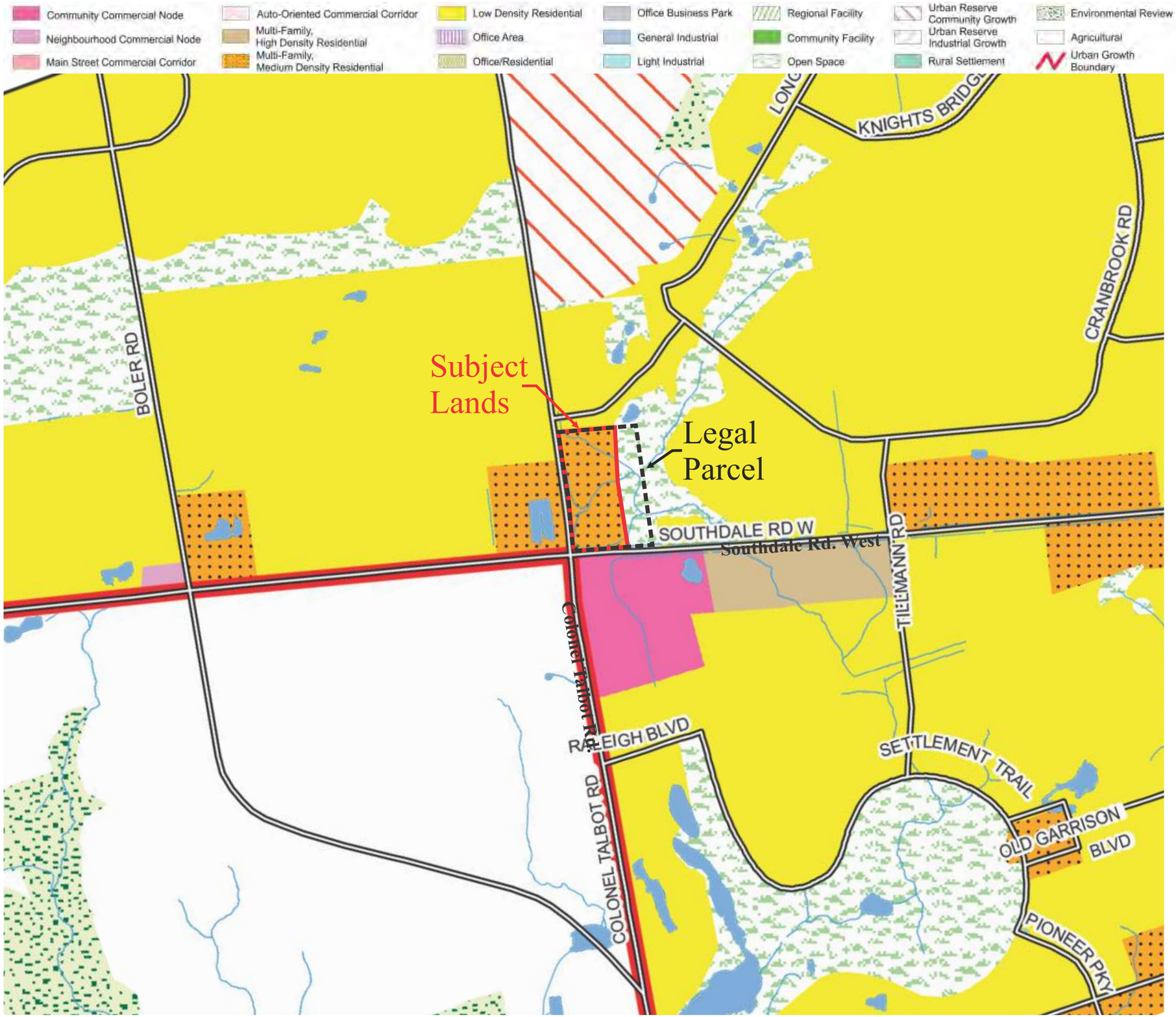
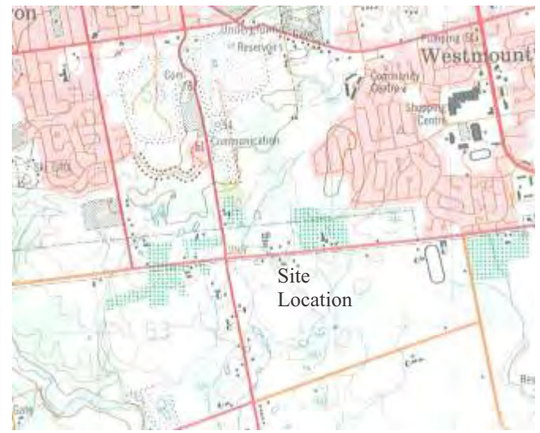
Figure 3: Land Use

[City of London Official Plan Schedule A (September 2015)]





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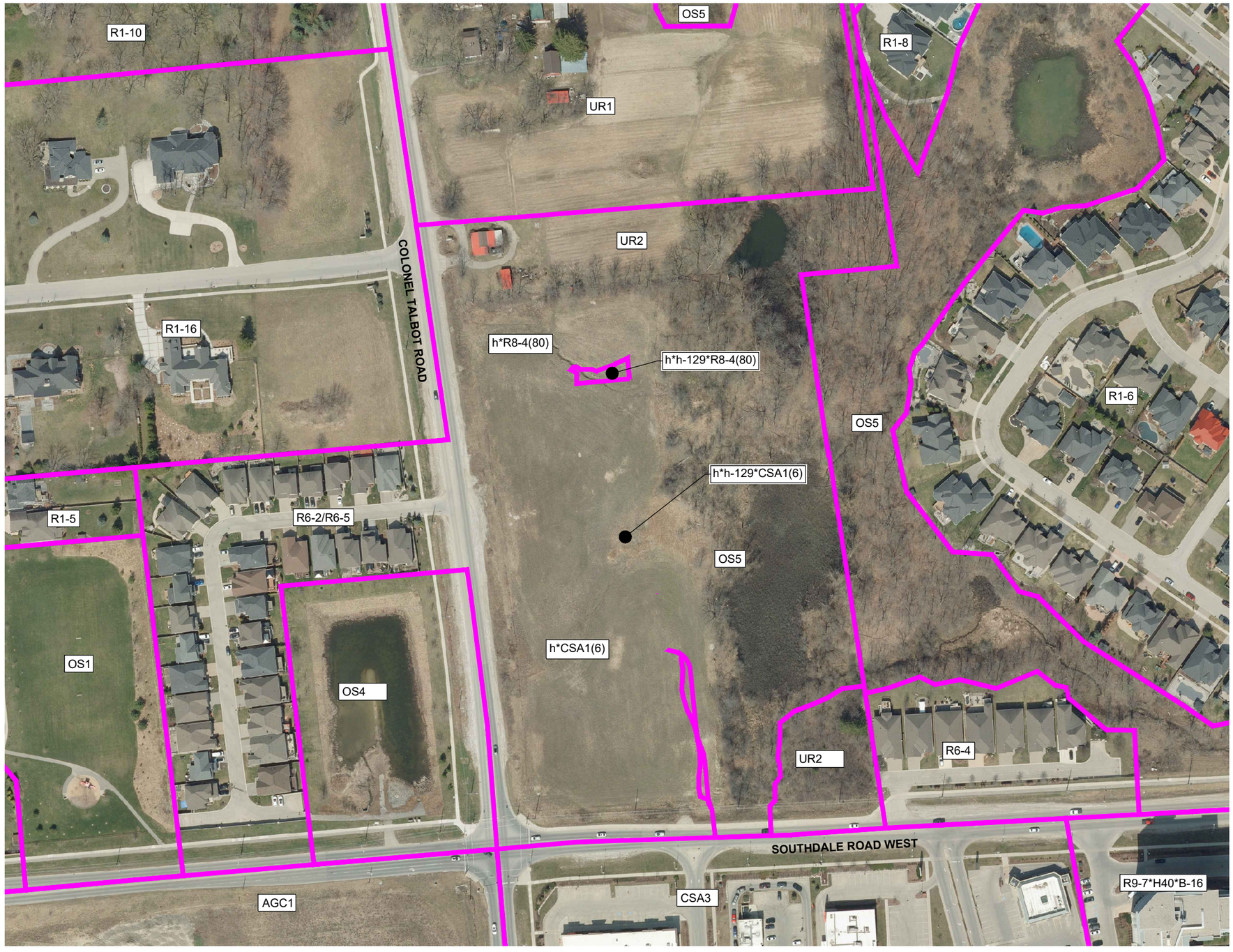

LEGEND

ZONING BOUNDARY

REFERENCES

CITY OF LONDON OPEN DATA SET, 2021; AND
AUTOCAD FILE "952 SOUTHDALE-COL.TALBOT RD SP34 March 31, 2022.dwg",
PROVIDED BY WESTDELL DEVELOPMENT CORPORATION, MARCH 31 - 2022.

NOTES

THIS FIGURE IS SCHEMATIC ONLY AND TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

MTE
Engineers, Scientists, Surveyors

PROJECT
SUBJECT LAND STATUS REPORT
SOUTHDALE ROAD AND
COLONEL TALBOT ROAD
LONDON, ONTARIO

TITLE
ZONING

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Date: Apr 25/23	Rev No.: 0

FIGURE 4

Figure 5: NHIC
(2020 NHIC Make a Map)

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Key Plan

Legend

- Wetland
- Woodland

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April 2020

MTE

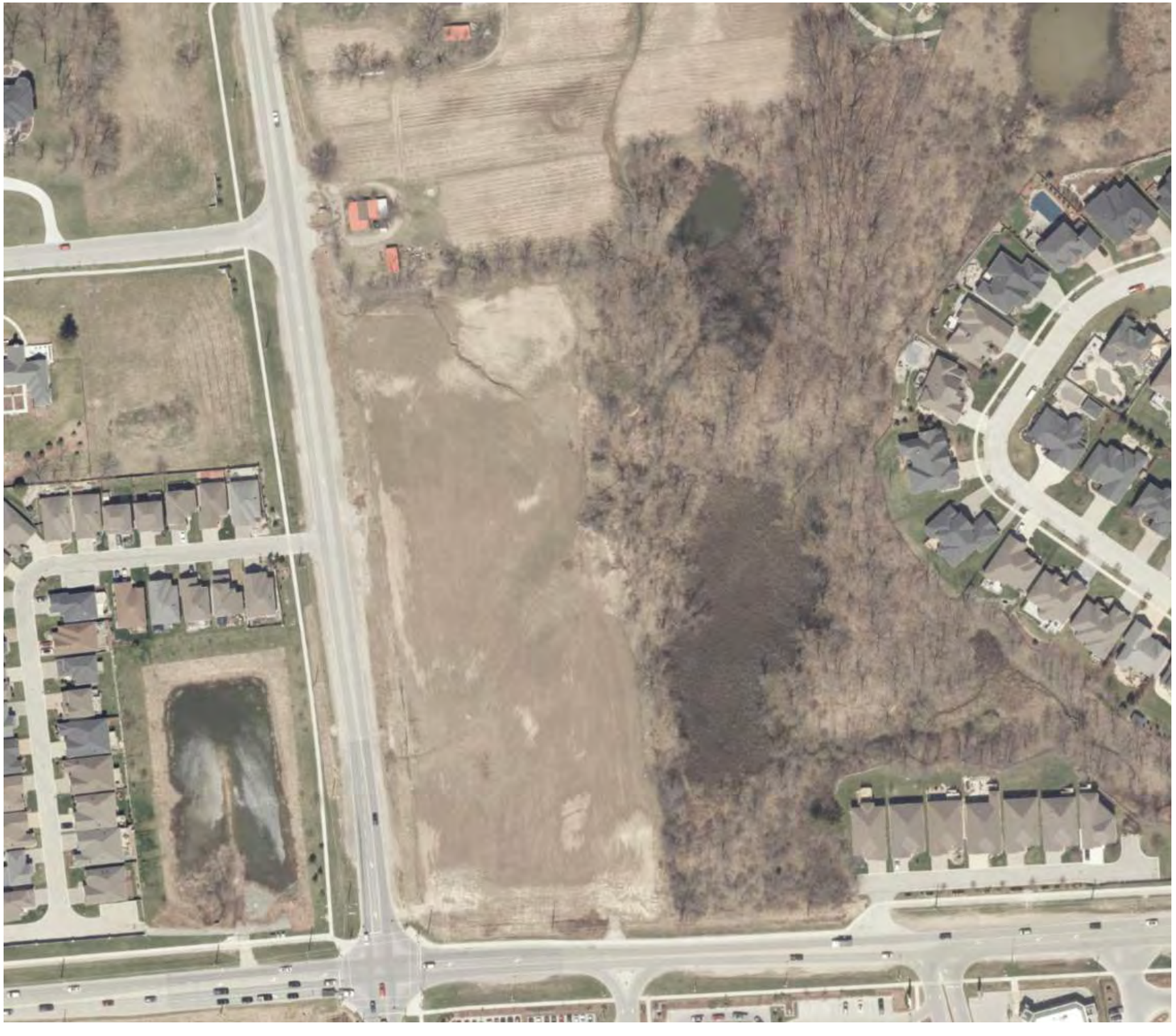


Figure 5a: PSW Boundary

(2019 City of London Air Photo)

0 1,000

Scale 1:50,000

Key Plan

Legend:

MNRF PSW Boundary 2018

Peizometer Location (LDS, 2019)

Print on 11X17, Landscape Orientation

0 30

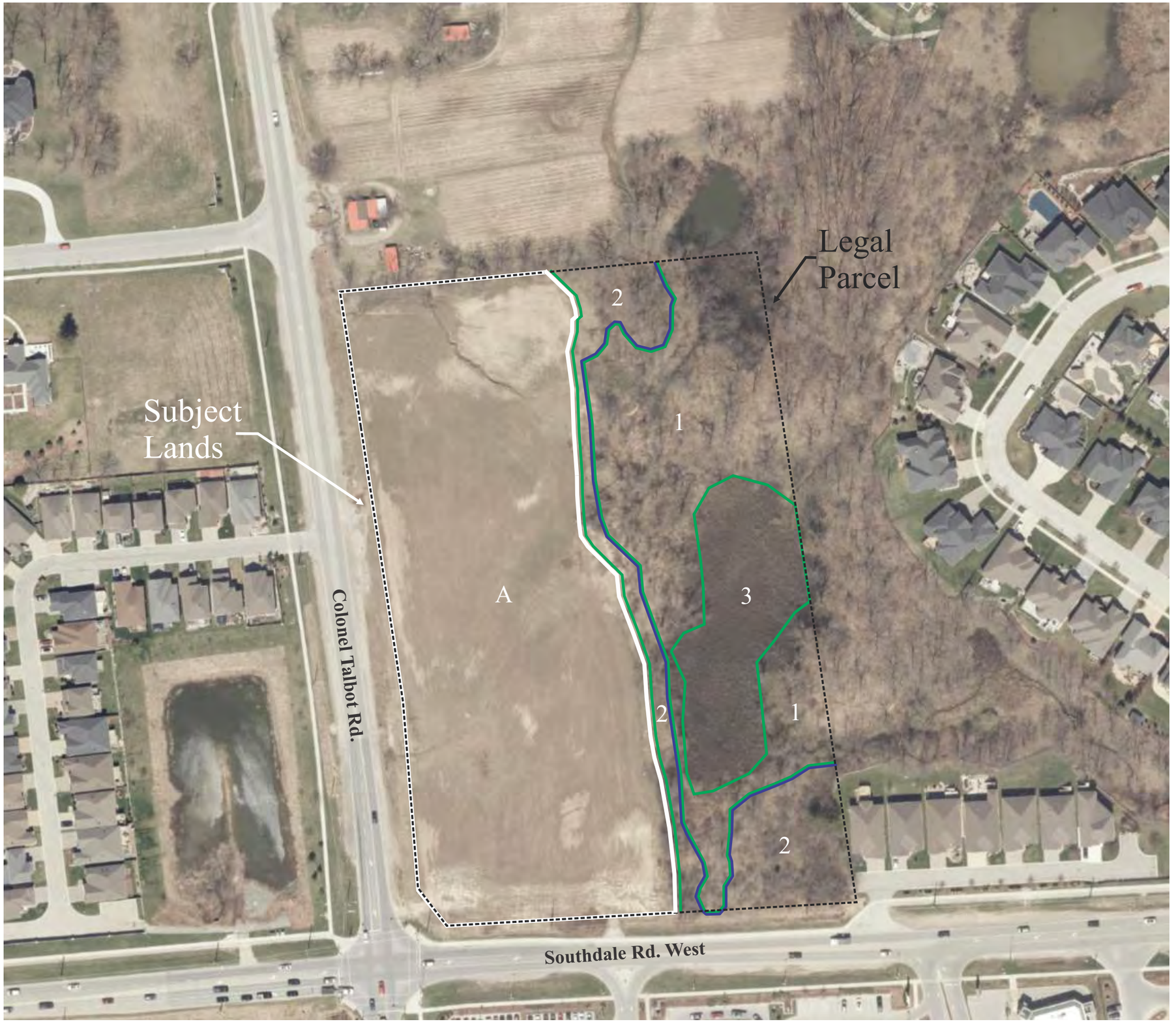
Scale 1:1,500

April 2020

MTE

Figure 6: Vegetation Communities

(2019 City of London Air Photo)



0 1,000

Scale 1:50,000

Key Plan

Legend:

MNRF PSW Boundary 2018

Vegetation Boundary 2018

1 SWT2 Mineral Thicket Swamp

2 CUW1 Mineral Cultural Woodland Ecosite

3 SWT3-4 Buttonbush Organic Thicket Swamp Type

A Agricultural

*Terrestrial Crayfish Chimneys observed in Community 2 and suspected in Community 1

*One (1) Eastern Wood-pewee observed in Community 1 during one breeding bird survey visit. Potential breeding habitat is present within the larger Community 2 woodland outside of Legal Parcel

Print on 11X17, Landscape Orientation

0 30

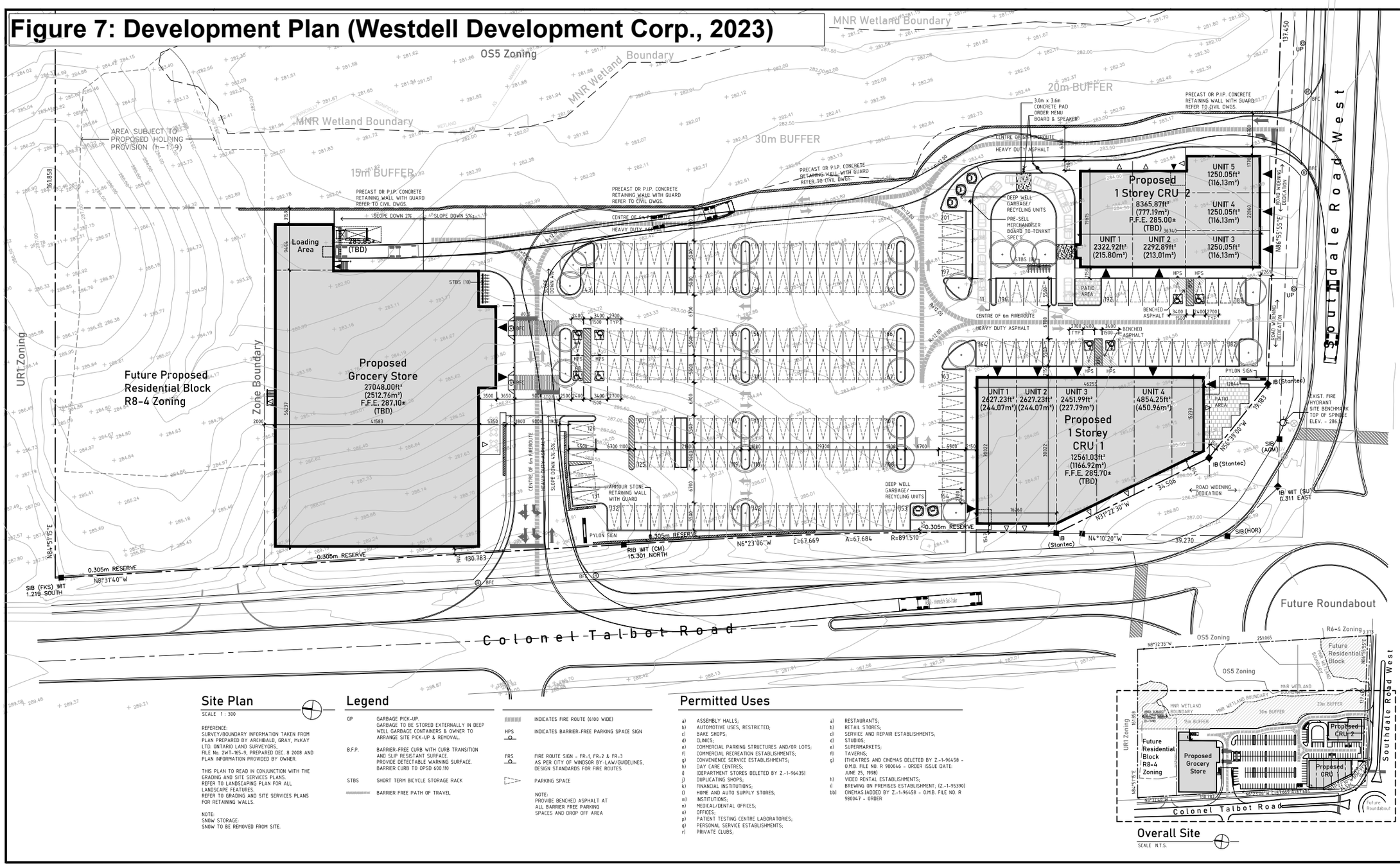
Scale 1:1,500

April 2020

N

MTE

Figure 7: Development Plan (Westdell Development Corp., 2023)



Site Plan

SCALE 1 : 300

REFERENCE:
SURVEY/BOUNDARY INFORMATION TAKEN FROM PLAN PREPARED BY ARCHIBALD, GRAY, McKAY LTD. ONTARIO LAND SURVEYORS, FILE No. 2WT-165-9, PREPARED DEC. 8 2008 AND PLAN INFORMATION PROVIDED BY OWNER.

THIS PLAN TO READ IN CONJUNCTION WITH THE GRADING AND SITE SERVICES PLANS. REFER TO LANDSCAPING PLAN FOR ALL LANDSCAPE FEATURES. REFER TO GRADING AND SITE SERVICES PLANS FOR RETAINING WALLS.

NOTE:
SNOW STORAGE:
SNOW TO BE REMOVED FROM SITE.

Legend

GP	GARBAGE PICK-UP. GARBAGE TO BE STORED EXTERNALLY IN DEEP WELL GARBAGE CONTAINERS & OWNER TO ARRANGE SITE PICK-UP & REMOVAL.
B.F.P.	BARRIER-FREE CURB WITH CURB TRANSITION AND SLIP RESISTANT SURFACE. PROVIDE DETECTABLE WARNING SURFACE. BARRIER CURB TO OPSD 600.110
STBS	SHORT TERM BICYCLE STORAGE RACK
	BARRIER FREE PATH OF TRAVEL
	INDICATES FIRE ROUTE (6100 WIDE)
HPS	INDICATES BARRIER-FREE PARKING SPACE SIGN
FRS	FIRE ROUTE SIGN – FR-1, FR-2 & FR-3 AS PER CITY OF WINDSOR BY-LAW/GUIDELINES, DESIGN STANDARDS FOR FIRE ROUTES
	PARKING SPACE

NOTE:
PROVIDE BENCHED ASPHALT AT ALL BARRIER FREE PARKING SPACES AND DROP OFF AREA

Permitted Uses

a) ASSEMBLY HALLS;
b) AUTOMOTIVE USES, RESTRICTED;
c) BAKE SHOPS;
d) CLINICS;
e) COMMERCIAL PARKING STRUCTURES AND/OR LOTS;
f) COMMERCIAL RECREATION ESTABLISHMENTS;
g) CONVENIENCE SERVICE ESTABLISHMENTS;
h) DAY CARE CENTRES;
i) (DEPARTMENT STORES DELETED BY Z.-1-96435)
j) DUPLICATING SHOPS;
k) FINANCIAL INSTITUTIONS;
l) HOME AND AUTO SUPPLY STORES;
m) INSTITUTIONS;
n) MEDICAL/DENTAL OFFICES;
o) OFFICES;
p) PATIENT TESTING CENTRE LABORATORIES;
q) PERSONAL SERVICE ESTABLISHMENTS;
r) PRIVATE CLUBS;
a) RESTAURANTS;
b) RETAIL STORES;
c) SERVICE AND REPAIR ESTABLISHMENTS;
d) STUDIOS;
e) SUPERMARKETS;
f) TAVERNS;
g) (THEATRES AND CINEMAS DELETED BY Z.-1-96458 – O.M.B. FILE NO. R 980046 – ORDER ISSUE DATE: JUNE 25, 1998)
h) VIDEO RENTAL ESTABLISHMENTS;
i) BREWING ON PREMISES ESTABLISHMENT; (Z.-1-95390)
bb) CINEMAS(ADDED BY Z.-1-96458 – O.M.B. FILE NO. R 980047 – ORDER

Overall Site

SCALE N.T.S.

PROJECT NORTH

DO NOT SCALE DRAWINGS.

CONTRACTOR AND SUBCONTRACTORS SHALL CHECK ALL DIMENSIONS AND REPORT TO THE OWNERS ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK.

ALL WORKMANSHIP AND MATERIALS MUST CONFORM WITH O.B.C. AND C.M.H.C. STANDARDS AND BE APPROVED BY OWNER.

No.	DATE	REVISION
1	JAN. 21/23	REVISE SITE PER TRUCK MOVEMENT ANALYSIS
2	JAN. 24/23	MOVE GROC PARKING WEST 10ft - 512 SETBACK
3	JAN. 27/23	3m GROC. SETBACK/GROC. REDUCE GROC ADD PRKG.

R.Tomè & Associate
R.Tomè & Associate Inc.
51 Wimbledon Court
London ON N6C 5C9
t. 519.672.6622
r_tome@bellnet.ca

MARSH KATSIOS Architect Inc.
TEL: 519 434-0101 marshkatsios@rogers.com FAX: 519 434-0161

Westdell
Development Corp.
1701 RICHMOND ST., SUITE 3B
LONDON, ON

Project Name
952 Southdale Road West, Proposed Commercial Development

1025 Elgin Street West, CRU #1
Cobourg, Ontario

Drawing Title
Site Plan Proposal

DATE:	JAN. 1, 2023
SCALE:	AS NOTED
DRAWN:	C.T.
REVIEWED:	B.K.
FILE No:	2023-####A100.DWG
PROJECT No:	2023-####

SP1.0 SPA

LEGEND

CATCHMENT 201

CATCHMENT 202

101 / 0.131 — SUB-CATCHMENT NUMBER; AREA (ha.)

EXISTING SPOT ELEVATIONS/CONTOURS

Ex. 375mmø STM — Ex. MH — EXISTING STORM SEWER

MH — 300mmø — STORM SEWER

100 YEAR PONDING LIMIT

OVERLAND FLOW ROUTE (MAJOR STORM)

LIMIT OF PROVINCIALLY SIGNIFICANT WETLAND AS MARKED

MNRF WETLAND

15M WETLAND BUFFER

15M WETLAND BUFFER

Ø SOUTHDALE ROAD WEST

STILLING BASIN

CB11

CBMH12

CBMH18

HW21

OGS14

CBMH13

MH16

CBMH17

CB15

MH20

MH19

105mm ORIFICE

UNDERGROUND ADS STORMTECH SYSTEM (514m³ VOLUME)

100-YEAR PONDING ELEVATION 285.74m

PROPOSED COMMERCIAL BUILDING 2

CB9

CB8

CBMH7

CB6

CBMH10

CB3

CB1

CBMH2

CBMH4

CBMH5

PROPOSED GROCERY STORE BUILDING

PROPOSED COMMERCIAL BUILDING 1

202B / 0.084

201 / 1.411

202A / 0.040

FUT. ROUNDABOUT

COLONEL TALBOT RD.

FIG 2

Date: FEB.17/23

Scale: 1:750

POST DEVELOPMENT CATCHMENTS

MTE

Engineers, Scientists, Surveyors

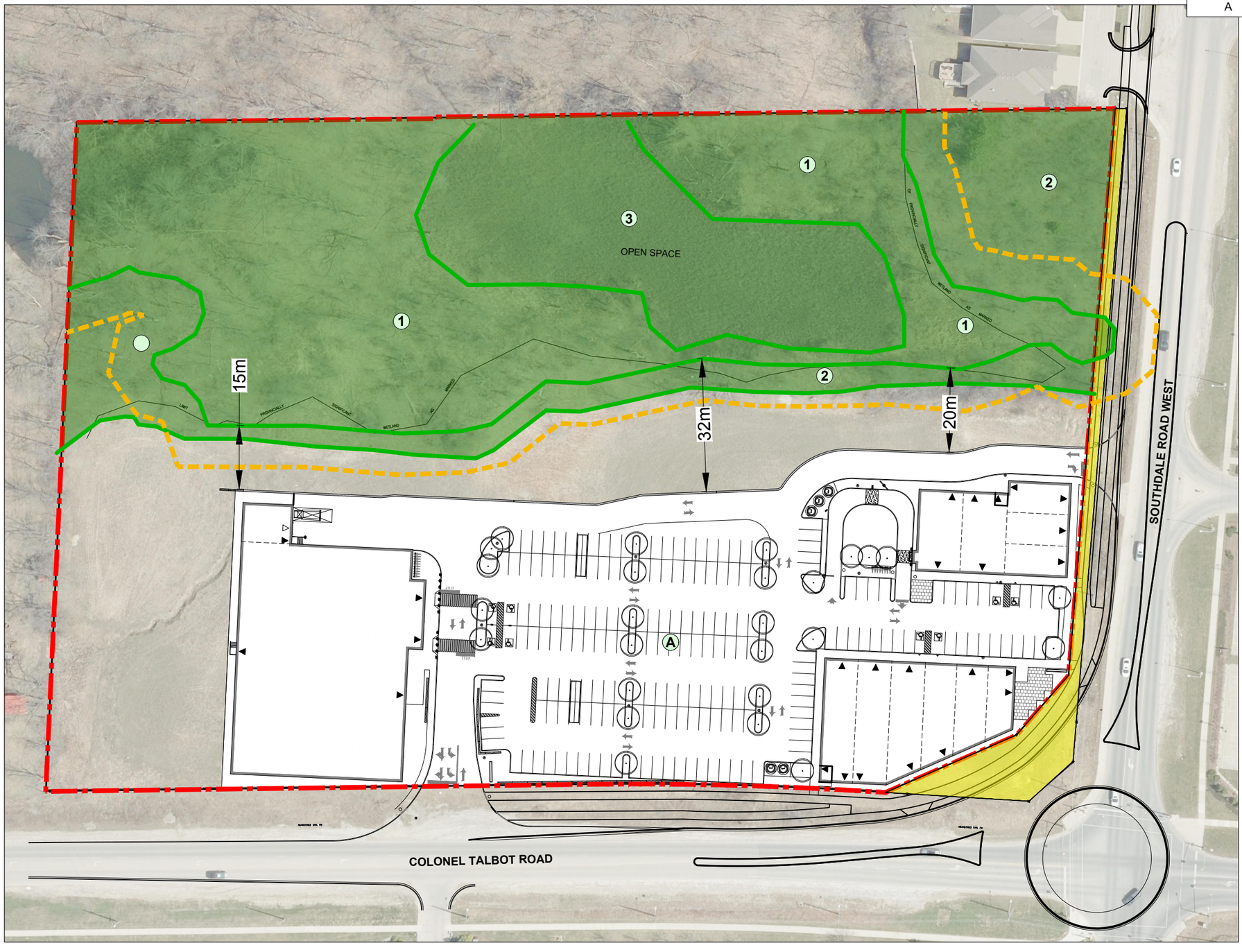
Project No.: 52756-100

date — time — CADTAG

P:\P\52756\100\52756-100-FIG2-SWM.dwg

Client: 1739626 Ontario Limited

ELC NUMBER	ELC CODE	DESCRIPTION
1	SWT2	MINERAL THICKET SWAMP
2	CUW1	MINERAL CULTURAL WOODLAND ECOSITE
3	SWT3-4	BUTTOM BUSH ORGANIC THICKET SWAMP TYPE
A		AGRICULTURAL



N

LEGEND

- SUBJECT LANDS
- 1 VEGETATION COMMUNITY
- 10m OFFSET
- AREA OF FUTURE ROAD WIDENING (CITY OF LONDON)

REFERENCES

CITY OF 2021 LONDON PARCEL AND AERIAL IMAGERY, OPEN DATA SET; AND STANTECT DRAFT PLAN OF SUBDIVISION, PROJECT No. 161403241, DRAWING No. 1, MARCH 9 - 2023.

NOTES

THIS FIGURE IS SCHEMATIC ONLY AND TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

SCALE IN METRES
0 20 40m
1:1,000

MTE
Engineers, Scientists, Surveyors

PROJECT
SUBJECT LAND STATUS REPORT
SOUTHDALE ROAD AND
COLONEL TALBOT ROAD
LONDON, ONTARIO

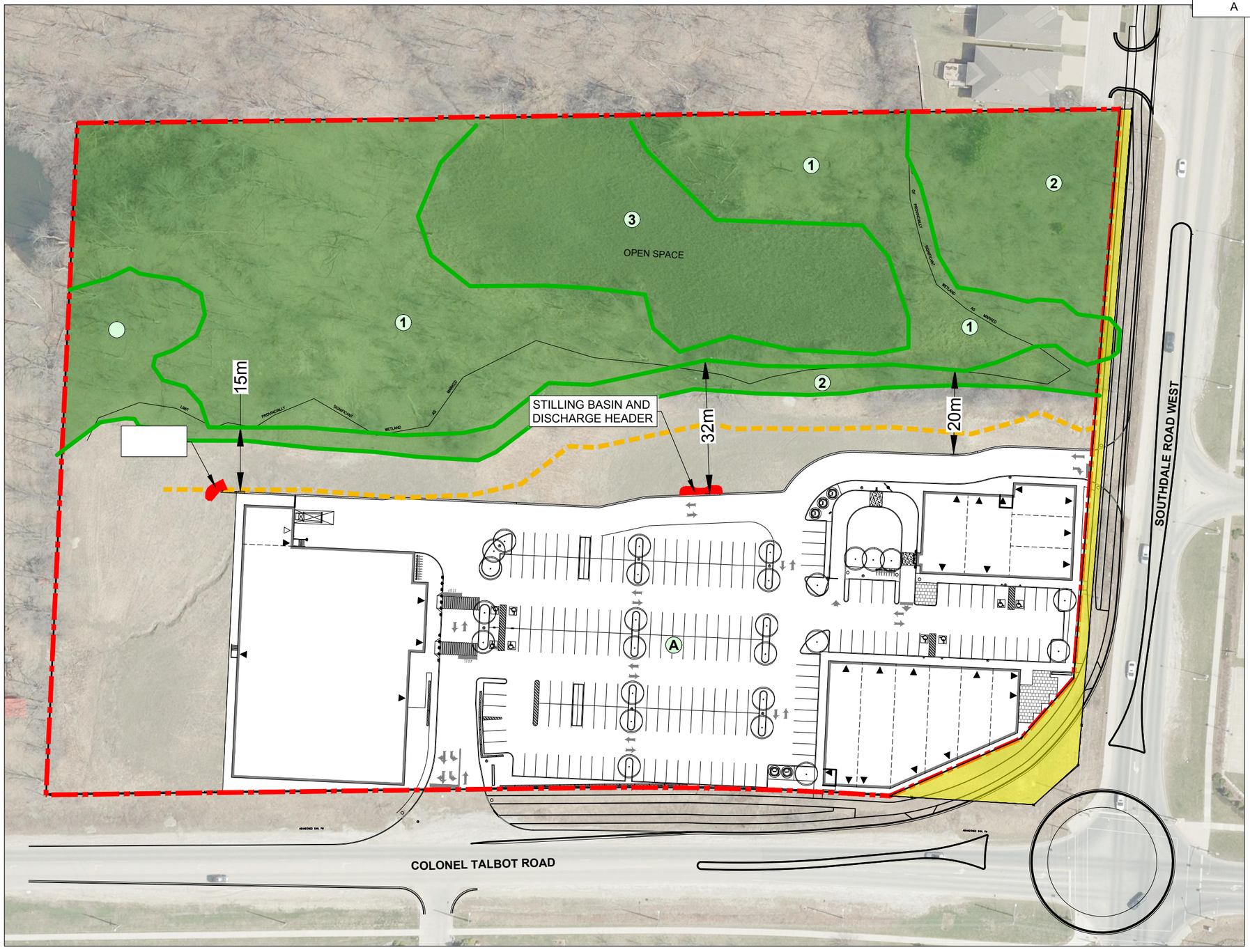
TITLE
VEGETATION COMMUNITIES
(DEVELOPMENT OVERLAY)

Drawn	Scale	
DCH	AS SHOWN	**FIGURE 9**
Checked	Project No.	
	45606-100	
Date	Rev No.	
Apr 25/23	0	

CAD: P:\P\45606\100\2_PROD\45606-100-FIG\45606-100-FIG9.DWG
25mm Original Format in Tabloid (279mm x 432mm; 11" x 17")
0

Client: 1739626 Ontario Limited

ELC NUMBER	ELC CODE	DESCRIPTION
1	SWT2	MINERAL THICKET SWAMP
2	CUW1	MINERAL CULTURAL WOODLAND ECOSITE
3	SWT3-4	BUTTOM BUSH ORGANIC THICKET SWAMP TYPE
A		AGRICULTURAL



N

LEGEND

- SUBJECT LANDS
- (1) VEGETATION COMMUNITY
- ROBUST SEDIMENT EROSION CONTROL FENCE
- AREA OF FUTURE ROAD WIDENING (CITY OF LONDON)

REFERENCES

CITY OF 2021 LONDON PARCEL AND AERIAL IMAGERY, OPEN DATA SET; AND
STANTECT DRAFT PLAN OF SUBDIVISION, PROJECT No. 161403241, DRAWING No. 1, MARCH 9 - 2023.

NOTES

THIS FIGURE IS SCHEMATIC ONLY AND TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

SCALE IN METRES
0 20 40m
1:1,000

MTE
Engineers, Scientists, Surveyors

PROJECT
SUBJECT LAND STATUS REPORT
SOUTHDALE ROAD AND
COLONEL TALBOT ROAD
LONDON, ONTARIO

TITLE
DETAILED ENGINEERING & MITIGATION PLAN

Drawn: JAC	Scale: AS SHOWN	**FIGURE 10**
Checked:	Project No.: 45606-100	
Date: Apr 25/23	Rev No.: 0	

CAD: P:\P\45606\100\2_PROD\45606-100-FIG\45606-100-FIG10.DWG
25mm Original Format in Tabloid (279mm x 432mm; 11" x 17")
0

Appendix A

Record of Pre-Application Consultation

Good morning Dave,

Please confirm that your ecologist will submit a combined Subject Land Status Report and Environmental Impact Study to ensure that the City's ecological concerns will be addressed.

Regards,

Michael Tomazincic, MCIP, RPP
Manager, Current Planning
Development Services
City of London

206 Dundas Street, London, Ontario N6A 1G7
P: 519.661.CITY (2489) x 4693 | Fax: 519.661.661-5397
mtomazin@london.ca | www.london.ca

From: dtraher@westdellcorp.com [mailto:dtraher@westdellcorp.com]
Sent: Wednesday, March 6, 2019 1:59 PM
To: Tomazincic, Michael <mtomazin@London.ca>; Debbert, Barb <bdebbert@London.ca>
Cc: 'Iyman Meddoui' <imeddoui@westdellcorp.com>; MacKay, James <jmackay@london.ca>
Subject: RE: 952 Southdale submission

Hi Michael

Thanks for getting back to us so quickly. As mentioned, or ecologist does feel that the EIS covers these items off already. It is possible to instruct the city's ecologist to accept perhaps a limited scope SLSR, given that the EIS will provide this detail as well, as they will be submitted at the same time?

Dave

David Traher | Vice President, Planning/Development Westdell Corp.
dtraher@westdellcorp.com | O: 519 850 0000 | C: 519 619 1913 | F: 226 777 1989
782 Richmond Street, London ON N6A 3H5
www.westdellcorp.com

From: Tomazincic, Michael <mtomazin@London.ca>
Sent: March 6, 2019 1:15 PM
To: dtraher@westdellcorp.com; Debbert, Barb <bdebbert@London.ca>
Cc: 'Iyman Meddoui' <imeddoui@westdellcorp.com>; MacKay, James <jmackay@london.ca>
Subject: RE: 952 Southdale submission

Good afternoon David,

We had a closer look at your request and features of the property and had good discussion in consideration of your request. We do not like to ask for any reports and studies that are not necessary for Staff to make an informed opinion to Council. However, in this case, we believe that the submission of an SLSR is a critical piece of information needed to prepare the Staff report.

The objective of the SLSR is to inventory, evaluate, assess significance of features and functions, delineate boundaries and make recommendations for designation. While the site already has a PSW designation which covers a large portion of the property, it is my understanding that an exercise has already taken place to redraw that PSW boundary in consultation with the MNRF. The evaluation of any other potential features that would require identification as a Significant Natural Heritage feature under Section 15.4 of the Official Plan and relevant policies of the London Plan is required. Other Significant Natural Heritage features may be present on the subject site. Once all Natural Heritage features have been properly identified, delineated, and accepted by the City of London, the project can proceed to an EIS for a proposed development based on the City approved SLSR and in accordance with the City's Environmental Management Guidelines.

The City's Ecologist would be happy to discuss the scoping of required field work and reporting requirements for the completion of the SLSR.

Michael Tomazincic, MCIP, RPP
Manager, Current Planning
Development Services
City of London

206 Dundas Street, London, Ontario N6A 1G7
P: 519.661.CITY (2489) x 4693 | Fax: 519.661.661-5397
mtomazin@london.ca | www.london.ca

From: dtraher@westdellcorp.com [mailto:dtraher@westdellcorp.com]
Sent: Monday, March 4, 2019 8:08 AM
To: Debbert, Barb <bdebbert@London.ca>; Tomazincic, Michael <mtomazin@London.ca>
Cc: 'Iyman Meddoui' <imeddoui@westdellcorp.com>
Subject: 952 Southdale submission

Good Morning Barb and Michael

We are preparing the various materials for submission for the ZBA/OPA and in speaking with our environmental consultant, he is of the opinion that the Subject Lands Status Report is not applicable in this instance, and that the EIS will address the same items. He further commented that the SLSR is for sites without any prior planning, yet this site has SWM and designations so the report may not be appropriate.

As we are submitting the EIS anyway, can we forego the SLSR?

Please advise

Thanks

David Traher | Vice President, Planning/Development Westdell Corp.

dtraher@westdellcorp.com | O: 519 850 0000 | C: 519 619 1913 | F: 226 777 1989
782 Richmond Street, London ON N6A 3H5

www.westdellcorp.com

APPENDIX A

Environmental Impact Study
ISSUES SUMMARY CHECKLIST REPORT

Application Title: 952 Southdale Road West

Date Submitted: September 17, 2020

Proponent: 1739626 Ontario Limited

Qualifications

Primary Consultant: MHBC Planning

Key Contact Person: Scott Allen

Other Consultants/ field personnel:

Hydrogeology/ Hydrology: LDS

Biological – Flora: MTE Consultants

Biological – Fauna: MTE Consultants

Other:

Context for Background Information

Subwatershed: Dingman Creek

Tributary Fact Sheet Number:

Planning / Policy Area:

Technical Advisory Review Team

- ☑ Ecologist Planner — James MacKay
- ☑ Planner for File — Barb Debbert
- ☐ EEPAC — Sandy Levin
- ☑ Conservation Authority — UTRCA
- ☑ Ministry of Natural Resources — & MECP - N/A
- ☑ Ministry of Municipal Affairs and Housing
- ☐ Ministry of Agriculture and Food

☐ **Other Review Groups (e.g., Community Associations, Field Naturalists)**

1.0 DESCRIPTON OF THE ENVIRONMENT (Features)

Purpose: To have a clear understanding of the current status of the land, and the proposed "development" or land use change.

1.1 Mapping (Location and Context)

Current aerial photography

☑ Land Use – Excerpts of the Official Plan for the City of London Ontario Schedules A, B, showing a 5-10 km radius of subject site
☑ Terrain setting @ 1:10,000 – 1:15,000 scale showing landscape features, subwatershed divides
☑ Existing Environmental Resources showing @1:2,000 – 1:5,000 showing Vegetation, Hydrology, contours, linages.
☑ Environmental Plan or Strategy from Subwatershed reports (tributary fact sheet), Community (Area) Plans, or other

1.2 Description of Site, Adjacent lands, Linage with Natural Heritage System

List all supporting studies and reports available to provide background summary (e.g. subwatershed, hydrological, geo-technical, natural heritage etc.).

Dingman Creek Subwatershed Study (2005), Southdale Road Widening EA (2018)

Check the first box if the information is relevant and required as part of this study. Check the second box if sufficient data is available.

1.2.1 Terrain Setting

☑	☑	Soils (surface and subsurface)
☑	☑	Glacial geomorphology – landform type
☑	☑	Subwatershed

☑	☑	Topographic features
☑	☐	Ground water discharge
☑	☐	Shallow ground water/baseflow
☑	☐	Ground water discharge/aquifer
☐	☐	Aggregate resources

1.2.2 **Hydrology**

☑	☐	Hydrological catchment boundary and of wetlands
☑	☐	Surface drainage pattern
☑	☐	Watercourses (Permanent, Intermittent)
☑	☐	Stream order (Headwater, 1st, 2nd, 3rd or higher)
☑	☐	Agricultural Drains
☑	☐	Downstream receiving watercourse
☑	☑	Hazard Line (Map 6)

1.2.3 **Natural Hazards**

☑	☑	100 year Erosion Line
☑	☑	Floodline mapping
☑	☑	Max line mapping + UTRCA text based regulated areas

1.2.4 **Vegetation**

☑	☐	Vegetation Patch Number
☑	☐	System (Terrestrial, Wetland, Aquatic)
☑	☐	Cover (Open, Shrub, Treed)
☑	☐	Community Type(s)
☑	☐	ELC Community Class (Bluff, Forest, Swamp, Tallgrass Prairie, Savannah & Woodland, Fen, Bog, Marsh, Open Water, Shallow Water)
☑	☐	ELC Community Series
☑	☐	Rare Vegetation Communities

1.2.5 **Flora**

☑ ☐ Flora (inventory dates, source)

Full 3-season required

☑ ☐ Rare flora (National, Provincial, Regional)

NHIC / MNRF / MECP
Oldham (2017)

1.2.6 **Fauna**

☑ ☐ Fauna (Inventory dates; sources)

Bat Habitat assessment

☑ ☐ Breeding Birds

☑ ☐ Migratory Birds

☑ ☐ Amphibians

☑ ☐ Reptiles

☑ ☐ Mammals

☑ ☐ Butterflies

☑ ☐ Odonata

☐ ☐ Other

☑ ☐ Partners In Flight (PIF)

☑ ☐ Rare Fauna

1.2.7 **Wildlife Habitat** as per MNRF 2015 criteria + all applicable official plan / London Plan policies

- [x] [ ] Species-At-Risk Regulated Habitat critical habitat mapping
- [x] [ ] Winter habitat for deer, wild turkey
- [x] [ ] Waterfowl Habitat (wetlands, poorly drained landscape – bottomlands, beaver ponds, seasonally flooded areas, staging areas, feeding areas)
- [ ] [ ] Colonial Birds Habitat
- [x] [ ] Hibernacula
- [x] [ ] Habitat for Raptors
- [x] [ ] Forests with springs or seeps
- [x] [ ] Ephemeral ponds
- [x] [ ] Wildlife trees (snags, cavities, x-large trees > 65 cm DBH)
- [ ] [ ] Forest Interior Birds
- [x] [ ] Area-sensitive birds

1.2.8 **Aquatic Habitat**
(SWS Aquatic Resources Management Reports)

- [x] [ ] Fish communities
  Habitat assessment — to be confirmed by UTRCA +/or assumed to be present in PSW
- [ ] [ ] Fish spawning areas
- [ ] [ ] Fish migration routes
- [ ] [ ] Thermal refuge for fish

☐ ☐ Benthic inventory

☑ ☐ Substrate

☑ ☐ Riparian habitat (extent and type)

1.2.9 **Linkages and Corridors**

(The diversity of natural features in an area, and the natural connections between them should be maintained, and improved where possible. PPS 2.3.3)

☑ ☐ Valleylands

☐ ☐ Significant Watercourses (Thames River, Stoney Creek, Medway Creek, Dingman Creek, Pottersburg Creek, Wabuno Creek, Mud Creek, Stanton Creek (Drain), Kelly Creek (Drain)

☑ ☐ Upland Corridors / species migration routes

☐ ☐ Big Picture Cores and Corridors

☑ ☐ Linkages between aquatic and terrestrial areas (riparian habitat, runoff)

☑ ☐ Groundwater connections

☑ ☐ Patch clusters (mosaic of patches in the landscape)

1.3 Social Values

1.3.1 **Human Use Values**

☑ ☐ Recreational linkages for hiking, walking

☑ ☐ Nature appreciation, aesthetics

☐ ☐ Education, research

☐ ☐ Cultural / traditional heritage

☐ ☐ Social (parks and open space)

☐ ☐ Resources Products (e.g. timber, fish, furbearers, peat)

☐ ☐ Aggregate Resources

1.3.2 **Land Use - Cultural**

- ☐ ☐ Archaeological (pre 1500)
- ☐ ☐ Historical (post 1500 – present)
- ☐ ☐ Adjacent historical and archeological
- ☐ ☐ Future

Std Archaeological requirement if identified with application

1.3.3 **Land Use - Active**

- ☐ ☐ Archaeological (pre 1500)
- ☐ ☐ Historical (post 1500 – present)
- ☐ ☐ Adjacent historical and archeological
- ☐ ☐ Future

1.3.4 **Other**

2.0 EVALUATION OF SIGNIFICANCE

Components of the Natural Heritage System
The policies in Section 15.4 apply to recognized and potential components of the natural heritage system as delineated on Schedule 'B' or features that may be considered for inclusion on Schedule 'B'. They also address the protection of environmental quality and ecological function with respect to water quality, fish habitat, groundwater recharge, headwaters and aquifers.

- ☑ **A component of a Subject Lands Status Report that is required to be included in the EIS is the evaluation of significance of all potential natural heritage features and areas recognized by In-force London Plan policies and/ or Official Plan policies.**

- ☑ **A component of a Subject Lands Status Report that is required to be included in the EIS is the confirmation and mapping of boundaries of all natural heritage features and areas.**

2.1 Environmentally Significant Areas

- ☐ Identified Environmentally Significant Areas (ESA)

Name

- ☐ Potential ESAs – Expansion of an Existing ESA

  Name

- ☐ Potential ESA – Area not associated with an existing ESA

  Name

2.2 Wetlands

- ☑ Provincially Significant Wetlands

  Name North Talbot PSW Complex

- ☐ Wetlands

  Name

- ☑ Unevaluated Wetlands

2.3 Areas of Natural and Scientific Interest

- ☐ Provincial Life Science ANSI
- ☐ Regional Life Science ANSI
- ☐ Earth Science ANSI

2.4 Habitat of Species-At-Risk (SAR)

- ☑ Endangered
- ☑ Threatened
- ☑ Vulnerable / Special Concern

2.5 Woodlands and Vegetation Patches

- ☐ Significant Woodlands
- ☑ Unevaluated Vegetation Patches and/ or other patches > 0.5ha

2.6 Corridors and Linkages

- ☑ River, Stream and Ravine Corridors
- ☐ Upland Corridors
- ☐ Naturalization and Anti-fragmentation Areas

3.0 IDENTIFICAITON AND DESCRIPTION OF FUNCTIONS

Ecological Functions the natural processes, products or services that species and non-living environments provide or perform within or between ecosystems and landscapes. Check those functions that will be required to assess for the study (key and supporting functions).

3.1 **Biological Functions**

- ☑ Habitat (provision of food, shelter for species)
- ☑ Limiting habitat

- [x] Species life histories (reproduction and dispersal)
- [ ] Habitat guilds
- [x] Indicator species
- [ ] Keystone species
- [x] Introduced species
- [ ] Predation / parasitism
- [x] Population dynamics
- [x] Vegetation structure, density and diversity
- [ ] Food chain support
- [ ] Productivity
- [x] Diversity
- [ ] Carbon cycle
- [ ] Energy cycling
- [x] Succession and disturbance processes
- [x] Relationships between species and communities

3.2 **Hydrological and Wetland Functions**

- [x] Groundwater recharge and discharge (hydrogeology)
- [ ] Water storage and release (fluvial geomorphology)
- [x] Maintaining water cycles (water balance)
- [x] Water quality improvement
- [ ] Flood damage reduction
- [ ] Shoreline stabilization / erosion control
- [x] Sediment trapping
- [ ] Nutrient retention and removal / biochemical cycling
- [x] Aquatic habitat (fish, macroinvertebrates)

3.3 **Landscape Features and Functions**

- [x] Size
- [x] Connections, corridors and linkages
- [x] Proximity to other areas / natural heritage features (e.g. woodlands, wetlands, valleylands, water, etc.)
- [x] Fragmentation

3.4 **Functions, Benefits and Values of Importance to Humans**

- ☑ Contributing to healthy and productive landscapes
- ☐ Improving air quality by supplying oxygen and absorbing carbon dioxide
- ☐ Converting and storing atmospheric carbon
- ☐ Providing natural resources for economic benefit
- ☐ Providing green space for human activities
- ☐ Aesthetic and quality-of-life benefit
- ☑ Environmental targets and/or environmental management strategies

4.0 ADDITIONAL COMPONENTS AND NOTES

- EIS to show and demonstrate conformity with the Provincial Policy Statement (2020), in-force London Plan policies, and current Official Plan policies (1989), Environmental Management Guidelines (2006).
- Full Hydrogeological study and water balance for all features – scope to be determined through discussions with the UTRCA and approved by the UTRCA and City of London.
- EIS to integrate and speak to Hydrogeological study and water balance findings and recommendations for the short and long-term protection of the features and functions.
- EIS to address Section 28 regulated areas requirements that are present on the subject site as confirmed by the UTRCA.
- Natural heritage features and areas boundaries to be staked and GPS located in the field with City of London and UTRCA staff.
- EIS to address buffers, additional mitigation and/or compensation based on the proposed development.
- EIS to address potential wetland interference/ removal on edge/ within feature limits as identified on City of London 2020 air photos.

Appendix B

Hydrogeological Assessment (LDS, Project # GE-00085, April 6, 2022)

Separate Report

Available upon Request

Appendix C

Ecological Land Classification Information

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Westfield	POLYGON: 1 Thicket Swamp		
SURVEYOR(S): WH	DATE: June 11	TIME: start	
		finish	
UTMZ: 17	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
☐ TERRESTRIAL	☐ ORGANIC	☐ LACUSTRINE	☑ NATURAL	☐ PLANKTON	☐ LAKE
☑ WETLAND	☑ MINERAL SOIL	☐ RIVERINE	☐ CULTURAL	☐ SUBMERGED	☐ POND
☐ AQUATIC	☐ PARENT MIN.	☑ BOTTOMLAND		☐ FLOATING-LVD.	☐ RIVER
	☐ ACIDIC BEDRK.	☐ TERRACE		☐ GRAMINOID	☐ STREAM
	☐ BASIC BEDRK.	☐ VALLEY SLOPE		☐ FORB	☐ MARSH
	☐ CARB. BEDRK.	☐ TABLELAND		☐ LICHEN	☑ SWAMP
		☐ ROLL. UPLAND		☐ BRYOPHYTE	☐ FEN
		☐ CLIFF		☑ DECIDUOUS	☐ BOG
		☐ TALUS		☐ CONIFEROUS	☐ BARREN
		☐ CREVICE / CAVE		☐ MIXED	☐ MEADOW
		☐ ALVAR			☐ PRAIRIE
		☐ ROCKLAND			☑ THICKET
		☐ BEACH / BAR			☐ SAVANNAH
		☐ SAND DUNE			☐ WOODLAND
		☐ BLUFF			☐ FOREST
					☐ PLANTATION

SITE	COVER
☐ OPEN WATER	☐ OPEN
☐ SHALLOW WATER	☑ SHRUB
☑ SURFICIAL DEP.	☐ TREED
☐ BEDROCK	

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	FRApenn > ACErubr > SUBnigr = ACEnegu
2	SUB-CANOPY	3	2	SALalba >
3	UNDERSTOREY	3	3	RHAcath = CORrace = CORseri = VIBopul
4	GRD. LAYER	6	4	CARspp = LYCspp = GLYstri = ONOsens

HT CODES: 1 = >25 m 2 = 10<HT 25 m 3 = 2<HT 10 m 4 = 1<HT 2 m 5 = 0.5<HT 1 m 6 = 0.2<HT 0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR 10% 2= 10 < CVR 25% 3= 25 < CVR 60% 4= CVR > 60%

STAND COMPOSITION:	BA:

SIZE CLASS ANALYSIS:		< 10		10 - 24		25 - 50		> 50
STANDING SNAGS:		< 10		10 - 24		25 - 50		> 50
DEADFALL / LOGS:		< 10		10 - 24		25 - 50		> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:	SWAMP	SW
COMMUNITY SERIES:	THICKET	SWT
ECOSITE:	MINERAL	SWT2
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC MANAGEMENT / DISTURBANCE

SITE: Westfield
POLYGON: 1 Thicket Swamp
DATE: June 11
SURVEYOR(S): WH

DISTURBANCE EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	0
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	0
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	0
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	2
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	0
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	0
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	0
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	~~MODERATE~~	HEAVY	4
EXTENT OF DISEASE / DEATH	NONE	LOCAL	~~WIDESPREAD~~	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	4
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	~~HEAVY~~	9
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	~~EXTENSIVE~~	
FIRE	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Colonel Talbot		POLYGON: 2 edge	
SURVEYOR(S): WN	DATE: June 11, 2018	TIME: start	
		finish	
UTMZ: 17	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
☒ TERRESTRIAL	☐ ORGANIC	☐ LACUSTRINE	☒ NATURAL	☐ PLANKTON	☐ LAKE
☐ WETLAND	☒ MINERAL SOIL	☐ RIVERINE	☒ CULTURAL	☐ SUBMERGED	☐ POND
☐ AQUATIC	☐ PARENT MIN.	☐ BOTTOMLAND		☐ FLOATING-LVD.	☐ RIVER
	☐ ACIDIC BEDRK.	☐ TERRACE		☐ GRAMINOID	☐ STREAM
	☐ BASIC BEDRK.	☐ VALLEY SLOPE		☐ FORB	☐ MARSH
	☐ CARB. BEDRK.	☒ TABLELAND		☐ LICHEN	☐ SWAMP
		☐ ROLL. UPLAND		☐ BRYOPHYTE	☐ FEN
		☐ CLIFF		☒ DECIDUOUS	☐ BOG
		☐ TALUS		☐ CONIFEROUS	☐ BARREN
		☐ CREVICE / CAVE		☐ MIXED	☐ MEADOW
		☐ ALVAR			☐ PRAIRIE
		☐ ROCKLAND			☐ THICKET
		☐ BEACH / BAR			☐ SAVANNAH
		☐ SAND DUNE			☒ WOODLAND
		☐ BLUFF			☐ FOREST
					☐ PLANTATION

SITE	COVER
☐ OPEN WATER	☐ OPEN
☐ SHALLOW WATER	☐ SHRUB
☒ SURFICIAL DEP.	☐ TREED
☐ BEDROCK	

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	3	JUGnigr > ACEsacsa ≥ FRApenn
2	SUB-CANOPY	3	3	JUGnigr > ACEsacsa >> FRApenn = MALspp.
3	UNDERSTOREY	3	3	LON tat > CORrac > ROSmult = VITripa
4	GRD. LAYER	6	4	ALLpti = MONfist = GEUalle = LEUvulg

HT CODES: 1 = >25 m 2 = 10<HT 25 m 3 = 2<HT 10 m 4 = 1<HT 2 m 5 = 0.5<HT 1 m 6 = 0.2<HT 0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR 10% 2= 10 < CVR 25% 3= 25 < CVR 60% 4= CVR > 60%

STAND COMPOSITION:	BA:

SIZE CLASS ANALYSIS:		< 10		10 - 24		25 - 50		> 50
STANDING SNAGS:		< 10		10 - 24		25 - 50		> 50
DEADFALL / LOGS:		< 10		10 - 24		25 - 50		> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:	CULTURAL	CU
COMMUNITY SERIES:	WOODLAND	CUW
ECOSITE:	MINERAL	CUW1
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC
MANAGEMENT / DISTURBANCE

SITE: Westdell Colonel Talbot
POLYGON: 2 edge
DATE: June 11
SURVEYOR(S): WN

DISTURBANCE EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	2
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	1
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	4
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	2
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	0
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	0
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	0
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	4
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	2
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	4
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	1
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	0
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

Appendix D

Significant Wildlife Habitat Table

ELCs: SWT2 (Community 1), CUW1 (Community 2), SWT3-4 (Community 3)

Seasonal Concentration of Animals

Wildlife Habitat	ELC Codes Triggers	Additional Habitat Criteria	Candidate SWH
Waterfowl Stopover and Staging Areas (Terrestrial)	None present	- none present	No
Waterfowl Stopover and Staging Areas (Aquatic)	None present	- none present	No
Shorebird Migratory Stopover Area	None present	- beach areas, bars, seasonally flooded, muddy and un-vegetated shoreline habitat not available	No
Raptor Wintering Area	None present	- combination of forest and fields is not large enough (need to be >20ha)	No
Bat Hibernacula	None present	- none present	No
Bat Maternity Colonies	None present	-no candidate maternity roost trees identified within surveyed communities	No
Turtle Wintering Areas	SWT3-4, SWT2	-over-wintering sites are permanent water bodies, large wetlands, and bogs and fens with adequate dissolved oxygen	**Candidate**
Reptile Hibernaculum	all other than really wet	-none present	No
Colonially-Nesting Bird Breeding Habitat (Bank / Cliff)	None present	-none present	No
Colonially-Nesting Bird Breeding Habitat (Trees/Shrubs)	None present	-breeding bird surveys did not identify any heronries or species of heron within the Study Area.	No
Colonially-Nesting Bird Breeding Habitat (Ground)	None present	-none present	No
Migratory Butterfly Stopover Areas	None present	-a butterfly stopover area will be >10ha in size with a combination of forest (FOD) and field (CUM/CUT). Criteria not met.	No
Land Bird Migratory Stopover Areas	None present	-woodlots >5ha in size and within 5km of Lake Ontaro and Lake Erie. Criteria not met.	No
Deer Winter Congregation Areas	None present	-woodlots >100ha in size. Criteria not met.	No

Rare Vegetation Communities

Wildlife Habitat	ELC Codes Triggers	Additional Habitat Criteria	Candidate SWH
Cliffs and Talus Slopes	Not Present		No
Sand Barren	Not Present		No
Alvar	Not Present		No
Old Growth Forest	Not Present		No
Savannah	Not Present		No
Tallgrass Prairie	Not Present		No
Other Rare Vegetation	SWT3-4	-Buttonbush Organic Thicket Swamp (S3)	**Confirmed**

Specialized Habitats of Wildlife considered SWH

Wildlife Habitat	ELC Codes Triggers	Additional Habitat Criteria	Candidate SWH
Waterfowl Nesting Area	SWT2	- breeding bird studies did not identify the presence of 3 or more nesting pairs for listed species excluding Mallards	No
Bald Eagle and Osprey Nesting, Foraging, Perching	None present	- no stick nests observed	No
Woodland Raptor Nesting Habitat	None present	- natural or conifer plantation woodlands/forest stands >30ha with >4ha of interior habitat. Criteria not met.	No
Turtle Nesting Areas	None Present	- no exposed mineral soil adjacent to wetlands	No
Springs and Seeps	None present	-none present	No
Amphibian Breeding Habitat (Woodland)	None present	- wetland within or adjacent (within 120m) to woodland	No
Amphibian Breeding Habitat (Wetlands)	SWT2, SWT3-4	- wetlands not >120m from woodland ecosites; wetlands >500m^2, supporting high species diversity are significant -amphibian breeding surveys did not meet criteria for significance	**Candidate**
Woodland Area-Sensitive Bird Breeding Habitat	None present	-habitats where interior forest breeding birds are breeding; large mature (>60yrs old) forest stands or woodlots >30ha - community is too small; too narrow for interior forest habitat (at least 200m from forest edge)	No

Habitats of Species of Conservation Concern considered SWH

Wildlife Habitat	ELC Codes Triggers	Additional Habitat Criteria	Candidate SWH
Marsh Breeding Bird Habitat	None Present	-none present	No
Open Country Bird Breeding Habitat	None Present	- natural and cultural fields >30ha are not present	No
Shrub/Early Successional Bird Breeding Habitat	None present	- no large fields succeeding to shrub and thicket habitats > 10ha in size -no target species observed during breeding birds survey	No
Terrestrial Crayfish	CUW1	- wet meadow and edges of shallow marshes	**Candidate**
Special Concern and Rare Wildlife Species (NHIC and MNRF pre-consultation)		- One (1) Eastern Wood-pewee [SC] observed during one visit of a two visit breeding bird survey. -no higher level confirmed breeding evidence noted (carrying food, nest with young)	No

Animal Movement Corridors

Wildlife Habitat	ELC Codes Triggers*	Additional Habitat Criteria	Candidate SWH
Amphibian Movement Corridors	None present	-Movement corridors are determined when there is confirmed amphibian breeding habitat	No

SWH exceptions

Wildlife Habitat	Ecosites	Habitat Criteria and Information	Candidate SWH
Bat Migratory Stopover Area	no triggers	- site is not near Long Point	No

Appendix E

Floral Inventory Data

Floral Inventory-Community 1							
Scientific Name	**Common Name**	**CW**	**GRank**	**COSEWIC**	**Nrank**	**SARO**	**SRank**
Acer rubrum	Red Maple	0.0	G5		N5		S5
Agrimonia gryposepala	Hooked Agrimony	3.0	G5		N5		S5
Agrostis stolonifera	Creeping Bentgrass	-3.0	G5		N5		SE5
Anemone quinquefolia	Wood Anemone	0.0	G5		N5		S5
Anemone virginiana	Tall Anemone	3.0	G5		NNR		S5
Bidens frondosa	Devil's Beggarticks	-3.0	G5		N5		S5
Boehmeria cylindrica	False Nettle	-5.0	G5		N5		S5
Carex bebbii	Bebb's Sedge	-5.0	G5		N5		S5
Carex cristatella	Crested Sedge	-3.0	G5		N5		S5
Carex gracillima	Graceful Sedge	3.0	G5		N5		S5
Carex gynandra	Nodding Sedge	-5.0	G5		N5		S5
Carex normalis	Larger Straw Sedge	-3.0	G5		NNR		S4
Carex vulpinoidea	Fox Sedge	-5.0	G5		N5		S5
Cephalanthus occidentalis	Eastern Buttonbush	-5.0	G5		NNR		S5
Chelone glabra	White Turtlehead	-5.0	G5		N5		S5
Cicuta maculata	Spotted Water-hemlock	-5.0	G5		N5		S5
Cirsium muticum	Swamp Thistle	-5.0	G5		N5?		S5
Dipsacus fullonum	Common Teasel	3.0	GNR		NNA		SE5
Echinochloa crus-galli	Large Barnyard Grass	-3.0	GNR		NNA		SE5
Epilobium hirsutum	Hairy Willowherb	-3.0	GNR		NNA		SE5
Equisetum arvense	Field Horsetail	0.0	G5		N5		S5
Erigeron annuus	Annual Fleabane	3.0	G5		N5		S5
Euonymus obovatus	Running Strawberry Bush	3.0	G5		N5		S4
Euthamia graminifolia	Grass-leaved Goldenrod	0.0	G5		N5		S5
Frangula alnus	Glossy Buckthorn	0.0	GNR		NNA		SE5
Fraxinus pennsylvanica	Green Ash	-3.0	G5		N5		S4
Geum canadense	White Avens	0.0	G5		N5		S5
Glyceria striata	Fowl Mannagrass	-5.0	G5		N5		S5
Hesperis matronalis	Dame's Rocket	3.0	G4G5		NNA		SE5
Impatiens capensis	Spotted Jewelweed	-3.0	G5		N5		S5
Iris versicolor	Harlequin Blue Flag	-5.0	G5		N5		S5
Juncus effusus	Soft Rush	-5.0	G5		N5		S5
Leersia oryzoides	Rice Cutgrass	-5.0	G5		N5		S5
Lycopus americanus	American Water-horehound	-5.0	G5		N5		S5
Lysimachia ciliata	Fringed Loosestrife	-3.0	G5		N5		S5
Onoclea sensibilis	Sensitive Fern	-3.0	G5		N5		S5
Oxalis stricta	Upright Yellow Wood-sorrel	3.0	G5		N5		S5
Persicaria lapathifolia	Pale Smartweed	-3.0	G5		N5		S5
Phalaris arundinacea	Reed Canary Grass	-3.0	G5		N5		S5
Phragmites australis	Common Reed	-3.0	G5		N5		S4?
Poa compressa	Canada Bluegrass	3.0	GNR		NNA		SE5
Poa palustris	Fowl Bluegrass	-3.0	G5		N5		S5
Rhamnus cathartica	Common Buckthorn	0.0	GNR		NNA		SE5
Ribes triste	Swamp Red Currant	-5.0	G5		N5		S5
Rubus idaeus ssp. idaeus	Common Red Raspberry	3.0	G5T5		NNR		SE1
Rubus odoratus	Purple-flowering Raspberry	5.0	G5		N5		S5
Rumex crispus	Curly Dock	0.0	GNR		NNA		SE5
Salix alba	White Willow	-3.0	G5		NNA		SE4
Sambucus canadensis	Common Elderberry	-3.0	G5		NNR		S5
Scirpus atrovirens	Dark-green Bulrush	-5.0	G5		N5		S5
Scirpus cyperinus	Cottongrass Bulrush	-5.0	G5		N5		S5
Solanum dulcamara	Bittersweet Nightshade	0.0	GNR		NNA		SE5
Solidago gigantea	Giant Goldenrod	-3.0	G5		N5		S5
Symphyotrichum lanceolatum var. interior	Interior White Aster	-3.0	G5T5		NNR		S4S5
Symphyotrichum novae-angliae	New England Aster	-3.0	G5		N5		S5
Symphyotrichum pilosum	White Heath Aster	3.0	G5		N5		S5
Symphyotrichum puniceum	Swamp Aster	-5.0	G5		N5		S5
Tussilago farfara	Colt's-foot	3.0	GNR		NNA		SE5
Typha angustifolia	Narrow-leaved Cattail	-5.0	G5		N5		SE5
Verbena urticifolia	White Vervain	0.0	G5		N5		S5
Viburnum opulus ssp. opulus	Cranberry Viburnum	-3.0	G5TNR		NNA		SE3?
Vitis riparia	Riverbank Grape	0.0	G5		N5		S5
Xanthium strumarium	Rough Cocklebur	0.0	G5		N5		S5

Floral Inventory-Community 2							
Scientific Name	**Common Name**	**CW**	**GRank**	**COSEWIC**	**Nrank**	**SARO**	**SRank**
Acer negundo	Manitoba Maple	0.0	G5		N5		S5
Acer saccharum	Sugar Maple	3.0	G5		N5		S5
Agrimonia gryposepala	Hooked Agrimony	3.0	G5		N5		S5
Agrostis gigantea	Redtop	-3.0	G4G5		NNA		SE5
Alliaria petiolata	Garlic Mustard	0.0	GNR		NNA		SE5
Ambrosia artemisiifolia	Common Ragweed	3.0	G5		N5		S5
Anemone virginiana	Tall Anemone	3.0	G5		NNR		S5
Asclepias syriaca	Common Milkweed	5.0	G5		N5		S5
Bromus inermis	Smooth Brome	5.0	G5		NNA		SE5
Carex lacustris	Lake Sedge	-5.0	G5		N5		S5
Carya cordiformis	Bitternut Hickory	0.0	G5		N5		S5
Carya ovata	Shagbark Hickory	3.0	G5		N5		S5
Centaurea jacea	Brown Knapweed	5.0	GNR		NNA		SE5
Circaea canadensis ssp. canadensis	Canada Enchanter's Nightshade	3.0	GNR		NNR		S5
Cornus racemosa	Gray Dogwood	0.0	G5		N5		S5
Cornus sericea	Red-osier Dogwood	-3.0	G5		N5		S5
Crataegus punctata	Dotted Hawthorn	5.0	G5		N5		S5
Dactylis glomerata	Orchard Grass	3.0	GNR		NNA		SE5
Dryopteris carthusiana	Spinulose Wood Fern	-3.0	G5		N5		S5
Epilobium hirsutum	Hairy Willowherb	-3.0	GNR		NNA		SE5
Erigeron annuus	Annual Fleabane	3.0	G5		N5		S5
Erythronium americanum	Yellow Trout-lily	5.0	G5		N5		S5
Euthamia graminifolia	Grass-leaved Goldenrod	0.0	G5		N5		S5
Fraxinus pennsylvanica	Green Ash	-3.0	G5		N5		S4
Galium palustre	Marsh Bedstraw	-5.0	G5		NNR		S5
Geum aleppicum	Yellow Avens	0.0	G5		N5		S5
Hackelia virginiana	Virginia Stickseed	3.0	G5		N5		S5
Hypericum punctatum	Spotted St. John's-wort	0.0	G5		N5		S5
Iris virginica	Southern Blue Flag	-5.0	G5		N5		S5
Juglans nigra	Black Walnut	3.0	G5		N4		S4?
Leersia virginica	Virginia Cutgrass	-3.0	G5		N4N5		S4
Leucanthemum vulgare	Oxeye Daisy	5.0	GNR		NNA		SE5
Ligustrum vulgare	European Privet	3.0	GNR		NNA		SE5
Linaria vulgaris	Butter-and-eggs	5.0	GNR		NNA		SE5
Lonicera tatarica	Tartarian Honeysuckle	3.0	GNR		NNA		SE5
Monarda fistulosa	Wild Bergamot	3.0	G5		N5		S5
Phragmites australis	Common Reed	-3.0	G5		N5		S4?
Poa palustris	Fowl Bluegrass	-3.0	G5		N5		S5
Rhamnus cathartica	Common Buckthorn	0.0	GNR		NNA		SE5
Rubus occidentalis	Black Raspberry	5.0	G5		N5		S5
Salix amygdaloides	Peach-leaved Willow	-3.0	G5		N5		S5
Salix discolor	Pussy Willow	-3.0	G5		N5		S5
Solidago canadensis	Canada Goldenrod	3.0	G5		N5		S5
Sonchus arvensis	Field Sow-thistle	3.0	GNR		NNA		SE5
Symphyotrichum ericoides	White Heath Aster	3.0	G5		N5		S5
Symphyotrichum lateriflorum	Calico Aster	0.0	G5		N5		S5
Symphyotrichum novae-angliae	New England Aster	-3.0	G5		N5		S5
Tilia americana	American Basswood	3.0	G5		N5		S5
Tussilago farfara	Colt's-foot	3.0	GNR		NNA		SE5
Verbena urticifolia	White Vervain	0.0	G5		N5		S5
Viola sororia	Woolly Blue Violet	0.0	G5		N5		S5
Vitis riparia	Riverbank Grape	0.0	G5		N5		S5

Appendix F

Breeding Bird Survey

AVIFAUNAL SURVEY INFORMATION SUMMARY SHEET

Project: Westdell - Colonel Talbot Collector(s): WH

Visit 1 Date: 11-Jun-18 Visit 2: 28-Jun-18

Start: 5:20 End: 6:00 Start: 8:45 End: ?

Weather: 14°C breezy, cool, clear sky Weather: 18°C cloud cover 5/10

Wind 3 Wind 3

Species Code	Species Name	Evidence Code		No.		S Rank	ESA Status	PIF Status	Community	Notes
		vis 1	vis 2	vis 1	vis 2					
HOWR	House Wren	VO		1		S5			1	
RWBL	Red-winged Blackbird	VO	P, FY	4	3	S4			1,2	
YWAR	Yellow Warbler	VO		2		S5			2	
GRCA	Gray Catbird	VO	SM	2	3	S4			1,2	
AMRO	American Robin	VO	FY	2	3	S5			1,2	
SOSP	Song Sparrow	VO	SM	1	1	S5			1,2	
COGR	Common Grackle	AE	VO	2	1	S5		RC	1,2	
NOCA	Northern Cardinal	VO	CA	2	1	S5			1,2	
RBGR	Rose-breasted Grosbeak	T		1		S4			1	
AMGO	American Goldfinch	P	P	2	3	S5			1,2	
BHCO	Brown-headed Cowbird	VO	P	1	2	S4			1,2	
EAWP	Eastern Wood-Pewee	SM		1		S4	SC		1	
CEDW	Cedar Waxwing		P		2	S5			2	
AMWO	American Woodcock		OB		1	S4			1,2	
MODO	Mourning Dove		P		2	S5			1,2	
DOWO	Downy Woodpecker		VO		1	S5			1	
RCKI	Ruby-crowned Kinglet		VO		1	S4			1	

Appendix G

Amphibian Breeding Survey Data

GENERAL SITE INFORMATION FIELD SHEET

Project: York Southdale / C. Talbot
Date: April 12, 2017 Project Manager: VM
Collector(s): VM Visit #:
Time started: 9:20pm Time finished: 9:35pm Combined collectors' hours:
☐ NHIC List ☐ MNR EO's ☐ none ☐ not provided to collector

WEATHER CONDITIONS				
Temp.	Wind:		Cloud Cover (%)	Precipitation
7°C	Direction:		Ø	Today: N/A Yesterday: 2mm

WIND SCALE	
0	Calm
1	Smoke Drifts
2	Wind Felt on Face
3	Leaves in constant motion
4	Wind raises dust and paper
5	Small trees sway
6	Large branches sway
7	Lots of resistance when walking into
8	Limbs breaking off trees

DATA FOCUS

☐	Birds 1__ 2__ Mig__	☐	ELC's	☐	Dripline/Tree Survey
☐	Mammals	☐	Floral V__ S__ A_	☐	Aquatic - Physical
☑	Amphibians 1✓ 2_ 3_	☐	Wetland	☐	Aquatic - Biological
☐	Reptiles	☐	Butternut	☐	Faunal Habitat
☐	Inverterbrates	☐	other SAR	☐	Other - see notes

FEATURES (with GPS co-ordinates where applicable)	Mapped	Follow-up Req'd		
	UTM	Yes	No	Who
Man-made Structures: ☐ None observed				
Yes No				
☐ ☐ Barns/Footings/Wells/other(list)				
☐ ☐ Rock Piles				
☐ ☐ Garbage				
Natural Vegetation: ☐ None observed				
☐ ☐ Fallen Logs outside woods (#'s)				
☐ ☐ Brush Piles				
☐ ☐ Snags (raptor perch)				
☐ ☐ Tree Cavities (nesting)				
☐ ☐ Sentinel Trees				
☐ ☐ Mast Trees (6E) ☐ Berry Shrubs (6E)				
Wildlife Features: ☐ None observed				
☐ ☐ Waterfowl nesting (large #'s, # of species)				
☐ ☐ Exposed Banks (nesting swallows)				
☐ ☐ Stick Nests				
☐ ☐ Animal Burrows (>10cm)				
☐ ☐ Heronry				
☐ ☐ Crayfish mounds				
☐ ☐ Sand/gravel on site				
☐ ☐ Marsh/open country/shrub				
☐ ☐ Winter Deer yards				
☐ ☐ Corridor from pond to woods (ampibian movement)				
☐ ☐ Bat corridor (shorelines, escarpments)				
☐ ☐ Bat hibernacula (caves, mines, crevices, etc.)				
Aquatic Features:				
☐ ☐ Perm. pond in woodland ☐ emergents/submergents/logs ☐ temp.				
☐ ☐ Perm. pond in open ☐ emergents/submergents/logs ☐ temp.				
☐ ☐ Water in woodland ☐ pools ☐ flowing ☐ dry				
☐ ☐ Waterways flowing dry pools				
☐ natural stream ☐ ☐ ☐				
☐ swale ☐ ☐ ☐ ☐ None observed				
☐ open drain ☐ ☐ ☐				
Seeps/Springs ☐ ☐ ☐				

Incidental Observations/Notes:

Peepers calling to east in Buttonbush wetland
- water in drainage ditch on site @ N
- flow path ~ centre from pipe under Colonel Talbot Rd.
- No frogs on site

Graphic ☐ Attached or Name Checked by Project Manager ☐ Date:

GENERAL SITE INFORMATION FIELD SHEET

Project: York Southdale @ Carl Talbot
Date: May 11, 2017 Project Manager: LR
Collector(s): LM Visit #:
Time started: 11:03 Time finished: 11:15 Combined collectors' hours:
☐ NHIC List ☐ MNR EO's ☐ none ☐ not provided to collector

WEATHER CONDITIONS				
Temp.	Wind:		Cloud Cover (%)	Precipitation
10.5C	Direction: Ø		Ø	Today: 1.3mm Yesterday: Ø

DATA FOCUS					
☐	Birds 1__ 2__ Mig__	☐	ELC's	☐	Dripline/Tree Survey
☐	Mammals	☐	Floral V_ _ S_ _ A_	☐	Aquatic - Physical
☑	Amphibians 1_ 2_ 3_	☐	Wetland	☐	Aquatic - Biological
☐	Reptiles	☐	Butternut	☐	Faunal Habitat
☐	Inverterbrates	☐	other SAR	☐	Other - see notes

WIND SCALE	
0	Calm
1	Smoke Drifts
2	Wind Felt on Face
3	Leaves in constant motion
4	Wind raises dust and paper
5	Small trees sway
6	Large branches sway
7	Lots of resistance when walking into
8	Limbs breaking off trees

FEATURES (with GPS co-ordinates where applicable)	Mapped	Follow-up Req'd		
	UTM	Yes	No	Who
Man-made Structures: ☐ None observed				
Yes No				
☐ ☐ Barns/Footings/Wells/other(list)				
☐ ☐ Rock Piles				
☐ ☐ Garbage				
Natural Vegetation: ☐ None observed				
☐ ☐ Fallen Logs outside woods (#'s)				
☐ ☐ Brush Piles				
☐ ☐ Snags (raptor perch)				
☐ ☐ Tree Cavities (nesting)				
☐ ☐ Sentinel Trees				
☐ ☐ Mast Trees (6E) ☐ Berry Shrubs (6E)				
Wildlife Features: ☐ None observed				
☐ ☐ Waterfowl nesting (large #'s, # of species)				
☐ ☐ Exposed Banks (nesting swallows)				
☐ ☐ Stick Nests				
☐ ☐ Animal Burrows (>10cm)				
☐ ☐ Heronry				
☐ ☐ Crayfish mounds				
☐ ☐ Sand/gravel on site				
☐ ☐ Marsh/open country/shrub				
☐ ☐ Winter Deer yards				
☐ ☐ Corridor from pond to woods (ampibian movement)				
☐ ☐ Bat corridor (shorelines, escarpments)				
☐ ☐ Bat hibernacula (caves, mines, crevices, etc.)				
Aquatic Features:				
☐ ☐ Perm. pond in woodland ☐ emergents/submergents/logs ☐ temp.				
☐ ☐ Perm. pond in open ☐ emergents/submergents/logs ☐ temp.				
☐ ☐ Water in woodland ☐ pools ☐ flowing ☐ dry				
☐ ☐ Waterways flowing dry pools				
☐ natural stream ☐ ☐ ☐				
☐ swale ☐ ☐ ☐ ☐ None observed				
☐ open drain ☐ ☐ ☐				
Seeps/Springs ☐ ☐ ☐				
Incidental Observations/Notes:				
Peepers in Button Bush wetland to east				

Graphic ☐ Attached or Name Checked by Project Manager ☐ Date:

GENERAL SITE INFORMATION FIELD SHEET

Project: York Southdale / C. Talbot
Date: June 12, 2017 Project Manager: LM
Collector(s): LM Visit #:
Time started: 9:45am Time finished: 10:00pm Combined collectors' hours:
☐ NHIC List ☐ MNR EO's ☐ none ☐ not provided to collector

WEATHER CONDITIONS				
Temp.	Wind:		Cloud Cover (%)	Precipitation
28°C	Direction:		90%	Today: 0 Yesterday: 0

WIND SCALE	
0	Calm
1	Smoke Drifts
2	Wind Felt on Face
3	Leaves in constant motion
4	Wind raises dust and paper
5	Small trees sway
6	Large branches sway
7	Lots of resistance when walking into
8	Limbs breaking off trees

DATA FOCUS

☐	Birds 1__ 2__ Mig__	☐	ELC's	☐	Dripline/Tree Survey
☐	Mammals	☐	Floral V__ S__ A_	☐	Aquatic - Physical
☑	Amphibians 1_ 2_ 3☑	☐	Wetland	☐	Aquatic - Biological
☐	Reptiles	☐	Butternut (BHA)	☐	Faunal Habitat
☐	Inverterbrates	☐	other SAR	☐	Other - see notes

FEATURES (with GPS co-ordinates where applicable)	Mapped	Follow-up Req'd		
	UTM	Yes	No	Who
Man-made Structures: ☐ None observed				
Yes No				
☐ ☐ Barns/Footings/Wells/other(list)				
☐ ☐ Rock Piles				
☐ ☐ Garbage				
Natural Vegetation: ☐ None observed				
☐ ☐ Fallen Logs outside woods (#'s)				
☐ ☐ Brush Piles				
☐ ☐ Snags (raptor perch)				
☐ ☐ Tree Cavities (nesting)				
☐ ☐ Sentinel Trees				
☐ ☐ Butternut Identified				
☐ ☐ Mast Trees (6E) ☐ Berry Shrubs (6E)				
Wildlife Features: ☐ None observed				
☐ ☐ Waterfowl nesting (large #'s, # of species)				
☐ ☐ Exposed Banks (nesting swallows)				
☐ ☐ Stick Nests				
☐ ☐ Animal Burrows (>10cm)				
☐ ☐ Heronry				
☐ ☐ Crayfish mounds				
☐ ☐ Sand/gravel on site				
☐ ☐ Marsh/open country/shrub				
☐ ☐ Winter Deer yards				
☐ ☐ Corridor from pond to woods (ampibian movement)				
☐ ☐ Bat corridor (shorelines, escarpments)				
☐ ☐ Bat hibernacula (caves, mines, crevices, etc.)				
Aquatic Features:				
☐ ☐ Perm. pond in woodland ☐ emergents/submergents/logs ☐ temp.				
☐ ☐ Perm. pond in open ☐ emergents/submergents/logs ☐ temp.				
☐ ☐ Water in woodland ☐ pools ☐ flowing ☐ dry				
☐ ☐ Waterways flowing dry pools				
☐ natural stream ☐ ☐ ☐				
☐ swale ☐ ☐ ☐ ☐ None observed				
☐ open drain ☐ ☐ ☐				
Seeps/Springs ☐ ☐ ☐				

Incidental Observations/Notes:

- frog heard on adjacent lands - Buttonbush wetland
- farm field is planted
- 1 deer in farm field

Graphic ☐ Attached or Name N:\Templates\Other Templates\Field Sheets\BioLogic_General Field Sheet Checked by Project Manager ☐ Date:

AMPHIBIAN BREEDING SURVEY INFORMATION FIELD SHEET

Project: York Southdale / C-Talbot Page ___ of ___

Station Name: _____ Watercourse Name: _____

Darinage Sys.: _____ GPS Coordinates: _____

Visit 1 Date: April 12/17 **Start:** 9:20 **End:** 9:35

Weather:

Water °C: | Wind: 1 | Noise: 3 | Today- Rain: N/A | Max °C: 9°C

Air °C: 7°C | Cloud%: 0 | Yesterday- Rain: 2mm | Max °C: 20°C

Control Site: (Y)/N | Were Frogs Calling: (Y)/N | Where: Back Rd Wetland | Collector(s): LM

Amphibian Data:

Field Note Community: Buttonbush on-site

ELC Community:

Species	Season	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#
Wood Frog	e. spring																
Spring Peeper	e. spring	2															
Western Chorus Frog	e. spring																
Boreal Chorus Frog	e. spring																
American Toad	spring																
Northern Leopard Frog	spring																
Pickerel Frog	spring																
Gray Treefrog	spring																
Fowler's Toad	spring																
Mink Frog	summer																
Green Frog	summer																
Bullfrog	summer																

Visit 2 Date: May 11 **Start:** 11:03 **End:** 11:15

Weather:

Water °C: | Wind: 1 | Noise: 3 | Today- Rain: ~1mm | Max °C: 15°C

Air °C: 10.5 | Cloud%: 0 | Yesterday- Rain: 0 | Max °C: 15.5°C

Control Site: Y/N | Were Frogs Calling: Y/N | Where: Back Rd wetland | Collector(s): LM

Amphibian Data:

Species	Season	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#
Wood Frog	e. spring																
Spring Peeper	e. spring	2															
Western Chorus Frog	e. spring																
Boreal Chorus Frog	e. spring																
American Toad	spring																
Northern Leopard Frog	spring																
Pickerel Frog	spring																
Gray Treefrog	spring																
Fowler's Toad	spring																
Mink Frog	summer																
Green Frog	summer																
Bullfrog	summer																

Visit 3 Date: June 12/17 **Start:** 9:45 **End:** 10:00

Weather: Humid, Cloudy

Water °C: | Wind: 1 | Noise: 3 | Today- Rain: 0 | Max °C: 30

Air °C: 28°C | Cloud%: 20% | Yesterday- Rain: 0 | Max °C: 30

Control Site: Y/N | Were Frogs Calling: Y/N | Where: | Collector(s):

Amphibian Data:

Species	Season	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#	CC	#
Wood Frog	e. spring																
Spring Peeper	e. spring																
Western Chorus Frog	e. spring																
Boreal Chorus Frog	e. spring																
American Toad	spring																
Northern Leopard Frog	spring																
Pickerel Frog	spring																
Gray Treefrog	spring	3	>10														
Fowler's Toad	spring																
Mink Frog	summer																
Green Frog	summer		2														
Bullfrog	summer																

Appendix H

Preliminary Screening Report Response from MECP

Laura McLennan

From: Erin Boynton
Sent: Friday, August 30, 2019 2:37 PM
To: Dave Hayman
Cc: Laura McLennan
Subject: FW: Stage 1 Report: Westdell - Colonel Talbot

Laura, I believe you are the PM for this file? I have updated the Stage 1 tracking folders and list and added this response to the correspondanace in the public folders.

Client First | Right Solution | Work Together
Erin Boynton
Assistant Biologist/ Aquatic Technician
London x2243

From: Species at Risk (MECP) [mailto:SAROntario@ontario.ca]
Sent: Friday, August 30, 2019 1:59 PM
To: dtraher@westdellcorp.com
Cc: Erin Boynton <EBoynton@mte85.com>
Subject: RE: Stage 1 Report: Westdell - Colonel Talbot

To Whom It May Concern,

The Ministry of Environment, Conservation and Parks (MECP) has reviewed the information that was provided on the proposed development project to assess the potential impacts of the proposal on endangered or threatened species and their habitats. From the information provided, it is our understanding that the proposed project falls within these parameters:

a) The project is located at the northeast corner of Southdale Road West and Colonel Talbot Road (Part Lot 42, Concession 1, Westminster) in the City of London.
b) The proposed project involves:
   - The construction of a commercial building, a 6-storey residential building and above-ground and ground-level parking.
   - The western portion of the property is active agriculture. The eastern portion is naturally vegetation and is designated as Provincially Significant Wetland.
   - The development footprint will not impact the Provincially Significant Wetland.
c) The proposed project will begin upon receipt of all necessary approvals.
d) MECP has reviewed species at risk (SAR) occurrence information on file and determined there are known occurrences for the following species at risk in the general area of the property:
   - American Chestnut (endangered) – receives species and general habitat protection
   - Butternut (endangered) – receives species and general habitat protection
   - SAR bats (endangered) – receives species and general habitat protection
   - Bank Swallow (threatened) – receives species and general habitat protection
   - Barn Swallow (threatened) – receives species and general habitat protection
   - Eastern Meadowlark (threatened) – receives species and general habitat protection

Based on a review of the above information, MECP has determined that the activities associated with the project, as currently proposed, will likely not contravene section 9 (species protection) and/or section 10 (habitat protection) of the Endangered Species Act, 2007 (ESA 2007) provided the following recommendations are implemented:

1) Any species listed as endangered or threatened on the Species at Risk in Ontario (SARO) List that is encountered at the project location must be protected from all harm and harassment.
2) Any SAR individual (presumed to be unharmed) that is incidentally encountered in the project location must be allowed to leave on its own accord. Activities within 30 metres must cease until the individual disperses. Construction machinery/equipment must maintain a minimum operating distance of 30 metres from the individual until it disperses from the project area on its own accord.
3) If an injured or deceased SAR is found or a SAR individual is incidentally encountered, the specimen must be placed in a non-airtight container that is maintained at an appropriate temperature and a Wildlife Custodian (authorized under the Fish and Wildlife Conservation Act) should be contacted. A list of authorized Wildlife Custodians, their locations and their specialties (e.g. reptiles) is available at https://www.ontario.ca/page/find-wildlife-rehabilitator. MECP (contact information below) must be contacted immediately after the occurrence.
4) Any SAR individual that is present at the project site should be reported to the MECP staff (contact information below) within 48 hours of the observation or the next working day, whichever comes first.
5) Any proposed tree removal activities should avoid the bat active season, i.e. the time period when bats are likely to be using treed habitat to support foraging and roosting (generally corresponds to May 1 to September 1 in a given year).
6) If maternity roost sites are found within the proposed project site and are planned for removal, MNRF recommends the installation of bat boxes at a 2:1 ratio (i.e. 8 bat boxes installed for the 4 cavity trees removed) in suitable habitat.
7) Bank Swallow nests in burrows in natural and human-made settings where there are vertical faces in silt and sand deposits such as stockpiled sand/silt material and excavated trenches. Construction activities should avoid the creation of vertical faces and stockpiles or excavated areas. The guidance document entitled Best Management Practices for the Protection, Creation and Maintenance of Bank Swallow Habitat in Ontario should be followed to avoid creation of Bank Swallow habitat during construction..

If the above recommendations are implemented, the activity will likely not contravene section 9 (species protection) and/or section 10 (habitat protection) of the ESA 2007.

This guidance is valid until December 31st, 2020.

Should any of the project parameters change, please notify the Permissions and Compliance Section immediately to obtain guidance on whether additional actions will need to be taken to remain in compliance with the ESA 2007. Also, if any SAR species and/or habitats are observed in the project area, please contact the Permissions and Compliance Section as soon as possible.

Please visit https://www.ontario.ca/page/species-risk for more information on SAR species and habitat.

It is important to note that changes may occur in both species and habitat protection which could affect whether proposed projects may have adverse effects on SAR. The ESA 2007 applies to

endangered and threatened species listed on the Species at Risk in Ontario (SARO) List (http://www.ontario.ca/environment-and-energy/species-risk-ontario-list). The Committee on the Status of Species at Risk in Ontario (COSSARO) meets regularly to evaluate new species for listing and/or re-evaluate species already on the SARO List. As a result, species designations may change, which could in turn change the level of protection they receive under the ESA 2007. Also, habitat protection provisions for a species may change if a species-specific habitat regulation comes into effect.

Please be advised that it is your responsibility to comply with all other relevant provincial or federal legislation, municipal by-laws or required approvals from other agencies.

If you have any concerns or questions regarding this letter, please contact me by email at SAROntario@ontario.ca.

Regards,

Kathryn Markham
Management Biologist
Permissions and Compliance Section, Species at Risk Branch
Ministry of Environment, Conservation and Parks

From: Erin Boynton <eboynton@biologic.ca>
Sent: February 5, 2019 11:07 AM
To: ESA-Aylmer (MNRF) <ESA.Aylmer@ontario.ca>
Cc: Dave Hayman <dhayman@biologic.ca>
Subject: Stage 1 Report: Westdell - Colonel Talbot

To Whom It May Concern:

Please find attached a Stage 1 Information Request for proposed commercial buildings and 6 storey residential building with above and below ground parking.

A confirmation of receipt would be appreciated to confirm that the document is in the queue for review.

The attached documents are submitted as part of our discussions with MNRF with respect to the Endangered Species Act. Until a final decision has been rendered with respect to this application, it is our expectation these documents will be treated as Personal and Confidential. Thank you for your time.

Erin Boynton
BioLogic
201-110 Riverside Dr.
London, ON N6H 4S5
P-519-434-1516 xt 103
F-519-434-0575
E- eboynton@biologic.ca