



# Lambeth Centennial Park Boardwalk Lifecycle Renewal

*Ecological Community Advisory Committee (ECAC) Presentation*

*October 2023*

## GOALS FOR AN EIS REVIEW

### WRITE A REPORT WITH **RECOMMENDATIONS**

- Often the consultant will have many.  
It is OK to say that you agree

### E-MAIL REPORT TO:

- Ecologist on the file (usually named in the Scoping Checklist)
- Heather to include on the agenda
- City File Planner (ecologist usually will know who that it)
- Proponent's agent if known

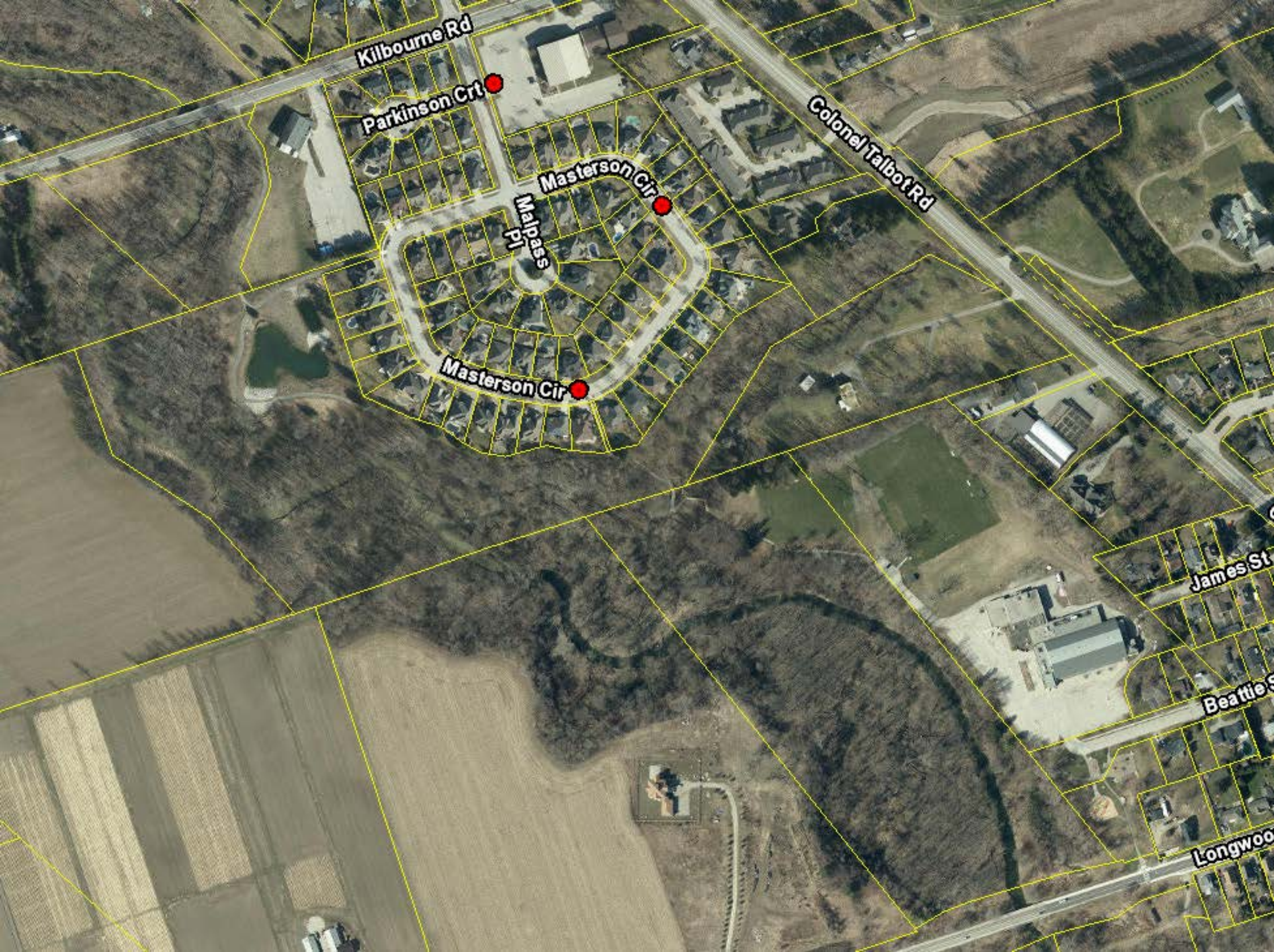
GET THE CONTEXT

[LONDON.CA/MAPS](http://LONDON.CA/MAPS)

USE THE AERIAL PHOTO

SECTION NEAR THE BOTTOM

TO GET THE HISTORICAL LOOK



Kilbourne Rd

Parkinson Crt

Masterson Cir

Malpass Pl

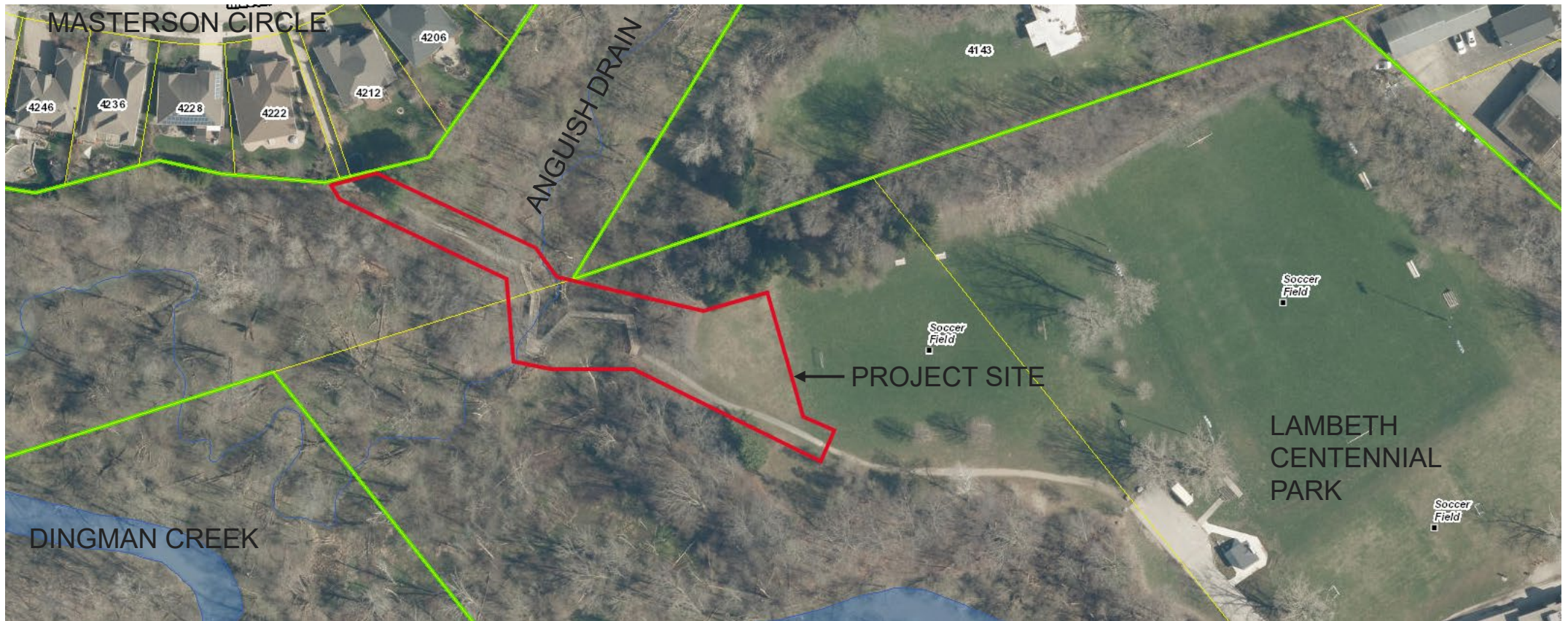
Colonel Talbot Rd

Masterson Cir

James St

Beattie St

Longwood

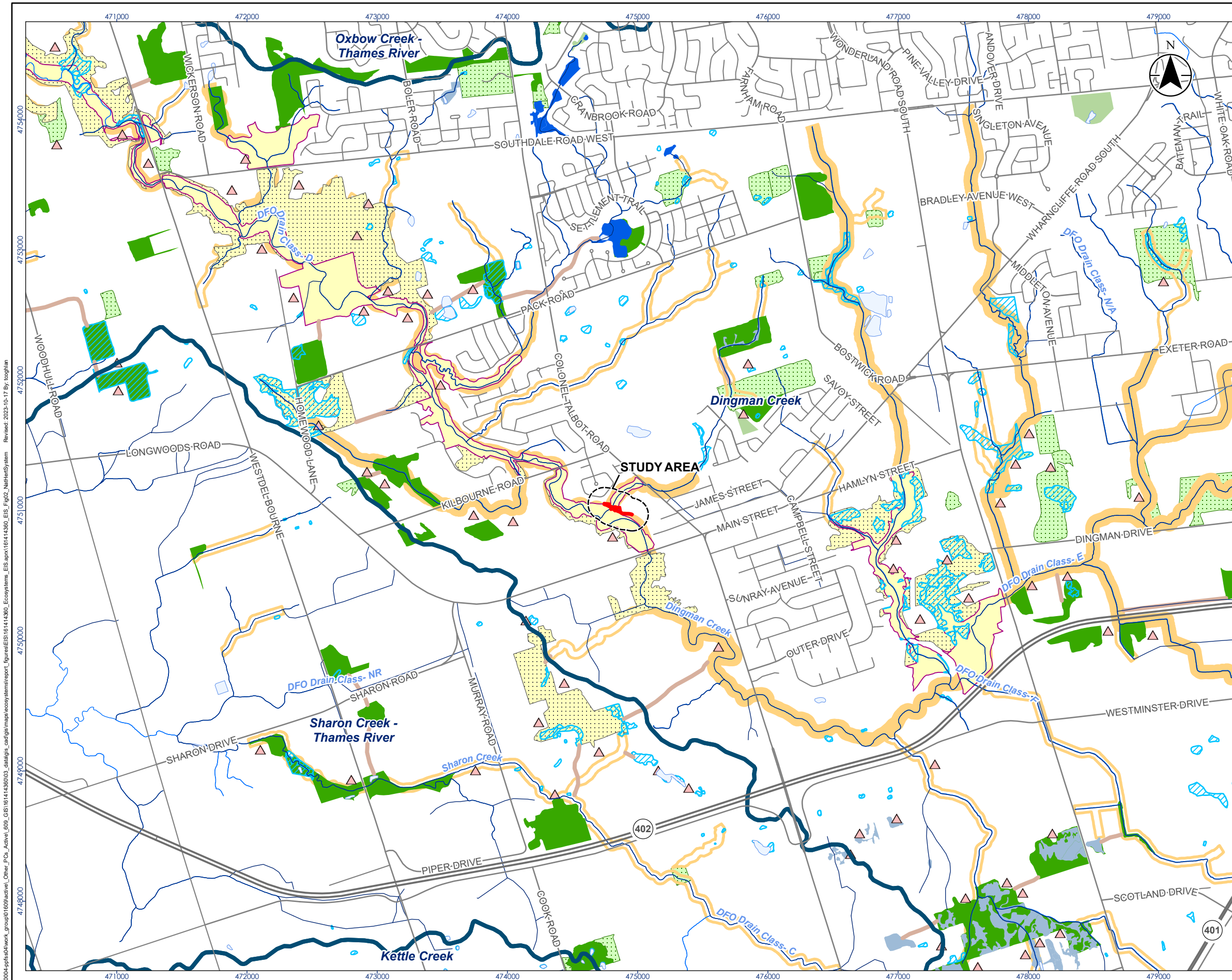


# Project Site and Background

- The boardwalk is within the Dingman Environmentally Significant Area and Significant Valleylands identified on Map 5 of the London Plan.
- The boardwalk is within an area regulated by the UTRCA.
- The existing boardwalk was installed in 2000 and is in need of lifecycle renewal.
- In 2017/2018 extensive background studies and 100% detailed design drawings were completed by Stantec and Debbert Engineering. Due to lack of funding, the project was not constructed in 2018.

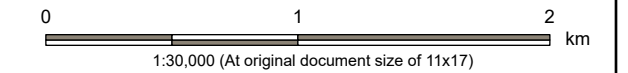
ALSO GOOGLE

“London Plan” and look  
at Maps 1 and 5

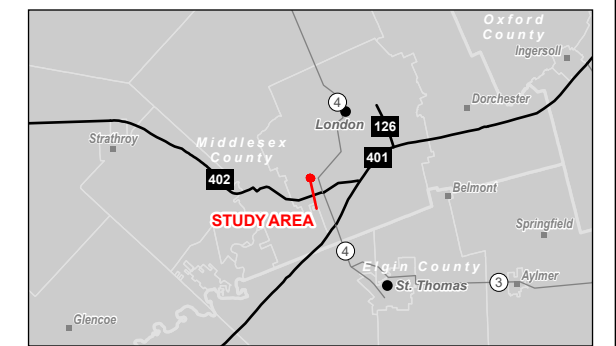


Legend

- |   |                            |
|---|----------------------------|
| Study Area                              | <b>Base Features</b>       |
| Project Footprint                       | Waterbody                  |
| <b>Natural Heritage System</b>          | Constructed Drain          |
| Potential Naturalization Areas          | Watercourse (Intermittent) |
| Environmentally Significant Areas (ESA) | Watercourse (Permanent)    |
| Potential ESAs                          | Highway                    |
| Provincially Significant Wetlands       | Major Road                 |
| Significant Valleylands                 | Minor Road                 |
| Significant Woodlands                   | Subwatershed Boundary      |
| Unevaluated Vegetation Patches          |                            |
| Unevaluated Wetlands                    |                            |
| Upland Corridors                        |                            |
| Valleylands                             |                            |
| Wetlands                                |                            |
| Woodlands                               |                            |



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 17N
  2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2023.
  3. Natural Heritage System features from the London Plan Map 5 - Natural Heritage (Consolidated May 2022) © City of London, 2023.



Project Location: London, ON  
 Prepared by: toghlan on 2023-10-17  
 Technical Review by: ABC on yyyy-mm-dd  
 161414360 REVA

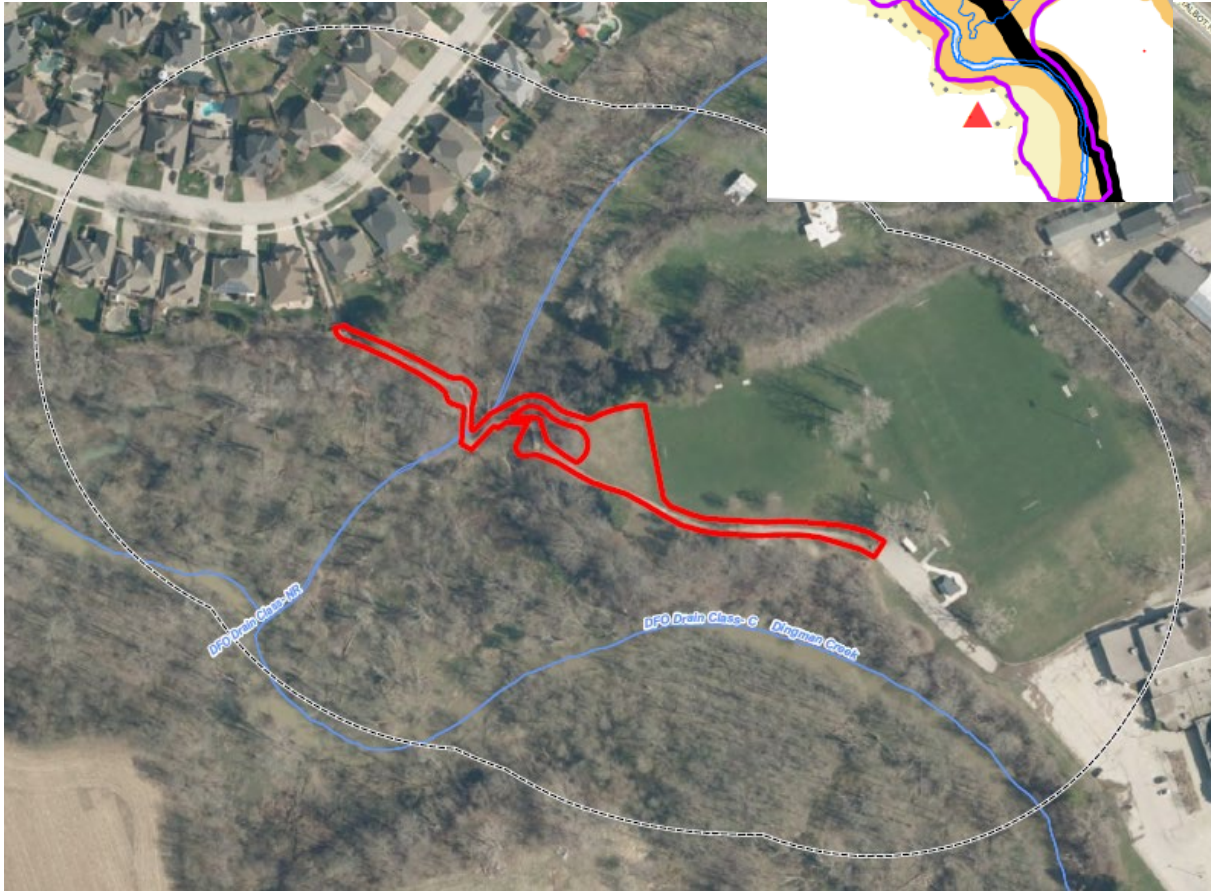
Client/Project:  
 City of London  
 Lambeth Boardwalk  
 Environmental Impact Study

Figure No.  
**2**



Title  
**Natural Heritage System**

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- The London Plan Map 5 (Natural Heritage)

 Significant Valleylands  
 Environmentally Significant Areas (ESA)

- Natural Heritage Information Centre:
  - Wooded Areas
  - Anguish Drain (permanent fish habitat)
  - Dingman Creek (permanent fish habitat)
- Background SAR / SOCC Records (1-km Element Occurrence records from NHIC):

Common Name	Provincial Rank	SARO Status	COSEWIC Status	Source
Snapping Turtle	S4	Special Concern	Special Concern	NHIC
Eastern Wood-pewee	S4B	Special Concern	Special Concern	NHIC
Greater Redhorse	S3			NHIC
Silver Shiner*	S2S3	Threatened	Threatened	DFO

\* Record from Dingman Creek.

## Environmental Impact Study - Background Data



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BOILER PLATE

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#### Appendix E Wildlife Species List

#### Appendix F Significant Wildlife Habitat Assessment

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#### Appendix H Design Drawings

#### Appendix I Aquatic Field Data Cards



## 9 Summary and Conclusion

The Study Area overlaps the following NHF, and hazards designated by the OP: Significant Valleyland, Potential Naturalization Area, Potential Environmentally Significant Areas, Conservation Authority Regulation Limit (UTRCA), Regulatory Flood Line, Riverine Erosion Hazard for Confined Systems, Highly Vulnerable Aquifer, and Tree Protection Area.

SAR were not detected during field investigations are considered to have a low probability of occurring in the Study Area. Habitat for four SOCC was confirmed in the Study Area: Eastern Wood-pewee, green dragon, hoary bat, and silver-haired bat. Eastern Wood-pewee, hoary bat and silver-haired bat are associated with forest communities (FODM4) and trees in the Project Footprint and Adjacent Lands. Green dragon was found in the wetland community (SWTO4/MAMM2) more than 65 m south of the Project Footprint in 2017 but was not found during targeted surveys in 2023.

Two additional SOCC, Northern Map Turtle and Snapping Turtle, are considered potentially present in the Study Area because the Anguish Drain and Dingman Creek are potentially suitable for feeding. Overwintering habitat is considered absent from the Anguish Drain, but parts of Dingman Creek may be suitable within the Study Area. Dingman Creek and Anguish Drain were confirmed as fish habitat.

The anticipated adverse effects associated with the Project are relatively localized and temporary in nature and are therefore considered low in magnitude. Standard mitigation measures, including timing restrictions for sensitive wildlife periods, as well as control measures for sediment, erosion, deleterious substances, and invasive species are available to reduce the potential for adverse effects on the NHFs. Because the work is planned to occur during winter, it will not affect migratory bird, bats, or fish during sensitive breeding periods.

Anticipated beneficial impacts include a reduction of footings within the Anguish Drain wetland, and a decreased in the overall footprint of the boardwalk (a net gain to wetland [27.0 m<sup>2</sup>] and woodland [8.8 m<sup>2</sup>] communities when compared to the existing boardwalk), which are expected to outweigh adverse impacts, resulting in a net benefit to the NHF in the Study Area. Further, the City of London is planning ecological restoration activities for the Study Area and surrounding NHS that exceed the mitigation requirements for the Project, planting 145 trees and 55 shrubs in Lambeth Centennial Park, and management of priority invasive species in Lambeth Centennial Park / Dingman Corridor. The restoration plans are scheduled to be implemented between fall 2024 and 2026 and will support and enhance the native species biodiversity of the NHS.

The Project will require prior written approval from the UTRCA (i.e., a Section 28 permit) and DFO (obtained through submission of an RfR).



# LOOK FOR THE SCOPING CHECKLIST

## APPENDIX B - Environmental Study Scoping Checklist

<b>Application/Project Name:</b> Lambeth Centennial Park Boardwalk Renewal	
<b>Proponent:</b> The City of London	<b>Date:</b> July 12, 2023,
<b>Proposed Project Works:</b> Boardwalk replacement	
<b>Study Type:</b> Environmental Impact Study	
<b>Lead Consultant:</b> Stantec Consulting Ltd	
<b>Key Contact:</b> Haley.Sadler@stantec.com (PM) and Sean.Spisani@stantec.com (EIS)	
<b>Subconsultants:</b> None	

### Technical Review Team:

- Ecologist Planner: Emily Williamson (City of London)
- MNRF: \_\_\_\_\_
- Planner for the File: \_\_\_\_\_
- MECP: if SAR authorizations are needed
- Conservation Authority: UTRCA \_\_\_\_\_ Contact: Michael Funk \_\_\_\_\_
- EEPAC: \_\_\_\_\_
- Other: Linda McDougall, Landscape Architect (City of London) \_\_\_\_\_
- Project Manager, Environmental Assessment: \_\_\_\_\_
- First Nation(s): \_\_\_\_\_

### Study Area:

Location/Address: 7112 Beattie Street, London, ON

Study Area Size (approximate ha): \_\_\_\_\_  Map (attached): Yes

Position of Site in Subwatershed: Boardwalk crosses Anguish Drain ~100m upstream of Dingman Creek

Tributary Fact Sheet: \_\_\_\_\_

Is the proposed location within the vicinity of the Thames River (<120 m)?  Yes  No

If Yes, initiate engagement with local First Nation communities. Consultation activity to be provided at Application Review stage.

### Policy:

- Study must demonstrate how it conforms to the Provincial Policy Statement (2020)
- Study must demonstrate how it conforms to *The London Plan* (2016)

### Map 1 Place Types:

- Green Space
- Environmental Review

Other Place Types: Neighbourhoods

LOOK FOR FIELD WORK

WHAT ARE THE  
CONCLUSIONS?

IF WETLAND – doesn't  
hurt to double check  
the weather if  
amphibian surveys  
(Marsh Monitoring  
Protocol)



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DINGMAN CREEK

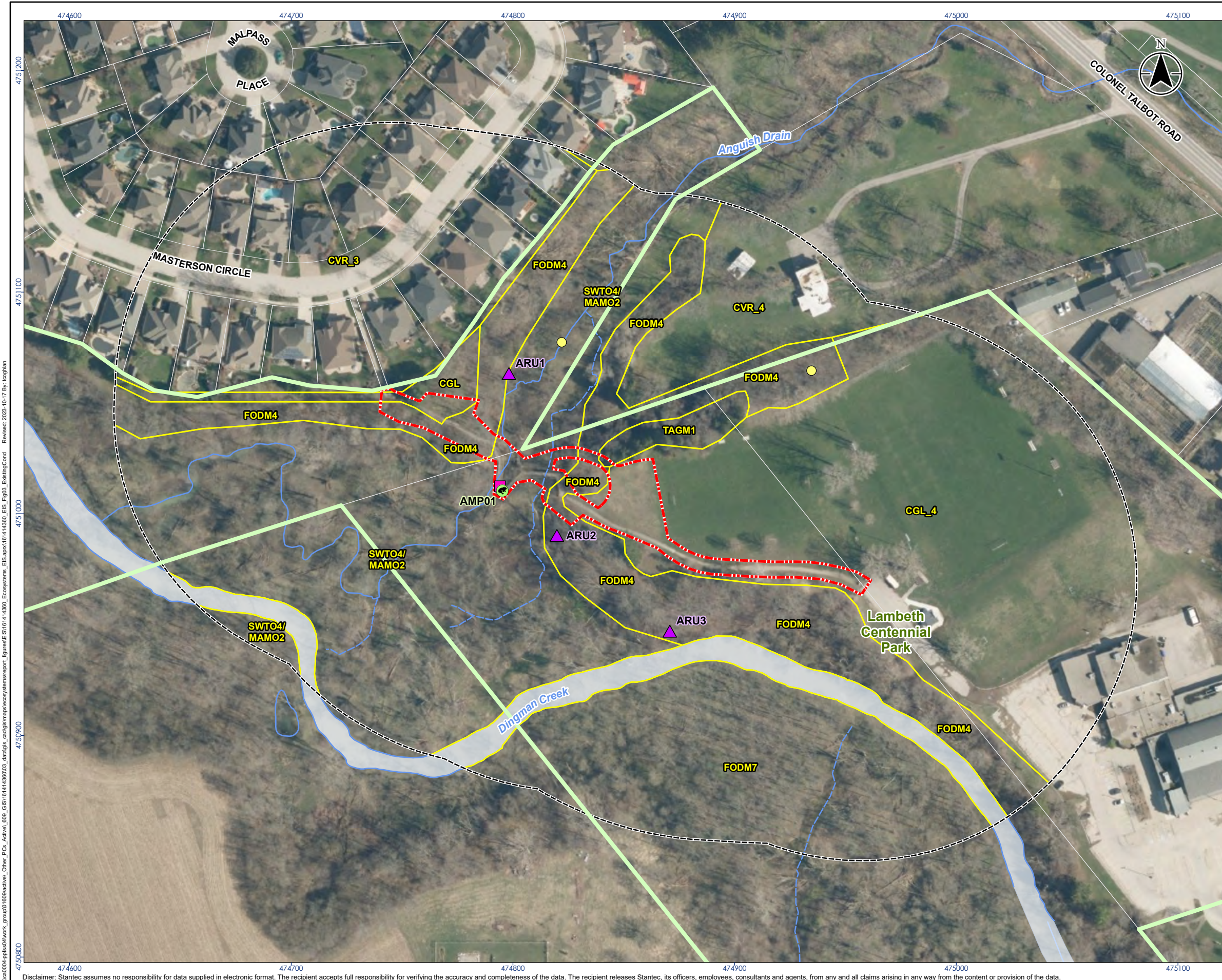


ANGUISH DRAIN DOWNSTREAM OF BOARDWALK

Type of Field Work	Dates of Field Work
• Bat maternity roost tree assessment	March 8, 2017
• Botanical survey (spring)	May 21, 2017
• Wildlife habitat assessment	
• Aquatic habitat assessment	June 9, 2017
• Botanical survey (summer)	
• Wildlife habitat assessment	
• Amphibian call survey (visit #1)	April 20, 2023
• Amphibian call survey (visit #2)	May 18, 2023
• Amphibian call survey (visit #3)	June 20, 2023
• Vegetation community survey	June 20, 2023
• Botanical inventory (summer)	
• Wildlife habitat assessment	
• Breeding bird survey (visit #1)	June 21, 2023
• Bat Autonomous Recording Unit (ARU) deployment	
• Breeding bird survey (visit #2)	July 6, 2023
• Bat ARU retrieval	
• Fish community survey	July 17, 2023
• Aquatic habitat assessment	

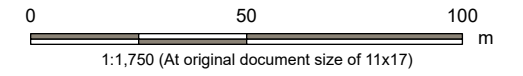
## Environmental Impact Study - Field Investigations





- Legend**
- Study Area
  - Project Footprint
  - ELC Community
  - ▲ ARU Station
  - Breeding Bird Point Count Station
  - Amphibian Call Station
  - Eastern Wood-Pee-wee Observation
  - Lambeth Centennial Park Boundary
  - Parcel Boundary
  - Watercourse (Intermittent)
  - Watercourse (Permanent)
  - Waterbody

- ELC Communities**
- CGL (Green Lands)
  - CGL\_4 (Recreational)
  - CVR\_3 (Single Family Residential)
  - CVR\_4 (Rural Property)
  - FODM4 (Dry – Fresh Upland Deciduous Forest Ecosite)
  - FODM7 (Fresh – Moist Lowland Deciduous Forest Ecosite)
  - OA (Open Water)
  - SWTO4 / MAMO2 (Dogwood Organic Deciduous Thicket Swamp Ecosite / Forb Organic Meadow Marsh Ecosite)
  - TAGM1 (Coniferous Plantation)



- Notes**
- Coordinate System: NAD 1983 UTM Zone 17N
  - Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2023.
  - Orthoimagery © First Base Solutions. Imagery date: 2022.
  - Parcel information © Corporation of the City of London Open Data.

Project Location: London, ON  
 Client/Project: City of London, Lambeth Boardwalk Environmental Impact Study

Figure No.: **3**  
 Title: **Natural Heritage Existing Conditions**

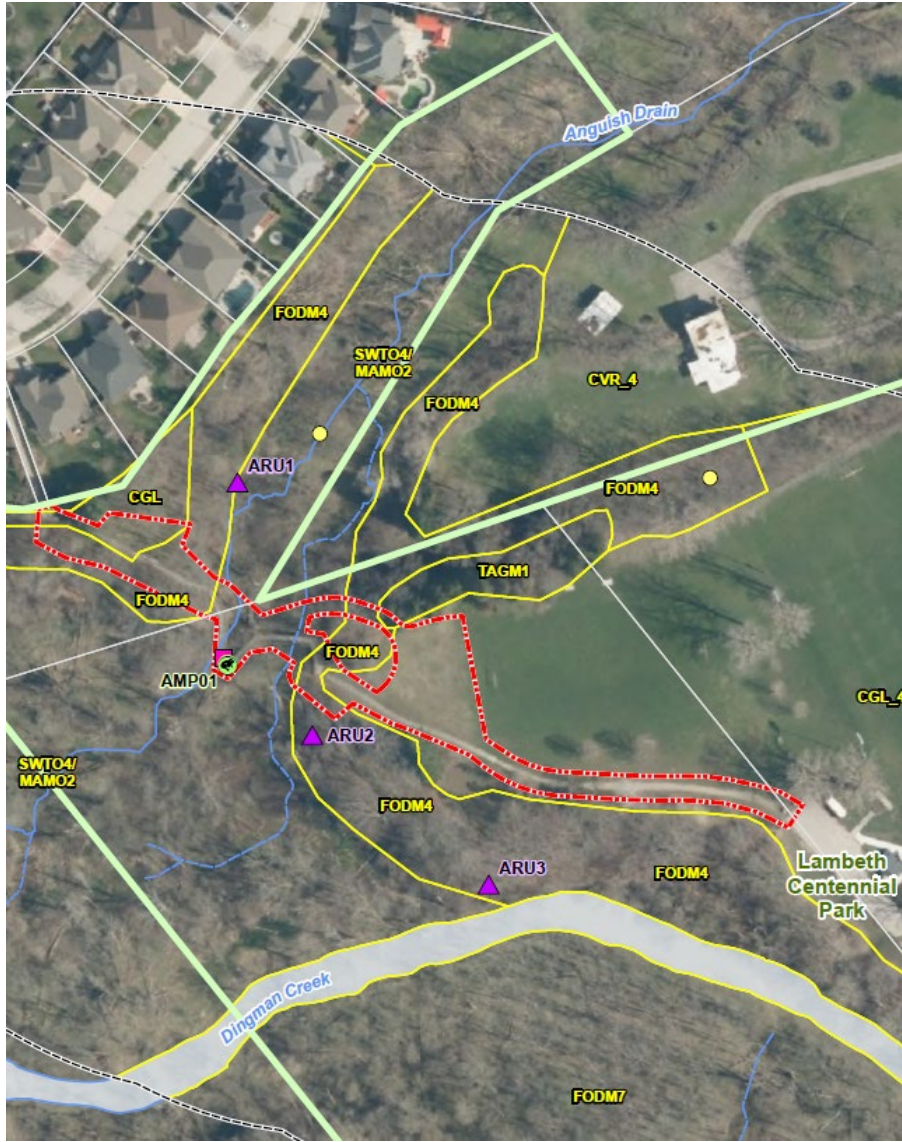
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 Prepared by toghlan on 2023-10-17  
 Technical Review by ABC on yyyy-mm-dd

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London  
CANADA



## Summary of Natural Heritage Features

- Wetlands: Dogwood Organic Deciduous Thicket Swamp / Forb Organic Meadow Marsh (SWTO4/MAMO2)
- Woodlands: Dry – Fresh Upland Deciduous Forest (FODM4)
- Fish Habitat – warmwater: Anguish Drain and Dingman Creek
- Habitat for four SOCC was confirmed in the Study Area: Eastern Wood-pewee, green dragon, hoary bat and silver-haired bat.
- Eastern Wood-pewee, hoary bat and silver-haired bat are associated with woodlands and trees.
- Green dragon was found in the wetland community more than 65 m south of the Project Footprint in 2017 but was not found during targeted surveys in 2023.
- Two additional SOCC are considered potentially present: Northern Map Turtle and Snapping Turtle
- The Anguish Drain and Dingman Creek are potentially suitable turtle feeding and summer residence habitat.
- The Anguish Drain is not suitable for turtle overwintering. Dingman Creek in the Study Area is not likely suitable for turtle overwintering.

## Environmental Impact Study - Summary of Findings

3 Methods

October 19, 2023

Flora nomenclature for scientific accepted species names is based on the vascular plant list available on the NHIC database (MNRF 2023a) and VASCAN, the Database of Vascular Plants of Canada (Canadensys 2011), was used to verify synonyms of plant names where appropriate.

### 3.2.2 Wildlife and Wildlife Habitat

#### 3.2.2.1 Amphibian Call Surveys

The amphibian call survey was conducted at a single station in the Project Footprint to target potentially suitable amphibian breeding habitat (**Figure 3, Appendix A**) on April 20, May 18, and June 20, 2023, using methods described in the Marsh Monitoring Program (MMP) (Bird Studies Canada 2009).

The survey station included a 100 m radius semicircle with the observer located at the center and listening for a three-minute period. For each survey, all calling toads and frogs identified over the three-minute period were recorded. Call levels were described using values of 1, 2, or 3 and, where possible, the number of individuals calling was estimated. Level 1 indicates that individuals could be counted, and calls were not simultaneous. Level 2 indicates that individual calls were distinguishable with some simultaneous calling, and a reasonable estimate of the number of calling individuals was made. Level 3 indicates a full chorus with continuous and overlapping calls and no estimate of the number of individuals was possible. Toads and frogs calling from outside of the survey station were also noted.

A summary of amphibian call survey dates, times and weather is provided in Table 3-2.

**Table 3-2 Amphibian Call Count Survey Dates, Times, and Weather Conditions**

Date	Time	Temp. (°C)	Wind (Beaufort)	Cloud (%)	Precipitation/24Hrs
April 20, 2023	20:56-21:00	12	1	75	None/No
May 18, 2023	21:15-21:20	11	0	0	None/No
June 20, 2023	20:37-20:43	23	2	0	None/No

#### 3.2.2.2 Breeding Bird Surveys

Breeding bird surveys were conducted on June 21 and July 6, 2023, using a single five-minute point count in the Project Footprint (**Figure 3, Appendix A**) as described in the Ontario Breeding Bird Atlas (Cadman, et al. 2007), and by traversing the Study Area on foot and recording all species of birds that were heard or seen. The highest level of breeding evidence was recorded for each species using the codes in the Ontario Breeding Bird Atlas (Cadman, et al. 2007).

A summary of breeding bird survey dates, times and weather is provided in Table 3-3.

**Table 3-3 Breeding Bird Survey Dates, Times, and Weather Conditions**

Date	Time	Temp. (°C)	Wind (Beaufort)	Cloud (%)	Precipitation/24Hrs
June 21, 2023	7:25-8:46	19	2	20	None/None
July 6, 2023	7:34-8:30	23	9	0	None/No



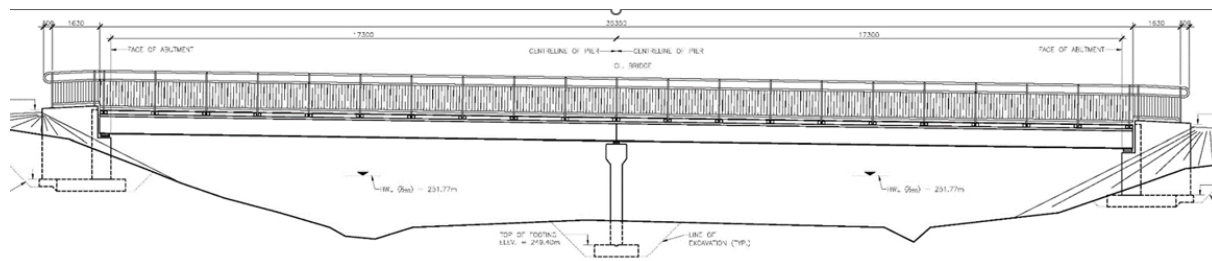
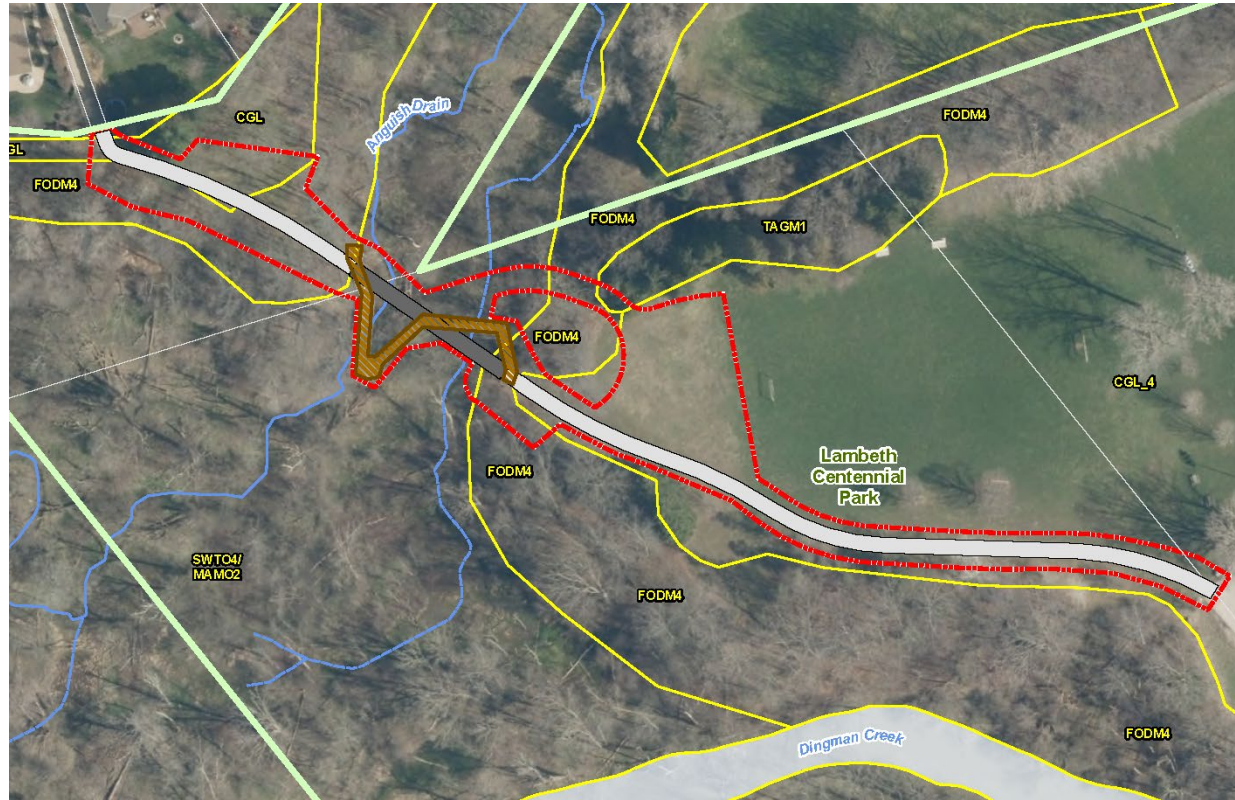
**AVOID**

**MITIGATE**

**COMPENSATE**



London CANADA



### Summary of Direct Impacts

- The bridge footings will be reduced from 40+ concrete piers to one centrally located pier
- There is a net gain to wetland (27 m<sup>2</sup>) and woodland (8.8 m<sup>2</sup>) communities when compared to the existing boardwalk

### Potential Construction Phase Impacts

- Degradation of water quality
- Disturbance to migratory bird nests
- Alteration of fish habitat, harm to fish and aquatic wildlife
- Introduction of invasive species
- Disturbance to SOCC turtle feeding habitat and bat maternity roost habitat

Scenario	Wetland	Woodland	Total
Existing boardwalk	125.5 m <sup>2</sup>	22.4 m <sup>2</sup>	147.9 m <sup>2</sup>
Temporary work area (Project Footprint)	558.6 m <sup>2</sup>	747.9 m <sup>2</sup>	1306.5 m <sup>2</sup>
New boardwalk	98.5 m <sup>2</sup>	13.6 m <sup>2</sup>	112.0 m <sup>2</sup>
Net gain (new – existing boardwalk)	<b>27.0 m<sup>2</sup></b>	<b>8.8 m<sup>2</sup></b>	<b>35.9 m<sup>2</sup></b>

## Environmental Impact Study – Impact Assessment

Study Area is generally April 1 – August 15; however, birds may also nest outside this period and nests should be avoided until no longer active. Project activities are planned to occur in the winter months and are not anticipated to disturb the nests of migratory birds. If the construction schedule should change, a qualified biologist will be consulted to direct activities, so they are in compliance with the MBCA.

### **7.3.2 Avoidance of Bats**

To reduce the likelihood of harm to bats, suitable roost trees (i.e., trees > 10 cm DBH) be removed outside the bat maternity roost season which is April 1 - September 30. Project activities are planned to occur in the winter months and will not disturb bats during the active roost period. If the construction schedule should change, a qualified biologist will be consulted to direct activities, so they avoid disturbance bats.

### **7.3.3 Avoidance of Turtles**

Project activities are planned to occur in the winter months which is within the overwintering period for turtles (turtles generally overwinter between November 1 and March 14). Because the wetlands and drainage features in the Project Location are not suitable for overwintering turtles, impacts to hibernating individuals are not anticipated. In the unlikely scenario that turtles are encountered during the turtle overwintering period, work will stop immediately and a qualified biologist with knowledge of handling and transporting turtles will be contacted for further direction. If turtle hibernation is disturbed, turtle(s) are at risk of being exposed to freezing temperatures, or are injured, the individual(s) will be immediately moved to a wildlife custodian (authorized wildlife rehabilitator), under the direction of a qualified biologist.

If the construction schedule should change and work will occur outside of the turtle hibernation period (work between March 15 and October 31), reptile barrier fencing will be installed before construction activity is initiated to exclude turtles. Specifications for barrier fencing will be prepared using the *Best Practices Technical Note – Reptile and Amphibian Exclusion Fencing* (MNR 2013). A qualified biologist will be onsite during the installation of reptile fencing to reduce potential for turtles to be trapped inside the fence. A thorough visual search of the area will be conducted each during day during construction to locate and avoid turtles and other wildlife.

### **7.3.4 In-Water Work**

The potential direct impacts associated with the Project on fish and fish habitat primarily result from temporary vehicle crossings. Implementation of the following measures will protect fish and fish habitat during construction:

- Reduce the duration of in-water work to the extent possible.
- Conduct in-water work during periods of low flow to allow work in water to be isolated from flows.
- Schedule in-water work to occur during the applicable in-water work timing window. Based on the fish species and warmwater thermal regime of the Anguish Drain, in-water work can occur from July 16 to March 14 (no in-water work from March 15 to July 15).



## 7 Impact Assessment

The impact assessment assesses potential impacts that may reasonably result from Project activities and the redesigned boardwalk.

The assessment is divided into potential direct and indirect impacts. Direct impacts are those that are anticipated to happen within a short duration (i.e., during or directly following site preparation or construction) and distance from Project activities (i.e., within the Project Footprint) and the new boardwalk installation. Indirect impacts may be harder to define and detect but are anticipated to occur outside of the Project Footprint (i.e., in Adjacent Lands) and/or to have a delayed onset after the catalyzing factor is introduced. Potential pathways and proposed mitigation or avoidance measures for each impact are addressed.

Both direct and indirect impacts to NHF are assessed by means of their direction (adverse or beneficial) and their magnitude after all mitigation, avoidance and enhancement measures are implemented. Magnitude is assessed on the following scale:

- **Negligible** – no measurable change from baseline conditions
- **Low** – a measurable change in NHF form or function but unlikely to affect sustainability of features and no impact to the NHS; temporary in nature
- **Moderate** – a measurable change affecting the form or function of NHF that may affect the sustainability of the feature, but is not anticipated to affect the long-term sustainability of the NHS
- **High** – a measurable change affecting the form or function of NHF that is anticipated to affect the sustainability of the feature and impact the larger NHS

### 7.1 Direct Impacts

Direct impacts are anticipated in the footprint of the proposed boardwalk re-alignment, and in temporary construction and access locations (i.e., the Project Footprint). Impacts are anticipated to result from the following activities: vegetation removal, temporary crossings of the Anguish Drain, excavation, and backfilling to accommodate boardwalk footings and temporary vehicle crossings, vehicle operation and maintenance, vegetation planting following completion of construction, and permanent boardwalk footprint including footings.

The area of the existing boardwalk, temporary work area and proposed boardwalk were overlaid on vegetation community mapping to quantify the area of direct loss associated with each scenario (**Figure 4, Appendix A**). As shown, in Table 7-1, the proposed boardwalk results in a net gain to wetland (27.0 m<sup>2</sup>) and woodland (8.8 m<sup>2</sup>) communities when compared to the existing boardwalk. Direct loss associated with the temporary work area will be addressed through mitigation measures discussed below (Section 7.3), such as post-construction revegetation.



**Table 7-2: Summary of Direct Impact Assessment**

Impact	Direction	Pathway	Mitigation, Avoidance, or Enhancement	Potential Magnitude
		temporary vehicle crossing placements	measures; Obtaining DFO and UTRCA authorization for work	
Harm to fish and aquatic wildlife	Adverse	Potential for temporary in-water work; temporary vehicle crossing placements	Scheduling in-water work to result in least impact; conducted fish rescues under appropriate permits if required	Negligible
Disturbance to migratory bird nests	Adverse	Vegetation clearing and sensory disturbance from construction activities	Conduct vegetation clearing activities outside of the primary nesting period for migratory birds where possible, or conduct nest sweeps prior to vegetation removal; apply appropriate buffers to active bird nests	Negligible
Disturbance to bat maternity roost habitat and SOCC bats	Adverse	Tree clearing during the site preparation phase	Tree clearing should be restricted to timing windows for bats; suitable maternity roost tree removal should be avoided where possible	Negligible
Degraded water quality	Adverse	Soil erosion and sedimentation as a result of clearing and grubbing, excavations, vegetation removals; vehicle and equipment leaks and refueling	Install soil and erosion control measures such as sandbags, silt fencing, erosion mats, rip-rap, and mud mats; Refueling and maintenance to be done on impermeable surfaces and at least 30 m from watercourses and wetlands; regular maintenance and inspection of vehicles; stockpile and backfill management	Negligible
Invasive species introduction	Adverse	All construction activities, carried in on equipment, vehicles, and workers	Implement strict invasive species management plan including proper cleaning and sanitizing of equipment entering or leaving the construction area	Negligible
Soil contamination	Adverse	Vehicle and equipment leak and refueling	Refueling and maintenance to be done on impermeable surfaces and at least 30 m from watercourses and wetlands; regular maintenance and inspection of vehicles; Management of stockpiles and backfill	Negligible
Disturbance to SOCC turtles and feeding habitat	Adverse	Soil erosion and sedimentation as a result of clearing and grubbing, excavations, vegetation removals; vehicle and equipment leaks and refueling; direct mortality during construction	Schedule in-water work to result in least impact; conduct fish and wildlife rescue under appropriate permits including implementation of approved animal care protocol	Negligible







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## Summary of Mitigation and Authorization Requirements

### Avoidance of fish and wildlife:

- In-water work between July 16 to March 14, access proposed central pier from the east (to avoid crossing the permanent branch of Anguish Drain)
- Vegetation clearing outside bird nesting period and bat roost period
- Herptile exclusion fencing and inspections

### Standard Measures during Construction:

- Erosion and sediment control
- Control of spills
- Invasives species management / clean equipment protocol
- Revegetation and Monitoring

### Authorizations:

- DFO Request for Review (Letter of Advice anticipated)
- UTRCA permit

## Environmental Impact Study – Mitigation and Authorization

- Large, accumulated debris may be removed using a compressed air device, high pressure hose or other device as necessary. Clean the top of equipment and vehicles first and work down, with particular attention to the undersides, wheels, wheel arches, guards, chassis, engine bays, grills, and other attachments (Halloran, Anderson and Tassie 2013). Clean inside vehicles by sweeping, vacuuming, or using a compressed air device, including the floor, foot wells, pedals, seats and under the seats.
- Cleaning is complete when no accumulations of dirt or snow/ice are visible on the vehicle exterior, radiators, and grills, and the vehicle interior is free of dirt, plant material and snow/ice (Halloran, Anderson and Tassie 2013).
- Avoid driving or walking through any wastewater when exiting the cleaning site.
- Implement post-restoration monitoring to track vegetation establishment and implement actions to remove new invasive species if present.

### **7.3.8 Revegetation and Monitoring**

Disturbed areas will be restored as soon as possible following constructions using native species that are suited to the site conditions. Plantings will incorporate a variety of native herbaceous and woody plants, including seed mixes and rooted material where appropriate. Plant material will be sourced locally if possible. Vegetation inspection will be completed during construction to document compliance with the planting plans (e.g., correct species and quantities were planted), and three-years of post-construction monitoring will occur to track vegetation establishment, including cover and species composition, and to recommend remedial actions. Remedial actions may be triggered by poor survival of planted material, insufficient vegetation cover, and presence of invasive species in planted areas. Actions may include supplemental plantings and/or control of unacceptable species. Restoration plans are provided in **Drawing L-1, Appendix H**.

## **7.4 Enhancement Opportunities**

The City of London is planning ecological restoration activities for the Study Area and surrounding NHS that exceed the mitigation requirements for the Project. These plans involve the implementation of an Ecological Restoration Plan that includes planting 145 trees and 55 shrubs in Lambeth Centennial Park, and a Lambeth Centennial Park / Dingman Corridor Restoration Plan (19 ha) that includes management of priority invasive species (19 Hectares). The restoration plans are scheduled to be implemented between fall 2024 and 2026 and will support and enhance the native species biodiversity of the NHS. The Ecological Restoration Plan and Corridor Plan are provided as an attachment to the TOR (**Appendix B**).





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# Lambeth Centennial Park / Dingman Ecological Corridor Restoration Plan 2024-2026

Lambeth Centennial Park Boardwalk Lifecycle Renewal  
7112 Beattie Street, London



## Legend

- Priority Invasive Species Management
- Proposed Naturalization with ReForest London
- Parcel Fabric
- City Property
- ♿ Washrooms
- ♻️ Lambeth Community Centre
- P Parking Lot
- Water
- Existing Path
- Replacement Boardwalk Bridge

## As per the City of London Invasive Plant Management Strategy

Scale: 1:3,000

Priority species to be managed include:

- Phragmites\*
- Dog Strangling Vine\*
- Buckthorn
- Japanese Knotweed\*
- Giant Hogweed\*
- Initial management in 2024
- Follow up / touchups in 2025

\*If present

# Lambeth Centennial Park - 7112 Beattie Street

Proposed Naturalized Areas in Lambeth Centennial Park for Fall 2024



Scale: 1:1,500

## Legend

- Proposed Planting
- Roads
- Parcels
- Water
- ♿ Restroom
- 🚗 Parking Lot

POLYGON	AREA (m <sup>2</sup> )	TREES	SHRUBS	TOTAL WOODY PLANTS
A	845	110	40	150
B	294	35	15	50
<b>Planting Density: 1800/ha</b>				

## Candidate Species List

### Large Trees

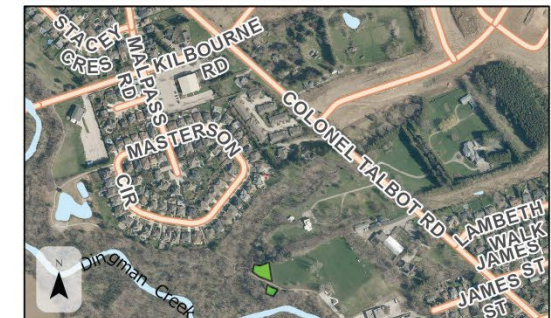
- |                   |                              |
|-------------------|------------------------------|
| Freeman Maple     | <i>Acer x freemanii</i>      |
| Sugar Maple       | <i>Acer saccharum</i>        |
| Bitternut Hickory | <i>Carya cordiformis</i>     |
| Blue Beech        | <i>Carpinus caroliniana</i>  |
| Hackberry         | <i>Celtis occidentalis</i>   |
| Sycamore          | <i>Platanus occidentalis</i> |
| Black Cherry      | <i>Prunus seratina</i>       |
| Bur Oak           | <i>Quercus macrocarpa</i>    |
| White Cedar       | <i>Thuja occidentalis</i>    |
| Basswood          | <i>Tilia americana</i>       |

### Small Trees

- |                     |                            |
|---------------------|----------------------------|
| Smooth Serviceberry | <i>Amelanchier laevis</i>  |
| Alternate Dogwood   | <i>Cornus alternifolia</i> |
| Choke Cherry        | <i>Prunus virginiana</i>   |
| American Elderberry | <i>Sambucus canadensis</i> |
| Highbush Cranberry  | <i>Viburnum trilobum</i>   |

### Shrubs

- |                              |                           |
|------------------------------|---------------------------|
| Grey Dogwood                 | <i>Cornus racemosa</i>    |
| Red Osier Dogwood            | <i>Cornus stolonifera</i> |
| Narrowed -Leaved Meadowsweet | <i>Spiraea alba</i>       |
| Wild Black Currant           | <i>Ribes americana</i>    |



Scale: 1:10,000

**Wildlife Habitat Assessment**

Candidate Wildlife Habitat	Criteria	Methods	Habitat Assessment of Features Found Within the Study Area
<b>Specialized Habitat for Wildlife</b>			
Bald Eagle and Osprey nesting, Foraging, and Perching Habitat	Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water. Nests located on man-made objects are not to be included as SWH (e.g., telephone poles and constructed nesting platforms). ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds, and wetlands	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat.	The wetlands, Anguish Drain and Dingman Creek in the Study Area are not considered large enough to support fish populations capable of sustaining Bald Eagle or Osprey diets. No stick nests or supercanopy trees were observed.
Woodland Raptor Nesting Habitat	All natural or conifer plantation woodland/forest stands combined >30 ha and with >4 ha of interior habitat. Interior habitat determined with a 200 m buffer. Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small offshore islands. May be found in all forested ELC Ecosites. May also be found in SWC, SWM, SWD and CUP3	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Woodland Raptor Nesting Habitat.	The forested communities (FODM4 and FODM7) in the Study Area and contiguous forest habitat does not meet the minimum interior habitat criteria for woodland raptor nesting, as the maximum width of any tract is approximately 200 m.
Turtle Nesting Areas	Exposed mineral soil (sand or gravel) areas adjacent (<100 m) or within the following ELC Ecosites: MAM1, MAM2, MAM3, MAM4, MAM5, MAM6, SAS1, SAM1, SAF1, BOO1, FEO1 Best nesting habitat for turtles is close to water, away from roads and sites less prone to loss of eggs by predation from skunks, raccoons, or other animals. For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH. Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Turtle Nesting Areas. Searches for loose, exposed substrates and evidence of turtle nesting were conducted on May 21 and June 9, 2017, and on June 21, 2023.	No areas of exposed mineral soil suitable for nesting were observed in the Study Area
Seeps and Springs	Seeps/Springs are areas where ground water comes to the surface. Often, they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs. Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system	ELC surveys and wildlife habitat assessments were used to determine the presence of Seeps and Springs.	The entirety of the Study Area was visually assessed during the field visit, no seeps or springs were identified in the Study Area/Project Footprint.



#### 4.2.2.4 Incidental Wildlife Observations

Incidental observations included one mammal (groundhog) and one amphibian (American Toad). Both species were recorded in Adjacent Lands and are recorded as secure (S5) in Ontario. The complete list of wildlife species and their status and scientific name is provided in **Appendix E**.

#### 4.2.2.5 Wildlife Habitat Assessment

The SWHTG for Ecoregion 7E (Ontario Ministry of Natural Resources 2000) outlines criteria for assessing SWH in the Study Area. A summary of the confirmed SWH types for each of the four ecoregion categories is provided in Table 4-2 below, and a full SWH assessment is in **Appendix F**.

**Table 4-2: Summary of SWH Assessment for the Study Area**

SWH Category	Summary of Relevant Findings	Determination of Presence/Absence
Seasonal Concentrations of Animals	<u>Bat maternity colonies</u> - Big brown bats and silver-haired bats were recorded during 2023 acoustic surveys (Section 4.2.2.3.2) in sufficient numbers to meet the criteria for SWH bat maternity roost habitat.	Present.
	<u>Turtle wintering areas</u> - Field assessments reviewed the potential for the Anguish Drain to provide overwintering habitat for turtles and determined there is insufficient standing water (average depth of the Anguish drain was measured at 0.15 m) to prevent freezing; therefore, it is not suitable for overwintering turtles. Standing water in Dingman Creek was measured at 0.5 m, which is also likely shallow enough to freeze; however, the entire feature was not measured and there may be areas in the Study Area that are suitable. Further documentation of standing water is provided in Section 4.3.	Absent in Anguish Drain. Assumed absent in Dingman Creek (but unconfirmed).
Rare Vegetation Communities or Specialized Habitat for Wildlife	<u>Amphibian breeding habitat</u> - Only one amphibian species (spring peeper) was recorded with a call level code of 3 (Section 4.2.2.1) therefore the Study Area does not meet the criteria for amphibian breeding habitat.	Absent.
Habitat for SOCC	Eastern Wood-pewee was identified in the Study Area during breeding bird surveys and suitable breeding habitat is present (Section 4.2.2.2). Although Barn Swallow was recorded in the Study Area, no suitable nesting features were identified and breeding habitat for the species is considered to be absent from the Study Area (Section 4.2.2.2). Green dragon, a species listed as Special Concern provincially and federally, was confirmed in the Study Area in 2017; however, it was not found during targeted searches in 2023 (Section 4.2.1). Hoary and silver-haired bats were recorded during 2023 acoustic surveys (Section 4.2.2.3.2) and may use large diameter trees for roosting. Snapping Turtle and Northern Map Turtle could potentially use Dingman Creek for feeding and overwintering, and the Anguish Drain for feeding.	Habitat for Eastern Wood-pewee, green dragon, silver-haired bat and hoary bat is present. Habitat for Snapping Turtle and Northern Map Turtle is potentially present.
Animal Movement Corridors	Animal movement corridors are considered absent as no specialized habitats for wildlife were identified for the Study Area.	Absent.



## GOALS FOR AN EIS REVIEW

### WRITE A REPORT WITH **RECOMMENDATIONS**

- Often the consultant will have many.  
It is OK to say that you agree

### E-MAIL REPORT TO:

- Ecologist on the file (usually named in the Scoping Checklist)
- Heather to include on the agenda
- City File Planner (ecologist usually will know who that is)
- Proponent's agent if known